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# Contributors

Webster, Herbert Tracy, 1836-Lloyd, John Uri, 1849-1936. Foltz, Kent Oscanyan, 1857-Francis A. Countway Library of Medicine

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# DYNAMICAL THERAPEUTICS

#### A WORK DEVOTED TO THE

# THEORY AND PRACTICE OF SPECIFIC MEDICATION

# With Special Reference to the Newer Remedies

WITH A CLINICAL INDEX, ADAPTING IT TO THE NEEDS OF THE BUSY\_PRACTITIONER

BY

#### HERBERT T. WEBSTER, M. D.

Professor of the Principles of Medicine and Pathology; formerly Professor of the Theory and Practice of Medicine in the California Medical College (Eclectic); formerly Editor of the "California Medical Journal"; Member of the National Eclectic Medical Association; Ex-President of the Eclectic Medical Society of California; President of Division E of the World's Congress Auxiliary of Eclectic Physicians and Surgeons; Author of The Principles of Medicine as applied to Dynamical Therapeutics, Etc.

#### ASSISTED BY

#### J. U. LLOYD, PH. D.

Professor of Chemistry and Pharmacy in the Eclectic Medical Institute, Cincinnati

AND

#### KENT O. FOLTZ, M. D.

Ex-President of the Eclectic Medical Society of the State of Ohio; Member of the National Eclectic Medical Association, Etc.

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# PREFAGE.

The rapid advance in Eclectic therapeutics within the past few years, is my excuse for adding another work on the subject to the number already existing. The method of grouping and other original contributions are considered additional recommendations.

After the publication of The Principles of Medicine, I intended at first to issue Specific Therapeutics in a separate volume and continue to offer the works in separate binding; but maturer consideration has led me to return to my original intention and publish the two parts under the general title, "Dynamical Therapeutics," in one volume.

The value of the book as a work of reference will depend much upon the amount of intelligence exercised in its use. An exhaustive Clinical Index has been prepared by Dr. J. Liftchild, which will enable the one who consults it for information in the treatment of disease to find the remedies applicable with little difficulty. This adapts it so well as a work of reference in practice that I have suggested it on the title-page as, "A Work Devoted to the Theory and Practice of Specific Medication." The importance of frequent reference to this Index can hardly be emphasized too strongly.

Those who peruse the first part will observe that the department devoted to specific therapeutics is only intended to embrace the specific or dynamical effects

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of drugs, other uses being referred to casually; about all that can be written relative to the action of drugs under the old classification will be found in the older works, and I have not seen fit to occupy space with this part of the subject. Dynamical Therapeutics is not intended to supplant any other work in our school, but to fill a new place.

At the outset, it was my intention to omit all reference to the topical influence of drugs, and this intention has been generally carried out, though under the departments devoted to the eye and ear this idea has been ignored, as it would be an important omission where topical therapeutics are so extensively employed.

Dr. Foltz's reputation as a specialist in diseases of the eye and ear, and his well-known ability as a writer on these subjects through our current literature, will commend this volume to all who desire an Eclectic text-book on the therapeutics of these specialties—and this is the only work in our literature which devotes any special attention to the subject.

I have quoted extensively from our medical journals whenever I have thought the material of service, giving credit in each instance; and almost a complete reprint of Pacific Coast contributions to Eclectic literature on new remedies—not extensive---will be found in these pages.

H. T. W.





# PRINCIPLES OF MEDICINE.

## INTRODUCTION.

Elementary forms of life consist of single cells, each made up of a mass of protoplasm, usually containing a nucleus. Simple as the structure is, these lowly organisms possess the power of selecting material for nourishment from the surrounding medium, of appropriating it to their needs, and of reproduction, while many of them are capable of active motion. In other words, simple cells are capable of exhibiting independent nutritive, formative, and other functional activities.

Higher forms are also cellular. All living bodies are made up of cells and cell derivatives, but the more complex organization demands a community of cells with reciprocal relationship, so arranged and endowed as to operate in unison, while each one carries out its special part in the general organization; but throughout this arrangement, certain elementary properties persist, though somewhat modified by the controlling influence of elements and functions absent in the simpler forms. In the mammalia, of which man constitutes the head, as well as in many lower forms, cell function is evidently more or less governed by the influence of the nervous and circulatory systems, but notwithstanding this the endowments peculiar to independent cells still prevail, each one possessing the faculties of selection and appropriation, independently of the others.

It is upon these properties that the therapeutist largely relies for success in the administration of remedies for the cure of disease. If cells did not possess a selective property and remedies could not be made to influence special portions of the body, the scope of therapeutics would be very much narrowed. "Specific Medication" would hardly have been written, homeopathy would have had but a feeble following, and the medicine of the past would have made but little progress.

Physiology teaches the selective properties of certain cells in the most emphatic terms. The lacteal secretion, the saliva, the gastric juice, the pancreatic fluid, the bile, the succus entericus—all the secretions as well as some of the excretions, are separated from the blood by the action of cells, the selective faculty of each endowing it for its special function.

Going further we find that the cells of every structure possess a physiological endowment distinguishing them by peculiar selective properties. The red blood corpuscles contain the salts of potassium in excess, while the plasma in which they float contains an excess of sodium. The cells of osseous tissue contain a preponderance of calcium phosphate, due largely without doubt to their capacity of imbibing the salt from the circulating medium. In short, every tissue is distinctive on account of its selective properties, though formative force carries out processes which make the distinction more marked.

Of the selective attraction of the structures of the human body for specific drugs, there are also numerous well proven examples which no one will deny. Digitalis possesses an established reputation for its influence upon the heart—a specific or selective influence. In other words, an affinity exists between the sphere of the cardiac

functions and this drug which is infallible in its manifestations if a preparation representing the qualities of the recent plant be employed. The reputation of cantharis as to its affinity for the genito-urinary system is too well known to require more than mention. There is undoubted affinity between the specific emetics and the nervous centers governing the peristaltic action of the stomach, between cathartics and the intestinal canal, between diaphoretics and the sudiparous glands, or their controlling centers, between the salivary glands and sialagogues, and so on throughout the gamut of old classification.

But we go further and assert that every organ and tissue of the body possesses drug affinities. It might be difficult to make this assertion good by furnishing the proof in all cases with present means of knowledge; indeed the subject is yet in an embryo state, though numerous the instances which suggest it. Vital processes are often so complicated that it is impossible to know whether a drug influences the tissues of a part or a nervous center exercising control over it. Physiology must make further discovery before these problems can be explained; though we already possess enough clinical knowledge to enable us to make valuable use of the suggestions in this direction, and the line of study, if carried out must materially assist in making the practice of medicine more pleasant and positive.

When we are able to prescribe an agent for every part of the body with precision the subject will not then have been perfected. The functions of cells are various, and the character of the impressions of different drugs also varies. A remedy that will bring about favorable results in one case because of its affinity for a part, may fail in another, because different functions may be at fault, a differentiation beyond the ability of the most astute pre-

scriber to make, perhaps; a differentiation beyond the intelligence of everything except the subtle law of affinity. Evidently, then, even with the best knowledge we are likely to obtain, the treatment of disease will not be reduced to a practice of certainties. More than one trial may be requisite in order to select the proper drug from a group having affinities somewhat in common.

To illustrate, let us take the larynx and its drug affinities as an example. The leading drugs influencing this part are aconite, arum triphyllum, lachesis, potassium bichromate, potassium hydrate, spongia and stillingia. Each of these possesses an affinity for the larynx, but this is manifested when administered in therapeutic doses, only under certain circumstances. Aconite asserts its influence when acute disease of inflammatory nature is present, probably an influence exerted through the vasomotor center of the part, croup and subacute inflammatory states resulting from cold, being its principal field of usefulness. In chronic laryngitis where tissue change has progressed beyond the control of the circulation it would be useless to attempt to bring about a favorable change with this remedy. Here arum, if there is ulceration, or potassium bichromate, if there is a hoarseness without ulceration, or potassium hydrate if there is ulceration with profuse catarrhal discharge, (muco-purulent,) or stillingia, if there is chronic inflammation with history of struma, will be applicable.

But these indications may not be clearly pronounced. The classifications and indications of medical writers are convenient as landmarks or suggestion of remedies, but in practice we do not find these indications very clearly set forth in all cases. There might be an inflammatory condition pointing to aconite as the remedy which spongia would control more readily, and the reason for this be difficult of explanation. There might be an abnormal

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state of the larynx giving rise to hoarseness without evident structural change, which potassium bichromate might fail to benefit, but which would promptly yield to arum, or stillingia, or potassium hydrate, or arsenicum iodide, or nitrate of sanguinarina, or verbascum, and the reason be entirely unexplainable because there are certain peculiarities of affinity which are not yet known.

Lachesis seems to influence the nervous centers of function and sensibility of the larynx in a pronounced manner, usually relieving cough of irritable character where the nervous element is predominant and there is little evidence of structural change, but sticta or nitrate of sanguinarina might fulfill this indication better, and it would puzzle the most astute observer to give the reason therefor.

It cannot fail however to prove advantageous to possess a wide knowledge of the drug affinities of every part. Such knowledge places us in the immediate neighborhood of means likely to cure, even though we must still be liable to necessity of numerous trials before the proper remedy is discovered. Long practice, close observation, or acuteness of intuition, may enable one physician to excel another in the selection, but the most indifferent prescriber must be able to do better than one who has not given this subject study.

There ought to be agents to encourage the growth of every tissue and to promote the normal activity of every function of the body. Many of these it is true are yet to be discovered, though we have already learned to differentiate with respect to different remedies having affinity for the same organ. It was once enough to believe that all remedies were cholagogues which influenced the liver in any manner. Now we entertain somewhat different views. The secretion of bile depends upon the action of a special class of cells to influence which, when impairment of action is

present, we require a special class of agents, of which chionanthus may be taken as a type. But jaundice may be the result of impairment not directly due to faulty function of the bile secreting cells, but due perhaps to faulty circulation in the hepatic blood-vessels and more amenable to such agents as chelidonium and nux, which probably influence the vaso-motor center. Or, the glycogenic function may be disturbed, and glucose precipitated into the general circulation. Then we must resort to syzygium or nitrate of uranium, until a larger list of this class of agents has been unearthed.

It is not improbable that with the liver, as well as with every other organ of the body, a better knowledge of the affinities of drugs for the tissues concerned in the functional activities in question, with increase of information respecting functions now little understood, will enable us to treat diseases heretofore considered incurable, successfully.

The general nutritive condition of an organ or part will demand special consideration, requiring in many instances a different class of remedies from those impressing its functions. However this need not invariably be the case, for structure and function are so intimately related that their therapeutics can hardly be completely separated. Schussler proposes to provide all the remedies required by a part through the inorganic tissue-element predominating in its structure, but we cannot thus simplify the treatment of disease, satisfactory though it would be. The inorganic elements of the tissues constitute valuable therapeutic reliances under some conditions, but they often fail when apparently prominently indicated. The explanation probably lies in this differentiation between structural and functional therapeutics.

If new growths are ever brought under the controlling influence of drugs, it will be when a better knowledge of

their tissue affinities has been evolved. Grauvogl and others have asserted that cartilaginous tumors can be cured by the influence of silica, the effect undoubtedly depending upon the selective affinity of this agent for cartilaginous tissue, and its tendency to correct abnormality of the nutritive processes of the part. Thuja has long been extolled as a remedy for the cure of warty growths of skin and mucous membrane, given internally, though it is quite likely that more failures than successes attend such medication. Even as pronouncedly sceptical therapeutists as those of the old school are asserting the efficacy of magnesium sulphate as an internal remedy for the cure of warts.

Scattered throughout the literature of medicine, is much valuable knowledge of this kind which can be made more useful if given prominence through classification and other special notice. In another department, it is the purpose of the author to indicate some of the possibilities of this subject, and point out the principal information bearing upon it to be found in Eclectic medical literature, in such a manner as to adapt it to practical purposes. That all the propositions made in this Introduction will be fully enunciated, an emphatic disclaimer is here interpolated. It is the purpose to suggest more than can at present be demonstrated; for while this is the proper direction of study, for a fruitful field of therapeutics, much additional knowledge must be obtained before we can expect a fruition of all that seems promised. Some future author with more perfect physiological data, and larger accumulation of definite therapeutic knowledge, may carry this subject, thus imperfectly begun, to a better state of development.

The subject of tissue affinity, cannot cover the entire field of medical practice. The fluids of the body are not tissues, yet they often demand remedial measures, in order to correct conditions involving serious derangement of the

entire economy. It would not be straining a point much to assert that in acute disease, our principal therapeutic reliance must be upon agents which either directly or indirectly influence the fluids, while in chronic disease, we must depend more upon remedies which specifically influence the tissues.

Morphological elements of disease,—germs, promise to assume an important position in the field of pathology. Here we require an entirely different class of remedies. The disease in this case would really constitute an entity to be excluded or expelled, leaving aside the question of tissue integrity altogether.

Electricity constitutes a means of reaching a part when required, independently of specific drugs. It really possesses a tissue affinity of its own,—a general affinity, by virtue of the conducting properties of the tissues, which enable the physician to convey it to any part as desired, and thus produce a salutary molecular disturbance. Sometimes this proves more efficacious than the most potent drug.

Correct diagnosis, quality of drug, size of dose, proper selection, and susceptibility of patient are important elements to be considered in connection with this subject. Neglect of these points will lead to failure every time; inattention to them has been the cause of much of the dissatisfaction and scepticism of the therapeutists of old.

Ability in diagnosis will depend upon knowledge of physiology and capacity of determining character and extent of deviation in disease. To the function impaired or perverted the proper remedy must be adapted through knowledge of its selective affinity, if a tissue be involved.

Quality of drug agent is as important as proper selection. Without doubt much of the difference of opinion among therapeutists depends upon want of uniformity in this direction. The average pharmacist is not conscien-

tious enough about the quality of his drugs, making it incumbent upon the careful practitioner to be particular when purchasing or prescribing, that only those of known quality are accepted.

Size of dose and susceptibility of patient sustain a direct relationship. Dr. H. C. Wood asserts that susceptibility of a system to the action of drugs depends upon the extent to which it is specialized in structure and function. The cerebrum of man, for instance, is more highly developed than in the lower animals, and consequently more highly susceptible to the influence of medicines or toxic agents. The same author refers to the remarkable susceptibility of the frog to the action of such agents as strychnia and opium, and draws an interesting comparison between the effects of the latter drug in the two cases. Opium has a double affinity in all animals: one for the brain and one for the spinal cord. In man, with the large and active brain, the agent exerts its selective influence upon this part and somnolence and stupor result; while in the case of the batrachian, with the relatively larger spinal cord, the affinity is more prominently manifested in convulsions, consequent upon disturbance of the spinal centers.

In the human family we find almost as striking differences. The markedly lymphatic person and the individual of highly organized nervous temperament are almost as widely separated in their susceptibilities as the man and the frog. There is no doubt that the high attenuations of homeopathy sometimes effect cures, and that disease is often aggravated through highly developed susceptibility, by ordinary doses.

The effects of drug affinity are often modified by diet, climate, or other incidental influence, until remedial results are fully lost. The most approved skin remedies would fail to satisfy the expectations of the prescriber if the

patient were subsisting largely on bacon or salt fish. In this case, also, the influence of a stimulating saline atmosphere might play a modifying part. Vesical and renal affections could hardly be expected to improve under the best selected remedies if the patient were following the impulses of alcohol addiction or habitually drinking water highly impregnated with calcareous salts. Cardiac affections could not be expected to improve rapidly while the patient was indulging freely in coffee, or tobacco, or in immoderate bodily or mental exertion, or sexual indulgence.

It should be remembered, also, that the reflexes often play "hide and seek" with the indiscriminating practitioner. Surely the fault lies at his own door if he fail to cure abdominal neurosis dependent upon anal fissure, rectal pockets, hemorrhoids, or stricture, with colocynth, dioscorea, collinsonia, nux, cimicifuga, or other remedy that might seem demanded by the abdominal tissues. As reasonable would it seem to attempt the relief of cardiac irregularity hinging upon lacerated uterine cervix, chronic endometritis, or other structural wrong of the reproductive apparatus, with scutellaria, cereus, digitalis, or strophanthus. True, temporary relief might follow as a result of the specific action upon irritated nervous centers, but no permanent effect could reasonably be expected.

The intelligent physician will survey the whole field. He must do this in justice to the claims of therapeutics. No one but the charlatan will blindly prescribe without due inspection of all the premises. When rationalism becomes the guide, instead of superstitious faith in mysterious remedial action or blind following of a therapeutic law, there will be more certainty in the practice of medicine.

### THERAPEUTIC CLASSIFICATION.

In the study of therapeutics, classification formerly constituted quite an imposing feature of the plan pursued. Writers were disposed to give more attention to the arrangement of the materia medica into groups suggestive of the general action and use of agents, than to the individual study of each drug separate from its analogues. More modern writers, recognizing that much of the knowledge of the best virtues of remedies was thus overlooked, have discarded the plan of classification, and given the individual study of each drug separate attention, ignoring the grouping of agents altogether.

Individualization is, without any question, an excellent plan to pursue in therapeutical research. This is so because every drug is peculiar to itself in one or more respects, and upon such peculiarity may depend its most sterling quality as a curative agent, while in the generalization of old methods of classification, this very quality was the one most liable to be overlooked. Still, a comparison with analogous remedies has been found advantageous frequently, in order to emphasize some peculiarity of the agent under study, and impress it more forcibly upon the mind of the student.

But we cannot afford to discard the old classification altogether, for it includes some very essential resources which are often imperatively demanded. It comprehends, in the majority of cases, the physiological or pronounced drug effect of medicines,—an effect, apparent whether drugs are administered in health or in disease, so marked as to indicate disturbance of function as the result; yet such action is often desirable.

However, our knowledge of the healing art can be facilitated by the addition of a new classification, which will

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recognize a finer effect of medicines than that resulting from the old-fashioned, crude dose.

The "dual action of drugs" of numerous writers, is a misconception. A drug invariably acts in one direction and in the same manner, except that in a large dose, through *excess* of action, it may become a disturber of function or structure to the extent of arrest or impairment, while in a sufficiently small quantity, it may produce the proper disturbance necessary to healthy rearrangement of molecular elements, and thus result in favorable change when disease is present.

Upon the ground of dose, then, remedies should be divided into two general classes, the same remedy quite often appearing in both divisions, as its effects are modified by amount administered.

Take ipecac, for example, a drug which in certain doses disturbs the gastric functions violently, the disturbance resulting in nausea and powerful inverted action —vomiting. Here we have no augmentation of function, but instead, an abnormal condition is for the time set up —an artificial disease. In other words, the so-called physiological action of the drug is made manifest.

How does a minute dose of the same agent affect the stomach? for it, as well as the larger dose, manifests a selective affinity for the gastric centers. Administered to a healthy person in doses too small to produce unpleasant sensations or other appreciable effects its influence might be considered absent, yet in the same doses, when nausea and vomiting occur in disease, with irritation of the parts and disturbance of function, it tends to correction of the abnormal state. This is an example of a great number of instances where the large dose disturbs or arrests normal function, while the small one conduces to restoration when the disturbance is that of disease.

Dose, then, would divide a large number of remedies

into two general classes, of which we might christen one *dynamical*, its agents acting in unison with the forces of normal life, and the other *statical*, because its members oppose or arrest, for the time at least, such action.

Not all remedies, however, can belong to these two classes; quite a number of agents exhibiting excellent dynamical properties, manifest little if any physiological action, even in exorbitant doses. Olden-time therapeutists would have pronounced such agents inert, because of this, but the excellent clinical effects resulting from their use fail to justify such a verdict; triturated oyster shell (*calcarea ostrearum*) is one of these, and silica, another, both possessing rare dynamical properties—as well as a number of others, which the materia medica could ill afford to spare.

Both kinds of action are of value in the management of disease, when the physician is liberal enough to avail himself of them; but the average homeopathist disdains the physiological effects of drugs, except so far as they serve as indicators for use in dynamical doses, while the adherent of old prejudices is unwilling to entertain belief in the attenuated doses essential to successful dynamical action. Thus for many years lack of a genuine eclectic spirit hampered the progress of medicine, until it fell behind in the march of the ages.

In the growing interest in the study of dynamical drug action, importance of the frequent necessity of the uses recognized by the old classification, should not be forgotten. The derivative effect of a drug, or the detergent action of another, or the soporiferous influence of a third, may be found the action most desirable, for the time, at least, in the treatment of a given case. Emetics, though for a time perverters of function, are an important item of the wise physician's resources—not confined to those cases where simple evacuation is indicated, by any means.

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The follower of Thomsonian methods might attempt too much with this class of remedies, and do harm by indiscriminately subjecting his patients to emesis; this, however, ought not to be employed as an argument against their proper use to fulfill important indications when so demanded. Cathartics were abused in the days of ignorant and superstitious medicine, until many physicians, as a result of the reaction consequent upon a better knowledge of physiology, avoid them altogether; still, while we realize that cathartics disturb the alimentary functions, and are but sorry promoters of secretion as a rule, a peristaltic persuader is occasionally very essential to a successful and satisfactory practice. As much might be asserted of the majority of agents recognized by the old classification. Then why abandon them? better retain the old, and add the new.

The importance of minuteness of dose, in order to derive satisfactory dynamical results, must not be forgotten. An abnormal state of a tissue or organ may render it extremely sensitive to drug influence, and all the good effect hoped for may be neutralized by impressing the part too powerfully. People are, ordinarily, unfavorably impressed with the idea of influencing vital processes with the minute doses proposed by those who deal in the dynamical action of drugs. Especially is this so with the student, if the ideas of therapeutics which have characterized the old school have been his early impressions. Much of the fine and accurate knowledge of therapeutics has been lost through prejudice.

Dynamical remedies may be divided into two groups, though the line between them is not clearly marked in all cases: From the inception of embryonic life the two essentials of existence and development are *plasma* and *plastic force*, and these essentials are paramount throughout the life of the individual. There must be a properly prepared material for the supply of the body, and this must be properly distributed, while each part must possess the ability of appropriating that which is most needful for its special wants.

The *plasma* remedies include but a small number compared with those of the other class. Alteration or depravation of the fluids of the body offers indications for their use. Sodii sulphis is a prominent one of this class, indicated when the blood depravation manifests itself in pallidity of mucous membranes, with pasty white coating on the tongue. Acidum sulphurosum is indicated when the tongue is coated brown, and brown sordes collect on the lips and teeth; acidum hydrochloricum, where the tongue presents the color and general appearance of beefsteak.

Such are examples of corrective action by virtue of chemical influence—at least in the cases of sulphite of sodium and hydrochloric acid; for blue litmus paper is reddened by contact with the pasty white coating of the former, while the slick, dark-red tongue of the latter affords proof of alkalinity by the characteristic reaction with red litmus.

However, it is not impossible that a dynamical action may attend, the action being chemico-vital, instead of a purely chemical one. Certainly, in the case of baptisia the corrective action cannot be considered a chemical one, the influence being exerted dynamically entirely, as there is no evidence of its being an antiseptic outside the body; and yet it proves a corrective of rare virtue in certain cases when administered internally.

The subject of "ptomaines" is one at present engrossing professional attention. These are a class of putrefactive alkaloids generated by bacteria, in septic processes in organic matter. Since attempt to discover remedies destructive of bacterial organisms has apparently proven futile, a disposition seems manifest on the part of some of the germ theorists to abandon this line of research, and seek to correct the evils of germ infection by neutralizing or eliminating the poisons generated—though not all ptomaines: are poisonous.

Each class of bacteria is supposed to generate a specific ferment (ptomaine), which is peculiar to the special disease it creates. For example : The typhoid fever bacillus can only produce the ptomaine typhotoxine, while the bacterium of tetanus must be present for the generation of tetanine. Such propositions, though yet hardly ripened, approach the position long held by the Eclectic school; and though we have not given as much attention to the microscopy of disease, we have more than anticipated the results of their search by recognizing, virtually, the presence of putrefactive ferments, and specifically adapting remedies to their correction, the credit being due in great measure to the clinical observation and inductive reasoning of Scudder.

It is not the purpose to more than allude to the plasma remedies in this place, for they will be fully treated in a special department. Suffice it to remark that they constitute an important, frequent, and satisfactory source of supply to every inquiring liberal physician.

The *plastic* remedies are the tissue remedies proper; they possess an affinity for the tissues, selecting and differentiating, in a manner entirely inexplicable. The nuclei of the cells are probably the primary point of impression; at least, the nutritive quality of the cell is generally believed to be the elaborating center, through which new protoplasm passes, upon its arrival, before being adapted to the uses of the part. Thus every cell is specially constructed for its purposes, and if normal conditions fail, the therapeutic agent probably restores it to its former state of activity. Let us suppose so.

Tissue remedies act in various ways upon a given part.

#### THERAPEUTIC CLASSIFICATION.

One may influence the nutrition of the cells, or of the nutritive center, in such a manner as to encourage retrograde metamorphosis and the building of better structure, thus being applicable to chronic lesions, where there is considerable alteration of tissue. Another may influence the circulation in the part through the vaso-motor center, and thus relieve acute congestive conditions. A third may affect specifically some function, and still another may be adapted to a painful state of the part—a remedy for myalgia or neuralgia.

Knowledge of the selective affinities of drugs may be determined by experimentation,—by what the homeopathist would term "provings," or the modern old-schoolman the "physiological action"—but such differentiation as that here referred to must be determined by clinical experience alone.

It will be observed that this variety of purposes must demand a multitude of remedies; we cannot construct a materia medica upon this plan, by reducing the number of agents. The most effective materia medica will include a goodly list of remedies influencing each part collectively, but embracing a variety of therapeutic properties, that numerous changes may be rung, to adapt the treatment to the different pathological conditions liable to be present.

Plastic remedies influencing a part might be divided into remedies of nutrition, of function, remedies for vascular disturbance, for myalgia, for neuralgia, etc.; but this might prove confusing, as two or more of these properties may belong to the same drug, and it would therefore be perplexing to attempt such arrangement; it would be difficult to set apart a list of nutrition remedies which do not influence in greater or less degree the functions of the same part, and these might relieve painful states by reason perhaps of such influence.

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It would be better to divide the plastic remedies into classes to correspond with anatomical parts influenced. For example: Remedies which influence the osseous system might be grouped, without reference to any common property except that of affinity for such structure. With this in mind the differentiation would not be difficult, and if doubt existed as to the proper selection, such grouping would readily suggest the agents for trial by rotation; and this plan might apply to every tissue of the body.

But we must not stop at classification upon the basis. of structure alone; every organ possesses its group of remedies, which manifest specific affinities for it. This fact was recognized in much of the crude practice of the ancients, which seems to have consisted largely in the administration of purgatives, until "regular" medicine' added digitalis for cardiac affections, cantharis for its influence upon the genito-urinary sphere, and a few other inconsequential specifics. Organopathy,—therapeutics directed to the influencing of organs,—however, seems to have received tacit recognition throughout the history of medicine, though much of it has been of a very crude character.

Plastic remedies become plasma remedies in an indirect way when they specifically correct perverted states of the blood-making organs, when they regulate hepatic abnormities, by which there is an overflow of bile into the general circulation, or when digestive disorders result in abnormal elements to be precipitated upon the kidneys. There is such an intimate relationship existing between all the vital processes, that complete classification of dynamical action would be impossible.

Just where the line of demarkation between functional and structural disease lies, is a fine point for discrimination. "Whether it be possible," says Green, "for the function of an organ or tissue to be abnormally performed quite irrespective of any alteration in its structure, admits of some doubt. At all events, as our methods of minute investigation improve, and our knowledge of morbid histology increases, the class of functional diseases grows less; and although there still remain a large number of diseases in which we are unable to recognize any alteration of structure, and which, therefore, must still be described as functional, it is probable that all disease will ultimately be found to be attended by more or less structural change."

Upon such grounds it would be quite proper to class all those remedies markedly influencing the functions of an organ or part as plastic remedies, though in doing so more or less encroachment on the domain of the plasma remedies would result in certain instances. However, it is not technical classification we should aim at so much as rational methods of grouping, for satisfactory selection.

Bacteriology has failed to develop an extensive list of agents adapted to the destruction of micro-organisms of disease. Still, a few remedies have promised something in this line; ozone has earned some reputation as an agent capable of arresting the inroads of cholera,-a disease supposed to be due to the presence of a specific bacillus, when generated in hospital wards devoted to its treatment,-and it has also been found serviceable as an inhalant to destroy certain organisms in the blood stream. Peroxide of hydrogen, bromine, chlorine, and other drugs, have been suggested, but they have not yet attained eminence; it remains to be proven that they are worthy to be classed among germ-destroying agents. In fact, some bacterial forms, as those of diphtheria, seem to be almost indestructible, resisting with surprising vitality immersion in boiling water, and strongest carbolic acid.

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The selection of remedies for disease expressions is a subject which may be discussed with profit, for it is one requiring much thought and study in order that the highest excellence may be attained in the art of adapting therapeutic agents to the various phases of pathology.

The characteristic of modern medicine is, that in this respect—as well as others—an attempt to proceed on rational grounds is prominent in the mind of the physician; the custom of grouping symptoms, giving them a name, and applying stereotyped treatment, has become obsolete. The progressive physician of the present seeks to thoroughly analyze each individual case, before proceeding with its treatment.

There is too much positive knowledge of therapeutics at the present time to admit of an excuse for empiricism, except perhaps in a few instances where the testing of drugs is the object, or where obscureness of diagnosis or want of clearly defined expression leaves no alternative; there are many avenues open to intelligent prescribing.

Rational medicine rests upon the foundation of a liberal education, embracing knowledge of the laws of normal life, of the processes of disease, or abnormal life, of the physiological action of drugs, of their dynamical action and clinical effects, as well as the value and applicability of many adjuncts to therapeutics, such as electricity, massage, and climato-therapy.

It is an important qualification to be able to know when not to administer drugs, as well as to know what to select at the proper time. The principles of selection should involve so wide a knowledge of the collateral branches of medicine that the physician would make no mistake in this respect. The practitioner who persists in

administering pulsatilla, leontin, cimicifuga, lilium tigrinum, sepia, or hydrastis for the symptoms arising from irritation due to chafing of a lacerated, everted uterine cervix needs to extend his reading and widen his lines of thought. There are many conditions, also amenable to drugs, which may be relieved more promptly by other measures and measures which it would be profitable for the practitioner to adopt. Saint Vitus' dance may sometimes be cured with drugs, but electricity so infinitely excels their action that they are not worthy of recognition in such a case. An excessively troublesome erythema may be made to yield to rhus, apis, juglans, or arctium lappa; but as the relief of the troublesome pruritus might be the desideratum and in fact the indirect cure. a topical application might be found the short and commendatory way of affording relief. The most scientific method is that which succeeds best.

# THE OLD CLASSIFICATION

Offers many indications for remedies which are not worthy of mention here, for they are so simple and apparent that little study is required for their recognition, while many of the indications must become obsolete for reason of the adoption of modern ideas which ignore their utility. The physician who marches not with the progress of the times but remains wedded to old ideas is laboring under an incubus.

The old classification arose when disease was regarded as an entity—a tangible devil to be forcibly expelled from the body, and the harsh and violent agent, one which commended itself by its unpleasant effects, even though it prostrated the patient nigh unto death, was employed. Large doses of powerful drugs were the fashion then and unfortunately a fashion it has been very difficult to change.

The conclusions arrived at by the ancients as to the ex-

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pressions of disease were often crude and erroneous, for their light was a dim candle beside the better illumination of the subject afforded by later advances in physiology, pathology, and therapeutics. Constipation was considered an infallible indication for the use of a cathartic. Diarrhea demanded an astringent. Pain, a narcotic.

We now realize that though constipation may occasionally indicate the need of a cathartic, it may really call for the very reverse; if physiology teaches any lesson here it carries the conviction that the customary use of cathartics is bad practice. Astringents, used to arrest a diarrhea, might aggravate an irritation upon which the flux depended and thus prove but sorry relievers of the condition, even though temporary arrest might follow; the modern therapeutist relies upon something more specific than the general property of astringency, in such cases. Narcotics induce a temporary suspension of nervous sensibility-paralysis-for a time, and also suspend in a measure important vital functions, and are to be avoided when there are reliable indications for remedies which relieve by correcting perversion of vital processes giving rise to pain.

The rationalism of early medicine was of the most primitive kind. There is a simple rationalism in the use of an emetic to remove morbid accumulations from the stomach, and in the use of a cathartic to rid the alimentary canal of irritating material, which, retained, might be the occasion of disease of that part. It is certainly reasonable to administer a narcotic to relieve severe pain, until curative measures succeed, and in the use of a hypnotic to invite slumber when insomnia has distracted the nervous energies; or of a counter-irritant to divert inflammatory action from an important internal organ; but all this is so simple that the ordinary person grasps the idea almost as readily as the physician.

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Such rationalism constitutes the simple elements of practice and is extremely clear in its propositions. It consists in the application of agents for the removal of causes of disease, which are so prominent as to be recognized by the unsophisticated,—of the paralyzing of the entire nervous system for the relief of localized pain, or the lulling of hyper-sensitive nerves through the charging of the blood with lethal agents,—simple propositions familiar to the ancients though some of the agents employed may be new.

If this practice constituted the sum total of medical rationalism, the elaborate and laborious researches of the biologist might as well have been neglected. Such means and measures are largely perverters of function, and though they may indirectly serve as restoratives, the primary action should be dispensed with at as early a period as is consistent with success. Powerful drugs may be as objectionable as the disease for which they are used.

# DYNAMICAL THERAPEUTICS.

But a change has taken place in the ideas of therapeutics. Disease is no longer regarded as an entity,—something to be driven out, but as an absence or perversion of some factor essential to healthy action, a condition calling for such means as tend to foster, encourage, and restore vital activities,—as a condition in which medicine may encourage a lagging function, neutralize a septic tendency, or supply a lacking element; and as a condition precluding the embarrassing effects of heroic doses of drugs, if healthy action is to be readily restored.

When we enter upon the domain of dynamical therapeutics, we deal with a class of agents which directly and specifically influence vital operations. It is no roundabout action we are now considering; the function of dynamical remedies is the direct influencing of disturbed processes in such a manner as to turn them into normal channels
and bring about restoration of physiological life. We here deal directly with the corrective and restorative properties of drugs and their affinities for affected parts, organs, or functions.

A rational application of dynamical therapeutics must rest upon the foundation of biology, the science of life. Not that it must be expected to always prove a remedy upon the healthy person, in order to render its place in the materia medica definable, but the remedy applicable to each function of life must be learned either by experimentation or by clinical experience, and when disease occurs, with deviation of that function, the remedy which by its selective influence impresses the part or function favorably, must be administered in doses just sufficiently large to exert a kindly restorative influence.

Remedies seldom or never succeed in completely restoring a part after its histological elements have been altered, for though apparent recovery may follow judicious medication, an increased susceptibility to disease remains for a long period if not for a life-time; still, its vitality may be improved and its functional activity augmented until an apparent state of health exists, and with a knowledge of the remote effects of disease, the vitality of the part may be guarded from exposure and injury to the full and satisfactory performance of all its offices.

It will be years before the scheme of dynamical therapeutics can be perfected. The therapeutist must bide the time of the physiologist. The mystery of vital force is not yet explained. The complexities of the nervous system—the location of centers of function, the bewildering maze of reflexes, the puzzle of ganglionic masses and decussating fibers—the functions of the ductless glands, these and other problems must be solved before it can be hoped to complete a scientific system of therapeutics.

Meanwhile the work of the past can be continued-the

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annotation of isolated facts, which may sometime serve as links in a completed chain of reliable data. Until then it may be best for medical men to regard the present knowledge in a candid light—thankful for what has been acquired, though the information already possessed may seem but as a series of uncertain glimpses into an endless field of supply.

Do the best we can, there is more or less uncertainty about the practice of medicine. Careful grouping of agents according to the part or function impressed narrows the field of uncertainty down to a point much short of older methods of gross empiricism, but not enough is yet known that a drug may always be adapted to a given case on first trial. In order to overcome such objection, a number of agents should be at command; we should be able to draw upon a list of several remedies similar in action, but each possessing some individual merit and peculiarity; then if one should fail we are not at loss for other means.

RELATION OF PATHOLOGY TO DYNAMICAL THERAPEUTICS.

Investigation of the nature of disease has advanced the standing of medicine greatly in modern time. The *post-mortem* study of diseased structure—pathological anatomy—has done much toward affording clearer ideas of morbid processes and suggesting rational methods of treatment. Better and more appropriate classification of disease has been the result of added pathological knowledge, and it has moreover cleared up some obscure phases of etiology, thus affording important assistance in the adaptation of remedies to abnormal states.

Knowledge of pathology is an important aid to the therapeutist. Take, for example, such a disease as typhoid fever. Here we may have a variety of therapeutic indications manifested during an epidemic, or even during the progress of a single case, but in all a knowledge of the fact that much of the force of the disease is usually spent upon the intestinal structures—Peyers' patches—prompts us to guard these tissues from beginning to end, and we administer baptisia for this purpose, without regard to other indications or remedies, believing that it specifically influences these parts to sustain their vitality.

In numerous other cases the same principle applies. With a knowledge of the pathology of a case, of the part liable to suffer damage from the affection, or of the tissues suffering most severely, and of remedies which influence the restorative powers of the part favorably, we may be able to make our therapeutic selection upon rational grounds.

Knowledge of pathology also enables us to direct our treatment to the correct purpose when there seem to be indications for remedies in an opposite direction. Take senile gangrene, for instance. Here the natural impulse with one unacquainted with pathology would be to attempt to control the progressing death of an affected extremity, due to occlusion of the supplying artery, with stimulants and antiseptics locally and constitutionally, when pathology would suggest the administration of such remedies and diet as tend to aid the circulating fluids to hold in solution calcareous material and dissolve obstructions in the arteries, already formed, that blood might permeate the starved tissues.

A knowledge of the pathology of fever enables us to rationally provide by therapeutic means, through the employment of the sedatives, nourishment, and proper management in other respects, against the grave tissue changes that might otherwise lead to fatal results.

However, important as the subject is, pathology attracts but little attention in the field of therapeutics—in the adaptation of remedies to disease. Here we must rely upon *expressions*—symptoms which seldom have reference to nosologically indicated conditions, stereotyped treatment after nosology being among things of the past. There must be a direct relationship between expressions —indications—and remedies, without particular regard for pathology. Here symptoms might fail to afford definite indications of special pathological states and might manifest themselves at a distance from the actual seat of morbid process.

Observation of tissue activities is as difficult during disease as in health. *Post-mortem* conditions cannot demonstrate the processes by which the alteration of previously healthy tissue is brought about, nor can these processes usually be studied during activity.

True, the web of a frog's foot, the ear of a rabbit, or a fold of the intestine of one of the lower animals may afford an opportunity of observing the prominent changes taking place during the course of inflammatory action, but the symptoms, pain, heat, redness and swelling are taken into account more after all than these, in the selecting of remedies for the relief of this condition. However, the skillful practitioner bears in mind his knowledge of pathology, and it constitutes the basis or underlying principle of all his prescribing.

Pathological processes in the skin, the epithelia and the eye are open to ready and frequent observation, and yet the therapeutics of disease of these parts have not progressed more rapidly than of those not so situated. Certain of the functions of cells, as motion, growth, and reproduction can be seen through the microscope and some of the changes of disease thus made note of, but to trace connection between such changes and the impressions of a therapeutic agent, or to be able to adapt an agent to specific cell function, must depend upon experimental research and clinical experience.

Then we can only infer, perhaps, that particular patho-

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logical processes have been influenced from the fact that physiological action has been re-established rather than from ocular evidence that specific changes have been wrought. The manner of action of most remedies is unknown, except as regards the gross results.

True, Brown-Sequard observed contraction of the capillaries to follow the introduction of belladonna into the circulation, and the corollary of its administration in capillary congestion with successful result followed. Contraction of the arterioles has been observed to result from the influence of ergot and hydrastis, the latter causing contraction of the muscular fibers of the coats of the vessels without producing a general action upon the muscular system at large; but not very much of value therapeutically has accrued from these observations, the empirical use of both agents for disease expressions having afforded more practical knowledge; for the circulation exerts but a relative influence upon cellular and intercellular changes. Still, the importance of the physiological action of drugs should not be underestimated; all knowledge of this character will sometime find its legitimate place.

Doubtless, knowledge of pathology will afford some aid in the selection of the remedies of the future, as it has in the past; and knowledge thus gained will be of reliable and substantial character, not to be supplanted by more positive measures; but it will hardly be possible for the older plans of experimental test and clinical observation to be completely dispensed with.

Even in parasitic diseases, pathology only informs us of the nature of the affection and suggests the plan of treatment, not the means. The specific agent to abate the abnormal condition must be determined by experimentation—by clinical research—exploration in a field entirely foreign to pathology.

The idea of the entity of disease has been a stumbling-

block in the study of therapeutics. Pathology has been investigated with tireless zeal for years, with the belief that the knowledge thus acquired would enable the physician to apply the corrective means in like cases.

But we should recollect that pathological processes are not subject to the same laws of constancy as those of healthy life. It is a biological principle, that in health the efforts of nature are in the direction of normal forms or types and normal functions, and these efforts are persistent through cycle after cycle of time, environment and other physical influences bringing about normal changes but slowly, ages being required for their full development.

Pathological processes are vital processes running riot, except, perhaps, when disease results from lack of nutrition. The character of disturbance or the normal peculiarity of the part may impress the pathological elements with characteristics rendering them susceptible of classification, but there is no fidelity to fixed forms except in the influence that normal processes may still exert under the embarrassment of morbid surroundings.

RELATION OF PHYSIOLOGY TO DIAGNOSIS AND THERAPEUTICS.

The successful correction of pathological conditions by therapeutic means then will depend upon the favorable influencing, not of pathological processes but of the normal energy that may remain. The sooner we can influence this element favorably after departure from health, the more readily we may turn the deviated forces back into normal channels and stay the gross results of abnormal deviation—pathological change.

Evidently therapeutics could not be systematically applied to pathological states, for there would be no uniformity of condition for constancy of application or reliability of action. There must be a reciprocity of action between the influence of the remedy and the normal functions of an affected part, in order that recuperation may follow. Health then being the point of departure, it should constitute the standard of measurement with which every abnormal state should be compared. A knowledge of physiological constants should be familiar to every physician, that character of deviation as well as probable amount may be estimated, the estimation looking toward therapeutic selection, or *drug* diagnosis, as well as diagnosis upon the basis of disease nomenclature, and prognosis. Nor is a knowledge of physiology as taught by books all to be desired. The senses of the practitioner must be trained to accuracy to detect many expressions that a knowledge obtained from written authorities alone, would leave out of the question.

An intimate personal acquaintance with the expressions of health, one based upon all the trained senses can observe or detect, is as essential to successful drug selection as a knowledge of written physiology, for much that can be impressed in this way cannot possibly be taught by books. This is the part of the physician's education which, becoming better and better developed, as he devotes himself to his calling, assists in those happy perceptions and impulses that often help him out of dilemmas, and to which the term "intuition" has, not inaptly, been applied; he thus learns to observe what words would but doubtfully express, but which his own senses assure him to be deviations from health, and at the same time indications for this or that remedy.

The expression of the healthy eye, its luster, the condition of the pupil, the facial expression, the normal color, shape, and consistency of the tongue, its freedom from coating, the color, transparency, and suppleness of the skin, the soft, full, regular pulse, the easy and rhythmical rise and fall of the chest in respiration, the absence of abnormal odor, the comfortable pose and movement,—all these and other expressions of health impress the senses

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of the observer so that he recognizes deviation with readiness, and aided by a knowledge of the affinities and other characteristics of drugs, he connects the deviation with some remedy specifically adapted to the correction of the disordered function.

But valuable as superficial inspection proves, it may, if trusted too far, become misleading and commit the physician to error. It cannot supply the place of well-adapted physical exploration, though it may be indispensable in leading up to the point where positive investigation can be satisfactorily begun. Physical diagnosis, auscultation, percussion, mensuration, palpation, thermometry, microscopy, urinary analysis, all the tests which science can afford, are of value in practice to aid in the selection of remedies.

The sense of touch might convey an idea of the temperature which the thermometer would materially correct; impressions of the character of the respiration formed from superficial inspection may be very much altered and even proven eminently erroneous, and an entirely different line of remedies suggested upon resort to careful physical exploration of the chest; urinary analysis may convince the practitioner that his deductions based upon a superficial inspection are in error, and alter impressions which might otherwise lead to injurious medication. With the normal standard as a guide, then, we train the senses to lead us up to the point where more exact methods of selection can be begun with well-defined purposes.

Knowledge of normal conditions enables the practitioner to readily recognize abnormal action, and knowledge of drug individuality combined with this enables him to readily refer, in many instances, to the appropriate remedy.

Suppose the pulse and respiration suggest cardiac de-

rangement; the suggestion must take more definite form before the practitioner can rationally decide upon the proper remedy, and a knowledge of the normal sounds enables him, upon auscultation, to determine still more accurately the condition present, and decide as to its therapeutic requirements.

The muffled, labored sound of effusion would suggest digitalis, convallaria, adonis, or apocynin; the rasping sound of valvular obstruction silica or fluoride of calcium; the feeble, tremulous sound, indicating loss of propulsive power, would call for nitro-glycerine, strophanthus, or lachesis; the irregular, or intermittent sound would suggest cereus speciosissimus, or scutellaria; etc.

The grouping of remedies in dynamical therapeutics can be properly made only upon the basis of physiology. Remedies influence function, and in this manner effect restoration, when diseased structure can be repaired; they sustain no direct relationship to disease except by their influence upon normal structure, except in such cases as those of parasites, where the disease is an actual entity and requires expulsion.

### THE BLOOD.

Naturally, in a general survey of therapeutics we essay those first which have relation to the fluids of the body. Old pathologists divided disease for study into disease of the fluids and disease of the solids. That any great advantage was derived from this classification remains a question; but from the fluids are built up the solid parts; the fluids are largely the solid parts in process of preparation, and it therefore seems more like beginning at the foundation of the subject to begin with parts approaching the completed structure. All parts of the body, fluid and solid, have been separated from the blood or else are constituent portions of it.

The blood serves the purpose of a navigable stream,

through which all parts of the body are reached by nourishment, medicines, and toxic agents, while certain parts of it, the red corpuscles, constitute carriers to convey oxygen from the lungs to the tissues, and return, laden with carbon dioxide. It also represents the aggregate of elements, in various stages of development, which are passing forward to the point fitting them for reception by the body, as well as certain elements of former structures, which have been broken down, and are seeking exit.

We have here, it will be observed, a circulating fluid subject to considerable normal variation in the proportion of its constituents at various times, and yet one very easily contaminated by causes of disease, and one which may become, in a measure, the disturber of its own rate of movement, inasmuch as it circulates in, and supplies, the vasomotor centers. Its quality also determines, in many respects, the quality of the solid parts supplied by it.

Anatomists divide the blood into plasma and corpuscles, and divide the corpuscles into two classes, red and white. The plasma, though a certain portion of it becomes solidified upon exposure to the air, represents the fluid portion, from which is obtained all the tissue supplies, except oxygen, and which holds in solution all the excretions, except carbon dioxide, these, as already remarked, being transported by the red corpuscles. The white corpuscles probably represent broods of red corpuscles in embryonic state of development.

# BLOOD-MAKING.

Blood-making is an indispensable source of every function, and upon it depends the foundation of every structure. If we could know all the secrets of this process, and were able to adapt remedies to them with the certainty that we adapt phytolacca to the mammary gland in mastitis, collinsonia to the rectum in hemorrhoids, or polymnia to the spleen in chronic splenitis, we could hold in abeyance many intractable forms of disease. But in the absence of positive knowledge we can only speculate, and though certain premises may seem to warrant some very positive conclusions, these are not yet indorsed by the acquiescence of physiologists.

The pabulum is supplied by alimentation, through the portal circulation on the one hand, and through the lacteals on the other, the material reaching the general circulation from the portal, after being more or less elaborated by the liver, and from the lacteals after the impressions of the mesenteric glands have been made.

These primary impressions are essential in order that the elements of food may be kindly received. If faulty glandular action permits food products to enter the blood in too raw a state, an effort is at once made by the emunctories to remove them as extraneous matter, and serious disease may result to these parts in consequence of such taxation.

It is hardly probable that this new material is fitted to the important demands of the delicate operations of secretion and nutrition immediately upon introduction into the general system; the anatomy and general functions of the lymphatic system suggest that it is exuded by the capillaries of the general circulation and returned to the blood stream through the lymphatic system, the succession of glands traversed serving as a series of scaffoldings by which it is successively raised to a higher level of excellence as a means of body maintenance. Possibly several rounds of this character may be necessary before the plasma is fitted for the offices of a storehouse for the needs of life.

Much then must depend upon a normal activity of the lymphatic system. This has been recognized by therapeutists as a correct proposition for a long time, and the class of remedies supposed to favorably influence the functions of the lymphatics has been regarded as an important collection of remedial agents. However, little progress has really been made beyond a vague idea that the class known as alteratives produce some favorable influence upon the lymphatic system in scrofula and syphilis.

Some authors stop short of this point in their ideas of blood-making, and propose to influence the entire process by the impression made by drugs upon the digestive functions. Good digestion is certainly important to assimilation, but the majority of cases of imperfect digestion depend more upon faulty action of those organs which elaborate the nutritive elements of the food after they have left the alimentary canal, than upon lack of digestive power. They are the result of that backward wave which might be likened to a smoking fire-place, due to an obstructed flue—to interference with the normal flow of the products of digestion through the liver and lacteals.

With the blood-making processes in good action, functional dyspepsia can hardly exist, though we must recollect that local causes are often at work in faulty digestion, these cases being the exception, however, rather than the rule.

Faulty plasma-making may sometimes be corrected by supplying factors which the glands are unable to obtain from the food. The inorganic elements of the blood, though present in sufficient quantity in a mixed diet, may not be properly extracted and appropriated. Here these elements should be supplied by the therapeutist. Salts of sodium, potassium, lime, and magnesium, constitute valuable adjuncts in such cases.

The mode of origin of the red blood corpuscles is yet a vexed question. In the embryo, there seems a marked similarity between red and white corpuscles as regards their appearance and properties, the only distinction being that of color. Here the red corpuscles are granular, nucleated, exhibit amœboid movement, and multiply by subdivision. Later in fœtal life, non-nucleated red corpuscles originate from the cells of connective tissue. In adult life this origin has been observed in the connective tissue of the marrow of bones.

It is not unreasonable to suppose that connective tissue is the breeding-place, so to speak, of the red corpuscles, at least the locality in which they reach the maturity of adult life. The white corpuscles probably represent a transitional state of broods of these cells; histologists record the fact of having observed red corpuscles protruding from white ones while they were moving along the capillaries, in support of this proposition.

Originating in the connective tissue of the lymphatic glands, the white corpuscles are for a time bathed in a fluid purely nutritious. Entering the blood stream later, their actions are remarkable. Here they exhibit characteristics entirely at variance with those manifested by the red corpuscles, which hurrry along with the current as though impelled by some attraction. But the white corpuscles lag, appear to adhere to the walls of the capillaries, and seem to possess an attraction for the surrounding tissues. Closely watched, a white corpuscle after a time is seen to pass through the capillary wall into the connective tissue—a normal process termed "diapedesis," once supposed to be peculiar to inflammation, but since demonstrated as a vital characteristic.

What is the significance of all this? The lower forms of life present us with many examples of transitional states during which the development of the adult is progressing from embryonic forms. Connective tissue cells have been proven as the origin of red blood corpuscles in certain cases. Connective tissues are liberally supplied with nutritive material and possess a remarkable power of abetting cell proliferation under such conditions as that of inflammation, which proliferation of new elements may fairly be regarded as a normal process exaggerated by the excitement due a hyperæmic condition.

Leucocytes may represent broods of red blood corpuscles which, arriving near maturity, are conveyed to the connective tissues and there liberated for complete development, after which they enter the capillaries, through the attraction due their new endowment, and fulfill their mission of carriers of oxygen and carbon dioxide until aged, and broken up.

Red corpuscles have been observed to pass through the capillary walls, but that they pass inward during health we have not as yet testimony to affirm.

However, clinical experience seems to indicate that those means which promote activity in the connective tissues are most effective in the correction of anæmia. General faradism, massage, —such measures as these can hardly be excelled in impoverished states of the blood where red corpuscles are lacking. As for medicament, iron often aggravates anæmic states, and is most impotent to bring about favorable changes, though normal processes may restore patients being drugged by the various ferruginous preparations.

Evidently, a few drugs exert some favorable influence upon the blood-making processes. Agents promoting functional activity of the lymphatic glands must promote the birth of blood corpuscles if here be their place of origin, and remedies favoring activity of the connective tissue cells must further the process if here be where they hibernate until fully developed. Massage and electricity permeate the tissues and reach the areolar structures directly. Cuprum and a few other drugs, perhaps, specifically influence the blood-making organs, though the influence is feeble beside that of the agencies of the electrician and masseur.

THE GENERAL CIRCULATION.

The general circulation consists of the distribution, by the aorta and its branches, of oxygenated blood from the left ventricle of the heart to all the tissues of the body, and its return, after circulating in the capillaries, by the veins, to the right auricle.

This circulation serves as a great irrigating system to the body at large. The heart acts as a force-pump to impel the blood onward in the elastic arteries, which, throbbing under its impulse, aid by their elasticity in impelling the stream to the capillaries, where the real functions of the flushing begin.

Here, as the blood slowly moves along the transparent, delicate-walled canals, the interchanges between the stream and tissues take place. Pabulum passes through into the intercellular spaces for the nourishment of the histological elements, broken up and worn out material passes outward to drift away in the stream, oxygen responds to the attraction of the tissues, and displaced carbon dioxide joins the red corpuscles for a journey to the outer world.

The alternate pressure of the heart's impulse from behind, the attraction of the tissues for the newly oxygenated corpuscles, and other forces, perhaps, serve to move the mass steadily onward, until, the changes having been completed, the veins gather up all the diffused fluid and pass it through one gateway, the right auricle, into the vessels of the pulmonary system, for rejuvenation.

Meantime important side issues have been going on. The abdominal aorta has contributed, through a number of large branches, blood to the abdominal viscera which perform certain offices of digestion and assimilation, thus setting apart a separate, peculiar circulation, the portal, and distributing a second set of capillaries—to the liver.

The renal arteries have ramified into capillaries which have been in close relationship with glandular and osmotic forces that have separated a certain portion of nitrogenous waste material, in the form of a watery solution of urea, uric acid, and other elements, as urine; the capillaries of the skin have been giving off other waste products, while the pancreas, liver, gastric glands, and other secretory organs, have been separating and appropriating from the general stream, certain substances for further use in the economy; thus secretion and excretion perform their offices as a part of a harmonious plan, as the regular round goes on.

The action of the heart is regulated by the influence of the cardiac nerves, and the caliber of the vessels determined, through branches from the vasomotor centers, so that supply and demand, waste and renewal, are nicely adjusted, the blood maintaining an even temperature of 98.6° Fahr., the pulse or heart stroke numbering near 70, and the respirations 15 to 18 per minute.

But disease seriously disturbs this nicely adjusted equilibrium, and disarranges the entire economy; and disturbance of a single function is reflected throughout the body.

Suppose the blood is hurried along more rapidly than at the usual rate, respiration becomes excited, the heart and arteries respond to the stimulus and contract more rapidly, the governing centers becoming disturbed by the presence of excess of oxygen. Increased oxidation gives rise to increased temperature, for oxidation is a literal burning, and as the blood rushes upon its round with undue rapidity, all the functions of growth, of secretion, and excretion, become disturbed. The urinary elements are now but partially removed, the skin becomes dry, secretion arrested, all the vital forces impaired, and destruction of tissue ensues, as evidenced by emaciation, debility, and, perhaps, impairment of the mental forces.

Suppose on the other hand there be a failure in the impelling power of the circulation,—failure upon the part of the heart or blood-vessels to perform well; the stream moves but slowly, and the capillaries are filled with blood but partially supplied with oxygen, for the pulmonary circulation receives but a compensating impulse. Oxidation of tissue, the removal of carbon dioxide, the distribution of pabulum, the transportation of waste material go on imperfectly, the vital organs and the nervous centers,—all parts are imperfectly stimulated, the blood becomes loaded with waste products and the entire body suffers.

The normal rate of the circulation cannot be disturbed long before the quality of the blood deteriorates; this would result if lack of nourishment and increased breaking down of tissue, which must follow from disturbed circulatory function, were the only causes, but a more important one, in many acute diseases, as fever and inflammation, is the generation of septic elements,—-ptomaines (?) which tend to seriously threaten the continuation of existence, through rapid development, and depressing influence upon the nervous centers. Blood depravation becomes manifest in numerous ways, but the tongue is an important index here, not only to denote the advent of the septic element, but also to suggest the appropriate remedy for its correction.

A febrile or inflammatory state does not continue many days before the tongue manifests the tendency to such changes, and when an indication of this kind becomes prominent, it should not be neglected. In treatment, it is well to recollect that the means which will control disturbance of the general circulation, applied early, may avert all danger of septic changes, by allowing the excretory organs to rid the blood of the disturbing and zymotic element, which tends to rapidly reproduce itself. Later, means looking to the direct correction of the depraved state must be applied.

A special group of remedies, by virtue of their specific influence upon the cardiac and vasomotor centers of the general circulation, prove very reliable means of controlling excitement, thus augmenting the functions which tend to free the blood of zymotic material. These have been termed the "special sedatives;" the leading ones being aconite, gelsemium, jaborandi, and veratrum. When properly adapted, they calm and strengthen the governing nervous centers, contribute to normal heart action, and arterial impulse, invigorate the capillaries, and in this manner encourage secretion, excretion, and all other functions concerned in the circulatory processes.

But if septic changes have begun, the case has passed beyond the reach of these remedies, for while they may still modify the excitement, in a measure, the provoking element persists, and tends to the increase. Here a neutralizing agent must be applied, to act as a dynamical corrective. Then we have resort to the salts of sodium. when the tongue presents the white coating and pallid mucous membrane, acids, when the dark red color of tongue and mucous membranes prevails, or other correctives, as clinical experience has previously suggested. Baptisia serves as a corrective when prune-juice discharges, indicating gangrenous tendencies of mucous surfaces, are present; chlorate of potassium, when feculent odors pervade the exhalations; chloride of potassium, when plastic exudations threaten mischief; or lachesis or echinacea, when systemic poisons threaten paralysis of important nervous centers.

But there are other ways of controlling vascular excitement than the use of the special sedatives,—means which are sometimes more prompt and efficacious. The hot. pack, or, if the patient possess a vigorous constitution, the cold pack, or bath, or the spirit vapor bath, may accomplish more in a few minutes than the sedatives can, safely, in as many days. These means will often serve to so thoroughly arrest the onset of a severe attack of fever, as to leave but moderate after effects, and enable the practitioner to control the remaining disturbances with little difficulty.

The effect of these remedies is not specifically upon the vasomotor centers; surface evaporation tends to refrigeration, and the moist condition of the skin induced by such treatment must favor this action; but doubtless the principal results are derived from the derivative influence of powerful determination to the superficial capillaries, thus diverting excitement from the vascular nervous centers, while the same means encourage active removal of the disease-producing element, through the cutaneous vessels.

The feeble circulation may depend upon heart failure, upon arterial lesion, upon want of capillary activity, or imperfect innervation of the vascular system. In acute phases, the capillaries are usually at fault; here minute doses of belladonna, liberal doses of capsicum, or the alcohol vapor bath, singly or combined, as indicated, usually serve the desired purpose. Venous fullness may call for hamamelis, carduus marianus, or podophyllin.

THE PULMONARY CIRCULATION.

The pulmonary circulation serves to distribute the venous blood of the general circulation, which has been returned to the heart by the right auricle, to the pulmonary mucous membrane, through which the interchange of gases between the blood and inspired air takes place.

The pulmonary artery conveys the venous blood through its bifurcations, which accompany the bronchial tubes and which ramify in capillaries upon the walls and septa of the air cells, and upon the walls of the intercellular passages, from the right ventricle of the heart, which contracts and relaxes synchronously with the left ventricle. These capillaries are gathered up after distribution and united, finally, to form four veins,—the pulmonary, which return the newly oxidized blood to the heart by the left auricle. The constant filling of this cavity is requisite to compensation between this and the general circulation.

With regular and free supply of atmospheric air to the respiratory mucous membrane, and even and free distribution of blood to this part, and free exit through the heart into the general circulation, the offices of these organs and systems are carried on without commotion or friction; but a disturbance of the action of the heart, obstruction to the passage of blood through the pulmonary capillaries, or to the ready onward flow into the aorta, gives rise, at once, to imperfect oxygenation, disturbed respiration—in fact, disturbance of all the fluids of the body.

The function of the pulmonary circulation is the separating of oxygen from the respired air, and its delivery to the general circulation through the left auricle, as well as the elimination of carbon dioxide, which unless removed promptly, soon becomes powerfully depressing to vital activities. The therapeutist recognizes the importance of the pulmonary processes, and seeks to maintain them in the highest state of perfection, by every possible means.

In therapeutic application, we find a number of directions in which to aim our resources. Inflammatory states of the lungs, whether of the parenchyma or lining membrane, must be reached largely through the general circulation, and by such means as control cardiac and arterial excitement in other portions of the body. It must be recollected that the general circulation supplies the tissues of the lungs, through the bronchial arteries, with blood, which is returned to the general venous circulation by way of the vena azygos and superior intercostal vein.

The sedatives, then, are applicable here, though they do not probably directly impress the pulmonary circulation, but instead exert their influence upon the vascular supply from the aorta.

By such means we seek to preserve the integrity of the pulmonary tissues—prevent engorgement, thus preserving open passages for the entrance of air to an unobstructed respiratory membrane, and, at the same time, preventing encroachment upon space devoted to the capillaries of the pulmonary circulation.

A few remedies manifest a marked predilection for the parenchyma of the lungs. One of these is asclepias tuberosa, which is one of the most reliable agents known in interstitial pneumonia. Veratrum, a more universally known agent, also is of great value, until the period of exudation arrives, when it should be abandoned for potassium chloride, which exerts a powerful influence toward restoration in such cases, by aiding in the successful removal of the exudates by absorption.

The integrity of the respiratory membrane, is of great importance. Delicate and unobstructed capillary walls are essential to proper interchange of gases. Indurations and other pathological changes are to be averted as far as possible by the use of such remedies as tend to encourage the plastic power of this part in its different localities.

The respiratory mucous membrane manifests affinities for various remedies in different portions, which affinities may be found of use in inflammatory conditions manifesting tendency to chronicity. For example, the Schneiderian membrane may be influenced by atropia, potassium iodide

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or bichromate, or sambucus, etc. The larynx manifests affinities for aconite, arum, collinsonia, causticum, lachesis, and potassium bichromate; the trachea for nitrate of sanguinarina and sticta pulmonaria; the smaller bronchi for tartar emetic, ipecac, lobelia, and myosotis. The entire pulmonary mucous membrane is promptly influenced by calcarea carb., when its nutrition is at fault.

We directly influence the pulmonary circulation through cardiac remedies; indeed, the functions of the heart and pulmonary circulation are so intimately related that their therapeutics can hardly be separated. Remedies then which strengthen and accelerate cardiac action add to the activity of the blood in the pulmonary vessels, while those which sedate and steady cardiac function, produce a similar effect upon this system.

# OXYGEN ARTIFICIALLY SUPPLIED.

Oxygen, in its influence upon the removal of worn-out material from the system, is far-reaching. Thoroughly oxidized waste products are readily removed by the emunctories with little tax upon their powers, but material not perfectly incinerated, may cause such serious difficulty as to impair the structure of the kidneys and other emunctory organs.

When the offices of the pulmonary circulation are imperfectly performed, it may be found of service to supply the element, oxygen, by artificial means. This has been practiced successfully by isolated practitioners, though not always discriminately, perhaps, for a long time, and the profession generally are forming more favorable opinions of this resource, as medicine progresses.

A few quotations from recent issues of the California Medical Journal will serve to illustrate:-

"Dr. J. H. Kellogg found oxygen gas injected into the lower bowel to act promptly in converting the dark venous blood of the portal capillaries into bright arterial blood under vivisection, practised upon the guinea-pig and other lower animals.

He also found that a patient presenting uremic symptoms, viz., muddy skin, dingy sclerotics, coated tongue, metallic, brassy taste, and persistent and distressing headache, while analysis disclosed an excessive amount of uric acid in the urine, improveed promptly upon the daily use of two liters of oxygen per rectum for three days. At this time the excess of uric acid had entirely disappeared from the urine. The same author reports favorable results from this treatment in phthisis.

"Grestwell treated nineteen severe cases of scarlatina with inhalations of oxygen gas, and the administration of oxygen water internally. The latter was taken gratefully by the patient, as it diminished the thirst and removed the nausea so often met with during the course of scarlatinal nephritis. By carrying a larger quantity of fluid to the kidneys it aided these organs in the throwing off of the epithelia clogging up the tubules, and also in the excretion of the specific virus. The inhalations were practiced every two hours or every hour or half hour, according to the urgency of the case. About one-fourth of one cubic foot was inhaled at a sitting. In every case it removed the albuminuria. Convalescence was speedy.

"Rehn, of Frankfort, has made use of inhalation of oxygen in a number of cases. A girl of twenty-one years, who had been sick one year, and under good medical service, was suffering from what was diagnosed as leucæmia. She had total loss of appetite, great debility, and could not walk. The anæmia was of a high grade. She had enlargement of the spleen and liver; there was moderate ædema of the lower extremities. A microscopical examination of the blood showed a great increase in the number of white blood corpuscles. Inhalations of oxygen, fifteen liters daily, were ordered, and their use persisted in for one

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year, so that the girl is now as healthy as one could wish."

The peroxide of hydrogen may sometimes serve as a valuable medicament, for reason of the oxygen it contains. Even in threatened asphyxia in pulmonary congestion, this agent has been known to sustain life and ameliorate, meantime, a very unpleasant train of symptoms, until the severe local congestion has subsided, and the supply of oxygen could be obtained in sufficient quantity in the natural way.

## THE PORTAL CIRCULATION.

This portion of the sanguineous system is peculiar in its anatomy in that it consists of a double distribution of capillaries after leaving the arteries before entering the general venous circulation, and in its offices, that it receives the food pabulum except what is absorbed by the lacteals, and exerts upon it the primary impressions which fit it for distribution by the general circulation as fuel and tissue-building material.

The coeliac axis and the superior and inferior mesenteric arteries furnish the blood from the abdominal aorta, which is distributed to the stomach, pancreas, spleen, and intestines. The capillaries from this distribution to the alimentary canal serve as means of reception of the nutriment which has been put in condition by action of the digestive solvents, for ready absorption.

These capillaries are gathered into venous channels which unite to form one large trunk, the portal vein, which enters the liver and distributes capillaries, these uniting within the hepatic organ with the capillaries of the hepatic artery, one of the branches of the celiac axis.

The branches of the portal vein, hepatic artery, and biliary duct, keep company in their distribution through the liver, their capillaries forming vascular tufts of intimate association, the hepatic cells lying among the masses performing their important functions, the hepatic veins and their branches being common venous channels for the exit of the remodeled portal blood into the vena cava.

With normal activity of the hepatic cells, the secretion of bile goes on in such a manner as to conform with healthy processes. But with torpor of the biliary function, or obstruction to the free exit of the bile from the ducts after its secretion, this fluid finds its way through the capillaries of the hepatic vein into the general circulation, and symptoms of jaundice appear.

"Bile, as such, is not pre-formed in the blood. It is formed by the hepatic cells, although some of the material may be brought to them almost in condition for immediate secretion. When it is, however, prevented by an obstruction of some kind from escaping into the intestines (as by the passage of a gall-stone along the hepatic duct), it is absorbed in great excess into the blood, and circulating with it, gives rise to the well-known phenomena of jaundice. This is explained by the fact that the pressure of secretion in the ducts is very low, and if it exceed three-fifths inch of mercury the secretion ceases to be poured out, and if the opposing force be increased, the bile finds its way out into the blood."— KIRKE.

Evidently the principles of selection demand discrimination in the matter of the bile-secreting function, if we are to expect success to follow our efforts for relieving different cases of jaundice. It is not enough to prescribe a remedy here possessing an affinity for the liver. The remedy must exert an influence to correspond with the part effected. The sluggishly operating biliary process may be encouraged, in the absence of obstruction, by chionanthus, or a similarly acting remedy, but if obstruction exists, the character of the lesion must be determined and rationally prescribed for. Obstruction by gall-stones, in

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the absence of more specific means, may be relieved by olive oil, but if tumefaction of the lining membrane of the biliary ducts from catarrhal inflammation be present, chelidonium will be a more appropriate remedy; or if the obstruction be due to pressure from general congestion of the abdominal blood-vessels, we will expect benefit from polymnia, ceanothus, carduus, or grindelia squarrosa; or nux or podophyllin, if the fault be due to fullness of the hepatic capillaries.

Cholagogues deserve no consideration in a work on dynamical therapeutics; agents which stimulate the flow of bile appreciably, must act as disturbers, not only of the biliary function, but of every associated process. Restoration of the bile-secreting function, can be brought about more satisfactorily and permanently by agents not so liable to disturb the general functional relationship prevailing.

The glycogenic function of the liver is an important one, serious consequences being the result of its permanent disarrangement.

The glucose formed from the saccharine and amylaceous portions of the food is converted into glycogen, or liver starch, and stored away in the substance of the gland as a means of supply for the needs of the body when sugar is demanded; this is reconverted into glucose by the hepatic functions when required. Disturbance of this function interferes with such elaboration, and permits the raw product from the portal vein to traverse the hepatic circulation without change, to serve as an irritating element in the general circulation, or else the transformation by the liver goes on at an excessive rate, and the lungs, which sustain a certain relationship by the combustion of sugar in the pulmonary circulation, as well as the kidneys, upon which devolve the duty of removing the excess, must suffer.

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Therapeutically, we are at a loss to know whether remedies relieve such disturbance through specific influence upon the liver, upon the vaso-motor centers of the organ, or through their influence upon the respiratory centers by encouraging the combustion of sugar in the pulmonary cir culation. But we know, empirically, that syzygium relieves such disturbance in some cases, at least, and lessens the amount of sugar present in diabetic urine. Probably to effect a cure its use must be begun early, but the success already met with will encourage the belief that diabetes may yet be classed among the curable complaints, and thus stimulate further research.

Nitrate of uranium has been accredited with the cure of numerous cases of diabetes mellitus by physicians of . our own school, as well as those of homeopathic and allopathic persuasion, and we should not forget two so important remedies as this and syzygium when the glycogenic function of the liver is at fault.

The action of the liver upon the products of albuminous food conveyed to it by the portal vein is a function of the greatest importance. The peptones of the portal blood must be submitted to the action of the liver cells before their presence can be tolerated in the general circulation. It has been found that such matter injected into the jugular vein speedily appears in the urine, demonstrating its rejection as blood or tissue-making pabulum unless the liver has exerted an influence upon it.

Excessive indulgence in lean meats is usually the cause of disarrangement of this function, and knowledge of the cause would suggest an important element of cure,—avoidance of animal food.

But the tired liver may be invigorated in this case by the proper remedy, the effects being observable, not so much perhaps in local changes, as in the sense of relief experienced in the system generally.

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In such a case the symtoms of general prostration are out of all proportion to the real amount of disease present. The patient is tired, so that the least exertion is dreaded, often drowsy, inclined to lethargic sleep in the day-time, while restless wakefullness harasses his midnight hours. The appetite meanwhile is often unnaturally voracious.

Abstinence from animal food and a spare diet generally, will assist therapeutic application here. The specific remedy is mercurius dulcis in the second or third decimal trituration, in small doses, three or four times daily. Nothing more magical was ever known in medicine than the effect of this remedy, properly adapted. The value of the hepatic influence of hydrochloric acid has long been recognized; in small doses, well diluted, it serves a valuable purpose here.

The uric acid habit—lithæmia, as well, probably, as oxaluria—is referable to imperfect hepatic action upon certain elements of the portal blood; though without doubt the primary fault is lack of thorough oxidation of the nitrogenous elements of the tissues undergoing retrograde metamorphosis, in addition to faulty material which has passed the portal circulation without receiving due elaboration.

If one of the functions of the portal circulation is the conversion of waste proteid material into urea, it is important in all cases of chronic disease to inquire into the amount of work being thrown on this part. The habitual presence of excess of lithic acid in the urine indicates faulty action here, and demands that a better preparation of the general current distributed to the portal circulation shall be made.

Liquor potassæ, benzoic acid, and benzoate of ammonia, may then become, indirectly, important remedies for disturbed states of this circulation by aiding the kidneys to

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carry off an excess of an element which taxes the powers of the structures among the hepatic capillaries. Oxygen administered in different ways may also be of highest service in assisting in a more complete conversion of proteid products into normal excrementitious material.

BLOOD PRESSURE-ARTERIAL TENSION.

"The arteries in the normal condition are continually on the stretch during life, and in consequence of the injection of more blood at each systole of the ventricle into the elastic aorta, this stretched condition is exaggerated each time the ventricle empties itself. The condition of the arteries is due to the pressure of blood within them, because of the resistance presented by the smaller arteries and capillaries (peripheral resistance) to the emptying of the arterial system in the intervals between the contractions of the ventricle, and is called the condition of *arterial tension*."—KIRKE.

It has been estimated that the arterial tension in the aorta of the human adult is equal to about four and onefourth pounds avoirdupois. As the distance from the heart increases there is a corresponding decrease in the pressure, the tension in the radial artery, for instance, at the wrist being only about four drachms. Thus the blood pressure is greatest in the left ventricle and decreases towards the capillaries. In the capillaries, arterial tension ceases to be the principle motor, though it probably serves as a vis a tergo in forwarding the blood on its rounds, though the attraction of the various elements for the tissues is here undoubtedly more of a motor force.

A relative compensation between arterial tension and vascular integrity, is essential to the continuation of health and life. A common cause of disease and sudden death is rupture of an artery through undue intravascular pressure. Certain conditions conspire to a large amount of blood in the vascular system; here the strain is principally upon the arteries, as the capacity of both capillaries and venous system greatly exceeds that of th se vessels.

Certain individuals incline to plethora—fullness of blood, and the arterial tension may be so great that the strain finally ruptures an artery in some unfortified situation, as in the delicate structures of the brain, for instance, and sudden death or a confirmed hemiplegia is the result.

Age is one of the predisposing causes of this condition, degeneration of the arterial coats often being one of the results of senility; but certain climates may predispose to such accidents, in persons of middle and even early life.

On the Pacific Coast, we find deaths from arterial rupture—as well as hemiplegia—of quite frequent occurrence, among persons who have not reached the period of bodily decay, and the causation must be attributed more to undue arterial tension, usually, than to lack of integrity upon the part of the tissues of the arterial walls.

Plethora is due here, probably, to our climatic peculiarities. The dampness of the atmosphere reduces the surface evaporation to a minimum quantity, and the cool, bracing air stimulates indulgence in a liberal diet; consequently the blood is freely supplied with pabulum and the nutritious elements are rapidly manufactured into body fluids until the vascular system is filled to repletion. Fulless of tissue,—plumpness of form—of the average inhabitant of the Pacific Coast is a subject of common remark, and a no less noticeable peculiarity, to the medical observer, is the frequent occurrence of apoplexy.

Probably, also, we may justly ascribe many of our common nervous diseases, as insanity and insomnia, to this cause,—vascular pressure in the cerebral arteries, continued for a long time, finally giving rise to pronounced

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functional disturbance, as manifested by the irritability of abnormal wakefulness, or that of mental aberration.

And we may observe other disturbances, due, without doubt, to this influence. Chronic congestive conditions as well as acute—are more aggravated, painful, and stubborn, where there is excessive arterial tension; and therapeutic measures may be materially assisted by temporary removal from the influences which encourage it, into surroundings which tend to neutralize such a state.

In such climate as that of Arizona, where the air is dry and warm, and surface evaporation quickly robs the blood-vessels of their superfluous fluids, spareness of form is the tendency. Dr. Munk asserts that the climate of that country is a positive anti-fat remedy; probably this is so because the physical conditions tend to rapid removal of the fluids of the body. Here we would expect arterial tension to be at a minimum and apoplectic affections of rare occurrence,

But there are sections nearer at hand than Arizona which offer nearly as favorable advantages for the purpose desired. The interior of California affords many places which may supply everything necessary, in a warm, dry atmosphere.

On the other hand, lack of arterial tension may give rise to anæmic conditions which ought to be benefited by removal into such a climate as that of our coast. Here the natural advantages encourage blood-making, increase arterial tension and the supply of nutritious fluids to every part of the body, and thus afford the very means to successfully abet the efforts of medicine in accomplishing restoration.

The therapeutics of arterial tension may consist of evacuants, by which the superfluous fluids are removed from the body, through the skin and kidneys. Latterday therapeutists might suggest nitrite of amyl, nitro-

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glycerine, and other depresso-motors here, but it is not probable that any remedy can long counteract the constant influence of climatic tendencies.

A change of climate, for a time, may serve a better purpose. Persons of plethoric habit or other apoplectic tendency would do well to abide in a region where the natural surroundings contribute to free cutaneous and pulmonary evaporation, as this must act as a safety-valve in relieving undue arterial tension, by lessening the proportion of circulating fluids.

Venesection here, severely as it has been denounced by Eclectics, would not seem so irrational after all, when an apoplectic seizure indicated arterial rupture, with possibility of extension of the lesion; true, the best portion of the blood may be abstracted, but in such patients, usually, the manufacture of new material would seem to be one of the most readily accomplished functions.

## THE PULSE.

The pulse affords an index to the selection of remedies, in quite a wide range of acute diseases. In chronic ailments, also, it should be taken into consideration in making up the general estimate of therapeutic indications.

The condition of the heart may be pretty well determined by the practiced touch, from the pulse, but as auscultation is a more accurate method of detecting cardiac alterations, examination of the radial impulse is not so important here, as in estimating the state of the vaso-motor centers, the general tone of the circulatory system, the freedom from, or presence of, obstruction to the vascular stream, and character of impression made by the disturbing element, upon the general nervous system.

Arbitrary propositions have been found more satisfactory than the most labored deductions in adapting remedies to the various conditions of the circulation as indicated by the pulse; for example:— The rapid *bounding* pulse denotes arterial relaxation from temporary suspension of force in the vaso-motor centers, and is usually present in *sthenic* conditions, the disturbing cause having been but recently developed. It either subsides to the normal condition within a limited period, or merges, in continued febrile states, into a more feeble impulse, indicating debility. Gelseminum is the specific remedy here.

The rapid, *hard* pulse denotes sthenia with obstruction to some important avenue in the circulation, as of the pulmonary vessels, the obstruction being probably inflammatory in character. Here jaborandi or veratrum are especially indicated.

The full, hard pulse with dry skin, and severe localized pain, is an indication for jaborandi, in full doses.

The rapid, *small* pulse indicates excitation of the vasomotor centers without corresponding reactive power on the part of the heart and blood-vessels. It is the pulse of asthenic fevers and inflammatory conditions in subjects lacking robustness. Aconite is the leading specific remedy here, if the dose be not too large.

The rapid, small pulse, with erratic, shifting pain, calls for antipyrin, in *moderate* doses.

The feeble, *compressible* pulse, with coldness of the extremities, dizziness, and pallor of the skin, denotes feeble capillary circulation, and the need of belladonna or capsicum. There may, or may not, be dilatation of the pupils.

The rapid, *wiry* pulse denotes unusual disturbance of the cerebro-spinal capillaries, and is often marked by restlessness and delirium, with bright eyes and contracted pupils. Here rhus tox. is the appropriate remedy.

The excessively rapid, *fluttering* pulse indicates a tremulous heart action, with impending paralysis of the cardiac ganglia. It occurs in febrile conditions of the aged, and from the markedly prostrating effects of such poisons as those of diphtheria and scarlatina. Lachesis is the remedy for such indications.

The feeble, *labored* pulse, with sighing respiration, indicates heart failure and demands nitro-glycerine.

When the pulse denotes a chronically feeble heart action, such agents as cereus Bonplandii, digitalis, and strophanthus, should be thought of; but this leads us to the consideration of cardiac therapeutics, which had best be examined separately.

Some writers enter into still further detail, in respect to therapeutic indications furnished by the pulse, but too much detail would be liable to impair the usefulness of this valuable diagnostic resource.

An old school writer, Dr. W. R. Lowman (Medical Bulletin), offers the following on pulse indications of pathological conditions:—

"Study pulse carefully. May range normally from 50 to 100. Male usually 72 per minute; female, 76. Increase per 1° rise temp., 10 beats per minute. The pulse may be quick in stroke yet in beats slow or infrequent; full, round, and large; empty, small, or thread-like; strong or weak in impulse; hard, whip-cord, or soft, compressible; wiry, like wire striking the finger; irregular, fast and slow alternately; intermittent, one or more beats lost; dicrotic, double-stroked; asynchronous.

"Normal pulse in sphygmographic curves.

"Full and strong, inflammatory fevers and hypertrophy of heart.

"Slow, hard, and strong, pulse of laborer, boxer, etc.

"Slow, strained and strong, pulse of meningeal derangement, but not a sign in the powerful.

"Frequent in pregnancy.

"Slow few hours after labor.

"Weak and slow in dilatation of heart.

"Very frequent in some specific fevers; sometimes from

weakness, as in diphtheria, therefore stimulants will often bring down.

"Quick and sometimes hard and sharp in abdominal or rheumatic inflammation.

"Frequent, hard, sharp, and wiry in gastric or inflammation of any organ below the diaphragm.

"Small, soft, and quick in aortic stenosis or dilatation of veins.

"Small and slow, extreme debility.

"Irregular, and often quick, later stages pericarditis.

"Irregular, often only sign of endocarditis.

"Intermittent, angina pectoris, cardiac, and brain diseases, but sometimes normal.

"Dicrotic, grave, approaching dissolution.

"Small and irregular, mitral affections.

"High and fast, aortic insufficiency.

"Tardy, senile.

"Asynchronous pulses from asynchronous contraction of sides of heart, double sound, but no double wave for each, symmetrical. Unilateral is diagnostic of aneurism." THE TEMPERATURE.

The temperature of the body is an important consideration in questions of health and disease. So nicely are the compensating forces of the organism balanced that it is impossible for a marked departure from the normal standard of 98.6° Fahr. to occur without serious disturbance of the vital processes resulting.

In earlier time the temperature was estimated roughly from the impression conveyed to the touch of the observer by the heat of the surface, but this estimate was of little value in determining the significance of an elevated or depressed temperature, and it failed entirely in enabling the observer to arrive at any data of reliability. Now the exact temperature is ascertained by an instrument which leaves all guess-work out of the question and enables one to form a very intelligent idea of the character and probable results of the condition, in many diseased states.

In most cases of disease, if the thermometer indicates any departure from the normal temperature it will be in an upward direction. Even though the surface or extremities may seem cold to the patient and observer, and in fact may be below normal heat, owing to absence of the usual amount of blood in the superficial capillaries, the thermometer may register two or three degrees' elevation in the cavities where the blood is circulating more freely. Sometimes, however, during a chill, thermometry has demonstrated beyond cavil a lowering of the normal temperature in the cavities usually tested. Whether the actual temperature of the blood is lowered may nevertheless be considered a question, as the internal organs may even then be subject to an increased caloric. During convalescence from continued fevers or other protracted illness the temperature may be slightly depressed for some time, until the debilitated vital forces recover wonted vigor.

In febrile states there may usually be a rough estimate made between the elevation in degrees of temperature above normal and the increased frequency of the pulse, each degree of elevation corresponding to ten pulse-beats per minute. For example, with the normal pulse at sixtyfive per minute, we would expect the temperature to be 99.6° if the pulse rate were seventy-five, 100.6° at eightyfive, 101.6° at ninety-five, and so on. This, however, is not a rule to be depended upon, as the nervous susceptibilities of patients vary so much that an excited heart-beat might result from slight provoking causes in one, while in another the same amount of disturbance would hardly be appreciated. Still it is a proposition not to be disputed that increase of temperature is attended by increased action of the heart; in fact, the accelerated circulation with increased oxidation of tissue may be fairly regarded as
the cause of the elevated temperature, the excited circulation being the result of irritation of the sympathetic nerve centers, from which spring the regulating fibers of the circulatory apparatus.

An elevation of the temperature above the normal standard, indicates an abnormal rapidity in the oxidizing processes in the tissues—a condition that must be attended by wasting of flesh and loss of strength, the danger of final exhaustion being in proportion to the amount of elevation and persistence of the condition; a remitting, elevated temperature is not so dangerous as a constant one, as during the remissions the vital powers are somewhat recuperated.

Means which lower the temperature rapidly are not usually desirable, as they must prove depressing to the entire vital forces. Those which act mildly and bring about a slowing of the oxidizing processes gradually are to be preferred, usually, for they leave behind a salutary condition of the general system. The special sedatives, therefore, are the most desirable means of accomplishing this purpose, for as there seems an intimate relationship beween bodily temperature and pulse rate, when abnormal elevation occurs, a moderation of the excitement of the circulation promises a lowering of the heat.

But there are other means which sometimes seem to act better than the sedatives. In typhoid conditions where septic states of the blood prevail, the sedatives seem sometimes to have lost their power of impressing the vasomotor centers, and we find it necessary to resort to more heroic means and, perhaps, more empirical ones. Sometimes the *hot pack* properly applied succeeds here admirably in reducing a temperature of  $107^{\circ}$  or more Fahr. to nearly the normal rate, and thus in a short time almost aborts a disease which might otherwise prove fatal.

Dr. Lyman Watkins (California Medical Journal) reports

success in a severe and fatal endemic of typhoid fever from the use of heroic doses of quinine—30 to 40 grains at a time, or within a few hours, lowering a temperature as high, in some cases, as  $107^{\circ}$  to near the normal rate, in a short time. This treatment was found superior to the use of the special sedatives, no mortality following after the use of the large doses of quinine was begun.

A knowledge of the state of the temperature is sometimes important, that the proper time may be selected for the exhibition of remedies. In a remittent fever if the remission be short and we desire to make avail of it for the administration of an anti-periodic, we may learn when it has begun by the thermometer before the ordinary symptoms may be detected. In typhoid fever, scarlatina, and other fevers, where powerful agents are employed to depress the temperature,-and the exhibition of such means may sometimes be all-important, the thermometer enables us to tell just when the temperature has arrived at that point where the remedy must be discontinued for fear of too great depression; large doses of quinine, antipyrin, jaborandi, and kindred agents should not be administered without the guidance of clinical thermometry to point out the time for discontinuance, lest the depression of temperature be carried beyond the period of recuperation.

Knowledge of a depressed state of temperature would prompt the application of artificial heat, and the internal use of such agents as capsicum, myrrh, and possibly brandy and ether; where the depression was more chronic in character, Faradism, massage, pure air, and other hygienic measures should take the place of artificial stimulants. Protracted depression due to capillary congestion requires the specific agent, belladonna.

THE ALIMENTARY CANAL.

The functions of the alimentary canal, though somewhat

complicated, look to but one end, that of supplying nutriment in absorbable condition, to the blood-vessels and lacteals.

The complication of function, however, is due to the character of food required—the variety of substances demanding numerous solvents and digestive cavities for their complete preparation for appropriation. In the mouth, the masticatory process is supplemented by the action of the saliva which, in addition to the specific property of converting starch into sugar, acts as a mechanical element in lubricating the bolus for ready passage along the œsophagus during the act of deglutition.

The œsophagus serves as a conduit to the stomach, where digestive proceedings assume a new phase, the mucous membrane of this cavity providing a fluid of acid reaction for the solution, exclusively, of albuminous food (proteids).

Passing the pyloric orifice and entering the duodenum the aliment becomes subjected to a variety of digestive solvents, which, however, combined, afford an alkaline reaction. Here the digestion of starch and albumin already begun in mouth and stomach is furthered to completion, and in addition the fats thus far unaffected are broken up so minutely as to be prepared for reception by the absorbents of the lacteals.

Here all the digestive solvents are combined,—saliva, gastric juice, pancreatic secretion, bile and intestinal fluid,—to carry out the complete preparation of the aliment for reception by the portal capillaries and lacteal absorbents.

But the requirements of good digestion do not end here. A free circulation in the abdominal blood-vessels is essential to a proper elaboration of the digestive juices. Secretion cannot go on well if the vessels which furnish the elements are in a disturbed state. The proportion of

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aliment requisite to the needs of the economy must be appropriate, for if in excess, the hepatic functions become affected, and a backward influence is exerted upon the abdominal capillaries to disturb, not only the separation of the digestive solvents, but, likely, even the normal peristaltic action. The *debris* of ingested food must be moved along and evacuated in order to preserve the proper relations and equilibrium between all the functions of digestion.

Impaction of the lower bowel is a common and powerful factor in disturbance of the alimentary functions,—a condition commonly recognized but most irrationally treated. The sympathy of all parts of the alimentary canal for each other, accounts for many cases of indigestion, mal-nutrition, and reflected nervous ailments arising from impaction of this passage, below the point where the active processes of digestion cease. A habitually impacted colon may thus become the cause of a thousand sympathetic and reflected ills, of which indigestion and neurosis constitute the principal symptoms.

Rectal diseases, then, and torpid states of the lower bowel, present claims of fully as great import in the management of alimentary disturbances as the therapeutics of the upper portion of the canal. Possibly medicine may be the only requirement here, but judiciously adapted surgical knowledge is important, that a proper preservation of the alimentary functions may be accomplished.

The physician must not forget the bearing which age exerts upon the functions of digestion. Nature provides the infant with only the capacity of digesting animal food; the salivary glands and pancreas lack the power of converting starch into sugar, and this substance when taken by such subject undergoes only those changes which tend to produce disturbance of digestive action. The lesson should prompt the rejection of such foods as a primary measure, if remedies are to be expected to bring about a desired result, when infantile intestinal affections are prescribed for.

In advanced life the general atrophy which affects the individual extends to the walls of the alimentary canal as well, and a dietary entailing as little muscular and glandular effort upon the part of the structures here as possible should be provided, if the full effect of therapeutic agents is to be expected.

The common plan of medicating the alimentary canal presents many pernicious features. Cathartics to relieve constipation, astringents to arrest diarrhœa, preparations of pepsin and pancreatin for indigestion, bismuth, perhaps, for irritated states of the gastro-intestinal mucous membrane, and opiates for pain, when this is a feature, comprise the bulk of treatment prescribed by the ordinary practitioner.

Cathartics unload the lower bowel, but in doing so they disturb, more or less, the important functions carried on in the stomach and small intestine, and they furthermore, when habitually employed, predispose the mucous membrane to indurations and epithelial changes which not unfrequently terminate in cancerous growth.

Astringents are rarely of value in gastro-intestinal affections; they may occasionally afford satisfaction in the treatment of watery evacuations from the bowels, but usually the intestinal capillaries can be more promptly influenced by agents which specifically impress them in dynamical doses.

The practice of supplementing the action of the glandular structures which secrete the digestive ferments with artificial supply, lacks reason. To lapse into uselessness is not the part that any portion of the body can be expected to take. The pepsin delusion has many followers; possibly exceptional cases are benefited by

its administration, but as many are aggravated as are bettered. Indigestion cannot be favored materially by the artificial supplying of digestive ferments when the apparatus which ought to secrete them is in an abnormal condition.

Pepsin and kindred preparations, when genuine as to quality, may aggravate gastro-intestinal difficulties though doubtless they sometimes prove beneficial—while often the negative results obtained depend upon the complete worthlessness of the preparation; an infusion of rennet is more reliable than the majority of pepsin products offered in the market.

Dynamical therapeutics, as applied to the alimentary canal, may be separated into three divisions: (1) The therapeutics of diet; (2) the therapeutics of the sanguineous circulation of the part; and (3) those agents which specifically influence special portions of the track through tissue affinity.

The therapeutics of diet is a subject of such importance as to demand a separate and careful study, and will only be referred to here.

The therapeutics of the circulation demand consideration of two classes of remedies; those which influence the general circulation—for the parts above the stomach are supplied from this source—and those which are especially adapted to the portal system. This subject, which has already been studied, demands further investigation; for when its possibilities are completely understood we will have brought the problem of derangements of the alimentary canal much nearer solution.

The third class of therapeutics here is that which includes those agents which by their tissue affinity specifically influence different portions of the apparatus; for instance, beginning with the mouth, we have iris, jaborandi, phytolacca, and mercurius for the mucous membrane

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and salivary glands; penthorum and phytolacca, for the pharynx; lachesis, naja, veratrum, etc., for the œsophagus; arsenic, boldo, lobelia, nux vomica, potassium bichromate, and many others, for the stomach; colocynth, epilobium, ipecac, baptisia, etc., for the small intestine; iris versicolor, iodine, and mercurius, for the pancreas; potassium bichromate, mercurius corrosivus, and others, for the colon; and æsculus, collinsonia, etc., for the rectum.

These specifically influence their respective portions, improving nutrition, encouraging normal secretion, muscular power, and recuperative energy, when disease is present, relieving irritation, and thus conducing to healthy conditions.

In addition to such agents, properly selected, local influences may often be of service, and the subnitrate of bismuth especially may prove of signal value for its soothing effect on the gastro-intestinal mucous membrane.

In the absence of proper digestive power the prepared foods are preferable to pepsin or other digestive ferments, as such debility is hardly ever confined to the peptic or pancreatic glands alone, but is shared by other parts whose integrity of structure and action is equally important.

Proper operative procedures are also of prime importance in the management of many cases of alimentary derangement. An irritable sphincter may counter-balance all the advantage to be derived from medicines, and may require surgical interference, in order to relieve the troublesome reflexes arising, before the expected therapeutic effect can follow.

Fæcal impaction, so sure to result from this condition, may require this as well, and the procedure may need be supplemented by the use of galvanism, in order to arouse a part long subject to torpor, to normal activity, and insure the regular movement so essential to health. Rectal diseases thus constitute an important branch of practical medicine, and demand the careful consideration, not of the specialist alone, but of the general practitioner, if he is to be successful in his calling.

## THE TONGUE.

The tongue serves as a valuable guide in the selection of a number of remedies, which could hardly be dispensed with in the treatment of disease.

Being a portion of the digestive tract, it seems to possess, in its shape, color, and other appearances, in many instances, an index of the condition of the stomach and its associate viscera. The circulation here, its character, the condition of the blood, as well as the state of the nervous supply, may often be tolerably well determined by inspection of the tongue, and the appropriate remedy also selected.

Thus, torpid conditions of the stomach, liver, and associate organs concerned in digestion, are reflected by the tongue, which is full, broad, and flabby, and is protruded slowly and awkwardly. Morbid accumulation in the stomach associated with this condition is manifested by a deposit upon the base of the organ. Irritation of the gastro-intestinal surfaces is manifested by a narrow, pointed tongue, the tip of which is usually reddened; with this condition is often associated tremulousness upon protrusion, indicating a high state of nervous tension.

The condition of the blood as regards tendency to zymotic changes, is also most readily indicated by the tongue, the pallid mucous membrane and white coating indicating excessive acidity of the alimentary canal and lack of soda salts in the plasma; this can be demonstrated by testing with litmus paper. On the other hand, the opposite condition—lack of acids in the alimentary canal, and probably excess of the salts of sodium in the blood—is indicated by abnormally dark red color of the mucous membrane. This indication, however, must not be confounded with the bluish or purplish discoloration consequent upon a cyanotic state; here the means best adapted to the furthering of oxygenation of the blood should be selected, as most appropriate.

The coating which appears on the tongue—sometimes in health as well as in disease—has been shown by Dr. W. H. Dickinson, through microscopical examination, in a large number of cases of both healthy and diseased subjects, to consist of horny epithelium, and the various grades of accumulation to consist in its increase. Incidentally connected with this may be found certain parasites, though their presence might exist in a state of health.

Want of attrition, as in abstinence from food, may favor such accumulation when disease is present, but it seems indisputable that it often depends upon depravation of the fluids, usually febrile or inflammatory in character.

The *dry* tongue may be the result of the passage of air over the surface of the organ, as when one sleeps with the mouth open, or it may result from the use of opiates which temporarily arrest the secretion of the salivary glands, but when persistent the symptom is due to want of salivary secretion from constitutional disturbance; though then the patient is liable to aggravate the condition by mouth breathing.

In diabetes and diarrhœa, however, dehydration of the blood to an abnormal extent may account for a dryness of the tongue. In a peculiarly dry atmosphere that will favor rapid evaporation, the symptom may be common to diseases of mild type. In a moist climate, as of the Pacific Coast, the dry tongue is not a common symptom; even in serious forms of disease where great prostration is present, it is remarkably rare, as compared with less humid sections.

As a rule, the dry tongue, under other circumstances than those already referred to, may be considered as an indication of marked prostration. "When the tongue is dry and bare," says Dickinson, "it is ill with the patient. He is not sure to die but likely to. If, as has been said, the tongues of dying men enforce attention, it must be often directed to this."

The coating of a dry tongue must sooner or later become brown and exfoliate, leaving the organ bare and slick. It is a process of denudation certain to follow from death of the epithelial covering consequent upon inability of the lingual capillaries to transmit nutrition to the desiccated epithelium, and destruction and separation must follow.

The application of remedies to conditions of disease as indicated by the tongue, has been learned by empirical practice—by the plan of "cut and try," usually adopted when no well-defined method or principle of procedure is obvious. Such knowledge, however, is as valuable as any other, when proven, and considerable assistance in prescribing can be drawn from indications thus determined. For example :—

The broad, flabby tongue, with heavily coated base, accompanied by gaseous eructations and sense of heaviness in the epigastric region, indicates the need of an emetic.

The broad, flabby tongue, with *pallid* mucous membrane and *white* coating, indicates the need of a salt of sodium, the sulphite usually being preferable. This is pre-eminently the remedy if the coating be *plastered—pasty*—in appearance. The pallidity of anæmia should not be confounded with that of this condition.

The dark-red, slick tongue-resembling beef steak-

indicates the need of hydrochloric acid; though other forms may answer, lemonade, lime-juice, and similar acids, being more acceptable and nearly as efficacious, in many instances.

The abnormally dark red tongue with *dirty*, *brown* coating indicates the need of sulphurous acid. When the brown covering is well-defined, and not due to staining by food or medicines—as may result from fruits, iron, etc.—this remedy will be found reliable in the absence of increased redness of the mucous membrane. The sulphurous acid tongue, when marked, is often associated with sordes on the teeth and lips.

The narrow, elongated, pointed tongue, with reddened tip and edges, indicates gastric irritation, and is usually attended by nausea and vomiting. When protruded tremulously, it calls for rhus tox; otherwise, ipecac, subnitrate of bismuth; or an infusion of the bark of the amygdalus persica (peach tree) may be preferable.

Prominence of the fungiform papillæ at the tip and edges gives us the "strawberry tongue" usually also narrow and elongated. This is generally observed in febrile conditions, being common in scarlatina, and not rare in some forms of continued fever. Rhus tox. affords satisfaction as a remedy in the majority of such cases.

The contracted tongue—short and narrow—with dry, shriveled center, denotes blood depravation, with profound vital prostration. It indicates the need of rhus tox., echinacea, or, if the case be typhoid fever, baptisia; if attended by convulsive tremors of the extremities subsultus tendinum—potassium phos.

A noteworthy condition of the tongue is that which has been described as the "map" tongue, by some writers. The appearance of the organ is striking, but presents little therapeutic significance, as the condition is probably local, or at least of the character of a cutaneous eruption,

depending perhaps upon some disturbance of the trophic nervous supply.

Many of these indications have been taught by Scudder, and have been employed by physicians of our school, with the happiest results, for years. Other indications have been proposed, but I believe this is a subject which can be carried into so triffing detail as to be rendered embarrassing, and thus interfere with the real worth of such means of therapeutic adaptation. When we attempt too much where there is so little opportunity of marked changes as the tongue affords, we must deal with whimsical symptoms which mean little or nothing, and are not seen alike by two observers.

But these are so plain that none will mistake them, and they cover about all the ground the subject will allow. When they are manifest, there is no uncertainty about the plan to pursue; with the tongue indication marked, the appropriate remedy should constitute the foundation of the treatment until a normal condition, so far as this symptom is concerned, has been reached.

We observe these indications most commonly in febrile states, but there are not a few chronic conditions where the tongue will afford the needed hint for the correct remedy.

I once cured a case of chronic ague of more than two years' standing, which had resisted all the antiperiodics of the three schools, with emetics administered twice a week for a month; the indication for such treatment was prominent, and the indicated remedy, an emetic, proved successful.

An obstinate case of dyspepsia, after being treated for years by different physicians and resisting my own efforts for a whole summer, yielded promptly upon the administration of the sulphite of sodium in appropriate doses. The indication was prominent from the start, but, like many another prescriber, I had too little faith in the remedy in such a disease to give it a fair trial in the commencement of the treatment.

Dr. W R. Lowman, already quoted (page 63), offers the following practical observations on tongue indications, which are worthy of notice, though they contain no reference to specific therapeutic adaptation.

"If of a smooth, pale, pinkish, moist and elastic, resistive appearance, all is well. As has been pointed out, if it is furred and of a dull, whitish hue, there is either in the organ itself 'a congested or hyperacid condition' or asthenic condition of system with a local or other cause in proximity; but if redness, with fur, there is a hyperalkaline or inflammatory state."

"Fur indicates epithelialization, a hyperproduction, or non-removal by friction, as in fever. We have increased circulation and lack of attrition by want of appetite and consequent absence of mastication. Infants' tongues are white at the back part from lack of attrition.

"White furred denotes non-attrition, oral inflammation, croup, pneumonia, measles, etc.

"Yellow furred indicates hepatic derangement with retention of bile, fevers, etc.

"Red, long, and pointed shows inflammation of stomach, bowels, etc., diarrhea, etc.

"Very red in scarlet fever, chronic diarrhœa, etc.

"Clean and slightly coated in yellow fever.

"Dry, cracked, scaly and brown is seen in the latter stages of a long continued specific fever, like typhoid, or in rapid specific fever of high grade, as typhus.

"Ridges, fissures, or sulci characterize the hepatic disorders so common to the South and malarial regions.

"Cracked edges, derangement of kidney.

"Red, pointed and dry, denotes nerve irritation.

"Broad and porous denotes imperfect elimination and muscular weakness.

"Flabby and full denotes blood poverty and debility. "Dry in high temperature, profuse diaphoresis, diarrhœa or other exhausting discharges.

"Coated or yellow in cancer of stomach.

"Clean and reddish in ulcer of stomach."

# THE NERVOUS SYSTEM.

The functions of the nervous system may be stated to be the generation and conduction of vital impulses to different portions of the body, and reception, by certain centers, of influences from external impressions made upon the peripheral extremities of sensory branches. To these we must add a higher function, that of the generation of mental impressions, independently of the processes of animal life.

The anatomy of the nervous system consists of two classes of structure: (1) vesicular or generating structure, and (2) fibrous or conducting structure.

The vesicular structure makes up the principal bulk of the generating centers, as the brain, spinal centers, and ganglia of the sympathetic, though the nerve fibers penetrate them, to communicate with special cells or corpuscles, the centers thus being connected and brought into relationship, through the fibers of the fibrous portion, with every part of the body; these fibers being intricately disposed and arranged, but each one serving, by its origin and termination, a special function, and conducting the same kind of impression in the one direction, always.

The fibers' which conduct impressions outward from nervous centers are termed *centrifugal* or *efferent*, while those which convey external impressions from without to nervous centers are termed *centripetal* or *afferent*. The centrifugal fibers convey motor, secretory, reflected, and trophic impulses; the centripetal fibers convey the various impressions imparted to the senses, as of pain, local irritation, and the special senses, to the central ganglia. The originating ganglia of nervous impulses are situated, usually, within the cranium, though the fibers which proceed from them, in many instances, traverse secondary or subsidiary centers further down the track, which augment or modify, perhaps, the primary impressions.

The originating centers of reflex action, however, are located in the spinal cord; but even over these functions the brain exercises a certain controlling influence—not absolute, but sufficient, when concentrated, to hold in abeyance many impulses, which would naturally lead to irrational action.

The integrity of the nervous system—perfect performance of its functions—must depend upon (1) structural excellence of the generating centers, with proper relationship between them, (2) upon a normal condition of the conducting fibers, and (3) upon absence of abnormal irritation in any part of the body, to give rise to perverted reflex action.

Degenerative changes or destruction of tissue in the nervous centers in any other way, will be the occasion of loss of power in the part or parts normally supplied with stimulus from the area of lesion, though the conducting medium be perfect; and with normal generating power, if the nervous fiber which should conduct the impression be interfered with, in any part of its course, arrest or perversion of the function of the part supplied must follow.

The therapeutics of the nervous system may be divided into (1) general and (2) special.

The general therapeutics are such as apply, in principle, to other portions of the body—such as apply to the circulatory and interstitial functions. The circulation should be kept in proper balance, for no part of the body is more susceptible to effects of disturbance of the blood stream than the nervous centers. Besides the influence of the circulation on nervous structure, another important element is the plastic power residing there, and capable of being influenced by remedies which specifically affect the offices of structure and function.

To influence the circulation, the special sedatives are very appropriate, especially in acute diseases where the morbid condition is confined principally to the blood-vessels. Gelsemium in phrenitis, echinacea in meningitis, and belladonna in capillary congestion, for instance, are remedies of unquestionable value. Then rhus tox. exerts an influence peculiar to itself upon the cerebral circulation—one of great value where the disturbance of the blood stream is more local than general, and marked by excessive excitation in the cerebral centers—out of proportion to the general vascular disturbance, with, perhaps, delirium.

Professor Scudder, in his "Practice of Medicine," proposes to determine the condition of the cerebro-spinal system, so far as the application of the special sedatives is concerned, by the appearance of the eye, two conditions being defined: active (1) and passive (2) hyperæmia. Active hyperæmia is evidenced by the bright eye and contracted pupil, restlessness, and other indications of determination of blood, and the condition is asserted to suggest gelsemium, which it undoubtedly does.

On the other hand, the dull expressionless eye, with dilated pupil and feeble circulation, is asserted to indicate the need of belladonna; another indisputable proposition.

I am of the opinion, however, that these remedies are not always confined to the conditions named. Belladonna has controlled cerebral disturbance for me where the bright eye, flushed countenance, contracted pupil, and restlessness, seemed to call for gelseminum, after the latter drug had failed to make an impression upon two days or more of trial; but there was a debility of the general

circulation here which contra-indicated gelsemium, with marked local cerebral symptoms. As before remarked, gelsemium should usually be thought of as a remedy for the determination of sthenia. Belladonna serves a good purpose in the condition of hebetude just described, but it also acts well in many cases of cerebral excitement, if the dose is minute; the third decimal attenuation should be employed, however, in small quantities, when administered where the symptoms indicate cerebral excitement.

Such agents as nitro-glycerine and nitrite of amyl, through their influence upon the inhibitory fibers of the pneumogastric, lessen arterial tension and thus diminish cerebral pressure. Many cases of cephalalgia are thus readily controlled by the effect of remedies which reach the nervous system only so far as exercising a certain control over the amount of blood in the part or over its rate of motion.

Degenerative changes, however, soon follow upon longcontinued vascular disturbance, and may arise independently of them. Here we must rely upon agents which are more far-reaching in effect—remedies which have more to do with cell formation and the building of other histological elements.

Then such agents as the phosphate of magnesium, or of potassium, or other inorganic elements of nervous structure, may be found of better service—remedies which supply the elements of structure, as well as augment, perhaps, the tissue-building processes. Electro-therapeutics possess special virtues in either vascular or interstitial lesions.

Special therapeutics of the nervous system have not yet been well developed. Physiology has but recently begun to locate special centers of function, and it is not strange that the therapeutist should have made but little headway in adapting his means to these discoveries. However, enough has been learned to suggest adaptation and perhaps stimulate further investigation, in a number of instances.

### THE CEREBRUM.

The cerebrum is probably the center of all functions which connect the inner consciousness of the individual with the outer world, as of motion and sensation; and it is also (1) the medium of perception of those clear and more impressive sensations, which can be retained, and regarding which judgment can be formed; (2) also of the will, in so far as deliberate preconceived action is concerned; (3) of retaining impressions of sensible things, and reproducing them in subjective sensations and ideas; (4) of all the higher emotions and feelings, and of faculties of judgment, understanding, memory, reflection, induction, imagination, and the like.

Cerebral Centers.-Various centers of function have been localized in the cerebrum, of which knowledge is important, as it possesses a therapeutic bearing of no little consideration. These, as so far located, are (1) motorial or centers of motion situated upon each side of the cortex. upon areas corresponding to the ascending parietal and ascending frontal convolutions, the movements of the leg of the opposite side being represented at the upper part. and in succession downwards, the arms, the face, the lips, and the tongue. Then we have (2) the visual or optic center, located upon the outer convex part of each occipital lobe. The olfactory center (3) is believed to be in the anterior extremity of the unciate gyrus. The auditory center (4) is situated in the monkey's brain, in the first temporo-sphenoidal convolution, representing the auditory apparatus of the opposite side. Destruction of this center causes complete deafness of the opposite ear.

Therapeutics of the Mental Sphere.-If the brain is the

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organ of the mind, and special regions are devoted to special functions, and special remedies manifest a selective affinity for special parts, there is no reason that we shall not in time be able to control many morbid psychological manifestations with medicinal agents. Materialism thus offers a way for the accomplishment of what the "mind cure" crank will seek in vain.

A few drugs affect cerebral functions notably. Hyoscyamus, for instance, when given in material doses, just short of a poisonous effect, produces delirium, hallucinations, and garrulousness. The subject is inclined to be quarrelsome.

Stramonium also disturbs the brain, but loquacity and quarrelsomeness are not among its prominent symptoms. The aberration produced is more of action and less of speech. Beverly describes the influence of stramonium upon soldiers who took an overdose at Jamestown, as follows: "They turned natural fools for several days. One would blow up a feather in the air, another would dart straws at it with much fury, and another, stark naked, was sitting up in a corner like a monkey, grinning and making mouths at them; a fourth would fondly kiss and paw his companions, and sneer in their faces, with a countenance more antic than in any Dutch droll. In this frantic condition they were confined, lest they should, in their folly, destroy themselves, though it was observed that all their actions were full of innocence and good nature. After eleven days they returned to themselves again, not remembering anything that had passed."

Both hyoscyamus and stramonium influence the sexual propensities, the delirium of hyoscyamus being marked by obscenity, and those intoxicated by stramonium often exhibiting marked voluptuous and indecent sexual excitement, as, for example, by exposure of the sexual organs. The homeopathists regard the form of mania arising from disturbance of the reproductive apparatus coming on after childbirth,—puerperal mania,—as especially calling for stramonium.

An estimable lady, nearly past the climacteric, once complained to the writer of a disposition to quarrel with her husband. She averred that he was an indulgent husband and kind father to her children, but for all that every time he came into her sight the impulse to give him a scolding became irresistible. She had no reason for complaint, her domestic relations having always been pleasant, and she was sorry every time she gave way to the impulse, yet she could not help it.

Ten drops of mother tincture of hyoscyamus were added to a four-ounce vial of water, and the patient directed to take a teaspoonful every three hours. In a few days she returned for certain local treatment, which had been going on for several weeks, and reported her quarrelsome disposition entirely gone.

The tela araneæ produces certain peculiar mental symptoms. If a drug impresses a part unpleasantly, lessen the dose and you may fairly expect a pleasant and restorative effect if the same locality be diseased. Upon a number of occasions I have had my patient complain of frightful dreams after the use of tela as a hypnotic. An old physician just convalescing from an attack of bronchitis, who had been sleepless for a number of nights, after taking small doses of this agent rested well apparently, and reported himself much refreshed in the morning, but asserted that he had been fighting wild animals all night; and this is the experience of many others who take it.

The mental sphere of pulsatilla is familiar to the majority of Eclectic physicians. Scudder gives the indication as "a fear of impending danger." In many cases of supposed heart disease we find pulsatilla to have a prompt and pleasing effect, but it is in those cases where

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the mind and not the heart is at fault. The patient comes complaining of unpleasant cardiac symptoms, and manifesting a dread of serious results. You make a careful and thorough physical exploration, and decide that no cardiac trouble is present, but that the difficulty lies in the sensorium. You prescribe pulsatilla and your patient soon reports the unpleasant heart symptoms gone. We often find this the case in instances where the mind of the patient centers itself on some other part of the body, and worries him into horrors over an impending doom. Pulsatilla relieves the brain symptoms if they are only functional, and the imaginary disease disappears.

Numerous other agents exercise an influence in this direction, but the intent here is not to individualize drug action so much as to indicate the general application of different classes. In Specific Therapeutics this subject will receive all the attention accessible material affords.

The motor areas are not known to possess many therapeutic affinities, though these doubtless exist. We must rely largely, for encouragement of muscular power upon those general measures which impart tone to the cerebral mass, with mechanico-therapeutics, faradism, etc., to aid. Nux vomica and its analogues excite the reflex centers in the spinal cord, but do not act through the brain, as is proven by the fact that after section of the upper portion of the cord the toxic action of the drug is still manifested by tetanic spasms in parts supplied by nerves which originate below the point of division, when introduced into the circulation.

As the sensory fibers are distributed among the motor centers, peripheral influences are, doubtless, transmitted here in such a manner as to prove invigorating, when properly applied. In the absence of specific agents, then, we may directly reach these centers from the surface with massage, faradism, and like means. The prompt relief afforded by minute doses of mercury in languor, where there is good muscular development but sense of dread for voluntary movement, suggests an affinity here. This conviction must force itself upon anyone who has repeatedly observed the prompt restorative effect of mercurius dulcis in such cases. Perhaps, then, it would be best to make this single exception to the assertion that this center has no specifics.

The optic centers possess therapeutic affinities of great worth, not only to the specialist, but to the general practitioner as well. Quite a number are at present known. Some of them act upon the circulation, as rhus, euphrasia, and conium; others upon the centers of reflex action as calabar bean, belladonna, and pilocarpin. But the mechanism and functions of the visual apparatus are so complicated that we cannot attempt to go very far into this subject without fear of confusion. Salicylate of sodium directly influences the visual centers, judging from the hallucinations which sometimes accompany its use. Nux vomica possesses the reputation of sharpening the vision. Other examples exist.

The *olfactory* center possesses no drug affinities so far as at present known.

The *auditory* center is impressible by some drugs. The tinnitus aurium due to the action of quinia is familiar to almost everyone. Salicylic acid also evidently influences this center, as it cures deafness attended by tinnitus, in some cases, where the auditory apparatus is intact. Oil of mullein has also been found a remedy for deafness, and its influence probably depends upon its affinity for this center. Pulsatilla, and piper methysticum, act, probably, through the afferent nerves of the auditory apparatus, as they relieve pain, but exert little influence in faulty hearing.

The center for taste has not yet been localized.

### THE CEREBELLUM.

The cerebellum is the center of muscular co-ordination. Destruction of this portion of the brain in the lower animals, results in feebleness and want of harmony in the action of the various groups of voluntary muscles; and the power of preconcerted action, as springing, flying, walking, or standing, etc., is lost.

"On the other hand, Foville supposed that the cerebellum is the organ of muscular sense; i. e., the organ by which the mind acquires that knowledge of the actual state and position of the muscles which is essential to the exercise of the will upon them; and it must be admitted that all the facts just referred to are as well explained on this hypothesis as on that of the cerebellum being the organ for combining movements. A harmonious combination of muscular actions must depend as much on the capability of appreciating the condition of the muscles with regard to the tension and to the force with which they are contracting, as on the power which any special nerve-center may possess of exciting them to contraction. And it is because the power of such harmonious movement would be equally lost, whether the injury to the cerebellum involved injury to the seat of muscular sense, or to the center for combining muscular actions, that experiments on the subject afford no proof in one direction more than the other."-KIRKE'S PHYSIOLOGY.

Therapeutic affinities for the cerebellum are as yet not well defined. Some drugs, notably alcohol, disturb the powers of co-ordination markedly, but that this is the effect of specific action so much as of a general influence in the blood which pervades all the tissues is a matter of doubt.

### THE MEDULLA OBLONGATA.

This portion of the brain is intimately associated with the sympathetic nervous system, as well as receiving and transmitting fibers from the upper portions of the encephalon to the spinal cord. It also is the point of location of several important nervous centers which preside over special functions.

The special centers in the medulla are as follows :---

A center for the co-ordinated movements of mastication. No therapeutic affinities known.

A center for the movements of *deglutition*. Through this, muscles of the palate, pharynx, and œsophagus, produce the successive co-ordinate movements necessary to the act of deglutition. Therapeutic affinities: Lachesis, pulsatilla, strychnia.

A center for the co-ordinated movement of *sucking*, involving impulses along the facial for the lips and mouth, the hypoglossal for the tongue, and the inferior maxillary division of the 5th for the muscles of the jaw. No therapeutic affinities known.

A center for the secretion of saliva transmitting impulses by the chorda tympani and branches of the sympathetic to the salivary glands. Therapeutic affinities: Iris, jaborandi, mercury.

A center for *vomiting*. Therapeutic affinities: Ipecac, lobelia, tartar emetic, etc.

A center for *coughing*, supposed to be separate from the inspiratory center. Therapeutic affinities: Coralliux rubrum, drosera, lachesis, sticta pulmonaria, tartar emetic.

A center for *sneezing*. Therapeutic affinities: Alnus serrulata, aralia racemosa, sticta pulmonaria.

A center for the *dilatation of the pupil*, from which proceed fibers' through the third nerve and the last two cervical and two upper dorsal into the cervical sympathetic. Therapeutic affinities: Belladonna, salicylic acid, santonin, etc.

A respiratory center. Therapeutic affinities: Aspidos-

perma quebracho, cactus grandiflorus, hydrocyanic acid, lachesis, tartar emetic, etc.

Vaso-motor Center.—"Experiments by Ludwig and others show that the vaso-motor fibers come primarily from gray matter (vaso-motor center) in the interior of the medulla oblongata between the calamus scriptorius and the corpora quadrigemina. Thence the vaso-motor fibers pass down in the interior of the spinal cord, and issuing with the anterior roots of the spinal nerves, traverse the various ganglia on the pre-vertebral cord of the sympathetic, and accompanied by branches from those ganglia, pass to their destination.

"Secondary or subordinate centers exist in the spinal cord, and local centers in various regions of the body, and through these directly, under ordinary circumstances, vaso-motor changes are also effected.

"The influence exerted by the chief vaso-motor centers is not only in constant moderate action, but may be altered in several, but chiefly by afferent (sensory) stimuli. These stimuli may act in two ways, either increasing or diminishing the usual action of the center which maintains a medium tone of the arteries. This afferent influence upon the center may be extremely well shown by the action of a nerve the existence of which was demonstrated by Cyon and Ludwig, and which is called the *depressor*, because of its characteristic influence on the blood-pressure.

"Depressor Nerve.—This small nerve arises, in the rabbit, from the superior laryngeal branch, or from this and the trunk of the pneumogastric nerve, and after communicating with filaments of the inferior cervical ganglion, proceeds to the heart.

"If during an observation of the blood-pressure of a rabbit this nerve be divided, and the central end (*i. e.*, nearest the brain) be stimulated, a remarkable fall of

blood-pressure ensues. The cause of the blood-pressure is found to proceed from the dilatation of the vascular district within the abdomen supplied by the splanchnic nerves, in consequence of which it holds a much larger quantity of blood than usual. The engorgement of the splanchnic area very greatly diminishes the blood in the vessels elsewhere, and so materially diminishes the blood-pressure. The function of the depressor nerve is presumed to be that of conveying to the vaso-motor center indications of such conditions of the heart as require a diminution of the tension in the blood-vessels; as, for example, that the heart cannot, with sufficient ease, propel blood into the already too full or too tense arteries.

"The action of the depressor nerve illustrates a somewhat unusual effect of afferent impulses, as it causes an inhibition of the vaso-motor center. As a rule, the stimulation of the central end of an afferent nerve produces a reverse effect, or, in other words, increases the tonic influence of the center, and by causing considerable constriction of certain arterioles, either locally or generally, increases the blood-pressure.

"Thus the effect of stimulating an afferent nerve may be either to dilate or to constrict the arteries. Stimulation of an afferent nerve, too, may produce a kind of paradoxical effect, causing general vascular constriction and also general increase of blood-pressure, but at the same time local dilatation, which must evidently have an immense influence in increasing the flow of blood through the part.

"Not only may the vaso-motor center be reflexly affected, but it may also be affected by impulses proceeding to it from the cerebrum, as in the case of blushing from mind disturbance, or of pallor from sudden fear. It will be shown, too, in the chapter on Respiration that the circulation of deoxygenated blood may directly stimulate the center itself."— KIRKE'S PHYSIOLOGY. The therapeutic affinities of the vaso-motor center comprise an extensive list. The "special sedatives" exert their influence through impressions made here, in all probability, and may produce effects of opposite nature, according to the size of dose administered. Minute doses act as vaso-motor stimulants, improving the tone of the circulation, while larger ones may impress the vasodilators and produce an inhibitory effect. Another class may act directly as vaso-motor depressors, producing an inhibitory effect from the start, though it is not improbable that the influence of all inhibitory agents is stimulating to the vaso-motor centers when administered in sufficiently small doses.

Jaborandi in minute quantities improves the power of the heart and blood-vessels to carry on an equal and active circulation, but in full doses its inhibitory effect is speedy and marked, the pallid, cold, clammy surface evidencing rapid departure of the blood from the superficial parts. Minute doses of nitro-glycerine also energize the circulatory functions, though in somewhat larger doses its vaso-depressor influence is unmistakable; and so with aconite, veratrum, and other vascular sedatives, though some of this class act more directly upon the heart.

Local centers have been shown to exist in the general vaso-motor tract,—centers which preside over such organs as the liver, spleen, and kidneys. Probably, further research will develop knowledge of a special center for every organ and distinct vascular area in the body. It is probable that here is 'the point of impression of specific agents which influence the vascular state of various parts to control morbid action in them. Syzygium and nitrate of uranium have been suggested as agents influencing the *diabetic center*; doubtless renal, splenic, gastric, intestinal, and other groups exert an influence of this kind. The abdominal circulation is influenced by a class of agents which possess an effect opposite to that of the vaso-dilators. Probably there exists in the medulla, *tonic* centers, through which the vascular walls are strengthened. It is evident, at least, that a class of agents like carduus marianus, grindelia squarrosa, polymnia, etc., tend to lessen the amount of blood in the abdominal vessels.

A center for the secretion of *sweat*, which controls subsidiary spinal sweat centers, exists in the medulla. Therapeutic affinities: Jaborandi and other specific diaphoretics. Picrotoxine, atropia, and other agents which arrest profuse sweating, probably possess specific affinities for this center also.

### THE SPINAL CORD.

The spinal cord represents a column of conducting fibers which convey impressions from the brain toward the periphery, and *vice versa*, and from which are distributed to the vegetative system the filaments which serve largely to constitute its bulk. Within the fibers of this cord, however, are located at intervals masses of vesicular matter—ganglia or special centers—many of which subserve functions subsidiary to those of the brain, though some of these—the reflex centers—are evidently independent.

The functions of the cord are classed as conducting, transferring, and reflecting.

The special centers of the cord, so far as located, are principally situated in the lumbar region. They are as follows:—

A center for *defecation*. "The mode of action of the ano-spinal center appears to be this. The mucous membrane of the rectum is stimulated by the presence of feces or gases in the bowel. The stimulus passes up by the afferent nerves of the hemorrhoidal and inferior mesenteric plexus to the center in the cord, situated in the

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lumbar enlargement, and is reflected through the pudendal plexus to the anal sphincter on the one hand, and on the other to the muscular tissue in the wall of the lower bowel. In this way is produced a relaxation of the first and a contraction of the second, and expulsion of the contents of the bowel follows. The center in the spinal cord is partially under the control of the will, so that its action may be either inhibited or augmented or helped.

"The action may be helped by the abdominal muscles which are under the control of the will, although under a strong stimulus they may also be compelled to contract by reflex action." Therapeutic affinities: Collinsonia, æsculus glabra, æsculus hippocastanum, podophyllum. The influence of these drugs is probably peripheral, *i. e.*, the primary action is upon the tissues of the rectum, and the impression transmitted to the spinal center by peripheral branches.

A center for *micturition*—vesico-spinal center. This center acts in a similar manner to the center for defecation, the presence of urine in the bladder being the stimulus which excites the peripheral nerves and calls into action impulses in the center which are transmitted to certain muscles which contract, and to the sphincter, which relaxes. Therapeutic affinities: Cantharis, eryngium, gelsemium, nux, sabal serrulata, santonin, etc.

A center for emission of semen. Therapeutic affinities: Phosphorus, avena sativa, gelsemium.

A center for the *erection* of the penis. Therapeutic affinities: Cantharis, damiana, phosphorus, salix nigra; the latter, with other anaphrodisiacs, exerts a sedative or inhibitory influence.

A center for *parturition*. Therapeutic affinities: Caulophyllum, cimicifuga, ustilago, secale, etc.

Centers of *nutrition* are believed to be located in the spinal cord, and probably possess their therapeutic affini-

ties. Injury or disease of the cord is followed by atrophy and even by sloughing of the muscles, if serious in nature. The bones and joints are also subject to disease, when the cord is seriously affected.

## THE SYMPATHETIC NERVOUS SYSTEM.

This system consists of several series of ganglia located outside the cranium and spinal canal, and principally within the thorax and abdomen, which though intimately connected with the spinal cord (receiving and transmitting fibers from the spinal canal, which become minutely subdivided after association with them), possess an independent function of their own, viz., the power of perpetuating vital characteristics for a short time after separation from the central nervous system.

The heart of a mammalian continues to beat one or two minutes, and that of an amphibian will pulsate for hours after complete removal from the body, evincing thus the fact that a kind of independent existence belongs to the parts supplied by this system, which maintains the functions of organic life without necessity of the consciousness or effort of the individual.

The ganglia of the sympathetic are divided by Gaskill into four classes: (1) A connected double chain of lateral or vertebral ganglia; (2) a more or less distinct prevertebral chain consisting of the semilunar inferior mesenteric and similar plexuses; (3) a class of ganglia—terminal ganglia—situated in the organs and tissues themselves; and (4) the ganglia of the posterior spinal nerves.

The functions of the sympathetic system seem to be (1) the perpetuation and distribution, in a modified form, of impulses from the cerebro-spinal system, the numerous ganglia sending out multiplied branches to preside over the functions of the cardio-vascular, absorbent, nutritive, secretory, and other involuntary functions, by which existence is maintained, and (2) the perpetuation, in certain organs, of rhythmical action independent of the impulses from the central nervous system. For instance, the heart receives augmenting and inhibitory fibers from the cerebro-spinal system, but rhythmical action in the organ depends upon the existence of terminal ganglia embedded in its walls, to which specific agents must be directed when irregular cardiac action, as intermittent beat, indicates disturbance of these centers.

The sensation of pain, in parts supplied by the sympathetic, is usually slow in being aroused, but is persistent and difficult to control by agents which act directly upon the cerebro-spinal centers. Anodynes and narcotics reach parts supplied by this system with less certainty, and are often found but poor dependence in such cases. Many a case of fatal narcotism has been the result of the crowding of opiates for the relief of abdominal pain; the cerebro-spinal system has become paralyzed before the narcotic impression has reached the vegetative system with sufficient force to disguise the effect of the morbid state.

Abdominal pain is more successfully and satisfactorily relieved by specific agents exerting an affinity for this region, usually, than by opiates or other narcotics.

The readiness of parts supplied by the sympathetic nervous system, to respond to remedies, is peculiar. In fact, a large share of the positive knowledge of therapeutics is what is known of the therapeutics of the thoracic abdominal and pelvic viscera.

## SECRETION AND EXCRETION.

The act of secretion is the separation of specific products from the blood, by glandular processes. Material separated for use in the body, or for the nourishment of the young, as the lacteal fluid, is termed a *secretion;* that for rejection, as waste, an *excretion*.

The secretions are always separated by glandular ac-

tion; some of the excretions are simply strained through membranous walls, as the exhalation from the lungs; others, as, for instance, the epithelium, are removed by attrition, while the kidneys and sudiparous glands remove excretory products by a process similar to that by which the true secretions, as the milk, saliva, mucus, etc., are separated,—through the growth and deliquescence of cells.

Every secreting apparatus consists of a basement membrane, supporting cells and blood-vessels, the vessels being placed in such intimate association with the cells that the latter multiply and grow rapidly during active stages of secretion, imbibing their pabulum from the blood and deliquescing at maturity, the resulting fluid constituting the secretion.

Certain circumstances determine activity of secretion from a gland. These are: (1) The amount of blood, in the absence of febrile action; (2) activity of the presiding nervous center; (3) amount of elaborative material in the blood capable of contributing to the formation of the secretion under consideration.

Cerebral impulses favor secretion by imparting stimulus to the centers presiding over the gland, as when thoughts of food increase the flow of saliva in hunger.

In febrile states, arrest of both secretion and excretion is a prominent and persistent symptom, suggesting an intimate relationship between these functions and the circulation of the blood. When evidences of returning secretion and excretion appear, a subsidence of the fever is regarded as a certain result—near at hand.

The secretions subserve special purposes, each secretory organ or apparatus being devoted, exclusively, to its own function, but the organs of excretion are more common in their offices, the one sometimes performing vicariously the functions of another, as when in obstruction of the tubules of the kidneys, the skin, by transference to a favorable climate or by the use of jaborandi, relieves the blood (for a limited time at least, and to a certain extent) of urea.

The three principal agents of excretion are the kidneys, lungs, and skin, and between these there is a certain reciprocity of action, though the kidneys excrete more largely of urea, the lungs of carbon dioxide, while the skin, to a more limited extent, in each case, performs both offices.

The principles of dynamical therapeutics demand that in the influencing of secretion or excretion, avoidance of the large dose shall be observed. An organ unduly stimulated becomes debilitated in the end, and the purpose of medication is thus finally defeated. True, cases of emergency may demand the large dose, but this is contrary to the principles of sanative medicine, and should be abandoned as soon as temporary results have been attained. Thus in anasarcous states, active hydrogogue cathartics may sometimes serve to rid the cellular tissues of an objectionable accumulation of fluids, but this must always be at the expense of the integrity of the vascular tissues of the intestinal mucous membrane. So with powerful diuretics; the kidneys may be stimulated to active work, for a time, and apparent good result follow, but there afterwards arises the question, How much have the renal tissues suffered from this excitement?

The special sedatives are promoters of both secretion and excretion, by controlling vascular excitement, and thus relieving the special centers governing these functions of embarrassing over-stimulation. How much contiguity of location and other relationship between the vaso-motor centers and the centers of control of these functions influence the result, is a question; but, clinically, it has been proven that in febrile states, the best remedies

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to improve secretion and excretion are those which equalize the sanguineous circulation, and reduce its movement to the normal rate.

Diet and climate bear an important relation to the organs of excretion, especially in chronic disease. An overplus of material consumed calls for undue effort for its removal, the proteids, particularly, when partaken in large amount, calling for extra work for their elimination. In the matter of climate, we must recollect that a cool, moist atmosphere lessens the ability of the lungs and skin to excrete, thus throwing more of a burden upon the kidneys; consequently, if these organs become diseased, a change is demanded. A warm, dry air will now throw more of the burden upon the lungs and skin, thus allowing the kidneys to rest. A cool, dry air permits the lungs to divide duty with the kidneys, to a certain extent, and is preferable to the damp atmosphere of the sea-coast in renal affections. On the other hand, many cases of anemia and general debility, with pulmonary and cutaneous relaxation brought on in the hot, dry climate of the interior, improve rapidly in the bracing atmosphere of the sea-shore, or in a more northerly latitude.

The centers of control over secretion or excretion may be permanently injured by drugs which powerfully affect the medulla or spinal cord, and a state of cutaneous relaxation result, which will be liable to persist for a lifetime. This is especially so as regards ergot, a common class of such cases being women who have been overdosed with this drug by ignoramuses, during labor or for the purpose of producing abortion, a clammy, relaxed condition of the skin, with attendant debility, permanently remaining.

There is also a probability that the kidneys may thus become permanently diseased. It is indisputably established that injuries to the brain may give rise to permanent relaxation of the capillaries of the kidneys or liver, and final structural change of the part congested.

The important organs of secretion are the liver, pancreas, salivary glands, mucous and serous membranes, and mammæ.

The *liver* has been sufficiently noticed in the consideration of the portal circulation.

Of the *pancreas* little is known as regards its therapeutics. Its physiological affinities are iodine, iris, and mercury, but the application of these agents to diseases of the organ has never been made.

The therapeutics of the salivary glands are of importance with reference to excessive secretion—ptyalism. This may be controlled by minute doses of agents which manifest an affinity for the organs, as jaborandi, mercury, or iris versicolor. A better effect, however, may sometimes be derived from galvanization of the tongue in the obstinate ptyalism of pregnancy. Lack of activity in the salivary glands usually depends upon constitutional states, which are reached by remedies that modify disturbance of the general circulation.

The *mucous membranes* manifest various affinities in different parts; and these are so numerous that reference to Specific Therapeutics should be made.

Serous membranes possess few known affinities. Possibly bryonia, apocynum, and sourwood, may specifically impart tone to them in relaxed conditions, but whether even this feeble influence is on account of any direct action upon the pavement epithelia, which constitute the secretory structure, is a matter of doubt.

The mammary gland possesses a number of positive specifics. The vascular area described in the mamma is most markedly influenced by phytolacca, the gratifying, and almost certain action of this agent in mastitis, especially that following childbirth, being one of the eminent

certainties of medicine. The power of jaborandi to increase the flow of milk, of saw palmetto to influence nutrition, and of bryonia to relieve painful conditions here, are also among the established facts of therapeutics.

The specific affinity of castor-oil for the mammary gland should be recognized, as a warning against the stupid but time-honored custom of purging lying-in women with it upon the third day of confinement; doubtless many a case of mastitis and resultant mammary abscess is set up by engorgement of the lacteal ducts in consequence of such practice.

Crises in disease have been recognized since the days of antiquity. A favorable crisis is attended by sudden establishment of the secretions and excretions. The skin especially becomes bathed in profuse perspiration and convalescence immediately follows. The lesson suggests the propriety of endeavoring to establish an artificial crisis early in the course of severe fevers, as continued, typhoid, etc. Even if the disease cannot be abated by such efforts, its severity may often be so lessened as to leave but little after treatment necessary, except careful nursing.

Such measures comprehend the use of the hot pack, the spirit vapor bath, or other powerful sudorifics, early, before the system has lost its reactive energies.

## TISSUE REGENERATION.

The repair of injured tissue is a subject which suggests itself every day, to the inquiring physician.

Three factors may be considered as exerting a controlling influence in the renewal of the life of the tissues: (1) The blood supply; (2) the trophic nervous supply; and (3) the formative force—plastic power—residing in the histological elements, or cells.

These demand, as an indispensible requisite, proper pabulum, which will depend, for its production, upon
appropriate food supply, normal digestion, and the due excretion of effete elements.

The vascular supply serves at least, then, the purpose of the transportation of the elements of growth to, and those of decay from, the tissues; partial arrest of the normal blood-supply from a part is followed by atrophy, and complete arrest by death—gangrene. Proportionate to the amount of disturbance in the circulation of a part is its tissue integrity. Feeble capillary circulation with engorgement of the vessels is attended by all the unpleasantness of a chronic inflammatory condition, finally.

Circulatory disturbances play an important part in almost every local lesion; whatever other factor is at fault, the circulation participates. In inflammation, one of the first evidences of pathological changes is that found in the blood-vessels; this giving rise to increased rate of motion, attended by exudation and the transmigration of leucocytes, to be followed by rapid cell proliferation. Later, sluggish movement, imperfect supply of nutritive material, and tardy removal of broken-down tissue follows.

Function is thus impaired; and the circulation requires to be put in the best condition possible, that the life of the part may be sustained, its normal interstitial integrity restored, and its vital purposes subserved.

It is a fact that all the demands of this subject cannot be satisfied by the administration of medicine. Mechanical causes may give rise to most mischievous results, and restoration may depend more upon an understanding of the principles involved, and rational application of appropriate mechanical correction, than upon the selection of drugs.

Thus, galloping consumption may prove speedily fatal in subjects whose lungs have been the seat of hypostatic congestion, due to long continued decubitus without

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change of position, while the parts are extremely debilitated, as in typhoid fever. A threatened mastitis may be aborted, and even when developed, the action of the correct remedies may be much aided by giving the gland proper support. An irritable ulcer upon the lower extremity will soon heal, if the part be elevated, so that the hydrostatic pressure consequent upon the upright position is removed, and the vascular congestion thus modified. Graily Hewitt ascribes chronic inflammatory conditions of the uterus to flexions and versions, and proposes to remedy these perverse conditions by correcting the displacement, thus removing obstruction to the vascular circulation at the cervix.

Rest, also, may relieve the vascular engorgement—which perpetuates depravity of a tissue—and thus aid in its repair, as when the pulmonary mucous membrane is being congested and the condition continually aggravated by repeated coughing, such means as quiet the cough and afford the parts complete rest, conduce to restoration of the irritated membrane. Here the will-power of the patient, if he can be shown the importance of exercising it, may be of utmost service. How many fatal cases of pulmonary disease might be averted, if the importance of smothering the desire to yield to slight inclination to cough were recognized by the subject in the beginning!

The futile and illy-directed efforts of subjects afflicted with pharyngitis, laryngitis, coryza, dysentery (recto-colitis), cystitis, etc., in giving way to impulses due vascular congestion of the respectively diseased mucous surfaces, are frequent causes to which confirmed chronic diseases of the organs involved are referable at a later period, and should not be forgotten by the physician who prizes his reputation above mere lucrative results.

The influence of remedies for the circulation, in subserving the integrity of the tissues, is of the highest importance. The field of therapeutics of the circulation, in this respect, should be separated into two departments: (1) That which considers remedies applicable to the general circulation, as the special sedatives, and (2) that which has to do with special vascular areas.

To Scudder must be given much, if not all, the credit of adapting the special sedatives to the treatment of inflammatory conditions. Localized hyperæmia, if acute in character, may be controlled nicely, in the majority of cases, by those remedies which modify excitement in the general circulation, and tend to equal distribution of blood. Determination to an irritated part is thus inhibited, the vessels strengthened, and the stream equally propelled to all parts of the body.

Aconite, belladonna, gelsemium, jaborandi, veratrum, and other vaso-motor specifics, thus become important agents in guarding against excessive vascular disturbance in a part affected by inflammation, and by preventing excessive tension and oxidation, maintain its vitality and conduce to ready restoration of affected parts after convalescence.

But these may often be assisted or successfully set aside by agents which possess specific affinities for a given vascular area including the point of local irritation.

Pharyngitis, for example, may be benefited by the sedatives, and probably brought to a successful termination through their action upon the general circulation; but phytolacca so much more promptly controls the symptoms that we must ascribe to it a specific influence upon the circulation in this part. True, the prompt action of this agent in healing aphthous ulceration, might suggest a tissue affinity of a different character, and it is not impossible that both virtues belong to the drug; *i. e.*, a specific influence upon the vessels of the pharynx, through a special motor center, and an affinity for the structure of the oral mucous membrane, which adds to its plastic, or recuperative power.

In laryngitis, the sedatives generally prove valuable, but certain drugs seem to exert a more marked influence than that which can be obtained by a general action upon the circulation at large. Aconite, while of less power as an inhibitory agent than some of the other cardiovascular sedatives, perhaps, exerts here a speedy effect beside that of some others; and potassium bichromate, though not an arterial sedative in any sense, removes subacute inflammation and regenerates tissue here with surprising readiness, when *hoarseness* is the symptom.

The vascular area described by the bronchial vessels offers another example. Veratrum here seems more appropriate than other arterial sedatives, but asclepias tuberosa, while a feeble cardiac sedative, if it exerts any influence at all, excels even that powerful vaso-depressor, hellebore, in controlling excitation in this area; and so we find it with ipecac, as regards the enteric mucous membrane, collinsonia in rectal disturbances, etc.

Little is known of the influence of the nervous system over the regeneration of tissue, that can exert a therapeutic bearing. Trophic centers evidently exist in the spinal cord, and probably possess their affinities, which may yet be discovered and found to possess therapeutic uses, but at present we can only recognize the principle and lay it by for future reference, when we have passed a little further along the road of therapeutic discovery. We will, therefore, suspend further judgment upon this part of the subject, and quote a few paragraphs, upon the relation of the nervous system to nutrition, from "Kirke's Hand-book of Physiology":---

"It has been held that the nervous system cannot be essential to a healthy course of nutrition, because in plants and the early embryo, and in the lowest animals, in which no nervous system is developed, nutrition goes on without it. But this is no proof that in animals which have a nervous system, nutrition may be independent of it; rather, it may be assumed, that in ascending development, as one system after another is added or increased, so the highest (and, highest of all, the nervous system) will always be inserted and blended in a more and more intimate relation with all the rest; according to the general law, that the interdependence of parts augments with their development.

"The reasonableness of this assumption is proved by many facts showing the influence of the nervous system on nutrition, and by the most striking of these facts being observed in the higher animals, and especially in man. The influence of the mind in the production, aggravation, and cure of organic diseases is matter of daily observation, and a sufficient proof of influence exercised on nutrition through the nervous system.

"Independently of mental influence, injuries either to portions of the nervous centers, or to individual nerves, are frequently followed by defective nutrition of the parts supplied by the injured nerves, or deriving their nervous influence from the damaged portions of the nervous centers. Thus, lesions of the spinal cord are sometimes followed by mortification of portions of the paralyzed parts; and this may take place very quickly, as in a case in which the ankle sloughed within twenty-four hours after an injury of the spine. After such lesions also, the repair of injuries in the paralyzed parts may take place less completely than in others; so, in a case in which paraplegia was produced by fracture of the lumbar vertebræ, and, in the same accident, the humerus and tibia were fractured. The former in due time united; the latter did not. The same fact was illustrated by some experiments, in which having, in salamanders, cut off the

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end of the tail, and then thrust a thin wire some distance up the spinal canal, so as to destroy the cord, it was found that the end of the tail was reproduced more slowly than in other salamanders in whom the spinal cord was left uninjured above the point at which the tail was amputated. Illustrations of the same kind are furnished by the several cases in which division or destruction of the trunk of the trigeminal nerve has been followed by incomplete and morbid nutrition of the corresponding side of the face, ulceration of the cornea being often directly or indirectly one of the consequences of such imperfect nutrition. Part of the wasting and slow degeneration of tissue in paralyzed limbs is probably referable also to the withdrawal of nervous influence from them; though, perhaps, more is due to the want of use of the tissues.

"Undue irritation of the trunks of the nerves, as well as their division or destruction, is sometimes followed by defective or morbid nutrition. To this may be referred the cases in which ulceration of the parts supplied by the irritated nerves occurs frequently, and continues so long as the irritation lasts. Further evidence of the influence of the nervous system upon nutrition is furnished by those cases in which, from mental anguish or in severe neuralgic headaches, the hair becomes gray very quickly, or even in a few hours.

"So many and varied facts leave little doubt that the nervous system exercises an influence over nutrition as over other organic processes; and they cannot be easily explained by supposing that the changes in the nutritive processes are only due to the variations in the size of the blood-vessels supplying the affected parts, although this is, doubtless, one important element in producing the result.

"The question remains, Through what class of nerves

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is the influence exerted? When defective nutrition occurs in parts rendered inactive by injury of the motor nerve alone, as in the muscles and other tissues of a paralyzed face or limb, it may appear as if the atrophy were the direct consequence of the loss of power in the motor nerves; but it is more probable that the atrophy is the consequence of the want of exercise of the parts; for if the muscles be exercised by artificial irritation of their nerves their nutrition will be less defective. The defect of the nutritive process which ensues in the face and other parts, however, in consequence of destruction of the trigeminal nerve, cannot be referred to loss of influence of any motor nerves; for the motor nerves of the face and eye, as well as the olfactory and optic, have no share in the defective nutrition which follows injury of the trigeminal nerve; and one or all of them may be destroyed without any direct disturbance of the nutrition of the parts they severally supply.

"It must be concluded, therefore, that the influence which is exercised by nerves over the nutrition of parts to which they are distributed is to be referred, in part or altogether, either to the nerves of common sensation, or to the vaso-motor nerves, or, as it is by some supposed, to nerve fibers (*trophic* nerves), which preside especially over the nutrition of the tissues and organs to which they are supplied.

"It is not at present possible to say whether the influence on nutrition is exercised through the cerebro-spinal or through the sympathetic nerves, which, in the parts on which the observation has been made, are generally combined in the same sheath. The truth perhaps is, that it may be exerted through either or both of these nerves. The defect of nutrition which ensues after lesion of the spinal cord alone, the sympathetic nerves being uninjured and the general atrophy which sometimes occurs in con-

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sequence of diseases of the brain, seem to prove the influence of the cerebro-spinal system; while the observation that inflammation of the eye is a constant result of ligature of the sympathetic nerve in the neck, and many other observations of a similar kind, exhibit very well the influence of the latter nerve in nutrition."

A plastic power or formative force, which shapes the building of plastic material into determinate forms, is universally recognized. This principle exists in the simplest forms of organic life, endowing the individual with the faculty of reproducing like forms from nutritive pabulum.

The simplest creatures thus respond to this principle, and, as higher forms are reached, it is not in the least probable that this endowment becomes lost. True, trophic impulses may produce certain effects through nervous supply, but these cannot furnish that element which gives individuality to the recuperative power of every portion of the body, existing within itself.

When the vitality of a part becomes impaired by injury or disease, this recuperative energy suffers, along with the general impairment of structure, and promptness of repair will be in proportion to the amount of plastic force remaining. The relation of formative force to a part may be illustrated by the following simile :—

"Suppose a carpenter builds himself a house, and a cyclone comes along after. it is finished and whirls it into fragments, injuring in the meantime its owner. Now, suppose there is no other builder to be had and that the same carpenter in a crippled condition—arms, shoulders and other parts of the body somewhat impaired in their functions—is obliged to build another. The process will evidently be a slow and unsatisfactory one, and when the second structure is finished it will be inferior to the first, even though all the material furnished should be firstclass. Suppose, however, this structure is destroyed, but the owner this time escapes injury. He has now somewhat recovered from the effects of the cyclone and is able by extra effort to construct a better building than the last one. He has been improving, gathering strength as it were, and with the same quality of material approaches a little nearer perfection than before, when impairment of his locomotor and prehensile functions unfitted him, and after he has several times repeated the process he comes quite near the standard of his former excellence, before his injury disqualified him for the purpose."

So it is with a part injured by disease. The blood for its regeneration may be of the best quality, but the builder-the plastic principle, the formative force-has been impaired, and though the blood-vessels carry good building material to the part the cellular elements fail to construct good protoplasm from it, and an imperfect structure gradually takes the place of that weakened by disease. But the tissues are constantly being broken down and repaired, and the physician can aid this formative force by selecting such agents as specifically influence the affected part to improve its recuperative energies; he can further augment its vitality by the local application of properly selected electrical currents; he can guard the part from undue tension or over-exertion by proper attention to details, and after a time, even though the condition has become chronic, he can effect a renewal of the life of the part-an approach towards, if not a complete, recovery resulting.

The nutritional affinity of certain drugs for special portions of the body seems unquestionable; and in some cases this affinity is so powerful as to prove destructive. Potassium bichromate destroys the mucous membrane of the respiratory and digestive tracts, in persons subjected, for a time, to material doses, and it also exerts a healing effect here, when administered in doses sufficiently small to stimulate the formative force of the affected part without injury.

It might be claimed that such an effect was due to the influence of the drug upon the circulatory area of these parts, but we may refer to the influence of silica upon cartilage, or that of cineraria upon the humors of the eye, where no blood-vessels are found, in refutation.

The selective influence of sabal serrulata upon the prostate gland, testes, and mammæ, is evidently not of a vaso-motor kind, but one in which the plastic power is concerned—an influence which betters the condition of the parts to appropriate nutriment, and form it into structure of the best quality.

Remedies which improve the formative force of a part must not be expected to accomplish all that is possible of them in a limited time; we must not expect any remedy to bring about its effects magically or immediately; such an idea would have done better for the days of superstition; there must be successive pulling down and building up, repeatedly, upon an improved basis each time, as the architect improves in power, before a chronically diseased part can reach a perfectly normal condition.

I once administered penthorum sedoides to a patient afflicted with chronic inflammation of the upper portion of the pharynx, for a year steadily; in the beginning the parts affected presented a bluish, dry, shiny appearance, which had been present for fifteen years. The influence of the remedy was slow, but certain, and when treatment was discontinued, the color, secretion, general appearance, and sensation of the parts, were normal. Yet we would not expect such an effect from penthorum upon any other portion of the body, nor need we expect it in acute cases, where the lesion is largely circulatory.

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### THE NEW FORMATIONS.

It might be considered a question whether this subject is of sufficient importance to justify its notice in a work on therapeutics. However, the fact that new growths, in some instances, can be influenced by remedies through the circulation is generally recognized, and, possibly, when studied more carefully, the subject may be made much worthier a place in the therapeutics of the future.

There is probably a class of new formations which are so near normal tissues in their structure and place of development, that drugs may be made to exert an affinity for them, while in another instance the growth may be developed under such abnormal conditions that drug affinity cannot produce any effect upon it.

Take, for instance, enchondroma: We have here a growth histologically resembling cartilage and following the same developmental course, originating either from connective tissue or bone, its connection and evolution then, in a certain respect, coinciding with those of normal cartilaginous tissue. And there is so close a relation between this growth and normal cartilage, that drugs which manifest an affinity for the latter tissue might reasonably be expected to manifest a like affinity for the morbid development.

We are credibly informed that silica possesses the power of arresting the development of enchrondomata, and, while I have never proven the matter in practice, the prompt action of this agent upon true cartilage seems to me to justify the belief that such statement may be correct.

Excessive development of the epithelium of the sebaceous follicles, in the form of verrucæ (warts), is another example where drugs, through the circulation, have been known to perform a cure. Here, also, there is such a close connection between normal tissue and morbid development that the histological elements retain a certain normal selective power, perhaps, and are therefore amenable to the influence of such agents as thuja and magnesium sulphate,—drugs which have been known to effect the removal of such growths, when administered internally.

But take such a growth as a dermoid cyst,—a morbid development of the ovary, apparently, yet one containing the histological elements of the true skin, in its composition of cells of corium and epidermis, containing sebaceous and hair follicles and sweat glands, as well perhaps as teeth. Here we have a transplanted tissue developing in a field isolated from its normal position, the result, perhaps, of aberrant cells from the epiblast, lost during early embryonic development, so far removed from their normal position that drug affinity through vasomotor or trophic centers evidently could not exist, nor could the attraction ordinarily believed to be exerted between normal histological elements and drugs be expected to remain with them after removal to so remote a field from the mother soil.

Cancer, also, probably the result of accidental transplantation of epithelial cells to that hot-bed of proliferation, connective tissue, affords another example where little, if any, drug affinity could be expected to exist, if we accept the proposition that the underlying principle of drug affinity is that the attraction must always be between healthy parts and specified drugs, and that in disease the same drugs act upon the normal elements, instead of selecting parts because of morbid changes.

Dr. Cutter has proposed, probably, the best method of cure for cancer—that of starvation; otherwise, a diet consisting of the one article of food, chopped beef, which means only the consumption of barely enough to sustain life. Here the power of the normal elements to appro-

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priate what is needed robs the exuberant growth that is rapidly developing and closing up the avenues of life, of needed nourishment, and arrest of its progress results. Such a growth is isolated, biologically, from any base of operation by which a tissue remedy can exert an influence upon it, for though it is a tissue of normal resemblances, in some respects, it is growing out of place.

It seems to me that the physiological action of drugs limits their capacity to exert effects in disease. In other words, any agent capable of acting as a remedy must possess the power of specifically influencing, either through vasomotor centers or direct action upon the tissues themselves, the circulation of a given part, or through trophic nerve centers its nutrition, or by specific affinity for the cells themselves, the plastic power presiding over them.

When new growths are not isolated from the normal tissues from which they originate, but are histologically modified parts of them, or are intimately related, we may reasonably expect the tissue affinities of drugs to be exerted upon them; but when tissue grows out of place, has been transplanted, or develops an entirely new character, it is reasonable to suppose that that intimate relationship which exists between all the normal tissues has been severed, and the knife or other destructive means outside the field of therapeutics becomes the only reliable means of removal.

# PAIN.

Pain is an almost inseparable symptom of disease unless there is loss of sensation in the affected part. True, the pain may not always be referable to the point of lesion, but may be reflected to a distant portion of the body. Still, a sense of local discomfort is almost invariably present, constantly or at intervals, either in the part affected, or in some locality, or localities, to which the irritation or disturbance is reflected. Pain may be defined as an aggravated sense of discomfort, so pronounced in character as to enable the subject to locate it. Its character may vary, being in some cases dull, in others aching, sharp, burning, gnawing, stabbing, etc. It may be constant, intermittent, remittent, or erratic or changeable, as to its location. It may be so slight as to simply attract the attention of the patient to the point of attack, or so severe as to drive him frantic with suffering.

The immediate seat of pain is some portion of the sensory nerves, but the primary cause may lie outside these tissues, as, for example, in inflammation the interstitial changes may give rise to pressure or other irritation of nerve fibers, a condition demanding the removal of inflammatory hyperæmia, in order that the pain may subside. Spasmodic contraction of irritated muscles may be the cause of intense pain, from the effects of severe pressure upon branches of the afferent nerves. In other cases disturbances in the nerves themselves may be the origin of the pain, as in. many cases of neuralgia from irritation of a dental pulp, or pressure upon some nerve trunk, or circulatory changes in the nerve trunks or ganglia. Impoverished conditions of the general system may give rise to pain in a nerve on account of deficient supply of nourishment to the part. Encroachment of new growths upon normal tissues may result in pressure or dragging, which may amount to severe pain. Ulceration of tissues gives rise to exposure of nerve fibers, and resultant irritation and distress.

The rational treatment of pain embraces a lengthy list of remedies, though the indolent or careless physician will expect to succeed with a very limited number, and of these opium, or its preparations, will constitute the principal resource.

These remedies may be divided into general and spe-

cial. General remedies are those which exert a controlling influence over the general circulation, especially in the nervous tissues, as aconite, or such as add to the nutritional power there, as phosphorus, magnesium, or potassium phosphate, or such remedies as stimulate the circulation in the part, as arsenic. Special remedies are those which, acting through their tissue affinities, impress local regions specifically, to influence circulatory lesions, relax morbid spasm, control irritation, or improve nutrition, in special nerve fibers.

The most satisfactory method of studying this subject is to formulate pain expressions with their remedies:—

Aural pain (earache) calls for chamomilla, piper methysticum, pulsatilla, verbascum thapsus (oil of).

Cardiac pain calls for nitrite of amyl, if from angina pectoris; in cardiac rheumatism, antipyrin, cimicifuga, caulophyllin, jaborandi, the salicylates, etc. Cardiac neuralgia may call for magnesium phos.

Cæcal pain calls for lachesis.

*Cerebral* pain of full, throbbing character calls for nitrite of amyl, nitro-glycerine, antifebrin, or antipyrin. When more than evanescent in its continuation, aconite and gelsemium.

Cerebral pain of dull character, with facial pallor and coldness of the extremities, belladonna or ustilago maidis.

Cutaneous pain, burning, with stinging and pungent heat, apis, citric acid (locally), rhus tox.

Enteric pain (colic), griping, twisting, about and above the navel, colocynth, dioscorea; in dysentery or cholera infantum, ipecac should be alternated with the one chosen. The pain of winter diarrhea calls for potassium bichromate 2x. In muco-enteritis, epilobium should not be forgotten. Pain in the hypogastric region, when intestinal in origin, calls for collinsonia.

Facial pain (tic douloureux) calls for piper methysticum.

Gastric pain calls for cimicifuga or caulophyllin, if muscular in character; gastric neuralgia, antipyrin, colocynth, magnesium phos., pulsatilla.

*Hepatic* pain calls for bryonia, chelidonium, colocynth. Biliary colic (gall-stone spasm), benzoate of lithium, olive oil, salol.

Muscular pain, dull, aching, without swelling of parts, calls for full doses of cimicifuga (a decoction is the most reliable, in tablespoonful doses).

Muscular pain, full, tense, severe (parts swollen), great aggravation upon the least motion, jaborandi (full doses of the green preparation—specific medicine). This is the most reliable remedy in inflammatory rheumatism, administered until its inhibitory effect is marked by cool, clammy skin.

Muscular pain, sharp and lancinating at times, erratic, shifting suddenly, antipyrin; give five-grain doses every four hours until better.

Myalgia (pain in the muscles on motion with relief upon rest), chronic, hydrastis canadensis (minute doses).

Neuralgic pains (at large) in anemic, ill-nourished subjects, without threatened change of structure, phosphorus. If there is loss of memory, occasional aberration, and other symptoms of pending organic change, potassium phos. Darting, stitching pains, in such cases, may be more speedily benefited by the addition of magnesium phos.

Occipital pain extending from the shoulders and neck, sticta.

Odontalgia (toothache) calls for aconite, plantago major, piper methysticum. An exposed pulp or diseased fang will demand operative interference.

Orchialgia (pain in the testicle) calls for cimicifuga, if the patient is of rheumatic diathesis and the case is chronic, or sabal serrulata, when there is prostatic irritation or sexual neurasthenia; pulsatilla, if acute inflammation exists.

Ovarialgia (pain in the ovary), cimicifuga, hamamelis, lilium tigrinum, ustilago, valerinate of zinc.

Pericranial pain, antipyrin, cimicifuga, faradism, salicylic acid.

Periosteal pain calls for chloride of gold, iodide of potassium, manganese, silica, berberis aquifolium, corydalis.

*Rectal* pain calls for æsculus, when sharp and cutting, with distress in the sacral region; collinsonia, when the rectal pain is complicated with pain in the hypogastric region; hamamelis, when there is marked local sense of fullness and weight.

Sciatica, when radiating about the hip joint, colocynth; when the entire nerve is involved, the sulphur pack, salol, the faradic current, downward.

Spinal pain, severe and drawing, with contraction of the dorsal muscles (spinal meningitis), jaborandi.

Splenic pain calls for carduus marianus, ceanothus Americanus, grindelia squarrosa, or polymnia uvedalia.

*Thoracic* pain (pleurodynia) calls for bryonia, cimicifuga, caulophyllin. The agonizing pain of pleuritis calls for nauseating doses of lobelia (a decoction of the fresh plant or saturated tincture of the seed).

Uterine pain (dysmenorrhea) calls for antipyrin, cimicifuga, leontin, pulsatilla, viburnum prunifolium.

Vaginal, stitching, sense of weight, dyspareunia, sepia. Vesical pain calls for ervngium aquaticum, rhus aro-

matica; if prostatic irritation exists, sabal serrulata, staphysagria.

But therapeutics are not yet so perfected that narcotics can always be wholly dispensed with. Morphia and the other preparations of opium are sometimes valuable means to resort to, as well as chloral, ether, chloroform, cocaine and other narcotics and anæsthetics.

# PERIODICITY.

Periodicity is a very common element of disease, and its recognition and treatment are important, as it is often an impediment to successful medication when cases might otherwise readily yield to remedies.

Periodicity is to a certain extent a normal element, due to diurnal variations of solar heat probably, but the periodicity of disease is usually due to paludal influence, —malaria,—and occurs in its most marked character in intermittent and remittent fevers.

However, almost any acute disease may be complicated with the element, periodicity, and its management, otherwise simple perhaps, rendered difficult, unless attention be first paid to the periodical manifestation.

Periodicity manifests itself in the character of an aggravation or exacerbation of some element or symptom of disease occurring at a regular period of the night or day, or, in some cases upon alternate days or regular rotation of days, in each instance the peculiarity of regularity being the characteristic element of the case. For instance, in intermittent fever, or ague, the chill usually occurs so regularly that the subject can tell the hour of the day upon which to expect it. In certain cases of neuralgia the pain may be so subdued by treatment as to seem almost cured until a certain hour arrives, when a sudden increase of suffering dispels the illusion, and, for a few hours the pain may be excruciating, to again abate until another exacerbation upon a succeeding day. Rheumatism, pneumonia, croup, dysentery,-in fact, almost every form of acute disease may be complicated with the element, periodicity, and rendered obstinate until it has rereceived special therapeutic attention. Sometimes the element, periodicity, is so purely a fundamental one that the antiperiodic will prove curative of all the symptoms; if not, the remaining derangements are readily relieved by the appropriate remedies, while this might be difficult without previous attention to the periodicity.

Periodicity may manifest itself in various phases. The common condition or symptom of periodicity is chilliness followed by febrile action, but pain is almost as frequent. Then we sometimes find such symptoms as stiffening of the muscles or tingling in some part of the body, or profuse urinary discharge, diarrhœa, colliquative sweat, severe, explosive cough, or other morbid symptom occurring periodically. In every case we will find that an imperative requirement of treatment is, to remove this element, before recovery will progress properly.

There are a number of remedies for periodicity with which the practitioner should be familiar; for one may not always succeed, and the most effective one in ordinary practice may disagree with certain patients, rendering the use of some other one necessary.

Quinine is usually the most speedy and prompt antiperiodic we possess, and is to be commended for its promptness of action; but it produces ringing in the ears and other unpleasant cerebral as well as gastric irritation in some patients, and cannot be tolerated. Arsenic acts well in minute doses in some cases, serving to arrest periodicity, especially if the element of chronicity enter into the case. I prefer here the third decimal (3x) trituration of arseniate of quinia; but both arsenicum and this agent sometimes cause so much irritation of the nervous system that we are obliged to look further for a favorable remedy. Alstonia constricta is an admirable remedy in long standing cases of periodicity, especially in chronic malarial affections, it being unirritating to the nerves or cerebral centers while it promotes healthy processes generally. Faradism, the vapor bath and emetics are other reliable antiperiodics, when properly adapted.

Consideration of certain subjects included under this heading is as important as the principles of selection, in order that success may attend the efforts of the therapeutist.

The adaptation of the remedy may be correctly made and yet treatment prove a failure, because the drug lacks its proper medicinal virtue; quality of drug then is an important consideration. Or, the dose may be so large that dynamical effect is embarrassed and the function sought to be improved unpleasantly disturbed; or the dose may be so small as to fail in producing the necessary amount of disturbance requisite for a salutary effect; or, possibly, the drug may have been administered at the wrong time to produce the desired result, or it may have been given in combination with such agents as interfered with its proper action (incompatibles).

The convenience of the prescriber is also to be taken into account, as regards the portableness of his medicines, if he be so situated that it becomes necessary for him to carry them. This will lead to the consideration of bulk, form for administration, etc.

# THE QUALITY OF DRUGS.

The reader will agree with me that in the matter of drugs, as well as in many other respects, there is very little in a name. A number of years ago, while practicing in Missouri, I needed some gelsemium, and desired it very much. My vial of special preparation was exhausted, and the only recourse was to apply at the village drug store. Sure enough, the apothecary had "Tinct. Gelsemium," duly labeled, on his shelves, and an ounce was procured, and the remedy administered, but with no response. A targer dose was given, but still no effect was

manifest, and I found, upon actual trial, that a full teaspoonful failed to produce any of the influence of active tincture of gelsemium.

The tincture had been made, as I learned subsequently, of a dried root of which the druggist could afford no idea of the age. It had been in his own shop several years at least before the tincture was prepared. This is a single instance of a great number of unsatisfactory results which have followed the administration of drugs of questionable source within the past twenty years, and I am confident my experience has been but a parallel to that of the majority of physicians.

We become after a time, distrustful of a remedy unless we know the source is reliable. The assurance of the druggist as to the qualities of a drug, amounts to little, for he is usually unqualified, except to declare that the processes of manufacture have been legitimately carried out. No one not positively knowing the age of the crude material, is competent to say that a pharmaceutical preparation contains the active principles of the drug it represents, unless the material is of an imperishable character, and this cannot be said of crude organic products.

There is no wonder that the average "regular" has so little faith in indigenous remedies—that he confines himself to a very small group of agents, and these principally chemicals of the kind that cannot deteriorate with age. Who has not whiffed the musty odors of an old-fashioned blue-pill doctor-shop? The most unreliable place in the world to purchase a preparation of a vegetable remedy, is a drug store patronized exclusively by "regular" physicians. Go to such a place and order tincture of aconite or cimicifuga, or any other tincture of a perishable article, and you may get a good drug, and you may not; the chances are you will be disappointed.

The stuff may have the color, the odor, and, possibly,

the taste, but the probabilities are that your patient will fail to improve under its influence, as you have a right to expect. The material was old and musty, perhaps, before the tincture was made, and was as innocent of medicinal principle as the most inert substance in the world, or, possibly, the tincture may have been made of a poor fluid extract, by adding one part to fifteen of alcohol.

I may be late in the day in making these accusations. Old-school physicians near the centers of medical learning are waking up to the importance of reliable drugs, but the country cousin is still a hundred years behind the times in this respect.

The successful practitioner of medicine is on the alert to know what *quality* of remedy his patient is taking. He realizes the unreliability of the general drug market, in many respects, and demands that his prescriptions shall be filled with the preparations of some well-known, well-tried, and reliable firm. There are a number of these houses in the United States, and preparations bearing their labels, if genuine, may be depended upon.

Among these it affords us pleasure to mention Lloyd Brothers, of Cincinnati, Parke, Davis & Co., of Detroit, and Eli Lilly & Co., of Indianapolis. The Specific Medicines are always reliable and have contributed a large share toward the success achieved by our school in recent times. The Normal Liquids are also worthy of special mention.

Druggists are usually honest; however, sometimes we may reasonably suspect they have substituted their own or some other cheap article. When there is the least ground for suspicion that the best of drugs are not supplied, the physician will save credit to himself and confer a favor upon his patrons, by keeping his own medicines in stock and dispensing them when needed.

There is a class of supplies which are imperishable, as

the vegetable alkaloids, mineral salts, etc., but these, if expensive, may have been adulterated until a given quantity represents less than half the ordinary strength.

I have never found any of the vegetable remedies in a more reliable form than a tincture prepared from the fresh material in the proportion of a pound of the crude article to the pint of menstruum, bruised and covered with alcohol the same day it is gathered. This represents the most refined pharmacy, for it succeeds in preserving the property of the agent complete, without permitting the escape of any of the volatile principles something sure to occur if the agent be dried and stored for even a brief space of time. Some agents deteriorate materially, even during the short process of drying. In a country practice of fourteen years, where indigenous remedies were numerous and abundant, I prepared many of my medicines in this manner, and was never disappointed in the effects of a drug thus obtained.

In gathering plants for medicinal purposes, it should be borne in mind that the most vigorous, healthy ones should be selected from situations in which they tend to grow spontaneously. Wild plants are better than cultivated ones, for they select a spot best adapted to a full development of all their qualities. A plant which flourishes best in a bright, sunny place on dry ground, should not be employed if found in a damp, shady spot. Neither should they be gathered when wet with rain or dew, but under the sunshine, when rays of light are contributing to active changes in their tissues. During blossoming-time the plant contains the most active qualities. Flowers should be gathered as soon as they open; berries, fruits, and seeds, when fully ripe; bulbs, as soon as mature, and the leaves begin to decay; barks, late in the autumn; roots of perennial plants, in the autumn after the leaves have fallen, or in the spring before they start; those from

biennials, in the spring or fall of the second year; from annuals, just before the seeds ripen.

The great point to be impressed is the necessity of caution against the obtaining of a poor agent. When the medical profession becomes completely and fully awake on this subject—and it is no new one—there will be no demand for poor drugs, no opportunity for their substitution, and they will not be in the market. But as long as a certain class of practitioners administer huge doses of crude drugs to their patients, without stopping to inquire as to their quality, so long those who follow more of a system of refinement in therapeutics must be on their guard against unreliable preparations.

FORM FOR ADMINISTRATION.

This is an important consideration if we expect success to follow our efforts; for remedies should be taken promptly and regularly, in order to fulfill our expectations, when we prescribe them.

Some patients cannot take a pill or capsule, some can take a capsule but not a pill, and *vice versa*; others cannot take medicine in solid form at all, and demand that every medicine shall be fluid, while others prefer powders.

Then comes the question of pleasant medicines. The agent must be pleasing to the eye, unobjectionable to the taste, effective in quality, and somewhat concentrated as to quantity of dose.

Besides these considerations, the physician's convenience must sometimes be consulted. If he is doing an office practice in a city, where himself and patients are convenient to numerous pharmacies, he can prescribe or administer to suit, perhaps, the caprice of all concerned, but if his practice call him far from his office over such roads as demand equitation for ready travel, his medicines, in order that he may carry a variety, must be concentrated, and in such form as to avoid loss or injury to other contents of his case, if a vial should become uncorked or be broken by the jolting. In such an instance, solids will be the most desirable form.

Professor Scudder in his "Specific Medication" recommends the carrying of fluids (specific medicines), to be dispensed in water, a few drops of the appropriate remedy to be added to half a glass, or four ounces, of the vehicle, so that a teaspoonful shall be the regulation dose; and this is an admirable form, in acute practice, for a large number of remedies may thus be conveniently carried,—sufficient for an extensive practice, without need of frequent refilling.

But in chronic practice, this method has its objections. In a warm atmosphere, an organic medicine soon undergoes fermentive change when so highly diluted, and in order to keep the remedy constantly up to the standard, it should be prepared each day. This involves much trouble and expense, and soon puts the practitioner to his wits to devise a means by which his patient can be supplied with remedies which will remain in perfect state until the entire prescription has been taken.

Water will still constitute the bulk of the vehicle, if the medicine is to be in fluid form, but after the active agent or agents, something unobjectionable must be added as a preservative. This may be a small quantity of alcohol (1-16), in some cases; in others, glycerine in small quantity (1-4 or 8); and sometimes simple syrup.

I formerly recommended glycerine as the only proper preservative, but I have found so many persons with whom this agent did not agree that I have concluded it better to discriminate as regards the vehicle, and adapt it to the condition of the patient. This is not always possible without some trial, but as glycerine often causes burning in the epigastric region, it should not be prescribed the second time when this is complained of. Different prepa-

rations of glycerine vary in this property, and if a good article be used this difficulty may be avoided.

The following will illustrate, though the quantity of glycerine would be excessive in many cases :---

R Phytolacca (s. m.), f<sub>3</sub>ss.
Glycerine, f<sub>3</sub>i.
Water, add to f<sub>3</sub>iv.

In the sea coast atmosphere of California this formula will remain unchanged for a week, though if the temperature be considerably higher in other parts than here during the summer, the amount of glycerine may be lessened and a small quantity of alcohol added.

Inorganic substances administered in solution, if not combined with organic principles will not ferment, and need only the solvent; and if this be simple water, it is sufficient.

Another elegant form for the administration of medicines is one which commends itself for the reason that children, and some adults whose palates are easily offended by remedies in other forms, receive them kindly, while they may, at the same time, represent all the medicinal principles requisite, in a small quantity. I refer to

# TRITURATIONS.

Thorough subdivision of the particles of any agent without doubt promotes its ready absorption, and the full display of its properties. If it be an agent of powerful nature, its thorough incorporation with some bland vehicle is an excellent manner of putting it in shape for convenience and safe dosage, rendering accidental poisoning from the pocket-case out of the question. Triturations, moreover, are elegant preparations. They may be carried without danger of soiling the pocket-case or pocket. They are clean, attractive, and pleasant to the taste, and in this day, when offense to the palate must be avoided

as well as disease removed, this is no small matter. Triturations are convenient for office dispensing, also, and at the same time they save much trouble in keeping on hand a stock of vials, to say nothing of the expense.

I do not believe that trituration adds anything to the drug in the way of dynamization, except the advantage of divisibility. The old homeopathists believed that every turn of the pestle imparted a new property to the agent, and that it acquired new potency as it was carried higher in the scale. But this doctrine has fallen through; is scouted by the most earnest and sensible men in the homeopathic school. Hahnemann doubtless contained in his composition more or less of a tendency to superstitious credulity—nothing to be wondered at considering his time.

Schuessler in his work on the "Biochemic Treatment of Disease," suggests that tissue remedies may be so finely sublivided by trituration, as to be taken up by the nerve-sheaths of the sympathetic, which ramify through the mucous membrane of the mouth and upper part of the throat, and, proceeding to the nearest ganglia, distributed to the diseased tissues through radiating branches, without entering the general circulation, at least a certain portion, more rapidly and directly than would be the case if first taken into the blood.

Rejecting all theories as regards any additional property to be derived from the process, except that of convenience, we may consider this sufficient to warrant the use of triturations in a large number of cases, and believe those of our readers who are not informed as to the manner of preparing them should know something about it; for while it may be more satisfactory to purchase them from a pharmacist, this is not always convenient, and it saves considerable expense to prepare the trituration needed, from the potency next below in the scale. Rural practitioners, especially, will find it convenient to be fitted to prepare their own triturations, for valuable time is sometimes consumed while waiting for the shipment of a package from the city, and this class of agents cannot be found in many places outside the commercial centers.

I do not believe that mathematical precision is essential to the successful use of a trituration. No doubt the one-ninety-ninth of a grain of a drug would produce very nearly or quite the same effect as the one-hundredth of a grain of the same agent; or perhaps the nine hundred and ninety-ninth nearly or quite the same effect as the one-thousandth. Perhaps too much stress has been laid upon these matters, and that this tends to bring ridicule upon the whole process. The object being to render the dose sufficiently minute to produce the desired effect, without disturbing the economy or part unpleasantly, we might employ some other scale of division besides the centesimal or decimal, but these are convenient, and not objectionable to any genuine Eclectic because they have been employed by the homeopathists.

Hahnneman's method of triturating remedies consists, in his own words, as follows :---

"Of the pulverized substance you take one grain; mercury may be used in the liquid state; of petroleum you take one drop, instead of one grain put this grain; into an unglazed porcelain mortar; then you take thirty-three grains of sugar of milk and mix them with the drug by triturating the mass with some force for about six minutes by means of a porcelain pestle. Before you triturate stir the mass for a little while with a spatula. Having triturated the mass, you stir it again for about four minutes, scraping up that part which covers the bottom of the porcelain mortar, and also that which adheres to the pestle; then you triturate again with greater force for

six minutes, without, however, adding anything new. This mass you scrape up again for four minutes, add another thirty-three grains of sugar of milk, stir the new compound for a while with the spatula, then triturate it for six minutes; scrape it up for four minutes; triturate it again with great force for six minutes; scrape the mass up again for four minutes; then add the last thirty-three grains of sugar of milk, and with this last added portion proceed as with the two former. This powder you inclose in a well-corked glass, and mark it with the name of the substance and the figure 100, to show that this is the one-hundredth potency of the drug."

Some of the directions here seem needless, technical, and even whimsical, and without doubt are unnecessary for the preparing of a good trituration. The founder of homeopathy wished, probably, to guard against careless and slovenly manipulation, and the consequent presence of particles of the crude material in the preparation, but this can be effected without devoting exactly four minutes to stirring and scraping and six minutes to trituration for two consecutive periods, after the addition of each third of the bulk of sugar of milk. Still, thirty-six minutes is not too much time to devote to the preparation of a trituration. Less would not insure thorough subdivision and incorporation. Where time is plenty an hour might well be occupied with each one.

The decimal scale is the one commonly employed at the present day in preparing triturations. One part by weight of the crude drug to nine of sugar of milk thoroughly triturated, constitutes the first decimal; marked thus: 1x; one part of the first to nine of sugar of milk, the second decimal, marked thus: 2x; one part of the second to nine of sugar of milk, the third decimal, marked thus: 3x; and so on as high as it is desired to go.

If the quantity to be triturated were large, it would be

well to add a third of the sugar of milk at a time, triturating after each addition for ten or fifteen minutes, according to the motion of the manipulator. Some persons will accomplish more in six minutes than others in fifteen, depending upon the amount of energy or the tension of the nervous system of the triturator.

After the first trituration, it is not necessary to weigh the ingredients for the higher preparations. These may be measured in a small graduated medicine tumbler or in a teaspoon near enough for all practical purposes. As we have already stated, mathematical precision is not important, so that there be something of a uniformity in the size of the dose, and it be minute enough to disturb molecular action in the diseased organism kindly.

I would take, then, say a teaspoonful of the trituration to be carried up a step in the scale, put it in a clean mortar and add nine teaspoonfuls of the sugar of milk or other vehicle and triturate for thirty or forty minutes, scraping the sides of the mortar and the pestle frequently during the time; or, to insure more complete divisibility and incorporation, we may add three teaspoonfuls of the vehicle to the first spoonful and triturate for a few minutes—ten or fifteen—then again add three teaspoonfuls of the vehicle, again triturate, and thus continue until the nine have been added. At the end of this time the question will arise, Which insures the best trituration? Solve it if you can and take your choice.

Sugar of milk is the vehicle usually employed for carrying drugs up through these processes. It possesses enough of the cohesive property to render it convenient for dispensing, is inert except as regards its nutritive properties, which are not objectionable, and pleasant to the taste. But sometimes it is not convenient for rural practitioners to obtain this article, and some more common vehicle must be employed. Cane-sugar would answer this purpose were it not that it absorbs a modicum of moisture from the atmosphere, and when the physician needs his trituration for use, it may be found adhered into a firm mass. This objection may be easily remedied, however, by the addition of half as much powdered starch by bulk or weight. Powdered saccharum album and culinary or laundry starch are combined in these proportions and thoroughly incorporated. To accomplish thorough mixing, the articles may be put into the mortar and triturated—thereafter to be placed in a jar for future use as a vehicle.

I would not advise the reader to begin with the crude drug and carry it up if he can obtain a lower trituration of the desired agent with little trouble. These preparations are expensive when purchased at a pharmacy, but the accumulation of packages of the different attenuations, to say nothing of the labor, would be enormous if many were used and each one were brought up through a number of steps. The preferable plan is the purchase of an ounce of the trituration next lower than that usually employed, and when the supply jar becomes exhausted, it can be replenished by carrying a teaspoonful of the lower attenuation up one step.

There is no call for straining a point by devoting a mortar and pestle to each drug. Pharmacists would fain have us believe that the preparation of these articles calls for an expensive paraphernalia. Water, if properly and rationally applied, and a clean drying cloth be used, will cleanse the single mortar effectively after the preparation of each trituration. The mortar and pestle should be proportionate in size, the mortar being large enough to contain the mixture safe from spilling when the pestle is vigorously manipulated.

Fluid medicines may be triturated by adding a fluiddrachm of the liquid to nine of sugar of milk for the first 1

and proceeding with the result, as in other instances. The first trituration may be pasty at first, but it will soon become dry and pulverized, after it has been scraped down a few times. Fluid medicines, however, are usually attenuated by dilution more satisfactorily than by trituration.

Dilutions are the same class of preparations as triturations (attenuations), only they consist of the reduction of the active principle in fluid form, alcohol usually constituting the vehicle,—the first decimal dilution consisting of one part of the remedy to nine parts of alcohol, mixed and well shaken; the second of one part of the first to nine of alcohol, well shaken, etc.

I find some of the specific medicines too concentrated to be satisfactorily dispensed to children in the full strength, even when largely diluted with water. I have known several cases of poisoning in infants with aconite administered in this form. Five drops of the specific medicine in four ounces of water are amply sufficient for an adult if a teaspoonful be given every hour, and if one is preparing the mixture for an infant, one drop is fully enough; if by accident several drops go over the lip of the vial instead, there is danger in the dose. For infants, then, and even for general prescribing, the first dilution of Lloyd's aconite is preferable to the original form, for the same manner of use. The toxic effects of belladonna are also often developed from the specific medicine. This may be said to its credit, for it demonstrates the sterling quality of the drug; but a much more satisfactory action (dynamical), may be obtained from the third dilution. Colocynth exhibits all its admirable qualities as a reliever of abdominal neurosis, when half a teaspoonful, or less, of the third dilution is added to half a glass of water (four ounces), and teaspoonful doses are administered; and the bitter taste is gone. These, with tincture of phosphorus, nitro-glycerine, tincture of copper, and a few others, about comprise the list of specific medicines which require dilution, before dispensing after Professor Scudder's plan.

Crude drugs to be administered in solid form may now, thanks to one of the triumphs of modern pharmacy, be concealed in capsules, so that the most nauseous agent may be taken without discomfort, if the patient is able to swallow a bolus. Alstonia, quinia, sulphite of sodium, solid extracts, etc., may be introduced into capsules, of which a number of sizes are manufactured, and thus dispensed without fear of rejection by the patient, because of objectionable taste. These articles are cheap, and should be part of the dispensing stock of every physician. THE OUESTION OF DOSE.

This subject has been a much discussed topic during many of the past years of medical history. Since the advent of Hahnemann, with his attenuations, the medical world has been largely divided into two factions, representing respectively the large, and the small dose.

Dynamical therapeutics have little room for the large dose. If we desire to antidote a poison, expel a parasite, or relieve an excessively painful sensation, we may employ medicine in such quantities as to arrest or disturb function, for a time, with beneficial effect; but we cannot expect natural processes to be subserved while the agent is passing through its active influence in the system. Instead, there is likely to follow more or less debility of certain parts principally affected, even though the desired result be attained.

The nature of a drug must determine, to a certain extent, its dynamical dose. Some drugs are so powerfully toxic in material doses, that therapeutic effect can only be expected when minute quantities are administered. Aconite, bromine, bichromate of potassium, and iodine, may be named as examples. Others seem to act equally well in attenuations or in crude doses, as, for instance, calcium sulphide.

There is a certain range within which it might be a question as to what constituted the proper quantity, and we find here the individuality of the physician asserting itself. Possibly one physician affords his female patient as much benefit in a case of pelvic weight and discomfort with the 3x of sepia, as his neighbor does with the 10x, and, probably, has no better success. In either case there is not enough of the agent exhibited to prove an unpleasant disturber, when its specific affinities are manifested, and in both cases dynamical therapeutic results follow.

Though the question of minute dose continually grows more acceptable to a larger number of physicians, there is always so much difficulty in accepting the proposition of attenuation,—except in the case of born and bred homeopaths—that a few illustrations may profitably be offered as to the materialism of highly attenuated medicines. The microscope under a power of three hundred diameters has detected particles of medicine in the 10x and 11x in triturations, and the spectroscope has done as much in case of dilutions

But let the sceptical one take crude sepia (India ink), and carry it up through the ascending grade, and he needs no optical apparatus to convince him of the presence of the active agent, after a number of steps have been taken. The first trituration representing nine parts of a perfectly white substance (sugar of milk), to one of the active agent is almost black, the second is brown, and the third still affords an unmistakable evidence of the presence of coloring material, and, by comparing the fourth with pure sugar of milk it needs no logic to convince one that a slightly darker tint exists in the trituration, of which one ten-thousandth portion only, is represented by the crude drug.

But the human organism is delicately sensitive to the action of minute quantities of drugs; this seems the most difficult of comprehension. A minute dose produces no change with the healthy person, for the impression made is so slight as to be incapable of causing deviations in normal processes; however, in disease, the debilitated or disordered functions are nevertheless prompted by such quantity, and restoration follows.

Clinical experience, then, is of more value in the determination of dose than all the theory or scientific investigation that can be made.

Some persons are extremely susceptible to the action of a medicine that can be tolerated by others in much larger doses. Many Eclectics use the one-per-cent solution of nitro-glycerine habitually, and it does very well as a rule, but I have produced severe aggravation of a throbbing headache with the 3x, which would represent the one tenth per cent; this patient complained of severe cerebral throbbing when a teaspoonful of the 5x was added to a wineglassful of water, and a teaspoonful given every two hours.

I believe that the majority of fluids requiring attenuation act as well in the third decimal dilution as higher, and I prefer the majority of our indigenous remedies in the form of specific medicines, simply diluted in water. But certain mineral agents, as arsenic, antimony, mercury, etc., should not be administered in lower attenuations than the 2x or 3x, and some animal substances, as oyster-shell, act well in high, as well as low, attenuations. Lachesis should be well attenuated.

Unfortunately, the tendency has been to assume exclusive positions upon this subject instead of taking the middle ground and recognizing the benefit of both the large

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and the small dose, as demanded by the appropriate occasion.

THE SINGLE REMEDY VERSUS COMBINATIONS.

The practice of administering but one remedy at a time possesses its advantages in certain respects, while that of combinations may also put in claims for recognition. The worst that may be said of either practice, is, that it has been abused. No one but the strictest Hahnnemanian adheres to the single remedy usage; many avowed homeopathists not only alternate single remedies but combine them in the same dose as well.

The use of single drugs does more to develop their clinical properties than combinations, for when benefit follows promptly upon the administration of the single remedy there can be no question as to what has done the work; there is no disputing the fact, that we can thank homeopathy for much valuable therapeutic knowledge thus obtained. But two drugs may be needed at the same time, and may operate in distinctly separate fields, each one accomplishing its special mission, and each one being urgently required by the exigencies of the case.

To illustrate this, let us take a case of acute pharyngitis: We have here a local inflammatory condition, marked by general, as well as local disturbance. The general disturbance consists of an acceleration of the general blood stream, with increased rate of pulse, arrested secretion, headache, nervous irritability, muscular pain, etc., calling for a remedy which will specifically influence the vaso-motor centers controlling the general circulation. Sedation of this general vascular disturbance is an important indication to fulfill, and one of the special sedatives (usually aconite), the appropriate remedy. But there is a localized area concerned in this case which, though influenced along with the general circulation by the sedatives, is more specifically controlled by
a remedy (phytolacca), which does not exert any influence over the general circulation.

In order to derive all the benefit possible from a prescription, in such a case, then, the two agents must either be administered in alternation or combined in the one mixture; and as clinical experience has proven that they act as well in combination, it is convenient in many ways to unite them. The following combination proves more satisfactory than any single agent in such a case:—

> Aconite (s. m.), gtt. v. Phytolacca (s. m.), f3ss. Water, add to f3iv.

Suppose we take a case of acute mucoenteritis as another example: Here we have again the general vascular disturbance to be met by the appropriate sedative, and the local vascular area, amenable to the influence of the more specific agent (ipecac), but the element, pain, may be so prominent a feature in this case that even a third remedy more adapted to the neurotic phase may be added with advantage, and colocynth can become a helpful agent in the combination. Thus:—

> Aconite (s. m.) gtt. v. Ipecac (s. m.), gtt. xv. Colocynth (s. m.), gtt. iii. Water, add to f5iv.

The only objection that can be urged against combinations, unless they are carried into the extreme of empirical shot-gun prescribing, is that of incompatibility. Of such errors there is little danger, with the small dose and specific adaptation of dynamical therapeutics. However, a brief notice of this subject is worthy our attention.

Incompatibility of drugs may be considered under three separate heads: (1) Chemical, (2) therapeutical, and (3) pharmaceutical.

Chemical incompatibility may result unfavorably when

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the combined agents react upon each other to form new compounds, which may render the active principles either insoluble or of such form as to divert the combination from its objective point as a therapeutic agent. Phosphoric acid and quinine united in a vehicle form phosphate of quinia, an insoluble compound which becoming precipitated, forms an unsightly mixture, and unless the vial be well shaken at each time of taking, the therapeutic properties are left behind until the contents are nearly exhausted, to then appear in exorbitant doses. The combination of two salts may result in exchange of their radicals and the formation of new salts, when combined in a solution; such agents, if more than one be administered at a time, should be given in alternation. Acids and chemical bases when united result in the formation of salts, and should not be joined in a prescription unless the preparation of a salt is intended. Borates. carbonates, hydrates, phosphates, and tannates of alkaloids and minerals, are liable to result if caution and discrimination be not exercised in the combining of them. Lime unites readily with the atoms of carbonic acid of many carbonates to form an insoluble precipitate. Other examples might be offered but are hardly necessary in a work of this character.

Therapeutic incompatibility implies antagonistic action on the part of two agents in the system when administered at the same time, though there may be no chemical incompatibility prior to administration. Certain drugs interfere with the action of certain others without doubt. Atropia and sulphate of morphia are antagonistic, the one antidoting the action of the other, a fact worthy of recognition in case of poisoning by either agent. Calabar bean and belladonna, and jaborandi and belladonna are other instances. It has been asserted by some that the prescribing of belladonna and gelsemium at the same time is unscientific, for the reason that they are indicated in opposite states of circulatory disturbance. But while there are few cases where both remedies would be indicated at the same time, the fact that each remedy, so far as the circulation is concerned, spends its therapeutic force upon a different part—each acting in a different line, the one upon the heart and arteries, the other upon the capillaries, would go to gainsay such a proposition. Gelsemium is usually indicated in sthenia, with full, bounding pulse; belladonna in asthenia, with feeble, compressible pulse; but this need not indicate that the one would antidote the influence of the other if both were administered at once.

A general knowledge of the physiological action of drugs—an important need in the education of every therapeutist, will usually enable the practitioner to avoid therapeutic incompatibles.

Pharmaceutical incompatibility will not trouble us much, as we do not propose to deal largely with polypharmacy. Mixtures of iron and vegetable extracts result in inky compounds, formed by the precipitation of tannates. Iodide of potassium decomposes many-in fact nearly all metallic salts,-and corrosive sublimate is decomposed by association with almost any other agent (a fact not highly important here, but mentioned incidentally). Certain agents are powerful oxidizers, as chlorate of potassium, nitric, and nitro-hydrochloric acids. Sugar, the oils, ethers, phosphorus, and glycerine, being readily oxidizable, should not be indiscriminately mixed with such substances for fear of an explosion, to say the least. Almost every physician's visiting list contains a catalogue of incompatibles, which will be found valuable for study during spare moments, if his predilections are in the direction of indiscriminate mixing.

There are often instances where the single agent acts

with more positiveness than if combined with another. Given, a case of laryngeal irritation with *hoarseness* as a leading characteristic, and potassium bichromate 2x or 3x, acts more promptly than any combination can, in effecting a cure. Given, a case of spasmodic cough, especially pertussis, and drosera excels the most approved combination. Given, a case of capillary bronchitis, with subcrepitant ronchi, and suffocative cough, with evident oppression of the respiratory center, and tartar emetic 2x will produce more prompt and pleasing effect than all combinations ever tried.

In conclusion, then, it may be written, that two or three remedies may be advantageously combined when there is offered for each, in a given case, a separate field for action. When such fields are not offered, the single remedy will be more scientific and more satisfactory.

It may be added, that, as a general rule, no combination should contain more than one mineral agent, if intended for internal administration. It would be better to make it a rule to always administer mineral agents singly, and in alternation with other remedies, if the case calls for any further medication.

## TIME OF ADMINISTRATION,

The time of administering medicines is worthy a few moments' thought, for in some cases it is of considerable importance. For instance: Vermifuge agents may entirely fail of the desired effect if taken while the stomach contains food, or immediately before eating; an antiperiodic administered so that its effect has passed off before the time of exacerbation affords unsatisfactory results, failing, usually, to interrupt the periodicity. Some remedies prove irritating to the stomach when taken before meals or when the organ is empty, and require to be taken after meals; such is the case with cod-liver oil, alstonia, and some other remedies.

The administration of minute doses of medicine, in acute disease (and this is usually the preferable plan), comprehends a frequent repetition of the dose. The sedative mixtures of aconite, gelsemium, veratrum, jaborandi, etc., (a few drops of the remedy in four fluid-ounces of water, the dose being a teaspoonful), should be administered every hour to maintain a constant influence over the circulation and eventually bring it under control. Minute doses of ipecac, lobelia, nitrate of sanguinarina, tartar emetic, etc., administered to control pulmonary irritation giving rise to cough, should be taken every two hours, at the most, for the philosophy of the small dose is its direct action continually impressed, against that of the large dose, spasmodically disturbing a part in an unpleasant manner.

In chronic disease, even when we rely upon the minute dose, frequency of repetition is not so important; interstitial changes do not require such frequent prompting as circulatory changes, or, perhaps, it might be better stated that drugs which specifically impress interstitial or cellular changes are not so speedy in action nor so evanescent in their influence, as those which are adapted to disturbances of the circulatory system.

In chronic disease, then, three or four doses in twentyfour hours answer as good, if not a better purpose, than more frequent repetition. The therapeutic effect in chronic disease must be the gently persuasive, not the radically coerceive one.

## PRESCRIPTION WRITING.

The wise physician will dispense his own medicines, as a general rule. However, there will occur numerous instances in which it will be more convenient to send the patient to the druggist, and the observance of a certain decency in the matter of inditing the billet which calls for the remedy or formula required, is commendable.

There are numerous reasons why a prescription should be unintelligible to certain patients. Could we always deal with educated and intelligent persons, it might be different, but with many, a common remedy called for by its common name would not be considered worth the taking, or a remedy which is poisonous in large doses, if prescribed even in highly attenuated ones, would be sufficient to frighten some into discarding their physician for prescribing such an agent; therefore it would be better to disguise a knowledge of the character of such medicine from the patient.

A few physicians pride themselves upon their dog-Latin—for few employ anything better than a mere smattering of knowledge of the Latin language,—and make it a point to criticize and ridicule the prescriptions of less pretentious competitors, who perhaps may excel them in the real science of therapeutics. This is an additional reason why prescription writing should receive some attention from every practitioner, even though he may not practice polypharmacy, or follow the habit of sending every patient to the druggist for a bottle of nauseous compound.

Physicians who write faultlessly correct Latin prescriptions are few, and far between. Latin is a study demanding a great deal of close application for its complete mastery. Its numerous complicated declensions and conjugations, with their rules and exceptions, are calculated to muddle the brains of those who do not devote much labor to them. The majority of pretended Latin prescribers might find it difficult to write even a correct English prescription, and if they possess a little knowledge of some of the rudiments of Latin they are among the favored few; but the majority are liable to many stumbles and blunders which, if their work were criticised by competent judges, would readily appear.

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Modern prescription writing has established the custom of semi-Anglicising and abbreviating, so that many tough problems are slidden over with a tolerable show of scholarly skill; and this is all very well, for why should a dead language be prepetuated at needless expenditure of labor, when medicine presents so many more-important subjects, to demand unceasing application for their successful study?

Every prescription may be divided into four parts: (1) The superscription; (2), the inscription; (3) the subscription; and (4) the signature. In some cases the subscription is joined to the inscription so that these parts are not distinctly set forth. An illustration of this deviation will be given shortly.

The superscription universally employed is the symbol  $\mathbb{R}$ (which is not an abbreviation and requires no period). It is formed from the union of the first letter of the Latin verb *Recipio* and the sign  $\mathcal{L}$  (used as an invocation to a supernatural power by the ancients). This occupies the left hand corner of the prescription and literally signifies Recipe, the imperative mood, second person, singular number, of *Recipio* (I take), and literally signifies, "Do thou take." It is directed to the one who compounds the mixture.

The *inscription* consists of the body of the prescription, containing the names of the ingredients, and the amount to be employed of each, in drops or grains, drachms, etc.

The subscription indicates the form the mixture is to assume; as, if the ingredients are fluid, the abbreviation, M. If the ingredients are solid and in the form of powder, the abbreviations M., ft., chart., no., etc., indicating the number of powders or papers the mixture is divided into, are employed.

The *signature* contains the directions with regard to the administration of the medicine, and the prescriber's name.

It is preceded by the abbreviation S. or Sig., which signifies literally, "Write thou."—the writing to be done upon the label of the vial or wrapper containing the medicine after it has been compounded.

For example:-

Superscription. L	
Inscription.	) Quiniæ sulph., gr. xv. ) Glycyrrhizæ pulv., gr. xxx.
Subscription.	M. (or Misce, Mix), et ft. (or fiat), pulveres numero xv (and make fif- teen powders).
Signature.	S. (Sig., or Signa).—Take a pow- der before each meal. John Doe, M. D.

The combination of the inscription and subscription may be illustrated as follows:---

Superscription.	Ŗ
Inscription and	Piscidiæ erythrinæ (s. m.), fʒi.
subscription.	] Glycerini, q. s. ad fžii.
Signature.	S.—Take a teaspoonful every two hours until sleep follows.
	A. Watson, M. D.

The abbreviation, M., is not needed here, for the reason that q. s. ad signifies that the last ingredient, glycerine, is to be added to what has already been prepared, in sufficient quantity to increase the bulk of the mixture to the amount required; and will constitute the order to mix, without further directions.

A little knowledge of the relationship between the nominative and genitive cases, through the various declensions, will enable one to do tolerably correct work in Latinizing his prescriptions, if it be remembered that R is the sign of a transitive verb, and that the amounts of ingredients are its objects; as, *Take* of sulphate of quinia, fifteen grains; and that the name of the ingredient is in the genitive (of sulphate of quinia).

The genitive case, then, is the only point in which a knowledge of Latin is really essential, in order that the writer may pass muster as a skillful prescription writer, and the five different declensions should be studied for a knowledge of the proper use of this case, which is indicated by the letters in the termination of the name in question.

For example: In the first declension the nominative singular ends in a, and the genitive is formed by supplanting the final letter with æ; as, nominative cimcifuga, genitive cimcifugæ. The word cimcifuga, then, mentioned in a prescription after the sign R, should be so written. Quinia should be written quiniæ, morphia, morphiæ, etc.

But when we apply this case ending to the large number of agents in the materia medica through the five declensions with their different classes, it becomes a subject of no little magnitude, and evident that it must be made a technical matter; i, e, each agent liable to be included in a prescription must be studied with reference to its ending in the genitive singular, and memorized. This can soon be accomplished by one who desires to appear classical; and, as there is no call for a Latin signature, when this is attained the physician is pretty well equipped to write Latin prescriptions.

To this however should be added a familiarity with the abbreviations commonly in use, a list of which can be found in every medical dictionary.

A clever maneuver adopted by many prescribers, who are not certain as to terminations, is that of abbreviating in such a way that there need be no mistaking the agents referred to by the writer, and yet so that no case endings appear—the final syllable, or perhaps more of the word, being supplied by a period.

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Such a prescription as the following one would pass as a fair production, and the writer would not commit himself upon doubtful points, if he were not a Latin scholar:—

> B Cimicif. rac. (s. m.) fzi. Pulsatil. (s. m.) fzss. Aq. q. s. ad fziv.

But the abbreviating of medical terms requires some care, in order that non-professional persons may not ridiculously and disastrously mistake the meaning. The account of the physician who was summarily dismissed for prescribing "Fl. ex. rham. cat." (cascara) for a susceptible lady is probably fanciful, but it serves to illustrate the danger of recklessness in this particular—for the physician's prescriptions are often scanned by curious patients.

After all, it is as well to adopt the plan of writing the names of the ingredients in plain English, after the regular superscription, entirely foregoing the effort to Latinize; at least this might avert many embarrassing situations. For example:—

& Sulphate of quinia, gr. 15.

Powd. Glycyrrhiza, gr. 30. M., etc.

With many, the use of Arabic numerals has succeeded the more common custom of employing Roman characters to designate amounts of ingredients to be employed, and the numbers are not so apt to be mistaken when not plainly written.

The metric system of designating amounts of ingredients in prescriptions is worthy of passing notice as a novelty, only. Could any good result from this attempted innovation there might be some excuse for the proposed departure. Even were this considerable, it could hardly compensate for the confusion and accident, liable to at-

tend the transition. The popular and generally employed system serves every purpose, and will probably remain in use.

Plainness of execution is an important element of good prescription writing. The efficacy of the remedy or combination will depend upon the proper or relative amounts of ingredients employed; the safety of the patient demands that great care shall be exercised when material doses of aconite, arsenic, belladonna, colocynth, digitalis, phosphorus, strychnia, and other powerful drugs are prescribed.

### INFUSIONS AND DECOCTIONS.

This subject should have been included under "Forms for Administration," but was overlooked.

Water extracts the virtues of some organic remedies better than any other menstruum, and when this is the case, preference should be given, either to an infusion or decoction, even though the form may not be quite so elegant as some others.

Infusions are made by immersing the crude product in hot or cold water, for a time; decoctions, by allowing the water to boil. In some cases the process of boiling injures the medicinal principles, while in others it is essential, to extract the virtue required.

Some of our indigenous remedies are nearly worthless for certain purposes, except when water is used to extract their virtues, though when such plan is resorted to they may occupy the highest place as restoratives. The phenomenal success achieved by the early Botanics was due, largely, to the fact that their remedies were administered in the form of "teas" prepared from recent indigenous plants.

Erigeron canadensis is an exceptionally valuable remedy for arresting the alarmingly exhaustive watery evacuations peculiar to some of the active stages of cholera

infantum, if a decoction of the fresh plant be drank freely, but is comparatively worthless in any other form, for this purpose. Professor Howe's prescription of logwood for diarrhea stipulates that an infusion of the aqueous extract must be employed. A decoction of recent root of cimicifuga excels all other forms of this agent in muscular rheumatism. I often turn from more elegant forms, back to this primitive one, resorted to for convenience and economy during an early country practice, to find a waning faith in an old-time remedy renewed. And so with a number of other common indigenous remedies.

Professor J. U. Lloyd, senior member of the firm supplying "specific medicines," entertains views very similar to these, and views which entitle him to the highest respect for his unselfish candor, when his own interests would be better served by indorsing, unreservedly, the products of the laboratory.

But valuable as these forms are, they should only be resorted to upon exceptional occasions (when more elegant forms will not suffice), as the dose must be bulky and often nauseating, while the practice (unless the manner of preparation be kept from the patient) is liable to inspire a lack of confidence on account of its apparent crudity.

# THE MEDICINE CASE.

The arrangement of a medicine case adapted to emergencies and every-day needs, is a subject of grave importance to the recent graduate. What shall he carry with him in order to be prepared to minister to the wants of a variety of cases liable to be met with during his daily rounds?

This is a question not to be dealt with lightly. It would be an easy matter to provide pretty well for every case likely to be encountered in a large practice in both acute and chronic cases, were there no inconveniences to be avoided in the way of bulky, heavy medicine chest, filled with a large assortment of vials and packages, many of them seldom used, liable to be broken, and subject to more or less leakage to result in gummy coatings for the adhesion of powders, dust and other accumulations, to say nothing of the odors emanating to render the whole outfit a nuisance. It is one thing to be provided with necessary drugs, and another to have them so disposed as to present an agreeable and inviting appearance to the patient, and not be a cause of offense to the practitioner himself. The filling of a medicine case in the start is a small part of the affair. The outfit must be overhauled, cleaned, the vials refilled, wiped, newly corked, and re-labeled every few days, if complete justice is done the subject. Really the medicine case in some respects is a great nuisance, and it is no wonder that many city physicians are so ready to relegate the entire management of the drug question to the druggist, and content themselves with prescription pads and pencils.

But the rural practitioner must carry his own medicines; drug stores are not always at convenient hand in thinly populated districts, and provision must be made for his urgent demands. It is advantageous in many respects for the city physician to have with him a few of the essential remedies while on his daily rounds; let him, however, dispense with those likely to be needed but seldom, as he can usually provide himself with these at leisure, or in advance, as when forewarned by the presence in his neighborhood of an epidemic or endemic outbreak calling for some special agent. The fewer the remedies that can be selected for daily transportation and the combination prove efficacious, the better.

It may be safely asserted that there is no call for the carrying, habitually, of remedies for the treatment of chronic cases; these can be supplied to order and thus lessen the bulk and aviordupois of the every-day outfit. In acute diseases the remedies in the case can be varied to suit the season of the year, or any particular epidemic which may prevail. And now let us see what shall be supplied in the beginning.

Febrile and inflammatory conditions are so common in acute diseases that the list of sedatives is suggested in the start—remedies influencing the circulatory system. These are Aconite, Belladonna, Gelsemium, Jaborandi, Rhus Tox., and Veratrum. But here are six remedies a sufficient number of the first class considered to go quite a long way toward filling a respectable medicine case, and we must try to drop some of them—at least leave them on the shelves for occasional resort when absolutely indispensable or preferable to the more commonly useful ones; let us consider them in detail:—

Aconite.—Aconite is first on the list and a remedy applicable to a wide range of cases. It is a sedative in fever and inflammation, a calmative in restlessness, a pain reliever in rheumatic and neuralgic complaints, and it specifically influences irritation of the larynx, pharynx, and intestinal tract, if the vascular areas concerned are acutely disturbed. It is what the homeopathists would term, "a polychrest." It is an indispensable agent, especially valuable as the children's remedy, while it could hardly be spared in the adult class, and it is a remedy to be employed in all seasons and in almost all acute affections. We will fill the first vial then with aconite, the first decimal dilution of the specific medicine being preferable to the full strength, as in dispensing it to very small children one drop too many of the stronger preparation in a glass of water might prove a grave mistake.

Belladonna.—Belladonna is the next remedy on the list, and one fulfilling important purposes when indicated, but one, after all, only needed in isolated cases, and at long intervals. In a large practice not more than one or two cases requiring belladonna are liable to be encountered in a year, and that amount of use hardly warrants the constant lugging of the remedy, especially as the cases are not those demanding great haste as to its administration. Belladonna cases border on the line of chronicity.

Gelsemium.—The next remedy to be considered possesses more claims to a place in the medicine case than the one just mentioned. Though not indispensable as a sedative, its action in determination of blood is very acceptable in many cases; yet this action is probably as well represented by jaborandi. Still gelsemium possesses some antimalarial properties and abets the action of quinia in many cases, and is probably as positive an agent as any we have to assist the relaxation of a rigid os uteri. After all has been said however gelsemium hardly offers any advantage in any respect over jaborandi, and we may leave it out feeling that its place will be well supplied by agents more important in other directions.

Jaborandi.-We next come to consider jaborandi, as important a remedy as aconite, and as indispensable to a

satisfactory practice. It is a more positive sedative than gelsemium or veratrum, and as sure an antispasmodic as gelsemium or lobelia. It is applicable in appropriate doses to almost any febrile or inflammatory condition, and full doses will relieve the agonizing pain of angina pectoris, inflammatory rheumatism, or muscular spasm, more promptly, effectively and safely, than any other remedy. It enjoys the reputation in old-school quarters of being a specific in erysipelas, one doubtfully earned as yet, perhaps, but one worthy of remembrance for future trial, while in that dire disease known as cerebro-spinal meningitis it is often useful. In any febrile or painful condition where a dry skin is persistently present we need this remedy especially, but it is not contra-indicated if this symptom be not prominent. The only preparation of this drug that I can recommend from personal knowledge is the specific medicine. Twenty or thirty drops of this constitute a full dose, and two full doses within half an hour should be the limit of full doses, where there is severe pain. A drachm to four ounces of water will constitute a fair sedative mixture for ordinary cases in teaspoonful doses. This may follow the administration of full doses for the relief of pain of inflammatory nature, or may be used for the ordinary purposes of a sedative. We will fill the second vial with specific medicine of jaborandi, feeling that with it and aconite we are pretty well equipped with sedatives, while we have a brace of remedies of quite a wide range of use outside the strict limits of vascular therapeutics.

Rhus Tox.—Does this agent fulfill any indications not covered in common by other members of the group? I think it does. Many febrile states are attended by persistent gastric irritability, which interferes with the action of other sedatives. Here the tongue is pointed with papillæ elevated, reddened at the tip, and tremulous on protrusion, while there is an unpleasant nauseapresent. These cases usually offer the characteristic Whether they do or not rhus is the rhus tox. pulse. sedative to combine with aconite until all evidence of gastric irritation has passed away. Rhus is the corrective to use on that border-line where febrile cases merge into typhoid conditions. It is the remedy to arrest that tendency to blood depravation which later must be met by baptisia-indications, extreme restlessness with partial delirium. It nips many a case of continued fever in the bud when properly adapted, and is valuable when indicated, in cholera infantum and other acute diseases of children. Combined with aconite, it arrests cholera morbus at once; here small doses should be given every few minutes, until the vomiting and cramps cease. We will fill the third vial with specific medicine of rhus tox.; ten drops of this in four ounces of water, dose a teaspoonful every hour, or oftener.

Veratrum.—Then comes veratrum. Is this remedy worth the trouble of carrying to the bedside of every patient lest it be required at a moment's notice? I think not. The principal point of commendation for veratrum over other sedatives is its value in pneumonia, inflammation of the lung tissues; and here we have a more positive agent in asclepias. During a pneumonia season veratrum might be substituted for some other remedy in the case, for a time, but it will not be required often enough to warrant every-day carriage. Even in pneumonia, where it has been so highly lauded in some quarters, jaborandi and asclepias combined are far superior, in a majority of cases.

After the sedatives we ought to consider another class of remedies very nearly allied, namely, those which will correct blood depravation consequent upon febrile action, the antizymotics or antiseptics. These are baptisia, echinacea, hydrochloric acid, rhus tox., sulphite of sodium, and sulphurous acid. What are the experiences of old practitioners with regard to the frequency of need of these agents? I believe I voice the sentiments of a majority of those who have had much experience when I assert, that with the exception of rhus, which has already been adopted, in this climate the only one frequently called for is the sulphite of sodium. The others are indispensable when indicated, but are so seldom needed that it would be better to have them ready in the office for resort when required than to burden. oneself with them unnecessarily.

Sulphite of Sodium.—This remedy then will occupy the fourth place. It is indicated in any case where the tongue presents the pasty-white coating, and on the Pacific Coast this symptom is not an uncommon one. I usually administer it in small capsules, one or two grains, every four or six hours. Nothing can well be imagined more unpleasant to the taste than a solution of this agent in water. I was once dismissed from a case on the strength of a sodium sulphite solution. The patient became disgusted with both medicine and doctor. Let the remedy be concealed in capsules and carried in the vial for immediate use.

The heart and lungs may next be thought of and the remedies likely to be used frequently in that direction provided. Such an intimate relationship exists between the functions of the heart and the pulmonary circulation that the remedies needed here will be somewhat in common. Among these is aspidosperma quebracho, one not infrequently needed where want of cardiac power is attended by difficult, labored respiration. I find the symptom sufficiently often in my rounds to warrant the carrying of a vial of this remedy.

Quebracho.-This will constitute the fifth remedy, the

#### THE MEDICINE CASE.

fluid extract of Parke Davis & Co., usually serving a good purpose.

Cereus Bonplandii.—This remedy will supply the sixth place. It is a more prompt and efficacious remedy to improve the power of the heart than digitalis, and in irregularities consequent upon reflex disturbances it supplies a better purpose.

The list of cardiac remedies is large and we cannot expect to cover a great deal of ground with two agents, but, with jaborandi for severe pains here, and those named, we have a respectable outfit for a large per cent. of the cases met with in general practice. And as pulsatilla will be carried as a uterine and ovarian remedy, resort may be had here in nervous excitability of the heart and in imaginary cases or those where cerebral centers are more disturbed than cardiac function, as marked by "fear of impending danger."

The vascular area in the lungs supplied by the bronchial arteries, demands a special class of remedies. It is here that veratrum finds its best place and here that we derive great benefit from asclepias. Then the respiratory membrane supplied from this source demands a number of remedies. The special sedatives, aconite, rhus, and jaborandi come in here splendidly in acute inflammatory conditions, even to the result of acting well as cough remedies. But after the first stage is passed something more special is demanded. Then ipecac and tartar emetic, or lobelia, should be employed.

Asclepias.—This then will fill the seventh vial to serve as a reliance in hyperæmic conditions of the lung-parenchyma and to combine or alternate with the sedatives in pneumonia. We will use the specific medicine in five to ten-drop doses every two or three hours, as required.

Ipecac.-Ipecac supplies the place of a bronchial remedy, relieving subacute inflammation of the respir-

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atory membrane and curing cough with expectoration, where the bronchial tubes remain irritated, after the active stage of irritation has passed off. As a remedy to relieve intestinal irritation both in children and adults, it is one of the most effective, being almost indispensable in cholera infantum and dysentery. The specific medicine serves the best purpose; from five to twenty drops in four ounces of water, teaspoonful doses being administered every one or two hours according to age and circumstances. We will fill the eighth place with specific medicine ipecac.

Tartar Emetic.—This remedy is valuable in coughs attended by subcrepitant sounds—subacute inflammation of the smaller bronchi. It is the specific remedy for the influencing of the respiratory membrane in this portion of the tract. The condition is familiarly known as "capillary bronchitis", and tartar emetic cures here as promptly as any specific could. As a remedy in asthma, it serves a good purpose for temporary relief at least. I employ the second decimal trituration, as less liability of overdoing the dose is thus present than when the crude article is carried, administering two or three grains every two hours to adults, but for infants and small children, using three grains in half a glass of water, ordering a teaspoonful at a dose. The ninth vial will be filled with this agent.

A number of other remedies might be selected for their influence upon the respiratory mucous membrane, but we are now trying to avoid cumbering the overworked practitioner, and will let these suffice, for the present.

The alimentary canal next demands attention. Beginning with the pharynx we have the one remedy for acute inflammation of this part and the fauces,—a very common complaint—in phytolacca. For the stomach we have aconite, ipecac and rhus—remedies already adopted, for irritation and nausea cimicifuga and colocynth for painful conditions of the organ involving the nervous and muscular structures, aconite and ipecac for irritation of the small intestine, colocynth for abdominal neurosis, polymnia for fullnes of the gastric capillaries, chionanthus for torpor of the biliary cells, and chelidonium for subacute inflammatory states of the hepatic structures. Then we have collinsonia for congestive conditions of the vascular supply to the pelvis, especially the hemorrhoidal plexus.

Phytolacca.—Phytolacca will be the tenth remedy chosen, an indispensable agent for the cure of a large number of cases of sore throat. Combined with aconite we will prescribe it almost every day in the year, and derive prompt and satisfactory results. The specific medicine is better than any other preparation except one made by covering the green root with alcohol. The best preparation I have ever used was thus evolved. A drachm of this in four ounces of water with five or six drops of aconite (for the adult) is the prescription for a non-malignant, acutely inflamed throat. Additional recommendations are its almost positive success in puerperal mastitis and its action in bronchocele and lymphangitis. Though slow, it is one of our most reliable remedies in goitre. It also cures ulceration of the mouth.

Polymnia.—The vascular area described by the distribution of the cœliac axis is particularly the specific field of action for this agent. Subacute inflammatory conditions and hyperæmic states generally, of parts supplied from this source, especially by the gastric branches, demand it. Many unpleasant cases of dyspepsia of painful character are relieved by the use of small doses of polymnia through this influence. The well known action of polymnia on the spleen would also confirm its selection, though here we would not need it sufficiently often to justify its admission to a limited list of remedies for every-day use. We will choose this agent for number eleven. Carduus marianus, ceanothus Americanus, and grindelia squarrosa, belong to the same group, and one of them might be chosen instead of polymnia. As a gastric remedy, however, I consider the one last named the first to choose. The specific medicine is the form I commonly use.

Chionanthus.—Professor Goss' well known hepatic agent cannot be dispensed with. People, especially patients, still possess livers, and something mild but certain, to improve the biliary functions is a desideratum. This demand is supplied by chionanthus better than by any other single remedy we possess, and it is not the one to betray our confidence when this confidence is rationally placed. The twelfth remedy will be a vial of the specific medicine chionanthus.

Chelidonium.—This agent is specially indicated in hepatic colic where the pain is inflammatory in character and involves the capillaries of the hepatic artery. It will abort hepatic abscess if begun in time and the patient has not been too heroically dosed with mercury. Catarrhal inflammation of the biliary ducts also yields to this agent. Let this be number thirteen.

Colocynth.—A medicine case would not be fitted without a vial of colocynth. It is as important a remedy as aconite or jaborandi. It so completely covers the ground of neuralgic pain in the abdomen,—abdominal neurosis —that it applies to the smallest infant or the oldest adult, and every age between. We will prescribe it almost daily, and will find it one of the most specific of specifics. Neuralgic, intermittent abdominal pain of any character, whatever organ is involved,—stomach, spleen, liver, or intestines, is amenable to its influence. It not only relieves the pains of dysentery but alone often cures.

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Infantile colic is readily relieved by minute doses of it. Evidently we cannot get along without this remedy and will fill the fourteenth place with it, the 2x or 3x dilution being strong enough, considering its extreme bitterness. The dose of this may vary from two or three drops for infants in four ounces of water, dose a teaspoonful, to a teaspoonful in the same amount of water.

Collinsonia.—This remedy completes the list of drugs devoted to the alimentary canal. We might make it larger but have encompassed considerable with a small number, and that is the object when filling a medicine case. Collinsonia will be held in reserve for its influence upon the lower bowel, hemorrhoidal conditions being its principal field of usefulness. Hypogastric pain if emanating from disturbances of the alimentary canal also disappears before its influence, and it has proven effective in dysentery, especially for the pains, when located lower down. Hemorrhoidal states are favorably influenced by other remedies but where only one is carried this will be the first choice.

One point to be emphasized here is that the preparation must be from the plant, and not the root. The root is employed in the preparation of the specific medicine. Careful trial and observation have convinced me that a tincture of the green plant (leaves, blossoms, and stems,) is much superior as an agent to influence the pelvic viscera. The homeopathic mother tincture is thus prepared. While practicing in Ohio I made my own tincture from the plant freshly gathered, and always obtained the best of results. We will fill the fifteenth vial with green plant tincture of collinsonia. Of this from one to ten drops may be prescribed at a dose for an adult.

And now we must add a few remedies for the reproductive apparatus—applicable to both sexes. We will only choose three as we will be able to get along with

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these very well in acute practice-macrotys, pulsatilla, and sabal serrulata.

Pulsatilla.—This remedy will come in play for the relief of unpleasant sensations in the female pelvis during pregnancy, for uterine colic, for dysmenorrhea and neuralgia. "Nervousness" due to sexual disturbances also calls for pulsatilla. It is the woman's remedy in a thousand different unpleasant states, while it has been highly lauded as a remedy for coughs and gastric disturbances. Orchitis and orchialgia also call for it, and we find therefore a place for it in the treatment of disturbances of the reproductive apparatus in both sexes. The German tincture, made from the green plant, is sold as specific medicine, and also kept at homeopathic pharmacies under the name, "Mother Tincture". We will fill the sixteenth vial with pulsatilla.

Cimicifuga.—This remedy is a valuable one and can hardly be dispensed with. It is one of the group of remedies in rheumatic conditions applying especially to the sexual apparatus of both sexes. Orchialgia, of rheumatic tendency, ovarialgia, and uterine pain, are benefited by it. It combines well with pulsatilla in dysmenorrhea. In pelvic pain and weight attending gestation it may be employed alone or with pulsatilla, to advantage. The specific medicine is to be preferred here, though care must be exercised about using it in too large doses, as the drug is powerful in this form. Half a drachm in four ounces of water, dose a teaspoonful, is about right. Theseventeenth remedy will be cimicifuga (macrotys).

Sabal Serrulata.—Saw palmetto fills a very important place; it will often be serviceable where prostatic pain is present. It is the only remedy known which specifically relieves painful conditions of the prostatic urethra. The analogue of this part, in females, the uterus, also responds to its action, and the remedy thus becomes one of frequent

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demand. Add one or two drams of the fluid extract to four ounces of water and order a teaspoonful every two or three hours. I usually employ a fluid extract manufactured by Parke, Davis & Co.

Rhus Aromatica.—We want at least one remedy to influence the urinary apparatus, and this fills the place of half-a-dozen ordinary agents. Irritation of the kidneys, and vesical disturbances of acute or subacute character are especially relieved by it when properly adapted. Vesical tenesmus is an unpleasant symptom often encountered, and usually relieved when this remedy is used. The specific medicine is most reliable—a dram added to four ounces of water; dose a teaspoonful every two or three hours.

Phenacetin.—This remedy is one which I would not like to be without, if I were to practice far from a convenient drug supply. It is the remedy above all others for muscular rheumatism and rheumatoid pains generally. It is more positive, and fully as safe as cimicifuga or rhus tox., and it acts more promptly in these cases. As a remedy for rheumatic seasons,—Winter and Spring, —it has become almost indispensable to me. Three or four grains may be given every three or four hours, either in acute or chronic cases with full confidence of satisfactory results.

Antifebrin.—This remedy cures headache—migraine in short order. It is applicable to many cases of severe spasmodic pain. It is preferable to antipyrin, because this is apt to produce debility when frequently repeated. Two or three five-grain doses half an hour apart will suffice. It is a remedy for acute troubles and should be carried, at least by the country practitioner.

Quinia Sulphas.—Periodicity will be found in almost every location, and cropping out in many a case, to perpetuate and aggravate it if not interrupted. Quinia is the typical antiperiodic. It does not compare with alstonia as a curer of malarial cachexia, but to interrupt periodicity it has no equal, and the medicine case would not be complete without it. It might be carried in threegrain capsules, thus being covered from the palate so that the objectionable taste would be avoided.

Echinacea.— Echinacea is worthy a place in every medicine case. It will, when administered liberally in the beginning, often succeed in arresting continued fever; it is one of the best of remedies locally (diluted) and internally for erysipelas and other irritable hyperæmic conditions of the skin and cellular tissue; it rivals phytolacca and penthorum in its influence upon the throat; it relieves diarrhœa and dysentery; it is a sedative in all febrile conditions and opposed to malaria; it is reliable in certain forms of blood poisoning; it relieves the pains of cancer and acts as a vital stimulant at the same time. It probably has a wider range of action than any other remedy we possess, being equally adapted to both acute and chronic disease.

Morphia Sulphas.—The customary vial of morphia cannot safely be dispensed with yet. If we cannot cure the pain in our patient we must paralyze him, for a time, and morphia is the agent to do it with, since it is more prompt and reliable while less bulky than other narcotics. Pellets of one-fourth grain of the sulphate will serve the purpose of combining dose with pleasant form for administration.

We now have twenty-four remedies selected, and if we were perfectly certain that all the agents urgently required had been chosen, a twenty-four-vial case might answer the purpose. But this number does not make up well into a case of vials, each containing enough to supply the average country practitioner with a satisfactory amount to avoid frequent refilling. A vial once emptied is liable to be neglected until the agent is needed again, and the vial oftenest emptied is most likely to contain the most important remedy. However, twenty-four two, or three-drachm, slim vials, ranged in two rows, may constitute a shapely and convenient pocket-case for one who needs to resort to it but seldom, but half-ounce vials are really small enough for a country outfit. Twelve of these would lengthen the case beyond proper proportions, and eight would leave the rows rather short, so we will select a thirty-vial case, each of the vials to contain half an ounce or more, the whole arranged in three rows. Thus we have six vials not yet filled, but subject to demand, for agents which may prove as important as any of those already mentioned, and likely to soon come into service.

This case should not take the place of an obstetric outfit, which should be at hand, ready, whenever needed, in separate bag, with vial of pusatilla, ergot, chloroform, etc. An emergency case might also be kept in readiness, containing antidotes for poisons, bandages, etc., for accidents, but the physician would not be benefited by lugging such an outfit with him day after day.

# NOTES ON PRACTICAL PHARMACY.

## BY J. U. LLOYD, PH. D.

FORMS OF MEDICINE.

Naturally, physicians must dispense remedies that are either already divided into parts, or that may be easily separated into doses. It is impracticable for busy physicians to weigh and divide powders extemporaneously, and it is neither practicable nor feasible to triturate or powder solids or make complex mixtures at the bedside. This fact accounts for the immense demand that has arisen in modern times for such conveniences as sugar coated pills, and also explains why, with so many physicians the recently introduced tablets and empty capsules are so favorably received. Innumerable combinations of crude drugs or other medicinal substances are now obtainable in these and related conditions, and for many substances especially stable powders that easily dissolve, such forms are all that can be desired.

However, Eclectics as a rule have adhered to concentrated liquid remedies, and our success in practice indicates that our choice has been a wise one. Liquids are easily dispensed when they are so concentrated that a teaspoonful is a dose after a few drops have been added to four ounces of water. The physician who has a large practice must carry concentrated medicines if he dispense his own remedies, and it is shown that an ordinary pocket case of modern Eclectic medicines will serve the part of the great double saddle bags of former days. We have in another place called attention to a disadvantage of liquids; now, upon the other hand, we will note some of their advantages. Alcoholic solutions of plant constituents are among the most desirable and stable forms of such remedies. Such drugs as pulsatilla, rhus, cactus, and others similar cannot even be dried in substance without destruction of

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their medicinal energies, and may with the utmost care become therapeutically valueless in the process. It is out of the question to think of bringing these substances or their derivatives unaltered into a dry form, whether the method be by exposure to air or evaporation by heat, and attempts to use such products must result in disappointment. That a large amount of our advantage (as a branch of the medical profession) results from our choice of remedies-and our admittedly superior Eclectic remedies-is conceded generally, and this vantage ground has been largely gained by a willingness to pay the price for high grade, alcoholic, liquid medicines; and neither our physicians nor pharmacists have demonstrated that such delicate plant preparations as we employ are capable of being brought unimpaired into a drug condition. Upon the contrary, the experience of our talented competitors of the pill and capsule school indicates that we have acted wisely in adhering to that which our experience has shown to be unimpeachable.

Another point in favor of our liquids is the fact that many of them when mixed with water form intricate, opalescent (milky) admixtures, but if they be dried, the resultant residues refuse to affiliate with water. Take, for example, specific cimicifuga: Ten drops mixed with water form an opalescent, milky, semi-solution. Dry the same amount by trituration with sugar of milk and air exposure, and the mixture will but partially dissolve, and instead of the milky liquid or emulsion we will have a sediment of grayish, resinous material which quickly subsides, and the liquid will be practically devoid of the nature of the other. The same rule holds good with podophyllum, iris and others. Hence, while admiring the incentive that induces our regular brethren to attempt by other methods to produce remedies as pleasant and convenient as our own, we feel warranted in predicting that with such high grade

plant products as we have at our command experimentation is unnecessary, if not dangerous. If small pellets are desirable at any time it will be much safer to adopt the methods of our homoepathic brethren and medicate plain sugar pills with such preparations as we know to be reliable, and not run the risk of alteration and deterioration by drying them.

## COLORING MATTER.

The brown or black coloring matters of plants as a rule are of no medicinal importance, and, occasionally, may be of decided disadvantage. They are usually the result of alterations that occur in drying, and fresh roots and inner barks as a rule are not marked by any decided color. Most active plant constituents are white or colorless, but of course such exceptions as hydrastis and sanguinaria may be noted. The fact that our Eclectic, light colored, specific medicines are preferred to black fluid extracts, is illustration of the foregoing truths.

The green color of all herbs is due alike to the one constituent, chlorophyll, which luckily is not marked by any intrinsic character, medicinally. Thus, the intensely narcotic belladonna and the harmless grass of the field are both dependent upon one substance, as far as color is concerned. Hence it is that a deep green color is no evidence of medicinal value, and, indeed, a pharmaceutical preparation of a deep green color may be worthless. The green specific belladonna of former times is inferior to that which is now of a light wine color, for chlorophyll is a very changeable substance, often precipitating a resinous or waxy body as it alters by age. If a green color were desirable it would be an easy matter for pharmacists to supply most alcoholic preparations of an emerald hue. Green colored plant preparations are prone to change in color by age, becoming brown or of a shade of green and brown.

#### ODOR.

Odor is a test many value for determining the quality, but I do not consider it a good one on which to rely. Differences in quality cannot be easily distinguished by the sense of smell, even when the value is dependent on a perfectly volatile principle. If an ounce of tincture of peppermint be mixed with four ounces of water the mixture will smell stronger of peppermint than the original tincture, and the rule holds good elsewhere. These facts are well known to flavor and perfume makers, who learn that cheap, poor and inferior essences and perfumes can be made to be possessed of strong odors by the artful use of distilled water. If as rank a substance as valerianate of ammonium be dissolved in alcohol, the odor of the solution is not unpleasant, but a few drops of the solution added to water produce the vile smell of ammonium valerianate. In view of these facts and certain related experiences in a business way, the writer ventures to caution physicians against too great confidence in the discriminating power of the sense of smell.

In some instances an odor may be of no value, and yet characteristic of the crude drug. The odor of gelsemium is offensive to some persons, and is of no therapeutical use. The odor of ergot is partly due to a substance —propylamine—which escapes from ergot preparations possessed of strong ergot smell, and the United States Dispensatory aims to prevent the injury by adding a little acid to prevent it from escaping; hence, the preparation may better be of little odor than rank. The value of wormseed is not dependent upon the nasty flavored oil that made our old-fashioned vermifuges so filthy; modern physicians get the full value of wormseed from the odorless principle of santonine. This subject could be continued if space permitted, but enough has been written to indicate that sensible characteristics may be often misleading.

# MEDICATING PELLETS.

Many physicians are favorably inclined to medicated sugar pellets, and in this direction Eclectic specific medicines are all that can be desired. They can be used either in substance, or diluted with alcohol, admirably answering this purpose. Our homeopathic friends many of them mix one part by measure of a specific medicine with a like bulk of alcohol and use the dilution as a standard instead of the mother tincture, and for most substances this is strong enough. In some cases the dilution should be greater, and such specific medicines as aconite, nux and rhus will bear greater dilution. Prof. Locke dilutes specific rhus with nine parts of alcohol and finds that strength as great as is necessary.

CHARACTERISTICS OF A FEW PROMINENT SPECIFICS.

Aconite should be made of the best quality of aconitum napellus root. Formerly preparations of aconite leaves were employed as well as of the root, but the marked superiority of the root has displaced the leaves. Tincture of aconite leaves has a deep green color and is apparently a virulent preparation, but appearances are not corroborated by intrinsic values, and notwithstanding the green color little reliance can be placed upon either the leaves or preparations thereof. Specific aconite has a deep, sherry wine color, a pleasant odor, a taste that at first is destitute of sensible characteristics but which is quickly followed by a dry sensation on the lips and in the mouth and throat, accompained by tingling and eventually by numbness of the parts. It will not dissolve sugar and can be used either full strength or diluted to medicate pellets.

Gelsemium preparations should be made of the green root, notwithstanding the fact that the akaloid, gelsemine, is not destroyed by drying the drug. Experience has shown that the Eclectic preparation (specific gelsemium) gives universal satisfaction, and that preparations of the dry drug are therapeutically uncertain and inferior. That a part of the energy of gelsemium resides in the alkaloid is evident, but that neither the alkaloid nor the dry root is capable of taking the place of the fresh drug is assured by the test of experience.

Rhus toxicodendron preparations should be made from the perfectly fresh leaves gathered just before frost appears. The dry plant is worthless. Specific rhus has a deep green color and will mix with alcohol in all proportions. It must be handled with care as its touch is poisonous to many persons.

Veratrum preparations should be made from the best quality of nearly dry root. If the green drug is employed (if attempts are made to get a strong preparation) it forms a mucilaginous, slimy liquid, which becomes offensive in odor and which will neither give satisfaction in appearance nor in remedial action. Commercial veratrum is of uncertain quality as a drug, and great care must be employed in its selection.

Sulphite of sodium should not contain the water of crystallization that is inherent in the officinal salt. Such crystals if in tight bottles change to a liquid in summer or when exposed to heat and effloresce by exposure to air; the result is an uncertainty of action that must be avoided. We employ a granular salt that under the name, specific medicine, has an established reputation. It is convenient for dispensing, will neither effloresce nor liquefy, and remains unchanged and permanent infinitely.

Asclepias should be made of recent root and be true to name. The specific medicine has a deep wine color and is not marked by very strong characteristics. It is however one of our standard remedies.

Ipecac must be prepared from the dry drug. It has

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never been demonstrated that green ipecac is superior. Much variation is experienced in the quality of commercial ipecacs and considerable amounts of an inferior quality reach America, and even spurious substitutes are on the market.

Specific medicine ipecac—the Eclectic standard—has a dark color, a characteristic taste and is very active.

Phytolacca preparations must be made from the recent root gathered in autumn The drug will not stand complete drying and preparations of phytolacca are injured by heat. Owing to the nature of the drug and to the fact that the perfectly green root cannot be used in making a concentrated preparation by reason of the large amount of water contained therein, even with the utmost attention different batches will vary in color. Such difference in color do not necessarily effect the therapeutical force of the remedy. Age also darkens the medicine and a very marked difference in color may be observed in consequence between the last part of one sample and the fresh lot that follows. Specific medicine phytolacca has a wine color, a pleasant odor and the characteristic flavor of the drug.

Polymnia preparations must be made of the recent root, gathered when in best condition. The drug contains a large amount of a dark colored resin, which produces a rather dark colored specific medicine. This resin seems to be the characteristic constituent of the plant and hence the specific medicine will not mix clear with water. It produces a turbid mixture and the mixture should be well stirred before taking each dose.

Chionanthus is one of the most unsatisfactory of drugs from a pharmaceutical point. Weak preparations, made by pouring alcohol over the bark and filtering after maceration, have a dark color, and those more concentrated have a very deep color. From these preparations a white.



# PART II.


# SPECIFIC THERAPEUTICS.

# SECTION I—PLASMA REMEDIES.

# INORGANIC PROXIMATE PRINCIPLES.

THE blood and lymph contain certain elements of inorganic nature, which may often be supplied by the therapeutist with advantage. Under the term "Inorganic Proximate Principles" it is intended to comprehend here the therapeutic relationship of all the inorganic elements of the body that have to do with its structure—the carbonates, arising during the occurrence of vital changes, are not essential to cell growth, though constituent portions of the body, and will not be included.

Some of these have reference to the composition and functions of the blood mainly, while others doubtless are destined for the tissues, and exist in the fluids only for reason that they are the medium through which solid parts are reached. As this matter is not yet fully settled, it will be safe to include all the inorganic salts contributing to the formation of cell growth, under the term "Plasma Remedies" and under the sub-head "Inorganic Proximate Principles."

These have been termed the "Tissue Remedies" by Schuessler, who proposes to supply all demands for remedies through them, thus reducing the materia medica to 'welve agents. They are valuable in many cases of dis2

ease without question, but few physicians of experience are willing to accept the proposition that they may be made to supply all the possibilities of an effective materia medica.

# CALCIUM FLUORIDE.

This agent is not found in the blood or fluids to any great extent, and may be more definitely considered in connection with plastic remedies; but as it probably exists in the plasma before appropriation by the tissues, it may properly be introduced here.

It is probable that this remedy not only serves the purpose of a proximate principle, but also dynamically influences the formation of the cells in which it exists. According to Schuessler, chronically relaxed structures containing elastic fibers are favorably influenced by it; affections of the skin, connective tissue and vascular walls, thus often yield to its influence.

In inducation of the lymphatic glands due to accumulation resultant upon a relaxed state of the walls, calcium flouride proves curative by improving the tonicity of the vessels permanently, increasing the pressure, and thus favoring absorption. Relaxation of the arteries, heart, or veins, responds upon the same principle.

Physiological chemistry demonstrates the presence of this substance in the enamel of the teeth and compact tissue of bone, and in disease of these parts it proves a valuable remedy.

As still more suggestive of the field of action mapped out for this remedy by.Schuessler, the following list of diseases to which it is applicable is appended :---

After pains. Aneurism, recent. Asthma, when small lumps of yellow mucus are expectorated. Angioma. Alveolar abscess. Apoplexy.

Backache, resembling spinal irritation, or attended by bearing down sensations; sacral pain with constipation. Bleeding. Bloody stools. Bone, ulceration of surface of; nodes; eburnated tumors. Bunions.

Catamenia, profuse. Cephalematoma. Chaps of the skin. Constipation, with sacral pain. Coryza, with dryness of the Schneiderian membrane. Cough, from relaxed uvula.

Dilatation of blood vessels. Dilatation of heart. Dragging pains in groins, loins, or sacrum. Dropsy from feeble heart.

Enamel of bone or teeth deficient. Enlargement of heart. Enlargement of blood vessels. Exostosis. Expectoration. Excrescences, bony.

Fissure of anus. Fissures on hands. Flatulence.

Ganglion. Glandular enlargements, chronic. Gum boils.

Hemorrhages. Hemorrhoids. Heart, dilatation of. Indurations.

Looseness of teeth. Lymphadenoma.

Os uteri relaxed.

Phlebitis, relaxation of veins from. Piles. Prolapsus ani. Prolapsus uteri.

Relaxed uvula.

Skin affections; eczema, herpes, etc. Strains. Suppurations.

Teeth, premature decay of; teeth loose and tender. Throat relaxed. Tongue cracked or indurated. Tonsils, chronic enlargement. Toothache. Tumors, with dilated blood vessels, or indurated glandular structure.

Uvula relaxed; tickling cough.

Varicose veins, and ulcers arising therefrom.

Whitlow. Wind-pipe, cough in irritation of.

Form for Administration.—The remedy is prepared from crystallized flour spar, by trituration. Five grains of the 3x should be added to four ounces of water.

Dose.-A teaspoonful every two hours, in acute disease,

while the dose should not be repeated oftener than every four hours in chronic cases.

# CALCIUM PHOSPHATE.

Calcium phosphate exists in nearly all the fluids of the body, and is especially essential to the formation of the bones, the teeth, the connective tissues, and the blood corpuscles. It unites with albumen to form the basis of growing tissues, constituting thus the very foundation of animal organization.

Schuessler commends it in defective nutrition of bones in growing childhood, where the tendency is in the direction of rachitis, or where tardy union of fracture occurs for the same reason. In rapid melting away of the soft tissues, as in scrofulous abscesses, or ulcers, in exhaustive discharges occurring in bronchorrhœa, leucorrhœa, in the colliquative sweats of hectic or wasting disease, in mal-nutrition of teething infants of feeble vitality naturally or where the exhausting discharges of cholera infantum have entailed a condition of marasmus, and in all forms of anæmia where promotion of the growth of the red corpuscles is important, it is useful.

A perusal of the following therapeutic hints will suggest the proper places for it in practice :—

Albuminous exudations. Albuminuria, chronic. Amenorrhœa. Anæmia. Appetite, loss of.

Backache. Bloodlessness. Bones broken, or lacking firmness; rickets, bowed legs, etc. Brain fever. Bright's disease. Bronchitis, chronic. Bronchocele.

Cancer, in scrofulous constitutions. Catarrh, with albuminous exudation. Chlorosis. Consumption, with expectoration. Convalescence from exhausting diseases, during. Convulsions. Cramps. Craniotabes. Creeping sensations. Croup. Crusta lactea. Cysts.

Debility, general. Delicacy in growing children. Diarrhœa in teething. Diphtheria. Dropsy.

Eczema with anæmia. Emaciation. Eruptions, vesicular. Expectoration. Exudations on the skin or lining membranes, albuminous. Eyes, neuralgic pains in.

Face, sallowness of. Fits. Freckles.

Gallstones. Gastric fever. Glandular enlargements. Gleet. Gravel. Gums, neuralgic or rheumatic pains in.

Hands, involuntary shaking of. Headaches, neuralgic.

Herpes. Housemaid's knee. Hydrocele. Hydrocephalus. Hydrops genu.

Infantile paralysis. Inflammation of the lungs, expectoration from. Inflammations with serous-albuminous effusions. Influenza. Intertrigo.

Kidneys, chronic inflammation of-Bright's disease. Knee, housemaid's.

Laryngismus stridulus. Lead colic. Leucorrhea. Lumbago; alternated with ferric phosphate. Lupus. Lymphatic glands, swelling of.

Memory, loss of. Mental aberrations. Mucous membranes, diseases of.

Neck, glands of swollen. Nerve pain. Numbness.

Orchitis. Osteitis.

Pains, chronic, muscular, rheumatic; cancer pains. Paleness of face. Pallid gums. Palsy. Perspiration, excessive. Prurigo. Puerperal convulsions.

Ranula. Rheumatic pains of joints. Rickets.

Scrofula and struma. Scald head. Skin affections; itching of skin, eczema and other eruptions. Softening of the brain. Spasmodic cough, spasm of the throat. Spinal cord, softening of. Spinal curvature. Spinal debility —anemia. Stone in the bladder. Sweating to excess. Sycosis.

Teeth, rapid decay of. Teething, convulsions during and gastro-intestinal affections during. Tonsils, chronic enlargment of. Toothache, deep seated, worse at night. Trembling, involuntary; palsy. Tumors, cystic. Typhoid fever, convalescence from, alternated with potassium phosphate.

Ulcerations of bone. Urine, gravel in.

Vitality depressed.

Whites-leucorrhœa.

Form of Administration.—Five to ten grains of the 3x, trituration should be added to four ounces of water.

Dose.—A teaspoonful every two hours in acute disease; every four hours in chronic affections.

## CALCIUM SULPHATE.

Calcium sulphate is found in the blood in small amount, and proves an important remedial agent in suppuration, especially of the connective tissues. It is closely allied therapeutically as well as chemically to calcium *sulphide* but exerts a more searching and positive effect.

It has been employed internally in abscesses and ulcers of the cornea, in scrofulous ophthalmia, in suppurative otitis, in scald head, in eczema, in herpes, in acne, in enlargement of the cervical lymphatics, in purulent discharges following protracted dysentery or cholera infantum, in protracted suppuration of buboes or other abscesses, in purulent expectoration, in chronic respiratory diseases, in presistent suppuration following the opening of a mammary abscess, in boils, to reduce and control suppuration. It has also been found valuable in rheumatism and neuralgia.

Clinical suggestions :-

Abscesses.

Blows or falls, after. Boils. Bowels, muco-purulent evacuations from. Breasts, threatened suppuration in. Bronchitis, chronic, profuse expectoration in—bronchial catarrh. Bruises, to avert abscess. Burns, suppuration in.

Cancer, rapid ulceration in. Carbuncles. Catarrh.

Chilblains, suppurating. Cold in the chest with expectoration. Consumption with expectoration. Corneal ulceration. Crusta lactea. Cystitis, chronic.

Deafness with suppuration of the soft parts of the auditory apparatus. Diarrhœa. Discharges of purulent material from any part or organ.

Ears, discharge of sainous matter from. Eczema, when crusts form. Effusion, when pus forms. Empyema. Enteric fever; in ulceration of bowels. Eruptions, pustular. Expectoration, purulent. Exudations, purulent. Eyes, purulent affections of.

Felon. Festers. Furuncle.

Gathered breasts. Glands, suppuration of. Gonorrhœa, purulent discharges in. Gumboils, when alveoli are not involved—acute.

Inflammation in any part tending to suppuration. Injuries, secondary complications.

Lungs, purulent expectoration from.

Mastitis, threatened suppuration in.

Ophthalmia, purulent discharge in. Osteitis, suppurative. Ozœna.

Pimples—acne. Pneumonia, with pulmonary abscess impending. Pustules.

Quinsy, to hasten and limit suppurative action.

Scalds, in suppuration following. Scald-head in children. Sebaceous glands, suppurating. Skin affections, eczema, eruption of vesicles, etc. Skin and connective tissues, suppuration in. Small pox, suppuration in. Sores, suppurating. Suppuration in any soft part. Syphilitic ulceration and suppuration.

Throat, ulceration of. Tonsilitis, parenchymatous. Tubercular ulceration of intestines.

Ulcerations of bone. Ulceration of bowels. Ulceration of any part.

Varicose ulcers. "Weed". Whitlow.

Form for Administration.—Five grains of the 3x trituration should be added to four ounces of water.

Dose.—A teaspoonful every two hours in acute disease, every four in chronic cases.

# FERRIC PHOSPHATE.

Iron is acknowledged by physiologists generally to exist naturally in the coloring matter of the red blood corpuscles. This has given rise to the almost universal and indiscriminate practice of prescribing chalybeates in exhorbitant doses for anæmic cases. Schussler asserts that iron is a constituent of the muscle cells and that it is an important remedy in relaxation of muscular fiber. This departure deserves credit as an effort to at least get out of an old rut which leads to little real benefit and much harm.

The theory that this remedy strengthens muscular fiber, justifies its use in the relaxation of the arterial walls resulting in hyperæmia. Ferric phosphate figures in Schuessler's therapy as a "special sedative" and is employed in all febrile disturbances and inflammations at their onset, especially before exudation begins.

From the power of iron and its salts of attracting oxygen, anæmic states may be benefited by it, but the minute dose is more efficacious than the large one which undoubtedly often proves a source of embarrassment.

The following named conditions may indicate its need as a remedy, according to Schuesslerian philosophy:---

Abscess, when threatened; in forming stage, as a sedative. Adhesions, when recent, alternated with potassium chloride. Ague. Albuminuria, acute, alternated with potassium chloride. Anæmia. Arthritis. Articular rheumatism.

Backache, pain across the loins. Bladder, acute inflammation of, alternated with potassium chloride. Bladder, spasmodic action of, alternated with magnesium phosphate. Blows or falls. Boils, in early stage. Bowels, inflammation of. Brain fever. Breasts, inflammation of. Breathing, short, hurried. Bronchitis, acute or chronic, alternated with other remedies as specially indicated, where there is expectoration. Bronchial asthma, alternated with potassium phosphate. Bruises. Bubo, early stages. Bunion.

Carbuncle, in alternation with potassium chloride, silica, etc., as indicated. Carditis. Catarrh, colds. Catarrh of the stomach. Catarrhal fever. Chills. Chlorosis. Coryza. Concussion of the brain. Congestion of any part. Constipation. Convulsions with febrile symptoms. Cough, acute. Creaking of the tendons. Croup. Cystitis.

Deafness from inflammatory conditions of auditory apparatus. Delirium in fevers. Diarrhœa from chill. Dilatation of heart from relaxation of muscle. Diphtheria; for inflammatory symptoms. Dizziness on stooping. Dropsy from inflammatory conditions or muscular relaxation. Dysentery. Dysmenorrhœa, inflammatory. Dyspepsia. Dyspnœa, with hurried breathing.

Earache, with inflammatory condition of auditory apparatus. Ears, noises in from blood-pressure. Enteric, typhoid, or gastric fever. Enuresis. Epistaxis. Erysipelas, for inflammatory symptoms, Eye, acute inflammation of, neuralgic or rheumatic pains in.

Faceache, neuralgic, rheumatic. Face, redness of. Febrile conditions. Felon, in early stages. Fevers of all characters. Flatulence.

Gastric derangements. Gastritis. Giddiness. Glandular enlargements, inflammatory, acute. Gout, acute. Gums, painful, neuralgic.

Hæmatemesis. Hemorrhoids. Hæmoptysis. Hemorrhage. Hay fever. Headache, congestive or neuralgic. Heartburn. Heat and feverishness. Herpes. Hip joint disease, early. Hoarseness, with hyperæmia of the laryngeal mucous membrane.

Incontinence of urine from muscular or nervous weakness. Inflammation (catarrhal) of bladder. Inflammation of all kinds, in early stages. Influenza. Injuries, during first stage, to subdue inflammation. Insomnia, from arterial tension. Irritation of throat. Irritation in any part, with heat and pain. Ischuria.

Kidney disease, acute.

Lumbago. Lungs, congestion or inflammation of.

Mastitis. Measles. Meningitis. Menstrual colic. Morning sickness in pregnancy. Mumps.

Nape of neck, pain in. Neuralgia.

Ophthalmia. Orchitis. Osteitis. Os uteri, relaxed. Otitis. Ovarian neuralgia.

Pain after food. Pains, inflammatory, congestive, in any part. Pains in cancer. Pains and stiffness in joints. Palpitation of heart. Pericarditis. Periostitis. Peritonitis. Pharyngitis. Phlebitis. Piles. Pleuritis. Pleuro-pneumonia. Pneumonia. Prolapsus uteri.

Quinsy, in early stages.

Retention of urine. Retinitis. Rheumatic fever. Rheumatic pains in any part.

Scarlatina. Shortness of breath in fever. Sick headache. Skin, hot, dry, burning. Sores, inflammatory. Sore throat. Spasmodic cough. Spitting of bright blood in streaks. Splenitis. Sprains. Stiffness of joints. Stiff neck from cold. Stomachache. Stomach, ulceration of. Stricture, spasmodic. Synovial membrane, inflammation of.

Teething, febrile conditions during. Temperature, elevation of above normal. Tenalgia crepitans, squeaking of tendons. Throat, soreness of, inflammation of. Throbbing, pulsations. Tic douloureux. Tinnitus aurium. Tongue, inflammation of. Tongue, raw, deep red in the tenter. Tonsils, follicular inflammation of. Tonsils, deep seated inflammation of—quinsy. Toothache; inflamed, swollen gums. Typhoid fever.

Ulceration. Urination, frequent; during sleep-incontinence. Urine, retention of, from inflammation of kidneys.

Vaginismus. Vertigo. Voice, hoarseness of, from speaking. Vomiting of blood.

Wheezing. Winter cough. Wounds."

Form for Administration.-Add five grains of the 3x trituration to four ounces of water.

Dose.—A teaspoonful every two hours in acute, and every four, in chronic disease.

# MAGNESIUM PHOSPHATE.

Besides existing in the bones, this salt constitutes the earthy element of muscles and nerves, proving an important remedy in painful and spasmodic affections of these parts.

The influence of magnesium phosphate upon muscle is said by Schuessler to be exactly opposite that of ferric phosphate: In the case of the latter, the fiber is contracted as a result of its therapeutic effect, while in case of the former remedy, contracted fibers are relaxed.

Magnesium phosphate therefore is indicated in all spasmodic conditions. It is also the prominent remedy among the Inorganic Proximate Principles for *pain*, especially if the symptom is characterized by darting, stitching peculiarities, and occurs in the muscles or nerves. As an organ remedy it seems more particularly selective of the eye and ear.

The following hints will suggest more closely the adaptation of the remedy:-

After pains. Angina pectoris. Articular rheumatism. Asthma. Backache, neuralgic. Bladder, spasmodic action of. Bowels and stomach, pain in.

Cancer, pain in. Choleraic cramps. Chorea. Chromatopsia—sparks before the eyes. Colic. Constriction of chest and throat. Convulsions. Coughs, spasmodic. Cramps, spasms of all descriptions.

Deafness from nervous weakness. Diarrhœa with colicky pain. Dread of light, photophobia. Dulness of hearing. Dulness of sight—weakness of optic nerve. Dysentery with cramp. Dyspepsia with crampy pain in stomach.

Epigastric pains, darting or cramping. Eyelids, drooping of, or spasms or twitching of. Eyes, feeling of pressure in, intolerance to light.

Faceache, neuralgic. Fever, rheumatic. Fits. Flatulence.

Gall-stones, spasms from. Glottis, spasm of. Gums, neuralgic pains in.

Hands, involuntary shaking of. Headache, neuralgic. Hearing, dulness of. Hiccough.

Illusions, optical. Indigestion, spasmodic cramp. Ischuria. Labour pains, spasmodic, crampy. Laryngismus stridulus.

Menstrual colic. Motor nerves, spasmodic disturbances of.

Nape of neck, pains in. Nerve pain, neuralgic.

Os uteri, spasmodic contraction of. Ovarian neuralgia.

Pains of cancer. Pains, paroxysmal or periodical. Palsy, alternated with calcium phosphate. Paralysis agitans. Paralysis, facial. Photophobia. Piles, neuralgic pains in. Puerperal convulsions.

Retention of urine. Rheumatic pains.

Sciatica. Shaking of the hands—trembling palsy. Smell, loss of, not connected with cold. Sparks before the eyes. Spasmodic cough. Spasmodic pains and affec-

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tions. Spasmodic twitching of the eyelids. Spasms, cramps. Spasm of the glottis. Spina ventosa. Squinting. Stammering. Stomach-ache, neuralgic. Stricture, spasmodic. St. Vitus' dance.

Teething, convulsions in. Tetanus. Tetanic spasms. Toothache, neuralgic. Trembling, involuntary; shaking palsy.

Urine, retention of.

Vaginismus.

Whooping cough. Windpipe, spasm of.

Form for Administration.-Add five grains of the 3x trituration to four ounces of water.

Dose.—A teaspoonful every two hours in acute, and every four, in chronic disease.

# POTASSIUM CHLORIDE.

This salt enters into the combination of fibrin, seeming to dynamically influence its absorption when exudation of fibrinous material takes place into any part.

Theoretically, it is proposed that fibrinous exudation is the result of a disturbance of the molecular action of this salt. However this may be, clinical experience has demonstrated that it is the most positive remedy we have to stay the deposition of plastic exudates in pneumonia and some other acute diseases. Schuessler extols it highly in diphtheria upon the ground that this disease is characterized by a fibrinous exudation upon mucous membranes. Any one however who has had experience with it in true diphtheria will be convinced that the remedy has been overestimated in this instance. All inflammatory conditions suggest the use of the remedy, as plastic exudation is almost certain to be more or less of a concomitant. It will be found especially valuable, according to Schuessler, in the following named conditions :---

Abscess. Accidents, injuries from. Acne. Adhe-

sions, recent. Albuminuria, acute. Amenorrhœa. Aphthæ. Articular rheumatism. Asthma.

Bilious derangement, with white coated Backache. tongue. Bladder, inflammation of. Bleeding-hemorrhage. Blisters, vesicles, eruptions. Blows or falls, to prevent exudation from injuries from. Boils. Bones broken. Bowels and stomach, pains in. Bowels, constipation of. Bowels, evacuations from, abnormal; inflammatory conditions of, as dysentery, muco-enteritis etc., Brain fever. Breasts, inflammation of. Bronchitis, chronic. Bronchial asthma. Bruises, to prevent abscess from. Burns.

Cancer. Canker. Carbuncles. Carditis. Catamenia prolonged. Catamenia suppressed. Catarrh. Cerebritis. Chancre. Chicken pox. Coating of the tongue Cold in the chest or head with exudation of plastic material. Constipation. Consumption of the bowels. Cornea, blister on. Coryza, dry. Cough, acute. Creaking of the sinews. Croup. Cystitis.

Deafness, with swelling or suppuration in the tympanic cavity. Diarrhœa. Diphtheria. Discharges from mucous linings. Dropsy. Dyspepsia.

Earache, with discharge or swelling of parts. Eczema. Embolus. Enteric fever. Epilepsy. Eruptions. Erysipelas. Expectoration or exudations of plastic material. Eyes, blisters on cornea, and ulcers of the cornea. Eyes, rheumatic pains in.

Faceache, neuralgic, rheumatic. Felon. Fever, rheumatic; typhoid; puerperal. Flatulence.

Gastric derangements. Glands, enlarged. Gonorrhœa. Gums, neuralgic pains in. Gumboils.

Hæmatemesis. Hemorrhage, from any part. Headaches, bilious. Hearing, dulness of. Herpes zona. Herpes—tetter.

Indigestion. Inflammation of bladder, uterus, ovaries,

lungs—all inflammations attended by plastic exudation and tending to suppuration. Injuries, secondary complications.

Jaundice.

Kidney disease, inflammatory.

Leucorrhœa. Liver, cirrhosis of; jaundice from torpor of. Looseness of the bowels. Lung disease with expectoration. Lupus. Lymphatic glands, swelling of.

Mastitis. Measles, with exudation of plastic lymph into lungs or other structures. Meningitis, with threatened effusion. Menstruation, irregular. Mouth, excoriation or ulceration of. Mucous membrane, disease of. Mumps.

Neck, glands of, swollen. Neuralgia of the teeth.

Orchitis. Otitis.

Pain after food; chronic rheumatic pains; pains in the head; pains and stiffness of the joints. Peritonitis. Pharyngitis. Phlebitis. Phlegm, mucus, discharge of. Piles. Pimples. Pleuro-Pneumonia. Pneumonia with exudation of plastic lymph. Proud flesh. Puerperal fever.

Quinsy.

Rash, eruptions, as in measles. Retention of urine. Rheumatic fever. Rheumatic headache. Rheumatism, acute or chronic.

Scales after eruptions. Scalds. Scarlet fever. Scrofulosis and struma. Scald head of children. Scurvy. Secretions from any of the mucous linings or membranes. Shingles. Sick headache. Skin affections, with exudation. Small pox. Sores, inflammatory. Sore throat. Spasmodic cough. Spinal cord, softening of. Spinal weakness. Splenitis. Sprains. Stiffness of joints, rheumatic. Stomach, derangement of from indigestion; rumbling noise in. Stomatitis, ulcerative. Strumous conditions. Suppuration, threatening. Swelling with plastic exudation. Synovial membrane, inflammation of. Syphilis, acute, chronic.

Tabes dorsalis. Teething, gastric derangements during. Teeth, tenderness of. Tenalgia crepitans. Toe nail, ingrowing. Throat, inflammation of; ulceration of. Thrush. Tongue, coating of; inflammation of. Tonsils, swelling of; inflammation of. Toothache; teeth tender, jaw or root painful. Typhoid fever.

Ulcers. Urine, retention of from inflammation of kidneys. Urine dark colored. Uterus, congestion of.

Vaccination, bad effects from. Vertigo with gastric derangement. Voice, hoarseness of. Vomiting and retching. Vomiting of blood.

Warts on hands. "Weed". Wheezing. Whites. Whooping cough, expectoration in, plastic exudation.

Yellow fever.

Form for Administration.—Add ten grains of the 3x trituration to four ounces of water.

Dose.-A teaspoonful every two to four hours.

# POTASSIUM PHOSPHATE.

This agent enters into the formation of nerve and muscle cells, and blood corpuscles.

It is an important constituent of the nervous system playing an important part in the treatment of both organic and functional diseases of this portion. Mental depression with irritability, despondency, timidity, and unwarrantable sense of impending danger, finds a reliable remedy in potassium phosphate.

Pain of a laming, dull character, with tired, exhausted feeling upon the part of the patient, finds a reliable remedy in this agent. Excessive exhaustion, as in the advanced stages of typhoid or typhus fever, with subsultus tendinum or stupor, calls for it.

Rapid decay or destruction of blood corpuscles also

indicates its need, as in septic, scorbutic and phagedenic states.

We append a clinical guide, to aid in suggesting places for its use, with the purpose in view of differentiating more specifically further on :---

Adynamic conditions. After pains, deficient. Albuminuria, chronic. Amenorrhœa. Anæmia. Angina pectoris. Aphthæ. Atrophy.

Backache. Bladder, paralysis of. Bleeding, hemorrhage from nose, gums, or other part—nontraumatic. Blisters, vesicles, cruptions. Blood heat, increase of. Bloodlessness. Blood putrid, septic. Boils. Bone diseases; rickets. Brain fag. Breath offensive, fetid. Breathing short on exertion. Bright's disease, in alternation with calcium phosphate. Bronchial asthma. with muco-purulent expectoration.

Cancer. Cancrum oris. Canker, gangrenous thrush. Carbuncles. Carditis. Catamenia, excessive. Chancre. Chattering of teeth from nervousness. Chilblains, recent, itching. Chlorosis. Choleraic cramps. Cold sensations in the back, not from chill. Cold in the head. Collapse, syncope, prostration. Concussion of the brain. Constitutional weakness. Consumption with expectoration. Consumption of the bowels. Creeping, crawling sensations, numbness; alternated with calcium phosphate. Crossness in children—irritability. Crying or screaming in children—nervousness.

Deafness from nervous weakness. Debility. Delirium in fevers with great prostration. Delirium tremens. Diabetes mellitus. Diarrhœa. Dilatation of heart. Diphtheria, great prostration; after effects. Discharges, ichorous, fetid. Dispiritedness. Dizziness. Dread of noise. Dysentery. Dyspnœa, with fatty heart.

Ears, noises in from nervous weakness. Eczema, from anæmio. Energy, want of, debility. Enlargement of heart, dilatation. Enuresis. Epilepsy. Epistaxis. Eruptions, pustular. Evacuations from the bowels abnormal, fetid. Excessive, hungry feeling. Excoriations. Exhaustion. Exudations, purulent. Eyelids, abnormal drooping of; alternated with magnesium phosphate. Eyes, excited stare, when connected with disease.

Face-ache, neuralgic, rheumatic. Face livid, sunken. Fainting and faintness. Febrile conditions. Fever. typhoid, typhus, or gastric, with prostration or blood poisoning. Fits, from degenerative changes in the nervous system. Flatulence. Flooding. Fright, effects of.

Gangrenous conditions. Gastritis. Giddiness. Gonorrhœa. Gums, bleeding of.

Hallucinations. Hands, involuntary shaking of—palsy. Hay asthma. Hay fever. Headaches; nervous. Heart, feeble action of, intermittent action of. Hoarseness from exertion of speaking; alternated with ferric phosphate. Homesickness. Hunger; excessive, nervous. Hypochondriasis. Hysteria.

Ill-humor, peevishness. Illusions. Incontinence of urine from nervous or muscular weakness. Infantile paralysis. Insanity. Insomnia. Incontinence of urine, nocturnal. Irritability.

Kidney, chronic inflammation of.

Labour pains, spurious. Lameness. Lassitude. Leucorrhœa. Lethargy. Lips, dryness of; peeling of. Liver, irritable, hypersecretion of bile. Lungs, acute œdema of.

Madness, mania, melancholia. Memory bad, loss of. Menstrual colic—dysmenorrhœa. Mental aberration. Motor nerves, spasmodic disturbance of. Mouth, excoriation of.

Nape of neck, pains in. Nausea. Nervous affections. Nervousness, sensitiveness. Nettle-rash. Neuralgic pains. Noises in the head, from nervous prostration.

Noma. Nose; putrid discharge from, ozœna. Numbness; in alternation with calcium phosphate.

Ovarian neuralgia. Ozœna, alternated with calcium sulphate.

Pain below the heart or in the left side, rheumatic or neuralgic; pains in any part. Paleness of the face or gums. Palpitation of the heart. Paralysis. Perspirátion, excessive. Prolapsus of rectum or uterus. Prurigo. Puerperal convulsions. Puerperal mania. Purpura.

Restlessness. Rheumatism of any part.

Sciatica. Scurvy. Sensitiveness. Septic hemorrhage. Shortness of breath, asthmatic, or with præcordial pressure. Shyness, excessive blushing. Sighing, moaning. Skin, itching of. Sleeplessness, wakefulness. Sluggish circulation. Smell, loss of, not connected with cold. Softening of the brain. Somnambulism. Slow, inarticulate speech in sickness. Spinal cord, softening of. Spinal weakness. Starting, nervousness. Stools, unduly offensive. Strabismus, after diphtheria. Stumbling, uncertain gait. Stupor, low, muttering delirium. Sunstroke.

Temperature high, in disease. Throat, sore, gangrenous. Thrush, with fetid breath. Tinnitus aurium. Tongue, dryness of; tongue furred. Toothache, neuralgic, darting. Typhoid, malignant conditions, during and after. Typhus fever.

Urethra, bleeding from. Urination frequent; incontinence.

Varicose ulceration. Vertigo. Vitality depressed. Voice, hoarseness of from speaking.

Wakefulness. Weakness, feeling of, in the left side. Wetting of the bed. Whining, fretting, nervousness.

Yawning, hysterical, from nervous exhaustion. Yellow fever, exhaustion in.

Form for Administration.-Add ten grains of the 3x trituration to four ounces of water. Dose.—A teaspoonful every two to four hours, according to circumstances.

# POTASSIUM SULPHATE.

This remedy bears a physiological and therapeutic relationship to epithelium—the epithelial coverings of both cutaneous and mucous membranes. Epithelial structures respond to its action, when diseased; it is asserted that it influences the growth of epithelial cells when they are developing out of place, as in cancer. In desquamation of the epidermis, in epithelioma, and in yellow slimy secretions from the skin and mucous membranes, the remedy has afforded the most positive results. The developmental relationship between the eye and skin suggest it as an eye remedy, but clinical experience has afforded better results from other remedies.

Diseases characterized by yellow discharges, not purulent, and by evening aggravations, are said to require this remedy.

The following list of diseases and conditions may assist in selecting it :---

Ague. Amenorrhœa. Articular rheumatism.

Backache. Blisters, eruptions, vesicles. Blood heat, rise of. Blood tumors. Bowels and stomach, pain in. Bronchitis, chronic. Bronchial catarrh.

Cancer, epithelial. Catamenia, suppressed. Catarrh, colds. Catarrh in diabetes. Coating of the tongue. Cold in the head. Colds with blisters on the mouth; cold-sores. Coryza. Croupy hoarseness, not croup.

Dandruff. Deafness, from inflammatory conditions, or throat affections. Dryness of skin, suppression of rash or perspiration.

Earache, with discharge; pain below the ear. Eczema. Epithelioma. Eruptions, moist; rash of exanthem. Erysipelas. Evening aggravations. Eyes, discharges from. Eyes, vision affected. Fevers from blood poisoning. Flatulence. Fungoid inflammation of joints.

Gastric, enteric or typhoid fever. Gonorrhœa.

Hemorrhoids. Hair, falling of. Headaches, neuralgic. Hearing, dullness of. Heated atmosphere aggravating ailments. Hoarseness from cold, attended by free expectoration.

Indigestion. Inflammation with effusion. Influenza. Intermittent febrile conditions.

Lips, dryness and peeling of.

Menstruation, irregularities of. Mucous membranes, diseases of.

Nails, interrupted growth of.

Pain behind or under the ear; rheumatic. Pains, colicky, not true spasms, without diarrhœa. Pains, chronic rheumatic. Perspirat on checked. Phlegm—mucus discharge of. Piles, without hemorrhage. Pneumonia and complications.

Rashes, eruptions. Remittent fever. Rheumatic headache. Rheumatism generally.

Scales in eruptions, after oozing of vesicles. Scales on the head; dandruff. Skin affections. Skin hot, dry, burning. Skin, scaling of. Small pox, to promote the falling off of crusts. Speech slow and husky in sickness.

Tongue, coating of. Torpidity of system during suppression of rash.

Uterus, discharges from.

Vitality depressed. Voice, hoarseness, from cold.

Winter cough.

Form for Administration.—Add ten grains of the 3x trituration to four ounces of water.

Dose.—A teaspoonful every two hours in acute disease, every four hours in chronic cases.

# SODIUM CHLORIDE.

This salt exists in every fluid and tissue of the body, and is supposed to possess, therapeutically, the property of regulating the amount of moisture in the various parts. When a disturbance of the molecules exists, inappropriate conditions attend as regards the state of fluidity of the part; sometimes this amounts to excessive dryness, at others to undue secretion. A watery discharge is regarded as the keynote to the remedy by the followers of Schuessler.

Adynamic conditions with drowsiness and watery vomiting. Anæmia. Anasarca. Aphthæ, with ptyalism. Asthma with profuse frothy mucus. Asthmatic bronchitis.

Blisters, eruptions with clear watery contents. Bowels costive, with drowsiness, waterbrash or ptyalism; drooling during sleep.

Bronchitis, with watery expectoration or frothy, transparent mucus.

Catarrh of anæmic patients; salty taste of expectoration. Chlorosis with anæmia; watery state of the blood. Cold-sores on the lips. Coldness or chillness along the spine with ptyalism. Cornea, blister on. Coryza. Cough, with excess of watery secretion.

Diarrhœa with watery, frothy stools. Diphtheria with watery diarrhœa, ptyalism, or vomiting. Dropsy. Drowsiness with dribbling of saliva during sleep.

Eczema. Effusions, serous, poor in albumin. Eruptions containing watery fluid which tend to recur. Exudations on the skin or mucous linings of watery, serous character, occuring after inflammation. Eyes, discharges of clear mucus from, or stillicidium lachrymarum with obstruction of the lachrymal duct; neuralgic pains in, ac-

companied by lachrymation, granulated eyelids, photophobia, etc.

Glands, salivary, chronic inflammation of, with excessive secretion from. Gleet. Gonorrhœa, with profuse, transparent secretion. It is best adapted to the treatment of long-standing gleet.

Hay fever, when there is watery discharge from the eyes and nose; the remedy should be used internally and locally. Headache, with profusion of tears, or vomiting of transparent mucus or serum. Hemorrhage of pale, thin, non-coagulable blood. Herpetic eruptions with watery discharges.

Indigestion, with vomiting of clear, frothy water, or gathering of water in the mouth. Influenza, with running at the nose, frothy expectoration, and drowsiness.

Leucorrhœa, watery.

Menstruation, discharge thin, watery, or pale. Morning sickness, with vomiting of thin, watery mucus. Mumps, with excessive ptyalism.

Neuralgia, periodic, with flow of tears; alternated with magnesium phosphate.

Œdema of the lungs, acute.

Pain after food. Phlegm, greenish discharge of. Pimples, watery, moist. Prurigo. Pains, neuralgic, in the trigeminus, accompanied by a flow of tears. Pemphigus. Pleurisy, after serous effusion. Polyuria. Preputial œdema.

Relaxed throat, elongated uvula. Ranula. Rupia. Salivation. Scarlatina, with drowsiness, twitchings, or vomiting of watery fluids. Scrotal œdema, with serous infiltration. Shingles, with watery blisters. Sick headache, with vomiting of clear, frothy mucus. Skin affections, with white scales. Skin, excoriation of, in infants, with watery secretion. Sleep, excessive, traced to excess of moisture in the brain substance. Sleepiness on waking in the morning; tired feeling. Small pox with ptyalism, or confluent eruption. Stings of insects, applied locally. Stomach-ache, with ptyalism. Sunstroke. Sycosis, with watery vesication. Sick headache. Sterility with acid secretions from the vagina. Stomach, ulceration of.

Teeth, gritting of, in children during sleep. Throat, yellow spots in. Tongue, coated with golden yellow coating.

Teething, with much drooling. Thrush, with ptyalism. Tongue coated with slimy, clear, watery bubbles. Toothache, with flow of tears or saliva. Typhoid or malignant symptoms during the course of any fever. Typhus fever with coma.

Ulceration of stomach or bowels. Urine, incontinence of, in children with acidity.

Vomiting of acids or curdled masses.

Vomiting of watery material.

Water brash, with acidity. Whites, acid in character. Winter cough, transparent secretions. Worms, with indications of acidity of intestinal canal.

Form for Administration.—Add ten grains of the 3x trituration to four ounces of water.

Dose.-A teaspoonful every two to four hours.

## SODIUM PHOSPHATE.

Sodium phosphate, according to Schuessler, influences the decomposition of lactic acid into carbonic acid and water, the tissue salt fixing the carbonic acid and carrying it to the lungs. It is therefore suggested as the remedy for disturbances of the digestive apparatus during infancy, while milk is the article of diet. It is especially applicable to affections of children who have been fed upon cow's milk sweetened with cane sugar.

The principal symptoms which indicate its need are: Acid eructations, vomiting of acid fluids or curdled material, diarrhœa of greenish stools, abdominal pains, etc. A yellow, gold colored discharge, or a similarly colored coating on the tongue is also a symptom calling for it.

It is regarded as the remedy for gastric ulceration.

The following guide should be consulted in selecting the agent:-

Acidity. Anus, itching at. Appetite, loss of.

Blisters. Bowels and stomach, pains in. Bowel evacuations, greenish.

Chafing of skin. Coating of tongue, yellow. Cold in head with yellow discharge. Cold, with eruptions on the mouth. Colic of children. Cough, from gastric disturbance.

Diarrhœa in teething. Diphtheritic throat (follicular tonsillitis), with yellow spots. Dyspepsia, with vomiting of greenish fluids.

Ears hot or itchy. Eczema. Excoriation of the skin. Exudations on the skin.

Fissure of anus. Flatulence.

Gastric ulceration. Giddiness from gastric disturbance. Headache. Heartburn. Hunger, irregular, in children. Indigestion. Intertrigo. Incontinence of urine. Itching about the anus.

Lead colic. Leucorrhœa with anæmia.

Morning sickness in pregnancy.

Nausea, with sour risings. Nose, picking at, associated with acidity and worms.

Pain after food with sour risings, with creamy coating on the base of the tongue. This symptom, creamy coating on tongue, indicates the remedy when pain exists in any part. Perspiration, of sour odor.

Scabs, golden yellow, like honey. Secretions of creamy yellow appearance, or secretions causing excoriation. Sick headache, with sour, frothy vomiting. Skin, soreness or chafing of, excoriations with humid surface, especially with yellow creamy discharge. Sterility, with acid secretions from the vagina. Stomach-ache, with sour risings. Stomach; ulceration of.

Teeth, grinding of during sleep. Throat and tonsils covered with a creamy yellow discharge. Tongue, coating of, creamy yellow discharge at the base.

Urine, involuntary discharge of with acidity, in children.

Vomiting of acid fluids, not food.

Worms, with acidity of intestinal secretions.

Form for Administration.—Add ten grains of the 3x trituration to four ounces of water.

Dose.-A teaspoonful every two to four hours.

## SODIUM SULPHATE.

The oxidation of the food and tissues gives rise to a certain amount of water which this salt is supposed to assist in eliminating. Disturbance of its molecules gives rise to bilious vomiting, watery, bilious diarrhœa, œdema of inflammatory character—erysipelatous, moist eruptions of the skin, diabetes, gout, bilious headache, etc.

The following suggestions may aid in selecting it:-Ague. Anasarca. Arthritis.

Bilious derangement. Bile, excess of, vomiting of. Bilious colic. Bilious fever. Blisters.

Cataract in diabetes. Colic, bilious.

Diabetes mellitus. Diarrhœa bilious. Diphtheria, vomiting of green water. Dizziness and bile. Dropsy. Erysipelas, smooth.

Face, sallow.

Gall-stones. Giddiness, from gastric disturbance. Gout, acute and chronic. Gravel; urinary sediments. Hypochondriasis.

Intermittent fever.

Lead colic. Liver, irritable.

Pemphigus. Preputial œdema. Remittent fever.

Sick headache, with vomiting of greenish, watery material. Skin affections, watery—eczema, humid tetter. Sleepiness, with excess of bile. Swellings, dropsical.

Urination, frequent. Urine, dark colored. Urine, sediment in; gravelly deposit.

Vertigo, with gastric derangement. Vomiting of bile or green water.

Yellow fever, for the vomiting in.

Form for Administration.—Add ten grains of the 3x trituration to four ounces of water.

Dose.—A teaspoonful every two to four hours.

# SILICA.

Silica enters into the composition of the connective tissue, epidermis, hair, and nails. Connective tissue is so interwoven with other parts that a remedy influencing it seems far-reaching in its effects. Thus bone and nervous structure is influenced because of the connective tissue it contains. Cartilage and bone, however, seem to possess an affinity for this remedy and are influenced by it. Cartilaginous growths, inflammation of cartilage in traumatic arthritis and osseous degeneration, as well as caries, find, probably, the most positive remedy in this agent, though too much should not be expected from any.

The following hints may serve to assist in selecting the remedy:-

Abscess.

Boils. Breasts, inflammation of. Bruises.

Carbuncles. Cornea, abscess or ulceration of.

Ear, discharge from. Eczema. Empyema. Eye, superficial ulcer of.

Feet, perspiration of. Furuncle. Fistula.

Gathered breasts. Gum boils.

Hip-joint disease. Hypopyon.

Indurations. Inflammations tending to suppuration. Injuries, threatened suppuration after. Neck, glands of swollen, with suppurative tendency. Nose, discharge from, chronic ozœna. Ostitis.

Pain behind the ear, rheumatic. Pains in the head upon the skull; pericranial neuralgia. Perspiration excessive; of feet with fetid odor. Purulent formations. Pustules.

Scales, vesicles, blisters. Sebaceous glands, suppurating. Skin and connective tissue, suppuration of. Suppuration threatening. Sweat, excessive.

Throat, sore, ulcerated. Tongue, inducation of after inflammation of. Tonsilitis. Toothache, deep seated, worse at night.

Ulceration of bone or soft parts.

"Weed". Whitlow. Wounds, suppurating.

Form for Administration.—The 6x to the 10x trituration. Dose.—From one to three grains, three or four times daily.

### BLOOD MAKERS.

# BLOOD MAKERS.

## ARSENIC.

This remedy serves a valuable purpose as a blood maker in certain forms of anæmia, if the dose be restricted to a minute quantity. In large doses the effect is too powerful, debilitating rather than improving the functions of the blood making organs.

Some relegate the remedy to those cases in which iron does not agree, but this would be too sweeping an adaptation, for iron fails to agree with a large majority of cases—at least fails to produce marked beneficial effect.

Chlorosis, especially if metrorrhagia be present, is often promptly benefited by it. Especially is this the case if the nervous element of the disease be markedly prominent, amounting to choreaic symptoms.

The anæmia of malarial cachexia also yields to this remedy, more promptly often than to any other drug, and the periodical attacks vanish as sanguification proceeds. A preferable form however in this case will be found the arseniate of quinia, one of the most positive agents in chronic malarial poisoning when administered three or four times daily, in three-grain doses of the 2x or 3x trituration.

This remedy also possesses a reputation in the treatment of pernicious anæmia, which it may be found well to investigate; for though such cases are rare, when encountered they tax our best resources to the utmost.

Form for Administration.—The 3x to the 6x trituration of arsenious acid is a favorite form with the homeopathists and many Eclectics. Fowler's solution contains 1-120th of a grain of the arsenious acid to the drop, and is often a convenient form for bedside prescribing.

#### BLOOD MAKERS.

Dose.—Two or three grains of the trituration; of the solution, five to ten drops to four ounces of water, of which a teaspoonful may be given three or four times daily.

# CALCIUM PHOSPHATE.

This remedy possesses positive virtues as an encourager of the blood making processes, in suprisingly small doses, as evidenced by the results that have been attained by its use in anæmia after the plan of Schuessler.

Some of the older Eclectics prized calcined deer's horn which is essentially the same thing, in anæmic states as well as for hæmostatic purposes, but it has fallen into general disuse. Positive remedies for anæmia however, are few enough to prompt examination of the merits of every one possessing any reputable character. Calcium phosphate is second to none of our remedies for the correction of stubborn cases of anæmia, if the prescriber can possess enough faith in it to give it a fair trial, and the patient enough in him to afford him the opportunity.

I have treated several cases of pernicious anæmia within the past few years with this agent, with a success I never knew while using the older remedies—those more in vogue for the purpose in our school (at least so far as the minute dose is concerned). One case was particularly striking: A married lady from Nevada, 28 years of age, consulted me for a condition of general prostration attended with anæmia, while on a visit to this city, who had been in ill health since the birth of her elder child, five years before, though under treatment almost constantly following that time. She complained of a persistent tired feeling, of poor appetite, and painful, difficult digestion; the mucous membrane of the mouth and throat was nearly always in an irritable condition, aphthous and hyperæmic, and there was chronic follicular inflammation of the tonsils. Careful examination of all the organs was made, but only a slight rectal disease was found in addition to what was already known. Her tissues were pallid and transparent.

The rectal disease (two inflamed pockets) was operaated and several standard restoratives and tonics tried in connection with general faradization, while phytolacca, penthorum, æsculus and other special remedies were directed to the oral and pharyngeal trouble; but no benefit following and the throat being especially troublesome I removed the tonsils after a month. Soon after this the patient went home, but still corresponded with me and received medicine by express, but was no better after three months. The following fall she went to Europe and remained all winter, but returned the following June not at all improved, and visited my office for further treatment.

Completely discouraged, I gave her half an ounce of the 3x trituration of calc. phos. with a two-grain sample powder and sent her home with instructions to take a dose four times a day. I received a letter from her in a few weeks, stating that she was very much improved, and requesting me to send more of the medicine. Within three months she was well without any other treatment, and she has remained well since.

## CHAULMOOGRA OIL.

The gynocardia odorata serves a valuable purpose in the anæmia of syphilis, where almost every other remedy fails. It also serves at the same time as a deobstruent to the lymphatics, averting induration and banishing the cutaneous and mucous patches. When its use is begun early, it promises more than any other remedy, to abort the serious constitutional effects of the disease. It is probable that to its power of preventing glandular obstruction is due its value in syphilitic anæmia.

### BLOOD MAKERS.

Form for Administration.—The chaulmoogra oil of commerce is solid in consistency and but sparingly soluble in alcohol. Equal parts of alcohol and sulphuric ether constitute a menstrum which answers all requirements. To this the oil should be added until a portion remains undissolved. This constitutes the tincture.

Dose.—Fifteen or twenty drops of the tincture in a swallow of water three or four times a day. The following prescription answers a good purpose in some cases:—

Tr. oil of gynocardia, zj.

Syr. stillingia comp., q. s., ad. ziv.

S.—Take a teaspoonful before each meal, and one at bed-time.

## COPPER.

Cuprum has held considerable of a reputation as a blood maker, in our school, owing to the prominence given it by Scudder in "Specific Medication". He considers the use of coppered pickles an excellent mode of administering it, though the tincture may be employed, probably with equal advantage. He prefers it where with the anæmia there is not great loss of flesh, the skin being waxy, with pallidity or greenish tinge of parts usually of red color.

Grauvogl offers the following rationale of the action of copper as a remedy in anæmia, referring to water charged with a compound of cyanogen termed iodosmone:—

"Moreover, if one smells too often of this water, or drinks even a small quantity thereof, he will experience in himself all the phenomena which precede cholera, followed by violent cholerine. The surest remedy to arrest, almost in a moment, this artificially produced state, is water impregnated with ozone. I convinced myself personally of the truth of this discovery. If we add to this the property of copper in a finely divided state of absorbing great quantities of oxygen, then the operation of

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## BLOOD MAKERS.

copper is explained according to a natural law; it operates inwardly, administered in a finely divided state, as a function-remedy, as an ozone-bearer, since, circulating with the blood, it takes up more ozone from the inspired air than does the blood, and imparts it to the blood. Accordingly, all disease-forms, in which copper is the remedy, are to be referred to a lack of ozone, or an overplus of iodosmone in the blood, and these disease-forms naturally constitute as comprehensive a group as the atmosphere forms a comprehensive condition of life."

Forms for Administration. —The tincture, and triturations of the acetate.

Dose.—Add ten drops of the tincture to four ounces of water and order a teaspoonful four times daily. The 3x to the 6x trituration of the acetate of copper may be administered in two or three-grain doses twice or thrice daily.

## FARADISM.

The satisfactory effects of this agent, in many forms of anæmia, place it at the head of the list as regards promptness of action. Medicine may be reliable, but much time is required in the majority of cases to bring about the desired effect. With this agent, however, the anæmic patient may be made to improve speedily, almost from the first moment, and a few days often suffice to accomplish results that may require weeks of the most successful medication.

The secret of this is probably the pronounced effect exerted upon digestion and assimilation, pabulum being thus furnished, while innervation is so improved that it is promptly appropriated.

The effects of faradism in chlorotic and puerperal anæmia are often almost marvelous in their promptness, no matter how long the condition has been existing. Other forms of anæmia also often yield to its effects, though pernicious anæmia cannot be modified by it in very many instances.

In the marasmus of infants following cholera infantum it has no equal, and, if properly employed, is capable of saving many a bud of promise otherwise doomed.

The plan of application that I usually employ is simple, and at the same time efficacious: Place both feet on the positive electrode and apply the negative with a moisttened sponge to the nape of the neck, allowing the current to pass in this position for from five to ten minutes. Now place one foot on the positive and the sponge attached to the negative in the opposite hand for from three to five minutes; then change the positive to the opposite foot and the negative to the opposite hand. The current should be strong enough to be plainly felt by the patient, but not so strong as to cause cramping of the muscles. I prefer a good Kidder battery to all others, though there are other styles probably as good.

By this method I have cured every case of chlorotic anæmia encountered for the past fifteen years in a few weeks' treatment each. As these cases are generally complicated with chorea the spasmodic symptoms also yield.

I have had remarkable results from the use of faradism in puerperal anæmia, though some cases refuse to yield to it. However, the remedy is always worthy a trial in such cases, as in the event of failure the result would hardly be worse than that of a salutary influence upon the general system. Usually the debility, palpitation of the heart, nervousness, insomnia, anorexia, and other unpleasant symptoms readily yield to the influence, and health is speedily established. Even where the debility has resulted in anasarca, the effect of the agent is soon observable in the change from the pallid, puffy, transparent appearance of the tissues to one of natural elasticity and tone. Six weeks of such treatment will usually restore

#### BLOOD MAKERS.

these cases, treatment being repeated every other day for the first fortnight, and afterward twice a week.

The above are examples at random of many similar instances where I have seen apparently incurable cases yield like magic, before the influence of the induced electrical current.

# FERRUM.

Iron being a component part of red blood corpuscles it is believed to be an important blood maker, and stands prominently out as a remedy for anæmia in all the older authorities upon therapeutics. But it has been proven, in the matter of body supplies, that an agent, even though its representative exist in the body, does not necessarily go to the production of that representative after entrance into the circulation. And if iron could be supplied in that manner, as it probably may, but a small quantity is necessary to furnish all that the hæmatin requires.

If anæmia then depended upon lack of iron, a very small quantity would supply the deficiency and cure, when the fact is that large quantities, over a period of months, often fail to produce any effect worthy of credit.

But the majority of the profession is yet so much in favor of iron as a restorative that we will quote a few lines from Ringer, upon some of the questions of practical issue:—

"In the treatment of anæmia many physicians advocate the use of large doses of iron salts; others, instancing the beneficial effects of ferruginous waters, strenuously maintain that all the good effects are obtainable from very small doses. In many instances, no doubt, anæmia is curable by the employment of small quantities of iron, but it is likewise certain that large quantities, when they can be borne, act far more promptly.

"It is an interesting and important question, How much iron is absorbed into the blood? Probably but
#### BLOOD MAKERS.

little of the insoluble forms, as the quantity of acid in the stomach is not adequate to dissolve them; and as regards the soluble preparations, it is hard to say how much gets into the blood. The increase of iron in the urine being very slight, after administering a soluble iron salt, it has been concluded that very little passes into the blood, and the fact that almost all the iron taken by the mouth may be re-obtained from the fæces, seems to strengthen this view; but an extended knowledge concerning the elimination of metals from the body shows this to be fallacious. Probably most metals, but certainly iron, are eliminated from the system through the intestines, and make their exit through the fæces; for when iron salts are injected into the blood, almost all the metal is ultimately recoverable from the fæces. That much more is absorbed than is appropriated by the blood corpuscles, is shown by the coloration iron produces in all the albuminous secretions of the body, the fluids bathing the various cavities becoming colored reddish-brown.

"In anæmia we have both deficiency in the amount of red corpuscles and deficiency in the quantity of coloring matter in the corpuscles; or defective coloration may exist alone. Iron increases both the coloring matter in the corpuscles and the quantity of corpuscles.

"In anæmia iron salts possess other important properties than their influence over the growth of the corpuscles. They act bracingly on the relaxed mucous membrane of the digestive canal and probably in this way tend to restore its functions. Morever it is highly probable that after its entrance into the blood the iron exerts an influence beyond that of increasing the quantity of red corpuscles; hence iron is useful not only as a force to promote the formation of blood discs, and so improving general nutrition, but likewise on account of its beneficial influence on the tissues."

#### BLOOD MAKERS.

Among the numerous preparations of iron, there are two which may be considered worthy of special mention, viz., ferric phosphate and Howe's acid solution.

Ferric Phosphate.—This is one of the Inorganic Proximate Principles, and has been fully noticed in that group.

Howe's Acid Solution of Iron.—This preparation has afforded satisfaction to numerous practitioners of our school in anæmic conditions, especially when complicated with dyspepsia. The method of preparation is given below, by the originator, Professor A. J. Howe, M. D.:—

# "R Water, Oj.

# Nitric acid, fziv.

"M. Sig.—Add 3j of sulphate of iron, letting stand in an open mortar for 48 hours, and stirring occasionally with a glass rod. At last filter, then the medicine is ready for use. Dose: Two drops in water every three or four hours."

The same writer comments further upon this preparation as follows, in a letter to Lloyd Brothers :---

"The formula for this preparation you have long used, is a ferruginous preparation which is becoming so well known among Eclectic physicians that I do not wonder you ask in what pathological states I employ the remedy. Given in two-drop doses every three hours, the agent improves the appetite, promotes digestion and aids assimilation in anæmia. A peculiarity of the medicine is that it never provokes fever or febrile phenomena, as do most preparations of iron. I have extensively used the remedial agent for twenty-five years, and I have yet to meet the first case where harm resulted from its administration. I exhibit the medicine when an alterative is indicated, and a tonic effect is desired. Curable patients invariably gain flesh under its therapeutic influence. Incipient phthisis commonly is arrested by the alternate use of acid solu-

#### BLOOD MAKERS.

tion of iron, two drops, and Fowler's solution of arsenic, one drop of the latter constituting a dose, every three hours. Both agents should be amply diluted with water.

Acid solution of iron is one of the most potent curatives of systemic syphilis I have ever tried. I prescribe it every third day, Fowler's solution on the second day, and biniodide of mercury in tablets on the next day, the fiftieth of a grain of the latter being a dose. Four doses of either are enough for the day they are taken. The medication may be kept up for months.

"In the management of epitheliomatous and carcinomatous diseases the same course of medication should be employed as in the treatment of constitutional syphilis. In fact a similar course is needed in the medication of scrofulous patients who suffer from hip disease, curvature of the spine, fistula, eczema, psoriasis, and most other obstinate forms of skin diseases. And experience has convinced me that the "Iron Solution" is as efficient an alterative as either of the other medicines mentioned. You ask for the modus medendi of the remedy, but I can only state what experience warrants me in affirming: I have learned the efficacy of the agent *tentatively*—the best way to prove any remedy."

# OXYGEN, OZONE.

Oxygen gas has been used with success in the treatment of anæmia resulting from loss of blood or suppurative discharges. It increases the appetite, stimulates digestion, and aids the formative power in the blood-making processes.

Ozone is enthusiastically recommended by some practitioners, as a remedy for anæmia. The apparatus for the generation and storage of these gases is somewhat expensive and may deter the general practitioner from making avail of them, but the office prescriber should be prepared

to employ both the oxygen and its allotropic form when they are needed, as they doubtless supply an important desideratum in many instances, possibly filling a place not otherwise provided for.

Oxygen and ozone have both been used in liquid form, the gases being held in aqueous solution. A familiar name for oxygenated water is "peroxide of hydrogen."

# SULPHUR.

Sulphur is sometimes serviceable in anæmia to augment the action of other restoratives. In the case of iron, especially, this remedy is asserted to be a valuable adjunct when the system fails to respond to the un-assisted influence of the ferruginous agent. Dr. E. M. Waterhouse observes (*California Medical Journal*): "We will find numerous cases of disease of the female reproductive organs that can be traced to a scrofulous condition, which may be relieved by this remedy alone. In some of these cases we find anæmia that the usual prescriptions of iron do not reach; here we alternate the iron with small doses of sulphur, and all goes well."

Dose.—For such purposes as this the minute dose answers the best service; for instance, two or three grains of the 2x or 3x trituration, three or four times daily.

## ACIDUM BENZOICUM.

This remedy is accredited with the property of manifestly increasing the acidity of the urine. In those cases of vesical or urethral irritation where the discomfort is referable to alkaline urine, it offers more promise perhaps than any other agent.

A deep red, almost brown color of the urine is considered by Dr. Jeanes as a specific indication for its use. With this symptom an intensification of the natural odor of the secretion usually exists. When excessive acidity is present, or this characteristic symptom, attended by enuresis, dysuria, or syphilitic or gonorrheal affections accompanied by irritability of the urinary apparatus, or an irritable bladder attended by muco-purulent or phosphatic deposits, this will be found one of the most reliable of remedies.

Form for Administration.—I have found the 3x trituration, in two, or three-grain doses, three times daily, to answer an admirable purpose.

## ACIDUM HYDRIODICUM.

I cannot do better, in referring to this agent, than quote the following, by J. V. Shoemaker, M. D., in the Dietetic Gazette:—

"If any alterative is more in demand than the iodides, it would puzzle therapeutists to agree upon its name. Many obscure deviations from health exist, amounting not always to pronounced disease, which will not give way to simple tonics or to depurants of the purgative order. These maladies are the bane and torture of a busy doctor, and many times he gets them out of his list by the use of iodides. Then again, when well defined cases of scrofula

and syphilis are under our care, the value of a good alterative is pre-eminently a question of moment. Unfortunately the iodides in large or long continued doses have a tendency in many instances to inaugurate stomach disorders, and yet the absolute need of the remedy is apparent. What then shall we do?-We can have recource to hydriodic acid. For years this agent was officinal in the dispensatory, but it was dropped because of its unstable character, which made it not only unpleasant, but unsafe to administer. For almost ten years the acid was unobtainable, until in 1878, when Mr. R. W. Gardner, of New York, introduced the agent in the form of a syrup, which the best tests have shown to be unalterable by any ordinary exposure in the sick-room, unless in hot weather when, of course, it should be excluded from either extreme of light or heat. Sufficient time has now elapsed to demonstrate that the claims made for the syrup are well founded, and that it replaces the salts of soda and potassa in an entirely satisfactory manner. An important addition in the form of hydriodic acid has therefore been made to current therapeutics. By the use of this syrup we obtain, in a palatable form, iodine in its most effective state. Mr. Gardner has shown that :---

"When not decomposed, hydriodic acid is of a lightyellowish color, is perfectly non-irritant, gratefully acid to the taste, and rendered still more acceptable if combined, as in this preparation, with sugar.

"In chemical composition it consists of one equivalent each of iodine and hydrogen (H I). As the equivalent of iodine is 127, and that of hydrogen 1, it follows that the proportion of hydrogen present as compared to iodine is less than 1 per cent (78–100 of 1 per cent). Absolute hydriodic acid is, therefore, nearly pure iodine. It affords the most natural and effective means of assimilating iodine, as the hydrogen with which it is combined is one of the largest elementary constituents of the body. The combination renders iodine more assimilable, therefore, because in physiological harmony, while it is medicinally more active, and deprived of its objectionable irritant properties, and changed from a most disagreeable to one of the pleasantest of remedies.

"One fluidounce of this syrup contains 6.66 grains of iodine converted into hydriodic acid. Its action will be found more efficient in equivalent doses than iodide of potassium, while it produces none of the unpleasant effects of the latter, such as loss of appetite, soreness in the fauces, nausea, etc. Physicians who use iodide of potassium largely will appreciate this, because it is more active than iodide of potassium, and should be given in smaller relative doses, thus not interfering with digestion.

"Its effect upon mucous surfaces is more marked than with other forms of iodine, while it is effective in smaller relative proportions, and when required it is so free from irritant action that it may be given to the youngest infant. Our chemist just quoted further adds that hydriodic acid has a characteristic subacid taste, and if the syrup contains about 6.66-100 grains in one fluidounce, it will taste like lemon syrup or lemonade. Consumers of the syrup can be guided as to any deletrious change in it by noting the color. When decomposition has occurred in syrup of hydriodic acid, it first becomes red and finally black. This is owing to the very feeble chemical affinity existing between its elements, and is caused by the gradual oxidation of the combined hydrogen into water (HO) and the consequent freeing of iodine which passes at once into solution in the remaining hydriodic acid.

"In this condition it is unfit for medical use, because the irritant action of free iodine is again restored.

"It will be seen that this change is inherent, though it may be delayed. After this change has commenced, how-

ever, it is progressive, and the preparation cannot be restored to its former condition.

"The best method of preventing this change is to keep the syrup in as cold a situation as possible, in a refrigerator if convenient, during warm weather, and carefully excluded from air by keeping it well corked.

"The syrup of hydriodic acid is especially serviceable in hay fever, acute and chronic rheumatism, chronic bronchitis, and in many chronic congestions of the mucous tract. Probably the greatest value to the practitioner of syrup of hydriodic acid will come from its employment in syphilis, particularly in the latter stages. The stomach is often rebellious at this time, for it has most likely been surfeited with mercury. Many cases drag along under iodine because not enough of it can be borne, and mercurials frequently are not only useless, but at times injurious. Instances such as those related bear admirably large doses of syrup of hydriodic acid. Some cases have come under my observation in which the patients were at a standstill, who at once brightened up and rapidly improved under the use of the syrup of hydriodic acid. If thought desirable, the biniodide of mercury (the red salt) can be used at the same time, because it (the green salt) would be converted into the former salt, and unless care was taken the unexpected activity of the syrup thus prepared would exceed the prescriber's expectations, and possibly injure the patient. In syphilis the syrup can be pushed, if needed, until the characteristic saturation is evident, or until the metallic taste becomes pronounced. and we know that iodism is near at hand. It is advisable, however, not to carry the the administration so far.

"In rheumatism the syrup may substitute the alkalies and may cut acute attacks short sooner than the ordinary drugs that are usually prescribed. It is certainly a useful article in chronic muscular rheumatism. It has done

good service in my hands in sciatica. It may be administered during acute rheumatic attacks without reference to the fever, and in moderate doses, say a teaspoonful or two every two hours. Of course it will not act promptly and effectually in all cases, for rheumatism is notoriously fickle as related to curative agents. In bronchial disorders small and frequently-repeated doses are better than large ones. It may be administerd in this latter affection in from twenty to thirty drops every two hours. The syrup has been recommended in chronic arsenical poisoning, several cures being noted. In lead poisoning it has also been serviceable. In obesity the steady administration of the syrup of hydriodic acid with suitable regimen has a very happy effect. We are not too well supplied with agents of repute in this disagreeable complaint, hence a note on this point in reference to its use in this respect is of utility.

"Many skin diseases are benefited by the syrup of hydriodic acid. In connection with cod-liver oil it is valuable in some varieties of eczema, particularly in children. It is especially efficacious in the form known as scald head, which is often so obstinate and unyielding to many Scrofulous persons (those predisposed to remedies. glandular troubles) receive decided benefit from its use. The red-eved children, those having recurrent granular lids, with repeated attacks of mild conjunctivitis, derive great relief from syrup of hydriodic acid. A case of amyloid liver with fatty heart, in the practice of Dr. F. A. Burrall, of New York, was notably aided by the syrup of hydriodic acid, and he indorses it in glandular troubles generally. Dr. Blackwood, of Philadelphia, has employed it largely in his practice, and reports cases of exophthalmic goitre, lumbago, and uterine catarrhs, which were cured by the syrup. It is desirable that hydriodic acid should be given by itself; inasmuch as it is very suscep-

tible to chemical action, combinations with other remedies might act injuriously upon it. Metals and alkalies are incompatibles, so also are oxidizing agents, as, for instance, acids, and permanganate and chlorate of potassium. These would form iodic acid, which would be highly injurious to the patient. If intolerance becomes apparent, the syrup should be dropped for a week or ten days, when most likely the stomach will have recovered its tone, and it may again be administered. Unlike many remedies which, when once objected to in this way, are never likely to be good again, the syrup is just as palatable and equally efficient when taken up after vacation (so to speak) as when first given, which is an important characteristic of this remedy. Although syrup of hydriodic acid is used by many practitioners, we call attention to it, believing that a wider knowledge of it is desirable, and feeling certain that a careful trial by physicians at large will add to their armamentarium an important remedial agent, and that they will learn to appreciate its value as we have, by its employment in a wide circle of disease for many years."

I have recently been successful with this agent in the treatment of a case of persistently recurring dermatitis with erysipelatous manifestations. Here the fault was evidently more general than local, and it proved stubborn against a number of reputable medicines, but yielded to this, in a few days. I gave teaspoonful doses, every two hours during the day and evening. This is all my experience with it thus far.

# ACIDUM HYDROBROMICUM.

This agent belongs to the list of remedies influencing the nervous system, but it has been credited by some observers with corrective influence as a plasma remedy. Dr. E. M. Hale in his New Remedies commends it in febrile states where restlessness and irritability are marked symptoms and where there is an abnormally *red tongue*, with dryness. Dr. Kilgour in his Therapeutic Indications speaks highly of it, though the picture he offers as indicating it is more complicated.

Dose.—The diluted hydrobromic acid may be employed in doses ranging from half a fluidrachm to half a fluidounce, diluted in sweetened water.

## ACIDUM MURIATICUM.

Hydrochloric acid is one of our most reliable correctives. Many years ago, Professer King taught that the dark-red mucous membranes were indicative of the need of acids in the system, and prescribed the vegetable acids in the form of acceptable drinks in such cases.

Years later, Professor Scudder taught, accepting the principle laid down by King, that muriatic acid came nearer being a specific for this condition, and this has become a bit of practice sanctioned and endorsed by the Eclectic school almost without demur.

The proposition of the dark-red mucous membranes however requires some modification. The dark-red color liable to be present in some cases of cardiac complication or other states tending to imperfect decarbonization of the blood should be left out; but when the tongue is darkred and slick, resembling beefsteak in appearance, the condition being evidently that of a depraved state of the fluids and not to obstruction of the circulation, whether the disease be acute or chronic, febrile or nonfebrile, muriatic acid becomes the leading remedy until the peculiar appearance of the tongue described has been replaced by a more natural color.

The principal use of muriatic acid is found in the management of protracted fevers, where a typhoid condition is liable to follow. Dysentery, pneumonia, erysipelas,

and, even rheumatism may develop the dark-red mucous membranes and demand this remedy. It would not be necessary to name the disease in order to render the agent applicable, if the properly discriminated beefsteak tongue were present.

Form for Administration,—Diluted hydrochloric acid is the preferable form for administration. This is prepared by adding about one part by bulk of the strong acid to three parts water. This may be preserved in a glass-stoppered bottle for ready use. Then, add two or three fluid-drams of the diluted acid to four ounces of water, or simple syrup; of this a teaspoonful may be administered every three or four hours.

# ACIDUM NITRICUM.

Nitric acid is seldom called for as a plasma-corrective. Old-school authorities commend it as a remedy in the dyscrasia of syphilis but usually prefer the nitro-muriatic instead. Scudder considers this remedy specifically indicated when the tongue presents a violet haze or film, whether the organ is pale, rose-red, or deep-red.

Dr. Kilgour, in his "Specific Indications," pronounces the carmine-colored tongue, a colour resembling the comb of a strutting turkey-gobbler, as specifically indicating the remedy as a corrective. It is a pity that physicians and possibly we might include medical teachers—are not judges of color, then a better application of specific indications might be made.

A plasma-corrective is indicated whenever the characteristic symptom is present, without regard to the name of the disease. Epidemic influences may somtimes be at work, and though we may not know what these are, or the exact pathological condition present, some particular remedy may be found upon trial to promptly benefit every case presenting the indicative symptoms of the epidemic influence; this may be a characteristic cough, or it may present itself in the form of a peculiar complication of pneumonia, dysentery, or fever, rendering every case uncommonly persistent or severe. Then the proper corrective becomes the epidemic remedy and is indicated without regard to other treatment. Nitric acid has thus been a remedy in some epidemics of whooping-cough, of typhoid dysentery, of pneumonia, and some of the continued fevers.

Form for Administration.—Diluted nitric acid, prepared by adding one part of the strong acid to six of water.

Dose.--One drachm of the diluted nitric acid may be added to four ounces of water, and a teaspoonful adminstered every three or four hours.

## ACIDUM SALICYLICUM.

Salicylic acid is a corrective of the condition which tends to rheumatism. I believe that rheumatism remedies may be divided into two classes; one of these specifically effect the muscles, acting rather as stimulants to the recuperative powers here or as deobstruents to remove the pain-producing cause, while the other class to which salicylic acid and some others belong, corrects a blooddyscrasia tending to the condition.

In septicæmic states, especially in puerperal fever, it has proven an agent of great value as a corrective, operating possibly somewhat as baptisia or echinacea, by dynamically influencing the corrective power of the blood-making organs; though the agent is chemically an antiseptic.

On account of the irritating influence of salicyclic acid upon the gastric mucous membrane many prefer the salicylate of sodium instead. As a corrective in rheumatism, especially where an alkaline treatment is admissible, this is fully as effective and less objectionable, but as an antiseptic in blood-poisoning the salicyclic acid is better.

Form for Administration.—The acridity of this agent may be best avoided by administering it in capsules. If the dose is to be very small, the 1x trituration may be employed.

Dose.—The dose of salicylic acid varies from one to ten grains of the pure acid. Inflammatory rheumatism may demand the maximum dose which may be repeated every six hours, but it should be remembered that such quantities have produced fatal collapse and should be employed with caution and misgiving. Three grains represent a fair-sized dose, in fact all that can be judiciously administered for any length of time. As an antiseptic still smaller doses answer as well if not better.

## ALSTONIA CONSTRICTA.

This agent proves a corrective in malarial cachexia. It has been termed an antiperiodic by some writers, but the term is hardly appropriate, I believe, as it cures chronic ague, not by interrupting a habit so much as by correcting the depraved state of the fluids which predisposes to it.

In chronic malarial cachexia this remedy has no superior, if any equal. Dr. Fearn, with whom it has been a favorite for a long time, considers the special indications for its use, to be the dirty tongue, sallow skin, and turbid urine, in connection with periodicity.

Though not all strictly applicable to this place, the opinions of Dr. F. are so valuable as to this remedy that I will quote at some length from an article contributed by him to vol. 7. of the *California Medical Journal:*—

"As an antiperiodic, first prepare the way by the use of the bath and special sedative, just as you would for quinine. The powdered bark is the most generally used; this may be given in capsules containing from two to five grains each, repeated every hour for three or four doses, 4

giving the last capsule one hour before the expected trouble; this may be repeated the second or third day to make sure. Dr. R. E. Kunze, of New York, attributes to it slightly narcotic, cerebro-stiumlant, antiperiodic, febrifuge, and tonic properties. He thinks it contraindicated in patients of delicate and highly nervous organization. In such patients it might produce head symptoms. I have heard of no complaint of this as yet. It is true it is an intense and lasting bitter, but this is overcome by administering it in capsules. C. P. Higgins, M. D., who has frequently used this medicine as an antiperiodic as above, says it will often act as a powerful diaphoretic. More often its action in this direction is mild. But it is not only the antiperiodic properties of this drug that will win for it laurels, it will also be found to be a most excellent tonic, having properties very much like nux vomica. In general nervous depression, when that depression arises from lack of digestion and assimilation, it is a good remedy, and may be given in doses of from one to two grains every three or four hours. Dr. Scudder says: 'It is a cerebro-spinal stimulant and tonic, acting positively upon the great sympathetic nerve centers and consequently increasing positively and permanently the vital forces of the entire system.' I quite agree with Dr. Scudder in this opinion. In all diseases of the digestive tract, accompanied by loss of appetite and depraved secretions, when we want a stimulant tonic to arouse the slumbering energies and vital forces, this remedy is a very good one."

Form for Administration.—The best form for use is a powder of the bark, administered as Dr. Fearn has suggested, in capsules. The fluid preparation is too bitter to permit an effective dose to be administered without its being objectionable.

Dose.—Two or three grains of the powdered bark in a

capsule, given *after* meals, suffice for an adult. It may be advantageously combined with caulophyllin or macrotys in rheumatic complications, with chionanthus or chelidonium in appropriate hepatic disturbances, or polymnia when splenic complication exists.

# AILANTHUS GLANDULOSA.

This remedy has been much vaunted by the homeopaths as a reliable corrective in malignant forms of scarlet fever. They assert that the provings develop symptoms similar to those in which it proves curative. However this may be, clinical experience has proven the drug a valuable one in some scarlatinal cases, and we will not hestitate to employ it whether it be considered an endorsement of homeopathy or not. This is good Eclecticism at least.

In the putrid, malignant typhoid forms of scarlatina, we may find ourselves put to task for a remedy to meet the intensely prostrating effects of the systemic poison present, and may find that this will be just the thing needed. I have tried it on several occasions where I was well pleased with the results.

In such cases the eruption is dusky, carmine in hue not bright-red as usually—the temperature is high, 105° or more, with pungent heat of skin, the pulse is small and so rapid as to hardly be counted, the breathing is hurried and agitated, there is great thirst, and usually delirium and coma are present. The tongue also presents a dusky hue, is dry, parched, and cracked, and there are sordes on the teeth. Involuntary discharges of urine usually attend this state.

Typhus fever also affords a place for this remedy, and on this coast, especially, it may often be used with advantage where low forms of fever, marked by "sinking" are not uncommon. Evidence of blood depravation in these cases may place this remedy in the group that will arise in the mind of the practitioner as adaptive here. For example, baptisia, echinacea, etc.

Dose.—The dose may vary from one to ten drops of the 2x dilution. Scudder recommends from the fraction of a drop to ten drops of the specific medicine, but I have had better results with the 2x dilution—adding a teaspoonful to ten of water and giving a teaspoonful every hour.

## AMMONIUM SALICYLICUM.

Salicylate of ammonium has not yet earned a wellestablished reputation as a blood corrective, but it has been tried sufficiently to warrant a fair notice of its merits and suggest further trial. It has been recommended in certain quarters to abort typhoid fever, and as this disease is idiopathic, it is fair to infer that such an effect must be due to an impression made upon the circulating fluids.

In Vol. X of the *California Medical Journal* is a reprint of a paper first published in *Progress*, in which the virtues of this remedy as an antiseptic and corrective are discussed at considerable length, and from which I will quote. The author is S. P. Deahofe, M. D. :—

"In 1886, J. R. Barnett M. D., of Neenah Wis., Chairman of Committee on Practice of Medicine, read a paper before the State Society on the treatment of fevers in which he recommended salicylate of ammonium, having used it for two years. The title of his paper was 'Salicylate of Ammonia as a Specific Germicide, Antiseptic, and Antipyretic, Especially Adapted to the Treatment of Typhoid and Allied Fevers and Septic Inflammations,' and his conclusions were:—

"1. The salicylate of ammonium is ranked among the most efficient of the antipyretics.

"2. In all fevers characterized by extreme adynamy it

ranks among the safest, owing to its ammonium base and resultant stimulating properties.

"3. It is stimulant as well as antipyretic, and this of itself fulfills indications only met by a combination.

4. "It is an agent of wide germicidal powers, being promptly efficient in affections of great etiological and pathological differences, each confessedly arising from its own proper specific infecting micro-organism.

5. "As a remedial agent in typhoid and remittent fevers, it is unsurpassed, aborting them at the outset under favorable conditions, and greatly mitigating their severity and danger under circumstances less favorable.

"In June, 1888, he read another paper before the same society, in which he says: 'More than fifty cases have fallen under my personal observation which have afforded substantially the same results; some were aborted in the first two or three days of high temperature after a preceding malaise of several days; some ran a week, and some nearly two weeks, with mild symptoms throughout, but three cases lasting beyond the tenth day. Out of a total of seventy cases of typhoid only two died, one from enormous epistaxsis on the seventh day, the treatment in this case being mostly quinine on account of the hemorrhage, the other from intestinal hemorrhage on the third day of sickness in bed with a fall of temperature to 99°, dying early next morning, he being a hard drinker. Dr. Barnett says its effects are undoubtedly sedative and depressing. He gives the following formula:-

R Acid Salicyl., zii.

Am. Carb., ziii.

# Aq. Menth. pip., fziv.

"M. Sig.—A teaspoonful every two hours; this may be doubled in many cases. Symptoms of asthenia require an increase of the am. carb.; on the other hand if the stomach be irritable any alkaline excess is objectionable

and a neutral solution is preferable. By taking out twenty grains of the ammonium from the above formula, a neutral solution is obtained. It lessens the frequency of the intestinal discharges, modifying their character for the better. Where constipation is present it seems to The explanation of this is the natural act as a laxative. evolution of the disease. Cutaneous and renal excretion are greatly stimulated by the salicylate, the quantity of urine is augmented, grows lighter in color, and less offensive in smell. Headache is relieved to a degree out of proportion to temperature ebb, probably from an analgesic property; sleep is invited, the comfort of the patient is in every way promoted, except the ringing in the ears, auxiliary treatment is rarely required. It chemically changes the ptomaines or undetermined noxious substances, so as to render them innoxious, without necessarily destroying the vitality of the bacteria causing them.

"Prof. Larrabee, of Louisville, in a paper before the section on diseases of children at the meeting of the American Medical Association before referred to, said: 'I' am satisfied that Dr. Barnett, of Wisconsin, and others. are correct in the statement that according to the accepted theory of heat production in fever, ammonium is the proper base for salicylic acid;' and in a private communication gives five reasons why it is so. He says, 1st. That he has found it practical. · 2d. The stimulating influence of all ammonium preparations upon the vasomotor centers of the spinal cord. 3d. It prevents coagulation of the blood, to which in the adynamic disease, with loss of watery constiuents of the blood corpuscles, there is a marked tendency. 4th. It retains the fibrinogenous matters in the blood. 5th. It is itself oxidized in the system, becoming nitric acid, and there lessens or inhibits the ozonizing functions of the blood, preventing or

checking, to a great extent, metamorphosis or transformation of tissue.

"Dr. Sullivan, of New York, says: 'It will not reduce the temperature as rapidly as antipyrine or antifebrin, but the antipyretic effect is more lasting than that produced by either of these agents.'

"Dr. Oscar A. Fliesburg, of Hudson, records his experience in typhoid as follows: 'I have been able to reduce temperature in a short time from 105° to 99° and keep it there. My cases have progressed without much other medication to a favorable end in a shorter time than by the older methods. The fact stands undisputed that in salicylate of ammonium we possess a sure remedy to reduce temperature, and by its germicidal and antiseptic properties are able to abort zymotic diseases.'

"Dr. D. L. Sauerherring, of Wausau, in describing an epidemic of fever, says; 'The remedy par excellence proved to be the salicylate of ammonium. It invariably reduced the temperature to  $99^{\circ}-100^{\circ}$ , keeping it there during the entire course of the disease, diminishing the rate and force of the pulse and causing in the majority of cases profuse diaphoresis. When given early it would generally break up an attack, the patient being able to be up and about the house in two or three days.' He says he is unable to explain the action of the drug.

"My own experience with salicylate of ammonium in typhoid fever is limited to four cases, in three of which there can be no possibility of mistake in diagnosis, there being seven cases in the same family within less than three months, several of them being quite typical. The first case, that of the mother, not being typical, I failed to make a diagnosis properly, thinking it was only remittent, and took no precautions in the way of disinfectants. The family being anything but cleanly, I thus account for the disease going through it, all taking the fever except one.

"My first case which I treated with salicylate of ammonium was a young lady, aged about twenty-two, taken to bed, sick, November 10th, 1888, after nearly a week of I was called in November 14th. malaise. A diagnosis was readily made, it being the third of the family taken sick. Having just read Dr. Barnett's paper, I determined to give the remedy a trial, but not having any salicylic acid on hand I put her upon a placebo, until I could secure some; accordingly, on the 16th I put her on the remedy, and on the morning of the eighth day after taking the salicylate she was clear of fever and remained so, her temperature falling from 104° to 101° by the fourth day. A severe diarrhœa rapidly disappeared without any auxiliary treatment, the patient not experiencing any unpleasantness from the remedy.

"The second case was a brother, aged eighteen, who took to bed, after over a week of malaise, while the first case was yet in bed. I at once put him upon the same treatment, except slightly increasing the dose. The patient was entirely free from fever in six days.

"The third case was also a brother, aged three years. This case was also placed upon the same treatment, with the same gratifying result, but took a relapse, and was again put on the same treatment with the same result.

"There seemed to be a feeling of well-being early manifesting itself in each of these three cases. Another case in this family begun with croupous pneumonia and I did not put her on the salicylate, but treated the complication as if primary. The last case in this family, a boy about eight, was very mild and I did no more than restrict his diet.

"My fourth case was that of a young man, aged twentythree, section hand on the railroad, who lived in a village where a number of cases of typhoid had broken out and were being treated by the physicians.

"On the fifth day of his sickness in bed, his father placed him in a bed prepared on a wagon, and brought him home, a distance of about seven miles, where I was called to see him. The case seemed to me to be a typical case of typhoid. I at once placed him upon the salicylate of ammonium, as in the three previous cases, except that I just doubled the dose, with the result that on the fourth day he was clear of fever and remained so. In this case there was pretty free sweating, but not so in either of the preceding cases.

"There may be a doubt as to this last being typhoid, but the symptoms—malaise for nearly a week, epistaxis, headache, general aching of the back and extremities, gradual onset of the fever, abdominal tenderness and tympanitis, together with the history of a number of cases in close promixity in the village, point very strongly to typhoid fever."

## ARSENIATE OF QUINIA.

The arseniate of quinia is a valuable corrective in malarial cachexia. It is not the marked antiperiodic that quinia is, though this property is more pronounced in it than in arsenic. Still, it cannot be administered to interrupt a periodic manifestation with the feeling of certainty that attends the administration of full doses of quinine.

However, in cases where quinia cannot be tolerated, or where children cannot be induced to swallow it either in powders or capsules, this drug is pretty certain to interrupt periodicity in a few days at least, and in the 2x or 3x trituration is not very objectionable.

As a remedy to complete the cure of uncomplicated intermittents, this remedy, in small doses of the 2x or 3x trituration, is very reliable. Even in chronic ague, after complications, as splenic hypertrophy, hepatic topor, etc.

it has but one successful rival, this being the alstonia constricta.

Form for Administration.—The 2x or 3x trituration constitutes the best form for administration. This may be taken dry on the tongue or administered in capsules, in doses of one or two grains three or four times daily.

## ARSENICUM.

Arsenic is a greatly overestimated remedy and yet one worthy of more than passing notice. It is a remedy also which has been greatly abused in its time, the heroicdose custom with the dominant school leading to the use of such quantities as to sometimes give rise to poisoning of insidious and persistent character. If any good can be obtained from this agent it must be in the minute dose.

Scudder and Howe both commend arsenic as a corrective where there is tendency to the deposit of tubercle, where there is depravement of tissue—want of nutrition, or vital integrity.

Professor Howe employs it in phthisis and carcinoma.

As a remedy to relieve the pains of cancer it is a valuable resource, in many instances, though here the dose must be more material in size—three to five drops of Fowler's solution.

Scudder regards those cases of malarial disease in which the pulse is compressible and feeble, tissues relaxed, extremities cold, and tongue pallid and expressionless, as being typical ones for its selection.

In cholera infantum where such a condition exists and there are frequent small, thin discharges—not mucous, it often proves a valuable corrective.

Typhoid fevers attended by marked adynamia afford a field for the exhibition of arsenic and it has been a wellknown remedy for ague in our school for many years.

Form for Administration .- Fowler's solution represents

the first decimal dilution, and is a very good form of the drug for dispensing. The 3x trituration of arsenious acid is also a favorite form for administration with me.

Dose.—Ten drops of Fowler's solution may be added to four ounces of water, and of this a teaspoonful given, three or four times daily. The 3x trituration may be administered in from one to three-grain doses as often.

## AURUM.

Gold enjoys considerable of a reputation as a remedy for syphilis. It has been used in the form of the pure gold leaf triturated, the muriate, and the chloride of gold and sodium.

The best effects follow from its administration in the advanced stages of the disease, where the tendencies are to ulceration of the bones, especially those of the nose. It is especially indicated where the mental sphere is implicated. Melancholia, with a broken-down constitution from syphilitic dyscrasia, is a special indication for its administration.

Form for Administration.—The chloride of gold and sodium is readily soluble, and easily triturated. It may be carried up to the 3x, either by dilution or trituration.

Dose.—From one to three grains of the trituration, or as many drops of the dilution three times daily.

# ACIDUM PICRICUM.

Picric acid exerts a peculiar influence upon the fluids which is described in Hughes' Manual of Pharmacodynamics as follows:--

"In a case of profound anæmia with prostration and vomiting, uro-hæamatin was discovered in the urine, which showed also the evidences of suboxidization. Under the third trituration of picric acid improvement speedily set in, and in a few weeks color and strength had returned, and the same changes had occurred in the urine as those experienced by Dr. Jones himself, though in a greater degree."

Dr. Hughes asserts that experiments upon healthy persons gives us sub-oxidization of tissue as the essential and fundamental action upon nutrition. In large doses, destruction of the red-blood corpuscles occurs, an artificial leucocythæmia resulting.

The remedy evidently exerts an important influence upon the fluids of the body, and might be thought of in pernicious anæmia and leukæmia as a possible curative.

Dose.—Two or three grains of the 3x or 6x trituration every four hours.

# BAPTISIA TINCTORIA.

Wild indigo is one of the most valuable dynamical antiseptics or antizymotics known. It is not chemically an antiseptic, but its influence, when introduced into the circulation in certain depraved states of the fluids, is most happily corrective.

In Eastern Ohio thirty years or more ago, a severe and fatal epidemic of typhoid fever raged for several years, and the most successful practitioner in the whole country was an Eclectic, Dr. B-, located in Lordstown, a little village where I, years afterward, began the practice of medicine. Dr. B-.'s fame for his success in this epidemic still lingered about the place, though he had long before departed to pastures new. But during the visitation of the fever he had ridden many miles every way over the territory of neighboring physicians, and been almost universally successful where others were losing nearly all their cases. One of his old patrons becoming in time a patient of the writer, volunteered upon one occasion, to show him where the plant grew with which Dr. B-. cured so many cases of typhoid fever; "for." said the informant, "I have dug the root for him many a time." Accordingly the spot was visited and

the successful herb found to be as the writer expected in advance, baptisia tinctoria. A simple infusion of the root of this plant constituted the sum total of the successful treatment, combined with good nursing.

I have believed for years, and have taught, that baptisia specifically influences the intestinal glandular structures in such a manner as to fortify them against the devitalizing influence of the changes liable to be wrought there by typhoid fever; but outside this influence there is the best of evidence that it is a stimulating corrector of septic changes in the blood in many cases. Epidemic influences are corrected by it so that even coughs may find it the promptest curative when prescribed during the season that it is the remedy, though it can hardly be considered a pulmonary agent as a rule.

Outside of epidemic influences, which may or may not depend upon depravation of the fluids, the remedy has a valuable application in the treatment of gangrenous tendencies. Prune-juice discharges from the mucous membranes have been designated by Scudder as indicating it then. These may be in the form of expectoration in typhoid pneumonia, or in the alvine evacuations in typhoid dysentery. They are the effect of putrescent tendencies—breaking down of tissue from gangrenous states, and find the best corrective in baptisia.

Malignant sore throat manifesting such tendency, or sore mouth, in fact, phagedenic tendencies accompanying any form of acute disease would suggest the remedy.

In the May number of the ninth volume of the California Medical Journal is a report made by myself, of a severe case of ischio-rectal cellulitis complicated with gangrene and severe systemic poisoning, successfully treated. In this treatment baptisia figured prominently throughout—in fact, with rhus tox, constituted the principal medication.

Form for Administration.—The specific medicine, as prepared by Lloyd Brothers, of Cincinnati.

<sup>\*</sup>Dose.—Add from ten to twenty drops to four ounces of water and give a teaspoonful every hour.

## BENZOATE OF LITHIUM.

This agent lessens the amount of uric acid in the blood, and prevents the deposition of urates in the renal secretion. It is therefore valuable in gouty conditions as well as in rheumatism depending upon lithiasis.

Dr. Waterhouse (see California Medical Journal, Vol. X, page 163) commends this agent as a prophylatic against the gall-stone habit. He asserts that both in his own practice and that of several others he has known prompt relief from formerly frequent recurring hepatic colic to follow its administration. This may be due to an influence upon the circulating fluids, and it may be due to a specific influence upon the liver. Probably however in this case, it may properly be claimed among the plasma remedies.

Dose.—Dissolve ten to twenty grains in four ounces of water and give a teaspoonful four or five times daily.

## BERBERIS AQUIFOLIUM.

This is one of Dr. J. H. Bundy's California remedies, introduced to the profession through Parke, Davis & Co., of Detroit, Mich., about ten years ago. Dr. Bundy extolled the remedy rather too highly in some respects, but it is a corrective of superior virtues, nevertheless.

It is valuable in syphilis and in scrofulous states. phagedenic ulceration depending on such dyscrasiæ being favorably influenced by it, as I have often proven in practice. Erysipelas of chronic nature, even though the local manifestation of it be of many years' standing, may be remedied by it. Eczematous states where more general than local, and herpes of long standing sometimes yield to the constitutional effects of this agent.

Professor Bundy was very sanguine in the belief that it would cure cancer, but I have never known of a case benefited by it. It is not improbable that Dr. Bundy's cases were phagedenic ulcerations due to syphilitic or scrofulous condition instead of the destructive ulceration of carcinomatous elements.

I have myself seen surprising results follow the administration of berberis in chronic syphilitic ulceration. I recollect the somewhat striking case of an elderly German woman, who presented herself at the college clinic in Oakland, seven or eight years ago. She was troubled with an ulcer in the hard palate, of gravish, sloughy appearance, and which was so deep as to admit a probe to the bone, and it had been in existence for more than a year, though various kinds of treatment had been employed. She told a story of a worthless, dissolute husband, who at one time had been affected with syphilis, and admitted that she had been troubled with sore throat and eruptions. Three weeks' use of berberis aquifolium cured the ulcer permanently (without local application), and there has never been any other trouble of the kind. This I know, for I see the woman frequently.

One of the most important places for berberis aquifolium is in chronic pulmonary affections attended by profuse, purulent expectoration. When ulceration of the pulmonary tissue depends, to considerable extent, upon a depraved condition of the fluids of the body, it has no equal as a remedy in ulcerative pulmonary affections.

I have seen well advanced phthisis, which had been given up as hopeless by physicians of experience, and in which extensive cavities existed, recover under the protracted use of this remedy. The appetite soon improves, the hectic fever subsides in a couple of months, the quantity of matter expectorated gradually becomes lessened and the cough becomes less frequent and more mild, while

the patient improves in flesh and strength. In such cases an important element of success is persistency in the use of the remedy, hardly any benefit being noticeable the first month, it being necessary to continue the remedy for from four to six months uninterruptedly.

Another excellent use for this remedy is to correct depraved conditions of the skin depending upon abnormal state of the blood. Some cutaneous affections yield readily to specific skin remedies-those which selectively influence the part-while others refuse to yield to such treatment and require something to improve the condi-In such cases berberis tion of the circulating fluids. aquifolium is the first remedy to be thought of. It seems also to possess the additional quality of exerting a plastic influence upon the skin, as some cutaneous affections, such as acne for instance, are benefited by it when it. hardly seems possible that the blood can be at fault. It is a bad case of acne that will not manifest pronounced improvement after the subject has used the remedy a few months. An important place for this remedy-because one supplied by so few others-is chronic eczema with irritable (ervsipelatoid) inflammation; here I think this remedy promises more than any other known.

As a remedy for syphilis, berberis aquifolium stands unrivalled. It seems to neutralize the poison and fortify the system, improving the activities of the glandular and assimilative functions; syphilitic anæmia accordingly disappears, with other morbid manifestations, after its faithful use. Tertiary symptoms will not appear after a protracted use of this remedy, unless the subject has been previously saturated with mercury.

A medical acquaintance of the writer's, who practices principally in venereal diseases, has told me that he relies upon this agent almost entirely in the treatment of syphilis, especially the late stage. He has assured me

that he prefers to treat chronic syphilis rather than the earlier stages, as he has no remedy for the earlier manifestations that can be relied upon like berberis in the later phases. One of the most remarkable cures of lung affections known was made by him with this agent mainly, in a case of purulent bronchitis which had been given up to die by a number of physicians, but which permanently recovered in a few months upon this drug.

A point worthy of remark is the fact that the corrective influence of this drug is not obtainable with the minute dose; but as it only seems to possess a dynamical influence (exorbitant doses not producing serious disturbance of any part of the system,), considerable latitude is allowable, provided the quantity be sufficient to impress the system profoundly. The dose of a saturated tincture or reliable fluid extract should range from ten to twenty-five drops, repeated three or four times daily.

# CALCIUM SULPHIDE.

This remedy is especially valuable on account of its power over suppuration. That it specifically influences the glandular system—lymphatics—there is no doubt, but its influence extends further, reaching the fluids in such a manner as to check suppurative action when any of the soft tissues are involved in inflammatory processes.

It influences suppurative action in such a manner as to hasten purulency, if the boundary line where resolution becomes imposssible has been passed, while it will often succeed in arresting the development of an abscess if administered early. If suppuration is hastened, the formation of pus is limited, the amount of tissue broken down thus being lessened to the minimum quantity.

When suppurating surfaces are throwing off an excessive quantity of pus, as in some cases of chronic bronchitis and pneumonia, this remedy may be found to lessen the waste entailed, and permit recuperation to take place when this would otherwise be an impossibility. Cold, or strumous abscesses may be made to heal under its constitutional effects when otherwise obstinate. Purulent endometritis-in fact, any persistent suppurative tendency, when not syphilitic-finds its most hopeful remedy here.

During my earlier practice I was so forcibly impressed with the action of this remedy in suppuration by the following illustrative case, that I have since continued to give it the first place in my practice, as an anti-suppurative agent :---

An elderly physician of the physio-medical or botanic school, who occupied a portion of the same field with me, having had charge of a number of cases of scarlatina in a neighborhood, found one of them, a little girl two or three years of age, and who had been severely afflicted by the scarlantinal poison, to be afterward persistently plagued with suppuration of the superficial lymphatic glands. Successive crops of these abcesses would appear, and after painfully developing for ten days or more, would discharge, the process being attended by severe suffering and hectic fever, with exhaustive sweats. These abscesses would appear upon almost all parts of the cutaneous surface, eight or ten at a time, though most in those localities where the superficial lymphatic glands are grouped.

I was a casual observer of the case, at divers times for several months, while the Doctor alternated and substituted his alterative syrups and other vegetable compounds, but the disease stubbornly refused to yield, and I was finally invited to take charge of the child-which I was not anxious to do, as I had practiced medicine long enough to realize its uncertainties, and fear defeat, in such an apparently intractable condition.

However, I prescribed some small powders of a trituration of sulphide of calcium in sugar, one part to ten, and awaited results with considerable doubting. But within a week it was evident that the medicine was effecting a cure, and in less than a fortnight the incipient abscesses had all discharged kindly, and no new ones had formed; the patient was free from hectic fever and night sweating, ate and slept well—in short, was convalescent.

The remedy is not adapted to the treatment of the suppuration of syphilis for obvious reasons, bearing no comparison here to the action of berberis aquifolium; but in strumous suppuration, or that which involves the lymphatic glands exclusively (even if non-scrofulous) it is the best of the antisuppurative group.

In the control of the suppurative process in acne pustulata this remedy has won quite a reputation, one undeserved however so far as being a cure for the disease is concerned, the pustules usually returning on discontinuation of the drug. Here the indurated walls of the diseased follicles must be destroyed before a cure can be effected.

Form for Administration.—The crude calcium sulphide as sold in the pharmacies may be used, but I prefer the 1x or 2x trituration, as being less objectionable to the taste. The crude drug concealed in a coating is perhaps better still; half-grain pellets being readily swallowed, while the objectionable odor is completely masked. These are obtainable at any first-class pharmacy.

## CORYDALIS FORMOSA.

Turkey corn is one of our old indigenous remedies which deserves notice for some pronounced properties. These are in the correction of syphilitic and scrofulous states. The prominent lesions of both the secondary and tertiary stages of syphilis have yielded promptly

to this agent. I have known it to remove syphilitic nodes from the shin in a few months' time. In case of failure to effect a removal, the pain caused by the deposits is appreciably lessened and the general condition of the shins much improved. It is valuable in secondary syphilis to allay hectic fever, banish eruptions, prevent falling of the hair and fortify the tissues of the throat against ulceration. It combines well with berberis here.

In phagadenic ulceration of scrofulous origin it has proven a satisfactory agent for me several times by correcting the constitutional depravity. It should not be forgotten where an antisyphilitic or antiscorbutic agent is demanded.

Hale, in his New Remedies, declares that corydalis will cure syphilitic nodes. He cites two cases coming under his own observation where massive doses of iodide of potassium had been used for nearly a year without benefit, in which the swelling slowly put permanently disappeared under ten-drop doses of tincture of corydalis four times a day. The same writer refers to what he considers trustworthy testimony that the drug has cured syphilitic nodes of the skull with falling of the hair, and also syphilitic and scrofulous eruptions on the scalp. He considers it better adapted to secondary than to primary syphilis. There is considerable resemblence between this drug and berberis aquifolium, in many respects.

Goss, of all modern Eclectic authors, is the only one to write enthusiastically of this agent as a remedy for syphilis—as though he had actually observed its good effects. Scudder casually mentions it in his Reproductive and Venereal Diseases, but omits mention of it in Specific Medication, where, it is to be supposed, all his favorite remedies are to be found. Howe seems not to possess knowledge of antisyphilitic virtue among any of

the vegetable remedies. With the old Eclectics it was evidently a favorite, and it is to be hoped that modern writers will not permit our old remedies to be discovered anew by our homeopathic neighbors.

Form for Administration.—The tincture of the recent root may be given in ten-drop doses three or four times a day.

This agent will receive further notice under Remedies for the Skin.

# ECHINACEA ANGUSTIFOLIA.

This remedy promises to fill one of the most important purposes of any of this class. It is comparatively a new one, but has already afforded eminent satisfaction to quite a large number of Eclectics as a corrector of depraved states of the blood, where ordinary remedies have failed to satisfy the demand.

It resembles both baptisia and rhus tox., in some respects, though as a remedy for the septic phase of typhoid fever, where there is a tendency to gangrenous states, it excels the former remedy, while in erysipelas where sloughing is imminent, it is preferable to the latter. Its action seems to be more that of a restorative to the tissues generally than these, while it possesses none the less power as an antiseptic.

Dr. Myer, of Nebraska, who introduced the remedy, has successfully administered it in diseases of the stomach, cholera infantum, cholera morbus; intermittent, remittent, congestive, continued and typhoid, fevers; and in small pox, measles, boils, carbuncles, ulcerated sore throat and ulcers of the lower extremities. According to his observation it has no superior in malarial fevers. In six out of ten cases of typhoid fever, two of the patients were out of bed on the eighth day, three on the tenth, and one on the twelfth. He asserts that twentyfive drops of the pure tincture injected into the rectum,

in case of hemorrhoids, repeating the injections three times per day, will promptly effect a cure. He recommends it locally, as a cure for the effects of the stings of bees and wasps, snake bites and poisoning from rhus and other noxious plants. He makes the following statement regarding its value in rattlesnake bites:—

"I injected some of the poison into my system, on the forefinger of the left hand; the swelling was rapid, and in six hours was up to the elbow. At this time I took a dose of the medicine, washed the swelling with it and lay down to sleep. I slept four hours, and on rising did not find a single sign of swelling on my finger or arm." The recoveries from rattlesnake poisoning are effected in from one to two hours.

From his knowledge of the influence of this remedy upon other poisons, Dr. Myer prophesied its success as a remedy for hydrophobia—which Professor Goss has, in a measure, verified, he having used it in the cases of two persons who had been bitten by a rabid dog; several months later no manifestation of the disease was apparent. He has had more success with it since.

Dr. Hayes, of Denver, Colorado, reported six cases of malignant diphtheria cured by this agent, in the *Eclectic Medical Journal*—where the principal portion of the information regarding it emanated. The first one he considered hopeless, and so informed the parents; but to his surprise, the patient, a girl twelve years of age, recovered upon echinacea, being convalescent in four days. The auxiliary treatment consisted of the inhalation of oil of eucalyptus, evaporated in hot water.

I have used it in one seemingly hopeless case of diphtheria with complete success. In another, where the evidence of malignant blood poisoning was pronounced by marked exhaustion, extensive exudation and sloughing of the fauces, the patient was tided through to con-

valescence upon echinacea, but was afterward killed by injudicious feeding. Another genuine case-and this means a severe one-recovered promptly upon echinacea, and still another which had been saturated with the drug for several days previous to the onset, perished from blocking of the respiratory passages with exudate. It seems to be the remedy for the form where the blood depravation manifests itself in tendency to sloughing of the soft tissues, while it possesses no power to correct that condition which tends to the throwing out of plas-These four are the only genuine cases tic exudates. met with between the reading of the report referred to and this writing, but I have formed a very favorable opinion of the remedy from this limited experience. Diphtheria reports may usually be received with some allowance, considering the proneness of thoughtless or ignorant practitioners to include all cases of follicular tonsilitis-a harmless and self-limiting, though unpleasant condition, readily amenable to aconite and phytolacca, in combination-in the diagnosis.

Dr. Hayes reports success with echinacea in "mountain fever." Fifteen cases were successfully treated, all but one—which had been maltreated by another physician—recovering within fourteen days from commencement. Several cases of the same kind were aborted by the remedy, at an early stage. He also cured two cases of typhoid fever with it in twenty-one and fourteen days respectively. Both had been exposed to sewer gas.

I have employed echinacea in both typhoid and typhus fever, with the best of satisfaction. I believe that unless there is the serious abdominal complication demanding baptisia in alternation, or a pronounced indication of the tongue calling for some more-specific corrective, this agent may be safely relied upon in all cases of adynamic fever, however classed nosologically.
It is a sedative, and such influence is very acceptable in many such cases. It seems to correct the downward tendency of the fluids, restoring proper blood-making, secretion, excretion and innervation, probably by acting as an antiferment.

"October 23, 1887," writes Dr. Hayes, in the report referred to, "I was called to a case with a history of blood poisoning and treatment with caustic, mercuric bichloride and hot water-a man sixty-five years of age. Two physicians had given him up. I was much inclined to follow their example, but thought it a good case to test echinacea. On entering the room Professor Scudder's 'rose' and Professor Howe's 'tandog' were suggested by the intolerable stench. Examination revealed a mass of dead flesh between the metacarpal bones of the index finger and thumb of the right hand. Lifting it, the metacarpal bone lay bare the whole length, both extensor and flexor muscles having sloughed off. The old man was very weak and exhibited the characteristic symptoms of severe poisoning, so I dismissed the thought of amputation and applied the echinacea locally, diluting it one-half; also gave it internally full strength. At the end of a week the patient was out of bed.

"The other day he walked into my office and exhibited his hand. The chasm was pretty well filled with healthy flesh, the bone being visible at only one small point, the edges of the wound(?) contracted, and so covered with skin that it is reduced to less than one-third its former dimensions. Several times during the treatment I withdrew the internal medicine. Every attempt was followed in a short time by sloughing at some point."

Shortly after my return from Europe (October, 1890) a rancher from San Bernardino county applied to me for relief from the effects of a tarantula bite on the hand

received while working among his grape vines. The bite had been inflicted more than a month before I saw the hand, and plenty of time had elapsed for the effects of the poison to become manifested locally. The middle finger of the right hand over the dorsal aspect of the first phalanx, presented a purplish, sloughing ulcer, as large as a silver quarter, and the whole finger was enormously swollen its entire length, and presented a bluish, shiny appearance. The entire hand was purple and œdematous, while the patient was worn and emaciated from the constitutional effects of the poison and loss of rest resulting from the local discomfort. The home doctor had treated the case from the beginning, but nothing used had seemed to afford any benefit.

I prescribed echinacea as follows:-

R Echinacea (s. m.), f
şss Glycerine, f
şi.

Aqua, ad q. s. fzvi.

S. Take a teaspoonful every hour while awake. . Also:---

> R Echinacea (s. m.), f;ii. Aqua, ad. q. s, f;vi.

S. Use to saturate a compress applied to the clcer, wetting every two hours.

Thus I gave the agent singly, determined to allow it a fair field and no favors.

On the second day afterward I saw the hand, and was surprised at the evidence of improvement already visible; and within a week the angry appearance was all gone and the ulcer nearly healed. All the malignant aspects of the case had given way, and a few days more sufficed to send the patient on his way rejoicing.

During the December following, one of my old patrons, a carpenter, accidentally inflicted an ugly wound across the back of his hand, with a saw, on a rainy day, and

this, with the effects of a wetting received, resulted in serious prospects for the wounded member. When I first saw it, the ragged wound was everted, erysipelatous in appearance, the whole hand presenting an angry and œdematous aspect. The pain was severe, extending along the tendons of the extensors to the forearm, threateningly. Here I used the echinacea, both internally and locally, though the internal use was associated with that of aconite and rhus tox. A speedy recovery followed.

Dr. Goss commends this agent very highly in syphilis—in both secondary and tertiary stages. Antisyphilitics are so few, and so unreliable generally, that we may well afford to investigate the merits of this new acquisition, in this direction.

The following extract is from an article on this agent, by Dr. W. E. Kinnett, published in the first volume of the Annals of Eclectic Medicine and Surgery. It suggests still further uses for it, as a plasma remedy:—

"I did not have to wait long to test my new medicine. I was treating a case of perityphlitis in a girl fifteen years old and it seemed that an abscess would be the result, most of the symptoms being present. I thought of my echinacea as an "antiseptic" and blood "purifier"; I at once commenced administering internally, thirty drops every three hours, and saturated a cloth and applied to the part and kept it wet with the medicine continually. The symptoms of abscess soon began to disappear and my patient improved rapidly.

"I have made extensive use of echinacea in follicular tonsilitis, combining it or giving it alone. I have used it as a dressing for wounds and open sores and find it a very fine remedy, and in many cases superior to anything else I have found.

"I have also been using it in cases of cholera morbus and cholera infantum, combining it with neutralizing

cordial in some cases, and in others I have combined it with other remedies that were indicated, such as aconite and nux vomica, and at other times giving it alone.

"I have just dismissed a very severe case of dysentery in a child two years old, which I treated mainly with echinacea, adding other indicated remedies. It sweetens the breath, corrects the very bad smell of the discharges from the bowels, and acts as a tonic.

"I have injected it into pus cavities after evacuating them (using full strength) and they healed more rapidly than any I had previously treated I have used it in two cases of rhus poisoning with success. It does not cause pain when applied to recent wounds. I have not had any cases of diphtheria since I have been testing the remedy. As soon as a case presents itself I will give echinacea a thorough trial. I administer it in doses of from five to thirty drops every two or three hours in water or syrup."

I have recently been using echinacea in an aggravated case of rhus poisoning, which in California sometimes results in serious consequences. A year before, the patient, a youth who had been in the habit of going into the mountains with dogs and chasing rabbits until dripping with perspiration while breaking through the chaparral thickly lined with the shrub, was confined to his bed for three weeks suffering excruciatingly with the burning and itching all over the body, while his face was swollen bevond recognition. The following season he repeated the rabbit hunt and was again severely poisoned but was only confined to bed for a week. Echinacea was used internally, and as a bath, several times a day upon this occasion, the alcohol vapor bath being employed in connection with it. Since that time he has been exposed to the same influence with complete immunity from the poisonous effects of the shrub, several times.

### EUCHLORINE.

From an old number of the American Medical Journal I extract the following: "This is the term applied to a preparation of chlorine prepared from chlorate of potash, muriatic acid and water, in the following manner: Put half a drachm of chlorate of potash in a clean, dry, four-ounce bottle. Into this bottle, upon the chlorate of potash, drop ten drops of muriatic acid, close the bottle with a good cork immediately, shake a little, let it stand about five minutes, then remove the cork quickly, pour a little water into the bottle, return the cork, and shake the bottle; then uncork and add a little more water, and go on with this process till the bottle is full. Upon adding muriatic acid to chlorate of potash a beautiful, greenish colored gas is genera ed, which soon fills the bottle, and if the cork is not very tight, it will soon be forced out. Now, we give this mixture in teaspoonful doses every hour, to children five, seven, and nine years old. For smaller children we dilute it a little-sometimes one-half. For adult patients the mixture may be made double strength, one drachm of chlorate of potash and twenty drops of muriatic acid for a four-ounce mixture."

Dr. Pitzer recommended this preparation very highly several years ago in diphtheria, and it has proven a a very effective corrective in the hands of the writer several times since. I am not convinced that we have a positive cure for diphtheria. In fact, malignant forms offer small hopes of recovery with the best of treatment, but this remedy ought to be awarded a prominent position among the most reliable agents for this dreaded disease. Dr. Pitzer recommends the combination of alcoholic stimulants and quinine with this remedy, regarding it the treatment par excellence.

### FUCUS VESICULOSUS.

Seaweed has been highly extolled as an anti-fat remedy. Hale devotes considerable space to it in his New Remedies, and, it has received extended notice from other directions. Dr. Chas. S. Clark, an Eclectic physician of Arroyo Grande, California, contributed an article to the *California Medical Journal* in 1885 detailing some interesting experience with the remedy, but his experiment failed to prove that his patient decreased in weight, though she appeared to improve in health and strength.

From my own observation I am satisfied that this medicine is not calculated to lessen rotundity of form, but I think it possesses the power of improving tonicity of fibre, and, in this manner, of affording benefit to those who find obesity burdensome, or who are tending to fatty degeneration of the heart, or other parts. Those who expect to produce leanness with it will find themselves disappointed.

I have tried it in a dozen cases more or less, of obesity, and have never been able to observe any lessening of the amount of fat upon a single one of the patients. Dieting has usually been associated with the remedy where a moderation of obesity has attended its use, and the lessening of the supply of fat-producing food, as starch and sugar, probably accounts for the seeming therapeutic effect of the fucus.

# GYNOCARDIA ODORATA.-CHAULMOOGRA OIL.

This agent is a superior one in syphilis, especially in the secondary stage. Given early, when the presence of a Hunterian chancre is known, it has aborted the disease, masking its character completely, and removing remote traces. Doubtless, some writers have been more enthusiastic over this agent than the true facts

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warrant, but, taking all this into consideration, clinical experience still confirms the assertion that it is one of the best, if not the best, antisyphilitic known.

The following by Dr. W. S. Mott, in the Eclectic Medical Journal, illustrates what the agent may be made to accomplish: "Miss R. who had been treated by Dr. Mc—, a regular, for eczema, tonsilitis, consumption, etc., came to me with the remark that 'Dr. Mc— evidently does not understand my case.' On examination, I found mouth and throat full of ulcers, with a breath that suggested syphilis. She was very much emaciated, and really did look like a consumptive. Had a very bad cough; nasal bones were very sensitive; in fact, she said she was sore all over. The eruption had nearly passed away, but had left its distinctive mark; her hair had almost all taken its departure."

The treatment was as follows :--

No 1. R. Tinct. oil gynocardia, zii. Syr. stillingia comp., zv.
M. Sig. A teaspoonful in milk, with (or after) meals.
No. 2. R. Hydroleine (Kidder's).
M. Sig. A teaspoonful in milk, with (or after) meals.
No. 3. R. Uvedalia, bay-rum, aa, zi. Glycerine, zii.

Tincture bergamot, tr. capsicum, aa, zi.

M. Sig. Cut hair, wash head well with borax water every morning, and apply to head twice daily.

The result was as follows: "Appetite improved, cough abated, soreness of mouth and throat, nasal bones and lungs passed away, and in four weeks she had gained twelve pounds in weight, after which all medicine, except R No. 1, was discontinued. This was continued for four months, and now, although two years have elapsed, no tertiary symptoms have appeared.

# JABORANDI-PILOCARPUS PINNATUS.

This remedy has not a very wide range of action as a blood-remedy. Da Costa has given it considerable of a reputation as a specific in erysipelas, where, doubtless, it possesses some worth, but is hardly equal to rhus tox., echinacea, or baptisia, where there is a phagedenic tendency. Its best place is where there is marked dryness of skin and considerable febrile action in connection with the local manifestations, its valuable sedative qualities, doubtless contributing to its merit as a medicament here.

Form for Administration. —The green tincture, *i. e.*, a preparation which imparts a greenish tint to the vehicle containing it. The specific medicine prepared by Lloyd Brothers fulfills this indication finely. Add from thirty to sixty drops of this to four ounces of water and administer a teaspoonful every two hours.

### LACHESIS.

This remedy stands high in homeopathic practice as an agent for the treatment of purpuric conditions. Ecchymosis, with hemorrhages occurring de novo, or as sequelæ of typhus conditions, or variola, especially where the hemorrhage is a persistent symptom, should lead one to think of this remedy. Not that it is an anti-hemorrhagic, but it appears to correct the peculiar state of the blood which predisposes to the condition.

Epidemic cerebro-spinal meningitis (spotted fever) is also attended by purpuric spots, with occasional hemorrhages. These, though not usually of alarming character, are pointers to the remedy under consideration, which promises to correct the maligant depravity of blood and thus relieve the case of many of its serious aspects.

It has also been used with success in hospital gangrene, in puerperal peritonitis, and in malignant diph-

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theria, where rapid devitalization of the blood was indicated by extreme local, as well as general symptoms. Cardiac paralysis occurring in diphtheria also finds its best remedy in this agent, partly probably on account of its corrective influence upon the circulating fluids and partly because of its selective influence upon the cardiac ganglia.

Malignant scarlatina also yields to this agent when others completely fail. There is something peculiarly searching in the influence of serpent poison upon the system, that when made avail of in disease proves a boon of great value where we fail to find success with other means.

Typhoid conditions, with great vital prostration, as evidenced by delirium, coma-vigil, or a comatose state with evident breaking down of the blood corpuscles with ecchymosis and purpuric tendencies, may be regarded as the general indications for its selection as a blood remedy.

Form for Administration.—From the sixth to the tenth decimal trituration in two or three-grain doses every three hours in acute disease, and three or four times daily in chronic affections.

# MENTHA PIPERITA.

"W. L. Braddon has instituted extensive experiments to discover if possible an efficient microbicide which would be sufficiently harmless to human beings to answer for internal use. In a communication to the *Lancet* the author reports that these experiments were carried out, first under conditions as nearly as possible identical with those which obtain with wounds, etc., the relative powers of carbolic acid, iodine, iodoform, corrosive sublimate, and peppermint being compared. The observer considers the complete superiority of the latter completely proved, and has tried its

powers in actual practice 'with most excellent results.' He adds: 'Absolutely harmless to the system in the largest doses, easily obtainable, and readily prepared, oil of peppermint thus forms the best, safest and most agreeable of all known antiseptics.' Trials of the value of the oil in phthisis undoubtedly showed that it produces no ill effects when inhaled, but only beneficial. Even in the latest stages of galloping consumption it checks its progress and sometimes completely cures. In two cases of diphtheria it produced entire and rapid recovery."—Selection in California Medical Journal.

I have employed equal parts of essence of peppermint and alcohol in a common atomizer a number of times to quiet harrassing coughs in pneumonia and bronchitis, with more than temporary benefit, though the thought had not occurred to me that it possessed antiseptic properties. As a soothing local agent it proves very acceptable and if it can be proven to combine curative properties as well it will be doubly acceptable.

### PHYTOLACCA.

This remedy deserves notice as a corrector of the suppurative tendency. While it manifests a partiality for the lymphatic system and is often excellent to arrest inflammation of the lymphatic glands, it has been extolled in suppuration of other soft tissues. However, it is far inferior to calcium sulphide, and will seldom be found to replace it to any advantage. It is mentioned here more as a matter of record than for therapeutic profit.

The extract of poke berries has been recommended as an agent to correct obesity. Dr. Standlee (Chicago Medical Times, 1890) observes, respecting this property :--

"We find a remedy in the fruit of the phytolacca decandra, which clinical observation has taught us possesses all the valuable characteristics that we desire. It was

discovered by noticing birds that feast on these berries in the fall of the year. Their bodies become very destitute of adipose tissue, though they seem to be otherwise in a normal condition. The fruit does not possess the acro-narcotic properties of the root. Small children, being attracted by their beautiful color, have been known to eat large quantities of these berries with no alarming symptoms following. Take the berries (best after frost) and compress the juice from them. Strain this juice through a cheese-cloth to remove any seeds that may have escaped into it, after which place it in large, flat dishes and evaporate to a waxy mass by a gentle heat, or in the sun's rays. Take the mass and make into pills of two or three grains each, or if beauty and exactness are desired the mass can be sent to a manufacturer, that they may be more evenly divided, and sugar or gelatine coated.

Three of these pills taken daily will often diminish the weight of the body at the rate of from five to ten pounds per week. The evacuations from the bowels are more copious than usual, but in all other respects are perfectly natural. The muscles become firm, their action more free than before, and the power is increased. The patient soon experiences a feeling of lightness, renewed energy, and ability to endure greater muscular exertion than before. No bad effects will result."

### POTASSIUM CHLORATE.

"This remedy possesses valuable antiseptic properties, but, as ordinarily prescribed is liable to provoke irritation of the kidneys, the dose usually being too large. After a long abuse of the remedy many physicians have learned that it cannot be used in exhorbitant quantities with impunity.

The corrective influence of the remedy may be made avail of in diphtheria, puerperal, typhoid fever, or any

other disease tending to blood sepsis—septicæmia. Scudder offers, as the indication for it, "the peculiar fetor resembling decomposing matter." This may arise from the breath of febrile patients, the lochia of lying-in women, or even some cases of disease from the emanations from the body; but when marked it will call for this remedy, and prompt relief will be quite certain to follow its administration.

Professor Joseph Adolphus makes the following practical observations upon this drug (*California Medical Journal*): "It is eliminated almost altogether by the kidneys, and continues several days to appear in the urine after the remedy is discontinued. In diphtheria, albumin frequently appears in the urine. Chlorate of potassium aggravates the kidney congestion, and often the urine is smoky and quite albuminous, as well as much diminished in quantity. Chlorate of potassium is answerable for many a death by diphtheria, a fact I know to be quite true. Chlorate is also a powerful defibrinator of the fluids. All imflammations are fibrinous and in inflammations this is eminently so. While it does this it causes increase of fibrinous exudation in the kidneys, and most of the casts and plugs are owing to it."

It is a favorite obstetrical remedy with many of our practitioners, who prescribe it when the lochia becomes offensive, to correct any constitutional influence that this may involve. This to say the least of it, when the remedy is given in minute doses, is safe practice, though often it has seemed to me a needless expenditure of effort, as such cases may usually be corrected by a vaginal douch of tepid water to which a little mild soap has been added, the object being to rid the part of shreds and clots.

# POTASSIUM CHLORIDE.

Potassium chloride is an important plasma remedy, in that its influence fortifies the system against the

throwing out of plastic exudates. Certain of the tissues of the body are especially liable to permanent injury when inflammatory action is followed by exudation and subsequent organization. In other cases the throwing out of plastic exudates may fatally interfere with important functions. I can best illustrate the value of this remedy by quotations from various sources, of what it has accomplished :—

Case 1.- "Recently I treated a case of infantile pneumonia, where it seemed that the organization of exudative material must completely obstruct the oxygenating functions of the lungs. The rapid labored breathing (surface), with the marked cyanotic manifestations, which were persistent and steadily increasing in severity, the clammy skin, the leaden countenance were all portentous of an early funeral. As a last resort the potassium chloride, 3x trituration, was administered. Five grains were added to four ounces of water, and a teaspoonful administered every hour. In twenty-four hours, to the joy of the parents and surprise of the doctor, the child seemed entirely relieved; the frequency of the respirations was reduced one-half and the cyanotic symptoms were all gone. The patient made a speedy recovery after this."-AUTHOR, in California Medical Journal.

Case II.—"A burly husband, having imbibed rather too freely one evening, gave his wife a severe beating. Prize ring rules were entirely ignored, and the weaker vessel received several severe kicks below the belt, but still managed to come to the scratch, and aroused the ne ghbors, who assisted in putting the would-be athlete to bed. A black eye and a few scratches upon the face, with soreness resultant upon body contusions, seemed the sum total of damages sustained, when the wife called at the office the following day, and these faded away, leaving her apparently as well as usual a few days afterward. But

not long after this she went to bed with a chill, which was followed by high fever, severe abdominal and pelvic pains, painful and frequent micturition with excruciating suffering, with faintness and exhaustion upon defecation. Sedatives modified the fever and lessened the acuteness of the pain, which, however, persisted in a measure, occasionally darting into the left hip and down the left thigh, the febrile symptoms meantime taking on a hectic character. Tenderness was discovered early upon digital examination per vagina, assisted by abdominal palpation, and in a few days marked enlargment and induration of the left broad ligament was appreciable. The enlargement progressed until the pelvis was crammed, the uterus becoming immovably fixed against any force which did not produce severe pain, this being elicited by moderate pressure upon the bulging, indurated broad ligament. In the meantime, the patient had lost her appetite, the tongue had become furred, there was profuse sweating at night, marked nervous irritability, and encroaching prostration. There was no question that a pelvic abscess was to be the result of these premonitions, and as the scope of ordinary remedies seemed to have been pretty well reached, a resort to potassium chloride was had with the belief that it at least could not fail more completely than former medication had in preventing a purulent collection in the pelvis. As much of the 3x trituration as would lie on a nickel was therefore added to half a tumbler of water and a teaspoonful ordered every hour. Within two days the pain had become decidedly changed for the better, though it was a week before the patient would admit that she was improving. By this time the symptoms of hectic had become ameliorated, the patient could sleep at night, and at the end of a fortnight the thermometer marked the normal temperature, though the pelvic enlargement could hardly be pronounced as less-

ened in size. Two weeks later the patient was able to go to San Francisco in a carriage, whither her husband removed her permanently, without accident, and a week later I found upon digital examination that there was a marked abatement of the pelvic enlargement, and all discomfort, except that of some slight debility, gone. She was still taking the remedy, and importuned me to leave a good supply, that she might continue it until well without peradventure, as she believed it had been the means of her recovery."—AUTHOR, in *California Medical Journal*.

Case III.—Mrs. B.'s husband brought home to her a very severe infection of gonorrhea, and the cause of the vaginal irritation not being suspected for a week or more, treatment was neglected. In the meantime, the disease spread to the uterus, and the patient, being a favorable subject, pelvic cellulitis followed. A pelvic abscess was threatened for a week or more, but with potassium chloride I finally succeeded in arresting the pain, fever and swelling, without suppuration.

"This remedy," says Dr. Phil Porter, "is most prominently indicated where plastic exudation with progressive tissue metamorphosis has taken place. Long continued, the drug has been of service in pelvic cellulitis and in hemorrhoids of firm consistency, the firmness produced by inflammatory exudative products. The kali muriaticum should be used in chronic eye and ear troubles, such as otitis media, macula corneæ, and atrophic pharyngitis."

Schuessler recommends this remedy highly in diphtheria, and where the exudative feature is the prominent one in the case. Where there is threatened blocking up of the respiratory passages without prominent evidence of putrid tendencies of the fluids, I think it is our best remedy, though not infallible. I alternate it with echinacea, where the exudation is a marked and threatening feature

of the case. The dose given in the illustrative cases is about what I continue to use.

### RHUS TOXICODENDRON.

This remedy has a place in this list on account of its favorable influence in typhoid states, where blood depravation is a leading feature of the disease. It is especially valuable where the typhoid manifestation is accompanied by extreme restlessness. I find it a valuable remedy in the treatment of almost every form of continued fever, as it not only acts as a corrective to blood depravation, but is also an excellent sedative, where the cerebrospinal centers are especially the seat of vascular disturbance; this should not be one of pronounced general excitement of which the circulatory system partakes as a whole, as in the case of gelseminum-marked by the full bounding pulse, but one of local irritation, with, perhaps, not much disturbance of the sympathetic system. In the rhus case the pulse may be slightly disturbed, wiry, perhaps, to some extent, but the patient is restless out of proportion to the general circulatory disturbance, uneasy, irritable, the eyes are bright, and there is often pain in the frontal region. The tongue is often an additional guide here, for with these symptoms, this organ will usually be pointed, with reddened tip, and may be tremulous when protruded. The strawberry tongue is a good indication for the use of rhus, for the other conditions named, are pretty certain to attend. Vomiting, in such conditions, finds no more reliable specific than rhus.

Rhus is especially a remedy for children, combined with aconite. Low forms of cholera infantum and cerebro-spinal meningitis are very apt to require it.

The naming of diseases, however, is a bad method of indicating the places for remedies, for *conditions* are what we should aim at in prescribing, and not names. However, in some conditions names may convey as good an

impression as any other description. Erysipelas, for instance, might be referred to as an example, and here is where rhus tox. has won many laurels, especially when the disease involves the head or face, for which parts it exerts a special affinity, though the plastic effect is not an exclusive one, for the depravity of the fluids is manifestly corrected by it when other parts are invaded.

Rhus is often needed in grave cases of bronchitis and pneumonia, in dysentery, rheumatism and other diseases, as well as in the continued fevers, including the exanthemata. With the indications marked, the disease need not be named to create a place for it, even if the case be a chronic one.

# Form for Administration.-The specific medicine.

Dose.—Add ten to fifteen drops to half a glass of water and give a teaspoonful every one or two hours.

#### SODIUM SULPHITE.

The sulphite of sodium is one of our most frequently demanded correctives. Professor Scudder has pointed out the place for this agent so well that there remains nothing to be added. Where there is a lack of the salts of soda in the blood, the tongue evidences the state by pallor and a white coating. The coating is usually *pasty*, and this is the special condition described by Scudder as indicating it—" a broad, flabby tongue, with pasty white coating." None but a neophyte would mistake the pallor of anæmia for that referred to here.

The field for action of sulphite of sodium covers a wide range of practice. While the acids are seldom indicated in periodical fevers, though often in continued forms, the salts of sodium, of which this may be considered the representative, are frequently demanded in both places. When indicated in continued fevers, it is usually in the early stages.

Chronic diseases are perpetuated often by lack of soda

salts in the fluids, and this condition may constitute what has been denominated as the *basic* lesion. That is, the disease may resist what might otherwise seem to be the proper plan of treatment until the indication for this corrective has been met.

Form for Administration.—The powdered sulphite of sodium may be administered in capsules, or in a swallow of water. The very unpleasant taste resulting, when the salt is allowed to stand for a time in solution, suggests the avoidance of this plan of dispensing. Each dose, if not taken in capsule, should be added to water at time of taking, and swallowed at once.

Dose.—One or two grains every two or three hours in acute disease, three times a day in chronic affections.

# STILLINGIA SYLVATICA.

Quite a diversity of opinion exists in the profession respecting the merits of this remedy as a corrector of scrofulous and syphilitic dyscrasia. Whatever recommendation it may be favored with, one fact remains, it is but seldom used for these qualities at present, and we must naturally conclude that this is because it has disappointed expectation so often as to destroy its credit. Professor Goss offers a very reasonable explanation for this in the assertion that the virtues of the drug depend upon the freshness of the crude material from which it is obtained. This author asserts that the fresh root supplies a principle which is very positive as an antisyphilitic, but that the dry root is worthless, as well as any preparation made from it. He asserts that before finding the plant growing, he repeatedly tried both stillingia and the syrup made from the dried root without satisfactory result, but after gathering the fresh material himself and preparing his own drug from it he succeeded in curing many stubborn cases.

Stillingia probably produces its curative effects partly,

if not wholly, through its influence upon the lymphatic glands, though we have no positive evidence of it. As one of the first symptoms of syphilis, however, is glandular induration, and the lymphatics are supposed to preside in a certain way over the blood making processes, it is but natural to ascribe an action of the kind to a remedy which proves curative in syphilis.

The remedy furthermore is fully as valuable in scrofula, when a recent product is employed, and this would tend to corrobrate the assertion that it acts upon the lymphatic glands.

The selective influence of this drug upon the larynx will be referred to in another place.

### VERBASCUM THAPSUS.

The common mullein has been extolled as a remedy in malaria, and the testimony offered seems to justify a brief notice of it in this place.

During the war of the Rebellion, when the South was blockaded and foreign drugs, among other commodities, were interdicted, a forced resort was had to various indigenous articles, and in malarious districts mullein proved a very efficacious remedy for ague and other malarial affections. The following recipe was then employed successfully :—

"Beat mullein leaves in an iron mortar, strain, and to the juice add an equal quantity of French brandy; in a wineglass of this mixture put fifteen drops of spirits of camphor, and give just as the chill is coming on. The patient must be warmly covered in bed before it is taken, and continue so for several hours after."

The donor of this recipe, a Southern lady, remarks: "When I was told of it my husband had been having chills for seven years. I mean that he had never been free from them more than a week or two at a time during that period. He would not consent to try this until one

day, after taking forty grains of quinine, he had a chill which was so severe that we both feared congestion, and he said he would try anything. So after the chill had reached its height, I had the leaves gathered and beaten, and gave him a dose. As soon as he swallowed it the moisture began to break out on his brow, and in five or ten minutes he was in a most profuse perspiration. He had not the least fever, and did not have another chill for fifteen years. I tried it after that in, I suppose, fifty cases, with perfect success. Our physician in the neighborhood (Dr. R. K. T.) used to laugh at me about it very much, but the last time I saw him he told me that during the war, when he could not get quinine, he had to resort to it, and found it most efficacious, not only in cases of chill, but in bilious and typhoid fevers." Another writer, describing a visit to Virginia in early times, refers to a charming hostess as follows: "This lady takes great care of her negroes, makes them as happy as their situation will admit, and serves them herself as a doctor in time of sickness. She has even herself made some interesting discoveries in the disorders incident to them, and discovered a very salutary method of treating a sort of putrid fever which carries them off commonly in a few days, and against which the physicians of the country have exerted themselves without success. The successful remedy used here is no less than that homely, but apparently very useful weed, common mullein."

There is testimony enough in favor of this drug to at least justify an investigation as to its merits as an antimalarial agent, and I suggest that a trial be made of it by some enterprising Eclectic and the result reported to our medical journals—not in a single case but in a round dozen, that a fair opportunity may be afforded for the agent to display its curative powers, even if the first trial should prove a failure.

# SECTION II.—PLASTIC REMEDIES.

### THE OSSEOUS SYSTEM.

### ACIDUM FLUORICUM.

This agent possesses the reputation of curing osseous caries. It also serves to abort this condition through its influence in preventing periosteal destruction, when that membrane becomes inflamed. Thus in whitlow and rheumatic periostitis, I have known good results to follow its use, the local symptoms subsiding without the resulting destruction of bone usually liable to follow in such cases. This remedy influences the nutrition of the blood vessels, and thus becomes very useful in varicoses, angiomata and threatened apoplexy. It is a useful remedy in organic disease of either the arteries, veins, heart or lymphatics.

Form for Adminstration.—This remedy had best be obtained at a homeopathic pharmacy. It comes in the form of a dilution, unless the higher attenuations are required.

Dose.—Ten drops of the fifth or sixth decimal, four or five times daily.

### ASAFŒTIDA.

This agent bears the reputation among homeopathic practitioners of favorably influencing caries of bone. Dr.

#### THE OSSEOUS SYSTEM.

Wm. Holbrook, a prominent writer in that school, remarks of it in a commendatory notice: "I have twice verified the value of this remedy in scrofulous caries of the bones. I used the twelfth dilution. It is singular that a remedy whose principal applications are to the most fugitive and sympathetic disturbances of the nervous system should extend its curative powers to the most deep-seated and chronic lesions."

I have quoted all I know about this application of asafœtida to caries, and must refer the reader to the quotation as to form for administration and dose. The attenuation may be easily prepared in the office or obtained at a homeopathic pharmacy.

#### AURUM.

Gold specifically influences the nutrition of bone. Hughes, in his Manual of Pharmacodynamics, remarks: "It is an admirable medicine for those constitutions broken down by the combined influence of syphilis and mercury, which sometimes come before us for treatment." In such cases, where carious conditions present or nodes become prominent factors, minute doses of gold may be the most acceptable remedy.

I have used the chloride of gold and sodium in necrosis of the nasal bones with very good satisfaction. This remedy seems to possess an election for the nasal bones, above any other portion of the osseous system, and should be especially valuable in the treatment of destructive action in these parts.

Form for Administration.—The 6x trituration of either the metallic gold or the chloride of gold and sodium may be employed in one- or two-grain doses three times daily. The chloride of gold and sodium may be employed in aqueous solution, each teaspoonful representing less than the one-thousandth part of a grain.

#### THE OSSEOUS SYSTEM.

# CALCIUM FLUORIDE.

This is one of Schuessler's twelve tissue remedies—an inorganic proximate principle, which has already been fully noticed, but it is here the purpose to refer particularly to the estimate placed upon it as a remedy to influence the osseous system, outside of Schuessler's theories as to its action.

Authentic reports are on record of cases of exostosis in the human, cured with attenuations of the drug, and it has also been employed as successfully in veterinary practice for the cure of spavin—an analogous disease.

Form for Administration.—The form for administration and dose have already been fully discussed (See page 3).

### CALCIUM PHOSPHATE.

The phosphate of lime is an important constituent of bone, and is highly valued in all diseases of the osseous system. Rachitis, caries and necrosis demand this agent as a restorative. In case of fracture, where non-union is feared on account of advanced age or other causes, this remedy may be relied upon to aid the restorative processes. Ringer remarks: "It gives solidity to the skeleton; hence, if the quantity supplied to the body is small, or if the demand for it is greater than the supply, these solid structures suffer and lose their rigidity. Chossat produced softening of the bones of animals by feeding them on food free from lime-salts; while, during pregnacy, much phosphate of lime being required for the ossification of the skeleton of the fœtus, it is found that the fractured bones of pregnant women unite slowly and imperfectly. Some experiments by Milne-Edwards bear practically on this point; for he found that animals' boncs intentionally fractured united more quickly when the animals were supplied with phosphate of lime."

Phosphate of lime does not, probably, merely act as a source of food supply, but dynamically influences integrity of structure, and thus aids as a restorative, by acting as a plastic remedy.

The form for administration may vary from the 6x attenuation to the crude salt. A minute quantity may answer every purpose.

### HECLA LAVA.

This material issues from the well-known volcano of Iceland. The homeopaths-always good observers of drug effect-noticed an affinity for the bones of the head and face evidenced by the fact that some of the animals which fed in the mountain pastures, where the finer ashes fell were effected with immense exostoses on the jawbones and skulls. Dr. G. Wilkinson, not reasoning, but following the dictum of Hahnemann (similia similibus curantur), employed triturations of it with reputed success in toothache, swellings about the jaws, and gum-boils. Dr. Holcombe afterward used it in neuralgic pains after tooth-extraction and in osteitis of the lower jaw. Dr. Gilchrist, a homeopathic author on Surgical Therapeutics, recommends it in exostosis and osteo-sarcoma. Other writers commend it in felon, alveolar caries and exostosis. The accounts given warrant an investigation of its dynamical effects in appropriate cases.

Form for Administration.—High attenuations (dilutions) have been employed by those who have reported success from its use. These should be obtained at a reliable homeopathic pharmacy. The tenth decimal dilution might be tried in ten or fifteen drop doses three or four times a day. Possibly the third attenuation might do as well; in chronic diseases a very minute quantity of medicine repeated at quite long intervals often succeeds best.

# OLEUM JECORIS ASELLI.

Cod liver oil is a standard remedy in all schools for osseous degeneration, when strumous in origin. In hip joint disease occurring in children it is one of the best of

#### THE OSSEOUS SYSTEM.

remedies, in connection with phosphate of lime, the two being alternated or combined to suit the caprice of the practitioner, or other circumstances. The benefit derived probably depends, not upon the oil alone, which undoubtedly supplies a very necessary element for the scrofulous constitution, but also upon a minute quantity of iodine pervading it.

### STILLINGIA SYLVATICA.

This remedy possesses a reputation in the treatment of new formations of bony character which should be borne in mind. Bony growths about the head and face (exostoses) as well as exostosis of the tibia.

The remedy seems to resemble corydalis very closely in this respect, influencing the plasticity of the superficial or compact tissue of bone, and correcting an abnormal tendency to the putting forth of nodular growth.

It also serves a good purpose in periosteal pains in old syphilitics, where, probably, there is a putting forth of new bony growth, or structural change occurring in the periosteum.

Form for Administration.—A tincture of the fresh root. The best substitute for this would be the specific medicine.

Dose.—From five to ten drops three or four times a day.

### THE PERIOSTEUM.

AURUM ARSENIOSUM—ARSENIATE OF GOLD. Hale recommends this remedy in chronic headaches due to syphilis, necrosis, periostitis and ozœna.

### BERBERIS AQUIFOLIUM.

This is one of our most positive remedies in the treatment of the periosteal pains attending the early stages of syphilis, and even in the more advanced periods of the disease it will be found useful if new growths are not developing on the bone. When the patient is tormented with severe bone pains, and other symptoms of syphilis are present, the aid of a protracted course of berberis may be begun with the greatest confidence in the ultimate success of the treatment in permanently relieving this phase of the complaint.

Dose.—The specific medicine or Parke Davis & Co.'s fluid extract should be given in ten drop doses four or five times a day. Some believe that this remedy acts better in this place if combined with iodide of potassium, but I have had excellent success with it administered alone, and deprecate the use of the iodide whenever it can be avoided, as more or less debility is almost certain to follow its use.

### EUPATORIUM PERFOLIATUM.

This remedy possesses the traditional reputation—engrafted upon it by one of its popular names—boneset—of relieving painful states of the bones. As bone pain must have its seat in the periosteum it is but rational to conclude that the specific action of this remedy, in relieving such state, must be upon the structures of this membrane.

In breakbone fever, or ague, attended by intense suffering in the bones, or any other acute disturbance where

this symptom is marked, this remedy may be relied upon to banish the pain and assist other curative measures. But the proposition must be accepted with some reserve; many times pain in the periosteum indicates inflammatory action with impending structural change, over which this remedy would have no influence. Not every case of periosteal pain will demand it. The periosteal pain of febrile conditions, neuralgic, perhaps, in character, or of the fibrous structures of the periosteum, is the place requiring it.

Form for Administration.—A tincture made by covering the fresh bruised plant (leaves, blossoms and stems) with pure alcohol is the ideal form. The best form of commerce is the specific medicine.

Dose.—Add from ten drops to a drachm to half a glass (four fluid-ounces) of water, and give a teaspoonful every hour. It is only adapted to acute cases.

### MEZEREUM.

Referring to the influence of this remedy upon periosteal irritation and structural changes following syphilis, Hughes, in his Manual of Pharmacodynamics, remarks: "One of its antisyphilitic applications has stood the test of later practice, and is vouched for by such practitioners as Hufeland and Alexander Russell. I refer to its influence over nodes and nocturnal bone pains -dolores osteocopi as they used to be called. Hahnemann's pathogenesis in the Fragmenta mentions such pains as caused by it in the cranium, clavicle, and thighs, and several of the later provers report the same experience (See Webster's Principles of Medicine, Introduction); in homeopathic practice we use it with much confidence in these cases, and in simple or rheumatic periostitis. Whether it acts upon the bones themselves, I hesitate to say. There is, however, a case on record, in which it seemed to check the necrosis of the jaw produced by phosphorus; and Noack

and Trinks mention several osseous diseases benefited by it."

### MANGANESE.

Manganese manifests an affinity for the periosteum and sometimes proves a valuable remedy in painful conditions of the part attended by subacute inflammatory action. Burt recommends it where the periosteal pain is much aggravated at night, but as almost all affections of painful character are worse at night, due probably to planetary influences, this special indication may be received with some allowance. The sixth decimal trituration is the form I have used. It may be given in doses of two or three grains, every four hours.

### IODIDE OF POTASSIUM.

Potassium iodide is well known as a remedy to influence the periosteum. Its action in this direction is marked in some portions of the system, as that about the forehead. Its debilitating influence, however, renders it somewhat objectionable as a remedy of frequent resort, as the very case demanding a periosteal remedy most, as syphilitic states for instance, are already debilitated, and cannot, judiciously, be further depleted. Some Eclectic practitioners assert that this objection can be overcome by combining this drug with berberis aquifolium, but as the latter remedy is efficacious alone, perhaps more so than the iodide, it seems hardly policy to resort to the combination unless the case be a very stubborn one, then we may see fit to resort to iodide of potassium and combine it with berberis, in order to derive the tonic properties of the latter drug.

### PHYTOLACCA.

This remedy is very highly commended by Hale as a cure for rheumatism involving the periosteum. Deep seated pain, situated apparently upon the surface of the

bone, with tendency to shifting of its location and other evidences of rheumatic dyscrasia, would call for its exhibition. In this case there is not likely to be much swelling but simply a deep seated pain, not much affected by pressure, of dull, aching character.

Dr. Hale, in his New Remedies, cites a number of such cases promptly cured by phytolacca, after all the most reputed remedies for rheumatism had failed. Apparently in these cases the tissue involved had not been taken into consideration enough in making the therapeutic adaptation—the tissue affinity of drugs had not been sufficiently kept in sight, in the therapeutic application.

Form for Administration.—The tincture made from the fresh root, by macerating the crushed article in pure alcohol, fulfills the best purpose. The only reliable substitute for this known to me is the specific medicine. This usually fulfills the requirements of the case.

Dose.—One or two drops three or four times daily.

### STILLINGIA.

This remedy resembles phytolacca in its influence upon the periosteum, being adapted to periosteal rheumatism and cases where bone pains are chronic and persistent. The drug aborts nodes, when given early in their development, and relieves, at the same time, the periosteal irritation.

### CORYDALIS.

Corydalis formosa is an old Eclectic remedy of established value as an "alterative," and with the early Eclectics the term covered a vast extent of therapeutical ground. Having already noticed it as a corrector of the syphilitic dyscrasia, it only remains to here call attention to its value in the treatment of syphilitic nodes.

The drug seems to exert a plastic influence upon the bones of the leg, especially upon the shin, influencing the nutrition and formative power here to correct the perversion manifested in the nodular enlargements which often occur in tertiary syphilis. Where these have been long established we cannot expect as much as in recent cases, but where they are recent, or in process of formation, the remedy may be administered with good prospects of success. I have seen syphilitic nodes aborted by it in two instances after both shins had become swollen, shiny and painful, within a few weeks.

Hale, who has been very free in appropriating our remedies, while he has abused our authors at the same time, makes some very positive statements as to the value of corydalis in syphilitic nodes. He asserts (New Remedies) that he remembers two cases of syphilitic nodes on the tibia which had been treated for nearly a year, with large doses of iodide of potassium without benefit, which recovered, slowly, but permanently, afterward, upon ten-drop doses of tincture of corydalis, adminstered four times a day.

I have found this remedy to act nicely in relieving . the shin pains of syphilitics, when galvanism and other local remedies failed. Here it should be the first remedy.

Hale states further that the remedy will cure syphilitic nodes of the skull, associated with falling of the hair. In short, the remedy seems to possess a marked affinity for the superficial tissues of bone, correcting tendency to new formations of this part in whatever region occuring, with its most positive affinity directed to the shin. This field is one that has been almost entirely neglected by modern Eclectics, but now that the spirit of investigation is abroad it is hoped that more light will be thrown upon some of the possibilities of our own peculiar materia medica.

Scudder mentions corydalis as a remedy for nodes in his Materia Medica.

Form for Administration.—The specific medicine or the mother tincture of homeopathy. Where the fresh root can be obtained, a tincture made by bruising and covering it with alcohol, before drying, will give the best satisfaction.

Dosc .- From five to ten drops three or four times daily.

### THE ARTICULATIONS.

### BYRONIA.

The influence of this remedy is not a strongly pronounced one, hardly equalling that of jaborandi in the class of cases to which it is at all adapted, viz., acute inflammatory affections of the synovial membranes. Among the homeopaths it has enjoyed considerable reputation in articular rheumatism—more, probably, than it deserves. Its action is not very prompt, and I seldom employ it, for the reason that there are better remedies for the purpose.

Form for Administration.-The specific medicine.

Dose.—Add ten or fifteen drops to four ounces of water, and give a teaspoonful every two hours.

### CAULOPHYLLUM.

Caulophyllum is one of our old reliable remedies for rheumatism. It is too well and favorably known to require commendation. It influences the muscular structures in all parts of the body, but is more adapted, than some other rheumatism remedies, to rheumatic conditions of the small joints—those of the fingers and toes.

It seems to possess an affinity for these parts, adapting it to any painful condition here, not traumatic or attended by structural change, as gout.

It will be found a valuable resort in rheumatism affecting principally the fingers, in combination with jaborandi in the active stages, or alone when the condition is more subacute. It is not ordinarily adapted to vascular disturbance, being more of a tissue remedy influencing the plastic force of the tissues acted upon, rather than circulatory organs.

Form for Administration .- I prefer a trituration of caul-

ophyllin to the tincture of caulopyllum, usually using the 3x. Leontin is a favorite form with many, and is doubtless a valuable form of the remedy, though I have not used it enough to speak with authority. It is a more acceptable form to the taste, however, than caulophyllum, which possesses the property of imparting a peculiar acrid sensation to the throat, which is quite persistent, and unpleasant to many.

### CISTUS CANADENSIS.

Rock-rose is a remedy recommended by various homeopathic authorities for scrofulus hip-disease and white swelling. It has not been very extensively used, and therefore lacks a thorough test, but it stands high as an anti-scrofulous remedy, and doubtless possesses virtues to commend it in such cases, even though no marked tissueaffinity exist.

Form for Administration.—The mother tincture sold at homeopathic pharmacies.

Dose.—Add ten drops to four ounces of water and give a teaspoonful four times daily.

### JABORANDI.

The value of jaborandi in acute articular inflammation is probably not equalled by that of any known remedy. The intense pain of acute articular rheumatism may often be permanently relieved by it in an hour's time, and the inflammatory condition speedily dispelled. In traumatic inflammation of the joints so speedy benefit does not follow, but even here the agent cannot be supplanted by a better one.

I am not prepared to state whether the affinity exists for the fibrous tissues about the joints, or for the synovial membranes; but I have plenty of clinical evidence to commend it highly, when a joint is painfully and acutely swollen, with accompanying inflammatory symptoms.

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# Form for Administration .- The specific medicine.

Dose.—In acute cases where the pain is severe, twenty drops may be given in a swallow of water at a dose, and repeated in half an hour, if free perspiration or relief from pain does not follow the first dose. After this, from one to two fluid-drachms may be added to four ounces of water, and a teaspoonful given every hour. When the pain is not very severe the large dose in the beginning may be dispensed with.

### LEDUM PALUSTRE.

The wild rosemary has been used with success in gouty pains about the small joints, as those of the fingers and toes. A few drops of the homeopathic tincture in four ounces of water, dose a teaspoonful, may be tried in persistent cases of this kind. It is hardly probable that it can equal caulophyllin in such cases.

### PULSATILLA.

Of the action of pulsatilla on the joints, Hughes remarks (Manual of Pharmacodynamics): "Pulsatilla seems to fall short of the true serous membranes, but compensates itself by acting powerfully upon their near relations, the synovial membranes. The joints chiefly affected are the knees, the ankles, and the small joints of the hands and (most especially) the feet."

### SILICA.

The following article from the July, 1888, number of the *California Medical Journal*, by the author, illustrates the value of this remedy in synovitis so well that I cannot do better in this place than to reproduce it:—

A year ago a middle-aged lady, of Oakland, rather stout in build, visited the Sierras to inspect a mine in which she was interested. On the return trip down the mountain, she decided to enjoy the novelty of a ride on

the top of the stage. Jehu, thus incited, probably, outdid himself; at least, in making a sharp curve, the coach toppled over the edge of the shelf, and our patient, luckily being of an anticipating turn of mind, barely escaped participation in the catastrophe by jumping from her perch to the inner side of the highway, thus landing on her feet among a heap of rocks. Fortunately, no immediate serious result attended the mishap, and in the excitement of the moment she pronounced herself unhurt. but soon found that both knees had suffered injury, the pain in them becoming severe, and being aggravated when standing or walking. No improvement becoming manifest during the first few days at home, the writer was called to administer relief. Inspection failed to detect any indication for the ordinary remedies in evidence of strain of ligamentous or muscular structure; there was no swelling, no redness, no superficial tenderness, in fact, manipulation caused no pain whatever, but this became severe as soon as the patient stood on her feet, so as to subject the fibro-cartilages to pressure. Electricity, bryonia, cimicifuga, vapor baths and massage were tried, upon the idea that the slight injury had resulted in the development of rheumatic arthritis, but to no good purpose-not the slighest favorable result followed. An entire change of base seemed in order, for the physician to get out of the scrape creditably, and as a last resort silica 3x trituration was ordered, two grains to be taken every four hours during the day. In less than four days' time the pain and tenderness were entirely gone, and the patient could get about on her feet as well as ever.

"About the middle of June the writer was thrown from a vehicle in San Francisco, upon the cobble-stones, during the progress of a runaway, and his whole weight precipitated upon the extended right hand. The entire right side of the body was bruised considerably, but in . a few days the soreness passed away, except that in the right shoulder, and this became worse than ever. The part was not swollen, nor were the muscles tender to the touch, but the pain was much aggravated upon motion of the arm. Supposing the matter to be largely a return of an old rheumatic trouble, as the result of strain, faradism, anti-rheumatics, vapor baths and massage were tried for more than two weeks, with no relief. Finally it became the conviction that the cartilage in the glenoid cavity had been injured, and the use of silica 3x trituration was begun, a dose of two or three grains being taken four times daily. The first night after beginning this remedy the first good rest following the accident was experienced, and within three days the stiffness, soreness and pain were almost entirely gone."

However, the injury proved a severe one, and left its impression for months, a return of the pain, somewhat modified, marking every change of weather for months; but silica proved the best remedy to alleviate the attacks tried, and its repeated use, with the aid of thorough matutinal massage, finally banished the susceptibility of the part to atmospheric changes and completely restored it. I believe that in chronic inflammation about the large or small joints it is the most positive specific agent we possess, for though benefit may seem slow from its use many times, what other remedy shall we turn to with better promise, if we look up the records of the past?

In gouty conditions we may also expect some pretty certain response from a persistent use of this remedy. I have cured several cases of gout (or at least arrested the destructive changes) by prescribing this medicine. A case in point will serve to illustrate : Mr. K. and wife called at my office to consult me about an enlargement and stiffening of the second joint of the middle finger on her right hand, which had been treated for several months by a
#### THE ARTICULATIONS.

neighboring physician, without benefit. I examined the affected part carefully, and detected evidence of structural change; the patient declared that there was no pain in the part unless it was moved or struck against something; the swelling was slowly progressivewithout abatement at any time-- and it did not become reddened at any time, and was not particularly susceptible to changes of weather. Besides, she was not subject to rheumatism in any other part-there was no history of metastasis. I pronounced the case one of gouty degeneration of the synovial cartilage and prescribed silica, informing the patient, meantime, that she must expect to wait a long time for improvement, but assuring her that the progressing change in the joint could be arrested and the member still spared for limited use, and that immunity of the other fingexs from the same condition probably depended upon a proper treatment begun early. Silica was prescribed, the 3x trituration, four times daily in small doses. A year afterward I saw the finger and found its functions much improved and the swelling much reduced, though it had never become perfect. The patient informed me that she took the medicine nearly three months before any favorable change was noticeable; after this the swelling and tenderness slowly abated. She was much pleased at the results, as she had lost hope of ever having any use of the finger again. I have had a number of other cases in which the plastic power of silica over cartilage was just as pronounced.

# THE NERVOUS SYSTEM.

### ACONITE.

I shall study the influence of aconite on the nervous system under the following heads :---

1.—Its effects, therapeutically on the mental sphere.

2.—Its influence in irritable conditions of the sensorium and nervous system generally.

3.—Its influence upon painful states of the sensory nerves.

4.—Its influence in spasmodic affections—disturbances of the motor nerves.

1. Though not the most important remedy we have, probably, in its influence upon the mental sphere, aconite will often come into use for certain mental states which may prove very aggravating elements of the cases in hand. As it is the remedy, usually, for acute cases, it is in the mental perturbations occuring here that it will oftenest come into use. Febrile states, accompanied by despondency and dread of impending dissolution, specially demand aconite as a sedative, as it will not only cover the ground as an inhibitor of excessive arterial excitement, but will alleviate the mental perturbation and conduce to a tranquil state of mind more adapted to speedy convalescence. It is here the pulsatilla of the febrile state. In the absence of this fear it may prove valuable in states of intense anxiety without commensurate cause sometimes observed in patients, especially during active febrile excitement. It is as reasonable to expect such an action as this from the drug as to expect it to act upon the vasomotor center and control vascular excitement, if we believe in the localization of cerebral functions. Of course the dose must be minute here if we are to look for prompt response-not large enough to disturb cerebral function unpleasantly.

2. There may be a disturbed condition unconnected with the mental sphere, however, precluding rest and sleep, and this may call for aconite, whether there be febrile action or not. Insomnia may often be successfully treated with aconite alone though it is by no means the most reliable remedy we have in nervous erethism. In that state of nervous erethism often found in teething children, where the little patient is fretful, worrisome, sleepless and peevish-a condition just short of that where convulsions are pending-aconite is the best remedy we have. In case of attendant diarrhoea, a very common concomitant, it may be combined with ipecac with good satisfaction, or where the hyperæsthesia amounts to a convulsive state, rhus tox. may be made its associate, with profit. Aconite resembles both these remedies in these respects, though it does not reach out so far in either case ; aconite soothes irritation of the intestinal mucous membrane, though not so positively as ipecac, while it controls the hyperæsthesia tending to infantile convulsions, though not so positively as rhus. However, this intermediate action renders it very valuable in the treatment of children, many times.

3. The influence of aconite upon the sensory nerves is very positive and unmistakable. We have all experienced the benumbing effect of accidental contact with the drug, when the lips are touched with it on the fingers, after dispensing it. The smallest quantity of it soon sets up a sensation of tingling and numbness, quite prolonged and persistent. But its most effective therapeutic application is its internal use in neuralgia. Tic douloureux is readily relieved by it if not too chronic and there is a febrile element connected with it. Almost all forms of neuralgia are benefited by its influence, though it should be thought of usually as an adjunct to some more specifically plastic remedy. For example : Neuralgia of the fifth nerve would be best treated by alternating aconite with the more-specific remedy, piper methysticum, especially if there were marked febrile action attending, or even local inflammatory symptoms present. Neuralgia of the rectum would be best treated by alternating the general remedy with the more specifically local-plastic -remedy: æsculus, or collinsonia. We can make this differentiation then in remedies of this character: one may act upon the general nervous system, seeming to exert its analgesic influence upon all the tissues of the system by an action somewhat in common, while others are more selective, and are only adapted to some special part. In long standing neuralgias, whatever remedies are relied upon, one could hardly go amiss in prescribing aconite as an adjunct. Its regulating tendencies in circulatory disturbances would almost universally commend it here, for a case of neuralgia without circulatory disturbance in the nervous structure could hardly be supposed to exist.

4. Aconite has been termed by more than one writer, "the children's remedy." If it has one more-deserving place than another, so far as this application is concerned, it is in its adaptation to convulsive conditionsnot that it is the best we have by any means, but in its wide range of application. As has just been remarked with regard to its use in neuralgia, one could hardly go amiss in prescribing this agent in a case of convulsions, though some other particular remedy might be more applicable in a given case. Many spasmodic conditions also yield to or are benfited by it, especially muscular spasm, as that of acute rheumatism, where the intense suffering is periodically aggravated by spasmodic action of the muscles. Painful muscular spasm, then, furnishes a very satisfactory field for its action. Professor Scudder, combining it with macrotys, pronounces it a specific

for muscular rheumatism. Spasmodic croup, also belonging to this category, is more promptly relieved by aconite than by any other remedy.

## ÆTHUSA CYNAPIUM.

This remedy possesses considerable virtue in gastrointestinal affections of children, and might be considered a great boon were there not so many valuable agents in the same field that its services are not greatly in demand. However, where the nervous element is a predominant feature, as in many cases, it may prove worth the trying, especially where the tendency is strongly towards convulsions. A prominent homeopath (Dr. Guernsey) gives the following indications for its use: "Great anguish and crying; disposition to jump out of bed or escape from the room; great anxiety expressed by the face, often accompanied by the linea nasalis; regurgitation of food after it has been taken; swelling of external glands with lancinating pains; startings preventing sleep; heat without thirst." Convulsions attending cholera infantum are relieved by it while the intestinal trouble is also benefited, the remedy thus fulfilling a double purpose.

Æthusa also bears the reputation of influencing the brain in fag when that organ has been over-worked, thus fitt ng one for a renewal of effort when exhausted from protracted mental exertion.

Form for Administration.—The 3x dilution of the mother tincture of homeopathy.

Dose.—Add a drachm to four ounces of water and give a teaspoonful every half-hour or hour.

### AGARICUS MUSCARIS.

This fungus possesses some important properties not to be lost sight of in this department. It manifests undoubted affinity for the nervous system, and may occasionally be resorted to with success when other remedies of

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the class fail to afford satisfaction. The homeopeths commend it in chorea, Hughes asserting that it often proves curative in these cases. I have had no experience with it in this respect, and am so universally successful with faradism in the treatment of this affection that I have no need to look turther for therapeutic means. However, as a pointer to other uses it may be worth our while to be aware of this property.

I have seen it act well in continued fevers where there was a typhoid condition marked by tremor, restlessness and desire to get out of bed. Typhoid conditions presenting these symptoms offer indications for its use. I do not think the response is as prompt as that following the influence of rhus, baptisia, echinacea and some other of our well tried remedies, but it is of the character to at least prompt a trial of its merits, when an urgent case refuses to respond to more common means.

Spinal irritation is another condition where it promises something; and our resources here are so meager that we should neglect none of them which promise assistance. The neuralgic pains often resulting from this condition are sometimes permanently benefited by the use of this remedy, because, probably, the local hyperæsthesia is quieted and the reflex effects arrested. Though we cannot expect to accomplish very much in the treatment of these cases it is worth while to be able to do better than our neighbors, and it is by the investigation of such remedies as this that we may be able to win laurels.

Professor Scudder remarks, in his Specific Medication, that the best indication for its use is involuntary twitching of the muscles of the forehead, face and eyeballs. The optic centers are probably specially influenced by it (see Principles of Medicine by the Author, page 87), but this subject will be referred to under "Remedies Influencing the Eye."

## ANACARDIUM ORIENTALE.

This remedy bore the reputation, among the ancients, of improving mental power. Weakness of the mind, loss of memory, and impairment of the senses, were considered indications for its use. It was part of the compound, "confectio sapientium," which was much in use for the treatment of such cases then. But the practice and faith have long been discarded except among a few; yet as history repeats itself there is a possibility that the agent may assume its old place as a remedy for abnormal states of the mental sphere. At least there is no reason that we should not test it fairly in such conditions, as no harm, to say the least of it, can come from efforts in this direction. Mental weakness following sexual vices, as well as that sometimes remaining after acute diseases, has been benefited by its use. The dementia, loss of memory and other evidences of failing nervous power of. old age are said to have been benefited by it. Dr. Bayes (quoted by Hughes) found it very useful in steadying the nervous system before examination while in college, after protracted preparatory effort.

Form for Administration.—The homeopathic mother tincture. Add ten to twenty drops to four ounces of water and give a teaspoonful four or five times during the day.

### ANTIFEBRIN.

Antifebrin, one of the analine derivatives, is a drug of considerable value in acute nervous affections, on account of its prompt action in alleviating urgent symptoms. Migraine yields to its influence almost as readily as to antipyrin, and it is less apt to produce prostration. It is a valuable anti-spasmodic, useful in asthma, epilepsy, whooping-cough, bilious colic and other spasmodic affections. It is also a pronounced pain reliever and hyp-

notic—especially valuable as a hypnotic where loss of rest is due to subacute painful states. It is useful to relieve the pains of facial neuralgia, locomotor ataxia, sciatica, and acute inflammatory rheumatism. In the last named affection it is especially valuable, as it combines superior sedative properties with the other pain-relieving effects.

The principal use I make of this remedy, however, is to relieve attacks of sick headache, for promptness of which it is only rivalled by antipyrin—a remedy to be avoided as a rule, on account of its prostrating effects.

I often find it valuable in relieving severe attacks of reflex headache attending uterine irritation or following trachelorrhaphy.

Dose.—This may vary from five to ten grains, repeated every hour, until three doses have been taken if necessary.

It is a German, imported article, and may be obtained at almost any drug store.

## ANTIPYRIN.

This drug has fallen into disfavor recently, on account of the depressing effects liable to follow its continued use or its administration in large doses. Another objection urged against it is the fact that it is a proprietary remedy; but, as the character of the agent is known, and the synonym-di-meth-yl-oxy-quinizine-is too long for comfort, I see no valid objection to it on this score. As to its depressing effects, these are objectionable, but there are often times when something prompt to relieve pain and spasm must be had, and this will answer the purpose better than any other agent with as little objectionable quality. It will often act more promptly than morphia, and leave less unpleasant after effect, if not abused. The trouble with many of the profession is that they are prone to overdo the use of agents which

are powerful in action but temporary in effect, neglecting, meantime, the aid of means more likely to bring about permanent benefit while the temporary relief is on. As a temporary resort then, we will often find antipyrin very acceptable.

For intense pain and spasm in any part of the body, then, we can rely upon it to afford prompt relief until more specific remedies can be employed to radically cure. I have thus employed it in severe attacks of rheumatism, asthma, angina pectoris, neuralgia, etc., with satisfactory results. However, I am careful to limit the number of doses in a single case to two or three in twenty-four hours, and seldom give it afterward in the same case-at least during the same attack, for it is likely to produce a very obstinate form of dibility if repeated often. I believe it less objectionable than the preparations of opium, as a rule, though more likely to produce debility. If any remedy can produce a cumulative effect I think antipyrin is certainly one of this class, as I have known of a number of serious cases of prostration and general debility which have evidently resulted from the prolonged use of it, at intervals, for sick headache. It is very effective here, but liable to prove a seductive agent, if its use be continued at frequent intervals over too long a period.

Dose.—Five to ten grains may be administered at a time in a swallow of water. If the single dose does not prove effective it may be repeated, in urgent cases, two or three times, at intervals of an hour. Afterwards it it should not be administered oftener than every four or six hours, the prescriber remembering to avoid it except in very urgent cases. To some persons the taste—which resembles that of sulphuric ether—is very objectionable, and it might be best to administer it in capsules in such instances.

### ARSENIC.

Arsenic exerts a potent influence upon the nervous system, and is often useful in obstinate neuralgias, as well as being applicable to such spasmodic affections as chorea, while those who have given the subject of mental therapeutics special attention ascribe to it the power of ameliorating certain mental aberrations.

In neuralgia, the element, periodicity, where the pains are burning in character, should be taken as an indication for its use, especially if the pain is relieved by motion to return when the patient is at rest. Such neuralgia is usually malarial in character or origin and the effect of sudden changes of temperature or exposure to cold in malarial regions. As a rule, I prefer the arseniate of quinia to the straight article of arsenic; as the malarial influence often at the foundation of the trouble is usually controlled better by the combination.

The form of chorea benefited by arsenic is that accompanying chlorotic anæmia. Possibly the beneficial effect may be due to the blood-making properties of that drug, but there is so much evidence in other quarters that arsenicum directly influences nervous function, that I think it fair to ascribe a direct effect from the drug when chorea is benefited immediately after its administration. However, it is not so positive a drug here, probably, as gelsemium, and bears no comparison with faradism as a remedy for chorea. The physician who has had a thorough experience with the latter agent in the treatment of chorea will hardly resort to arsenic.

The bromide of arsenic deserves mention as a remedy for epilepsy. It is said to be far superior to the other bromides in the treatment of this disease. Dr. Morton informs the writer that the only success he has ever had in the treatment of epilepsy has been from the use of this remedy. It should be prepared after the following plan: Dissolve one drachm of carbonate of potassium in half a pint of water, then add one drachm of arsenious acid, then boil until the solution is completed. After cooling, add sufficient water to make a twenty-ounce mixture, and to this add two drachms of bromine.

Dose.—One to three drops in water, three or four times a day.

The following from a report of the Middletown Insane Asylum of the state of New York, by Seldon Talcott, M. D., Medical Director, suggests the direction of arsenicum in its application to perverted conditions of the mental sphere. "Melancholia, sad, tearful and depressed moods; intense anxiety with great restlessness; fears to be left alone lest he should do himself bodily harm; great fear, with cold sweats; intensely suicidal; the patient has hallucinations of smell; smells pitch and sulphur, and anticipates consignment to sheol.

"Sleeplessness, with restlessness and anxiety; frequent startings in sleep; awakened by pain, especially after midnight; after sleep feels as if he had not slept enough; dreams full of care, sorrow, and fear, about thunderstorms, fire, black water and death.

"Insanity in those who suffer from long wasting disease; melancholia with intense restlessness and suicidal propensities. Dr. Hughes states that arsenic is one of the few remedies which cause genuine neuralgia, and it far excels all other remedies in the treatment of the idiopathic disorder."

## ANILINE, SULPHATE OF.

Sulphate of aniline has some reputation in the treatment of epilepsy and infantile convulsions. We do not need it greatly in the latter class of cases, but in epileptic cases we must still strive for more effective means, and this remedy may repay thorough investigation. It comes well recommended, but has not been thoroughly proven as yet.

The dose for an adult is two grains of the salt, which should be dissolved in water acidulated with dilute sulphuric acid. This remedy was highly recommended by the editor of the *Medical World* several years ago, but I have seen no corroborative reports since, and have not tried it myself.

## APOCYNUM CANNABINUM.

This remedy has been recommended by Dr. Kilgour as a cure for sciatica and lumbar and crural neuralgia. The following quotations from his pen are drawn from the November number of the Eclectic Medical Journal for 1886:-"There has appeared from time to time in our medical literature so-called specifics for sciatica, and I know of no affliction more painful and heretofore harder to get rid of than this form of neuralgia. I recently had to treat three cases which were somewhat different from each other, but all having the same characteristic symptom of very sovere pain. They were all adults, and two of them were women and the third a man. In the first case the pain was in the right groin and in the region of the trochanter, and it was so severe as to extort cries of anguish from the sufferer. After trying other remedies for her relief for three days, during which time the pain grew worse, and temporary rest was only obtained by hypodermic injections of morphia, I gave her apocynum, and in a few hours there was cessation of pain and it never returned. The medicine was continued two days. The next case was a woman with pain in the right hip and side, which was also so severe as to extort screams. Apocynum very promptly relieved her. The third case was that of a man, upon whom the pain came in the night, with such severity as to force him screaming out of bed, it being located in the region of the right kidney. Morphia was given at first

to relieve the sudden and severe onset, and various other remedies were tried without avail, for the four following days. I then gave apocynum every half-hour, and in one hour there was improvement, and before two days there was entire relief. This patient had been unable to straigten up or walk, on account of the slightest jar hurting him."

These cases seem to have given the remedy a crucial test, for colocynth, colchicum, rhus tox., arsenicum, etc., were faithfully tried in advance and proved insufficient. I have used apocynum a few times since the publication of this report with excellent satisfaction in stubborn cases of sciatica, and believe the remedy should take first rank among our standard anti-neuralgics.

Form for Administration.-The specific medicine.

Dose.—Add half a dram to four ounces of water and give a teaspoonful every half-hour in acute cases until improvement sets in, and afterwards less frequently. In subacute cases a dose every hour will be often enough.

## APLOPAPPUS LARICIFOLIUS.

Several years ago a patient of mine who spent a portion of her time in Monterey related to me the details of a surprising cure of tetanus made by a Spanish woman there, after the physicians of the place had failed and after a prominent surgeon of the neighboring town of Salinas had pronounced the case beyond hope. At the time I attempted to learn more about the remedy used, but was only able to learn that it was an herb which the woman had gathered in the vicinity, steeped, and administered. Since the begining of this work I have obtained, from Mr. G. S. Crosby, formerly a student in the California Medical College and a resident of Pacific Grove (near Monterey) at the time of the occurrence, more complete knowledge of the remedy, though the exact species may yet be in doubt. The plant evidently possesses rare anti-spasmodic virtues, and should be thoroughly investigated by the Eclectics in this vicinity. It seems to have proven a sovereign remedy not only for tetanus but for chorea and eclampsia as well. The following are, substantially, Mr. Crosby's own words:—

"Yerba del Pasmo, Nat. Or. Composite, Genus Aplopappus, similar if not identical with the Aplopappus Laricifolius found in New Mexico, Arizona and Texas.

"Pasmo" means "spasm" or "convulsion." Hence, the name applied to this plant, which has been a common and specific remedy among the Spanish residents of Monterey, Santa Cruz and other places in that section for years for such conditions as tetanus, eclampsia, chorea and other spasmodic affections.

"In 1889 a case of tetanus, caused by a wound from a rusty pail in the foot, and reported as past recovery by the local physicians as well as by a prominent surgeon who was called in consultation, was cured with it (a tea of the herb having been used in small and frequently repeated doses, and applied locally to the wound). Sulphur was given as a laxative and rapid recovery was the result. The patient was well known, a painter by trade, and foreman on Hotel del Monte, then in construction.

"Reports of the accident appeared in the papers of Monterey and Pacific Grove, stating the hopeless condition of the patient as portrayed by the physicians, but when his recovery was reported mention of the humble means of cure was omitted, probably because the patronage and good-will of the medical fraternity was considered preferable to the chronicling of a valuable medical discovery.

"A person who was eye witness to the cures has reported to me two cases cured by this remedy: One of these was that of a girl of 12 or 14 years of age afflicted with chorea, and the other that of a case of eclampsia. One of these cases occured in Watsonville, and the other in San Juan, both within the past eight years.

"Thanks are due to Miss M. E. B. Norton, for years Botanist at the State Normal School, of San Jose, for the specimens and assistance in properly placing the plant, as well as to Professor Green of the State University, at Berkeley, for additional aid. The botanists have been somewhat embarrassed in their researches on account of the imperfect character of the specimens obtained. The plant, thus far, promises to be a scarce article."

# AMYL NITRIS.

Nitrite of amyl is properly classed in this division; for though influencing the blood-vessels markedly, the influence is almost wholly directed to the circulation in the nervous centers, disturbances here being its principal field of action. Epileptic tendencies where there is vascular cause, the cold stage of intermittents, migraine, angina pectoris and other neuralgic conditions accompanied by coldness and pallor of the surface, are proper places for its use. Asthma, dysmenorrhœa and other spasmodic states are sometimes benefited by the administration of amyl.

The vaso-motor center seems to be a special point of action for this remedy, material doses seeming to influence the vaso-dilators, the result being flushing of the brain and system generally, attended by throbbing, while attenuated doses seem to bring the inhibitory fibers under control and produce an opposite effect. (See Principles of Medicine, Page 90-92.) This is one of the instances where the law of homeopathy is well sustained. The remedy, in appreciable doses, will cause "flushing" of the capillaries, while in high dilution it is applicable, not to the flushing thus produced, but to the flushing of disease, as often noticed in women at the climacteric, in vertigo, and in the aura of epilepsy. The remedy may be used by inhalation where the more powerful or dilating or relaxing effect is desired, though it must not be overdone, as severe headache may follow. In angina pectoris, asthma, severe neuralgia, etc., it may be thus administered; but for the flushings of the climacteric, epilepsy, and such conditions as demand the inhibitory effect, the 5x dilution, or a higher attenuation should be employed.

From my own experience I am not inclined to attribute much credit to this remedy as a resort in epilepsy. It is reputedly valuable, but practically of little account according to my observation.

## ARUM TRIPHYLLUM.

This remedy influences the cerebral centers, and has been used successfully in prostrated cases of fever where delirium was a prominent feature. It strictly belongs under plasma remedies. Malignant scarlatina, where the mouth and fauces are severely involved, with swelling of the submaxillary glands, accompanied by high fever and *delirium*, is a favorite place for it with some. The third decimal dilution is a sufficiently concentrated form for the remedy in such a case. Add a dram of this to four ounces of water, giving a teaspoonful at a dose, every hour.

### ATROPIA.

This remedy is useful in neuralgic conditions where the affection is purely nervous in character. Therefore it belongs emphatically in this division. I have used it for neuralgia, in the 5x and 6x trituration. It will be found valuable in tic douloureux, gastralgia (neuralgic), abdominal neuroses, ovarian and uterine neuralgia, etc. The pain must originate in nervous structure, to be adapted to the action of this agent.

### AURUM.

Gold is a useful remedy for neuralgia, and for mental disturbances attended by suicidal mania.

The neuralgia to which it is applicable is best influenced by the arseniate of gold, and is that chronic form due to irritation of the pericranium resulting from syphilis, or from necrosis, periostitis, or ozœna. Chronic bone pains in any part should remind one of this remedy.

The chloride of gold and sodium possesses similiar properties. It is applicable to periosteal pains, though the absence of the arsenic lessens it value in neuralgia.

Syphilitic patients often present the element of despondency in a marked degree. Hypochrondria is well met by minute doses of gold, and the form is not a material matter. The arseniate, the chloride and the metallic gold seem to act equally well in the application of the agent to mental conditions.

Dr. Hughes remarks, in his "Manual of Pharmacodynamics:" It is an admirable medicine for those constitutions broken down by the combined influence of syphilis and mercury which sometimes come before us for treatment. I once gave a poor fellow thus afflicted the first trituration of gold. He came back to me in a week's time, looking quite another man, and exclaimed—"Surely you have given me the elixir of life!" Dr. Hughes believes this medicine to be adapted to melancholia and hypochondriasis attendant upon chronic affections of the liver or testes. In insanity following sexual excesses, marked by melancholia and suicidal propensity, this remedy ought to be thought of.

## AVENA SATIVA.

The oat furnishes a valuable medicinal principle which exerts its main influence upon the nervous system. In nervous prostration it is probably the best restorative we have. During convalescence from fevers, where the nervous energies have been very much exhausted, nothing succeeds so well in building up the patient as avena. In spermatorrhœa resulting from such a condition,—and this

state of affairs has occurred in my experience, avena cures speedily after the usually approved remedies fail. In insomnia the result of nervous exhaustion, avena is one of the best remedies to be employed; its favorable influence is speedily realized. It has been extolled in paralysis, but I cannot commend it here from any positive results following its administration in my own hands. Paralysis depends upon such a diversity of pathological conditions that the empirical prescribing of any remedy for its relief would be the height of folly. Where a restorative to the nervous system was demanded and where the lesion depended upon such a need it might prove an effective agent in this connection.

As a remedy to prevent recurrences of cardiac rheumatism I have found it very effective, two cases of this disease which returned time and again, having, during my experience, been finally interrupted with avena; not that it is a rheumatism remedy, but that it puts the system in a better condition to resist the atmospherical and electrical changes that predispose a debilitated patient of rheumatic diathesis to relapses. I have given the remedy also some credit as a cardiac tonic.

D. P. Borden, M.D. (Medical Tribune) writes: "In cases of nervous prostration, in the low condition of the nervous system when the patient is recovering from typhoid fever, and in analagous cases, the extract of avena sativa acts like magic. I would administer it in doses of thirty drops, in hot water, before meals, and give the patient six to ten drops of iodine in milk after meals. A man whom I treated told me that he had never before been helped so speedily by any medicine. He had been a sufferer for a long time from nervous prostration caused by overwork and had used a multiplicity of remedies to little beneficial purpose."

I have been in the habit of prescribing this remedy

singly in nervous prostration, though in spermatorrhœa I find good results from combining it with gelsemium, staphysagria, pulsatilla, sabal serrulata, etc., as circumstances seem to den and.

Form for Administration.—A saturated tincture, made by covering the entire oat plant, gathered while the cereal is in the milk, with full-strength alcohol. The plant should be crushed and covered while fresh, immediately after being gathered. Instead of being crushed it might be cut into short sections with a keen knife. It should macerate two weeks, the container being occasionally shaken, when it will be ready for use. In the absence of this, I have used Keith's "Concentrated Tinciure."

Dose.-From fifteen to twenty drops.

## BAPTISIA TINCTORIA.

Bapticia is an old Eclectic remedy for typhoid conditions, and its value in such cases depends partly upon the fact that it favorably influences the cerebral mass, controlling disturbance tending to disorganization. It controls cerebral excitement, whether of febrile or nonfebrile character, and this influence does not appear to be exerted through the vaso-motor centre alone. When the disturbance is functional in certain parts of the cerebrum —a disturbance of mental equilibrium, or of parts upon which this depends—baptisia may be thought of as a remedy.

Insanity is thus benefited. It has been recommended by Dr. Seldon Talcott where there is mania with symptoms simulating typhoid fever. "Mind is confused, as if drunk; feels as if he was sliding away; bed feels too hard; thinks his body is scattered about, and struggles constantly to get himself together; mentally restless, but too lifeless to indulge in active exertion; can be roused, but before answering a question falls asleep again." Baptisia should be thought of in mania, melancholia with stupor, and dementia, where there is drowsiness, as in typhoid states.

Form for Administration.—The specific medicine. Dose --From the fraction of a drop to a drop.

## BELLADONNA.

Belladonna is useful in chorea, writer's cramp, paralysis from spinal congestion, cerebral congestion, eclampsia, infantile convulsions, hyperæsthesia etc. Failure to derive benefit from belladonna in these cases is often due to the administration of too large doses. Crude doses of belladonna can only produce the disturbing drug effects which are unpleasant and not conducive to remedial result. It specifically effects the nervous centers, and if administered in doses sufficiently minute the effect must be favorable in irritation of those parts.

Nervous exaltation-great irritability and impressionableness of all the senses-will find in small doses of the 3x dilution of belladonna the best means of relief known. Spasmodic states arising from such a condition also indicate its use. Chorea is often benefited by it, and even epilepsy may be much ameliorated by its influence; though I cannot agree with the assertion of some homeopathic writers that it will prove curative. When hyperæsthesia of the senses amounts to delirium, as in many febrile states, it serves one of the best of purposes. Professor Scudder's indication, "dullness and hebetube," answers where crude doses are to be used, but wildness and delirium of furious nature will often yield to small doses of the third decimal dilution. Half a teaspoonful of this may be added to half a glass of water in such cases, and a teaspoonful given every hour. Even a higher dilution may answer better still in some cases. Such means often serve the best of purposes in infantile convulsions, though we possess other remedies, both prompt and reliable, and will seldom need to resort to belladonna.

In the mental sphere belladonna is one of the most positive of remedies when properly adapted. The mania to which it is applicable is of the acute variety. The following quotation is from an article by Seldon Talcott, M. D., Superintendent of the New York Asylum for Insane (Homeopathic):—

"General Action.—Belladonna acts upon the cerebrospinal system, causing intense cerebral hyperæmia; there is a bright red face, dilated pupils, intolerance of light, and violent spasms of the neck, face, and arms.

"Brain and Spinal Cord.—Severe headache, especially in the frontal region; the headache is of a throbbing nature (also glonoine and cactus); the pains suddenly come and as suddenly depart; fullness of the head, with throbbing arteries; boring, shooting pains in the head, all aggravated by noise.

"Mind.—Hallucinations and illusions of sight; the patient sees gigantic forms; these sometimes excite langhter, and sometimes fear; maniacal state in which the patient is sometimes merry (also hyos.), and again irritable; at times there is furious delirium and rage; the patient tears clothing, bites, strikes, kicks, howls, and shrieks constantly; wants to escape his present environments; on closing his eyes the patient sees frightful visions.

"Seep.—Sleepy yet cannot sleep; jerking of the limbs in sleep: awakens with a start as if frightened; also lachesis; singing and talking in sleep; dreams of murder, of robbery, and of danger from fire. Sleeplessness from excessive cerebral hyperæmia.

"Accompaniments.——Spasmodic conditions of all the sphincter muscles; paralysis of the left side, with twitching of the muscles of the right side; bright red condition of the skin; active inflammatory condition of the throat, chest, kidneys, bladder and genital organs.

"Special Sphere of Action-Insanity following acute disease; full-blooded people, with tendency to cerebral hy-

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peræmia; all mental conditions where active inflammation of the brain coverings exists; threatened apoplexy."

These observations, making some allowance for the traditions of homeopathy, will assist us in forming an idea of the place for belladonna in disturbances of the mental sphere. Of course experience will enable us to adapt it best, but pointers should not be despised until something better is possessed. I believe that drug provings are needed more in this department than any other, as they are all we can rely upon in determining the character of impression of drugs. The effect of remedies must be noted by the observer, not by the prover, who is hardly in condition to report his sensations intelligently. If we know the function disturbed, and the character of disturbance. we can hope to prescribe minute doses of the same drug pretty acurately when a similar train of symptoms are developed in disease. At least it is the best guide we have at present in mental therapeutics.

Belladonna has been favorably mentioned in the treatment of neuralgia of the head and face, but I am of the opinion that it is suggested more upon theory than upon actual merit. My experience with it has not been favorable to a high estimate in this place. However the experience of medical men differs so widely that many of my readers may disagree with me and find it a favorite source of resort in painful states of the trigeminus.

As stated before, I think that one failure, with many, to derive satisfactory results from the use of belladonna, is the propensity to use it in too large doses. It is a powerful, far reaching drug, and capable of disturbing the system unpleasantly in very small quantities.

Form for Administration. - The specific medicine.

Dose.—Add from half a drachm to a drachm of the 3x dilution to half a glass of water, and give a teaspoonful every two or three hours.

### BROMIDES.

The bromides all bear a resemblance to one another though there is enough individuality about each one to entitle it to a brief, separate notice.

The bromides generally, control convulsive motion due to the irritability of reflex action, thus manifesting a sedative influence upon the spinal centers. They thus are palliative in epilepsy, but hardly ever cure. In fact, as more and more of the drug must be used to produce the effect, as the system becomes habituated to it, the good accomplished by its protracted administration is more than apt to be followed by the condition known as "bromism," a very persistent condition when once set up. The old school has abused this remedy with its usual therapeutic stupidity for the last twenty years or more, and is hardly yet awake to the fact that it is possible for it to do harm. The bromide of potassium has been the favorite remedy, but other bromides have come in for a share of attention. Convulsive conditions of all varieties have been medicated with it. Delicate infants. hysterical women, in fact every form of nervous disorder that flesh is heir to has been medicated with this routine drug. I believe that in the hands of the average allopath it is as dangerous as opium or mercury, for he hardly realizes that there is a time to stop its administration in order to avoid bad effects. Looking backward through twentytwo years of pratice I can recall but a very few cases where this remedy ever afforded even temporary benefit, while it has been the cause of debility and persistent invalidism in many a one.

However, the bromides have a place in our materia medica, and may sometimes be resorted to with good effect. I will consider them in detail.

Bromide of Ammonium.-This is Scudder's favorite remedy for epilepsy. He asserts that it has given him excellent satisfaction in a large number of cases, curing them, while it has benefited some temporarily, and failed in but a few. He also extols it in convulsions of children, following the effect of lobelia and gelsemium with it. He believes it will remove the predisposition to convulsions when this becomes confirmed.

I have not had an extensive experience with this drug, but so far as it has extended I am not particularly prepossessed with it over the action of bromide of potassium. Possibly the salts of ammonium may be less debilitating than those of potassium, and the bromide of ammonium be preferable on this account; but one is certain to make many failures treating epilepsy with this drug. However, it may be as reliable a drug as any we have for this purpose, after all. Eight or ten grains constitute a dose.

Bromide of Arsenic.—This is a newer preparation. It is a combination of bromine with a pronounced neurotic, and has been highly extolled, in some quarters, as a remedy for epilepsy. Goss, in his "New Remedies," publishes the iollowing formula, which Dr. Morton has reported to have proven very effective in his hands; he has informed the writer that the only success he has had in the treatment of epilepsy has been with this remedy. All cases treated by him with it were cured:—

"Dissolve a drachm of carbonate of potassium in half a pint of water, then add a dram of arsenious acid, and boil until the solution is completed. After cooling, add sufficient water to make a twenty-ounce mixture, and to this add two drachms of bromine."

This is less irritating to the stomach than Fowler's solution and possesses all the virtues of that preparation, besides being especially valuable in epilepsy.

Spasmodic asthma, chorea, satyriasis, and other spasmodic affections in anæmic cases would suggest this remedy in common with other of the bromides.

Bromide of Calcium.—Applicable to epileptiform affections marked by anæmia or lack of nutrition of the osseous system.

Bromide of Gold .- This agent is highly recommended in epilepsy. It is also considered of superior merit in the night terrors of children, and has been recommended by Hale in somnambulism. This author remarks of it: "My gratifying experience with aurum bromide in several cases of night terrors in children iuduced me to use it in a case of sleep-walking in a child, female, five years of age. She had several times come near being dangerously injured by falling down stairs. It was not a case where the sense of 'apprehension,' so-called, was active as in some sleepwalkers who seem to be able to walk in dangerous places safely unless wakened suddenly. This little girl would get out of bed and run as if trying to escape something she had dreamed of. Two grains of the 3x trituration were prescribed; three doses daily, the last on going to bed. The attacks had occurred every night or two for several weeks. After taking this remedy two days no attack has occurred, now in several weeks."-Homeopathic News.

Bromide of Lithium.—This bromide is a valuable combination, as it not only tends to the correction of the epileptic seizure, but corrects the cerebral depression and mental failure liable to follow a continued course of the disease. Hale, in his "New Remedies," reports a case of brain fag, the result of prolonged mental exertion, with flushed face, insomnia, severe pain between the shoulders, etc., cured by it; and Goss commends it in the same lines in the first edition of his materia medica. It is said to be more prompt in action than some of the other bromides, and is less harmful when long continued in large doses. The dose is from ten to thirty grains.

Bromide of Potash .- In aggravated cases of epilepsy this

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salt has frequently afforded temporary benefit in my practice. Had this proven permanent I might now be able to record several cures of this intractable disease. But in a few weeks the power the remedy seems to possess over the convulsive tendency wanes, and larger doses must be given in order to produce the expected result, and in time the remedy loses its effect altogether. This salt is sometimes valuable in spermatorrhœa, to calm the reflex excitability of the ejaculatory ducts and thus ward off the cmission liable to ordinarily take place. For this purpose it should be given in full doses at bedtime. The dose may vary from thirty to sixty grains, and should not be administered to delicate and debilitated persons with too much confidence. It acts best in patients who are in tolerable general health but who are the victims of lascivious dreams and consequent emissions from undue irritability of the sexual apparatus. Scudder thinks it a specific in epilepsy, when associated with irritation of the sexual organs or of the cerebellum.

Bromide of Iron.—This combination has been commended highly in chorea. It possesses the best principal for the cure of choreic states—in fact, no other bromide has been found very beneficial. It is also valuable in spermatorrhœa marked by extreme nervousness.

Goss recommends this remedy in trituration with sugar of milk.

Dose.—From five to twenty grains.

Bromide of Nickel.—'This is a comparatively new novelty in the bromide line. It hardly possesses any advantage over other bromides in epilepsy, though it is less liable to produce acne than the bromide of potassium, when continued for a long time. It is liable to produce gastr.c disturbance if not well diluted when administered.

Dose .- From one to ten grains.

Bromide of Sodium .- The bromide of sodium resembles

the other bromides in its effect upon the nervous system, but is more acceptable to the stomach than the bromide of potassium for which it is often substituted by some physicians. The taste, also, is less objectionable to many than that of the bromide of potassium.

Dose .- Five to twenty grains.

Hydrobromic Acid.-This acid combines the properties of the bromides with that of some of the mineral acids, viz., a corrective to the fluids in febrile states, where blood depravation becomes manifest. Marked nervous states attended by febrile action of adynamic type, or hectic, when not dependent upon serious structural change where the tongue is red and dry, suggest this remedy. Teething children sometimes present such symptoms, and receive prompt and pleasing effects from this drug. Dr. J. C. Kilgour, in his Symptomatic Indications, offers a somewhat complicated list of indications, in which a small, pale-red, and pointed tongue, with dorsum coated with a thin yellowish-white coating, and the sides bare and brightred, seems to be the prominent feature. Pale-red papillæ showing through the coating add to the features of the case. In addition to this there is abdominal pain, of dull aching character, and the patient is peevish and fretful. Sometimes there is delirium, with elevated temperature and other febrile phenomena. It evidently exerts an influence as a plasma remedy.

It exerts a good influence in nervous disturbances depending upon sexual reflexes, being valuable in hysteria, nymphomania, insomnia from celibacy and cerebral disturbance from scanty menstrual flow. The dose may vary from one to ten drops.

Mono-Bromide of Camphor.—The monc-bromide of camphor is a favorite remedy with many old school physicians as a cerebral sedative, being employed in convulsions of teething infants, hysterical attacks of females, headache

due to mental excitement, delirium tremens, insomnia, etc. Our own materia medica furnishes us with so many other valuable correctives in this line that we are not in condition to value it so highly. The dose may vary from one to ten grains.

### BRYONIA.

Bryonia is adapted to congestion of the brain, especially the frontal portion. Scudder gives the specific indication as, "pain in the frontal region, extending to the occiput." It is more effective when the frontal pain is associated with cough, as though the respiratory center, or cough center, were sympathetically affected. It is not applicable to a large class of cases and must not be relied upon too confidently to control frontal headache. The remedy has been given too much credit, I believe.

In some cases of continued fever associated with frontal headache, dry tongue and delirious tendency, it may occasionally be found to cure with surprising speed. Pneumonia and bronchitis, where these symptoms are marked are especially the conditions demanding it, as it manifests a predilection for the thoracic region.

Form for Administration.—The specific medicine.

Dose.—From ten to twenty drops in half a glass of water, from which a teaspoonful may be given every two hours.

# CANNABIS INDICA.

Cannabis indica has been used in epilepsy, catalepsy, chorea, delirium tremens, etc., with questionable success. Painful nervous affections, as facial neuralgia, migraine, dysmenorrhœa, and headaches attending the menopause, offer better places for its use as a remedy. In wakefulness of insane persons it sometimes acts well as a hypnotic.

Hughes commends it in hysterical catalepsy, the condition resembling that produced by large doses of the drug when administered for purposes of proving. He asserts that he cured a case of catalepsy, probably hysterical at the bottom, promptly with this remedy. Remembering the homeopathic enthusiasm for the law of similars, however, we may accept such statements cautiously until verified in practice.

The following head symptoms are said to be very reliable indications for cannabis: "Anguish and oppression; constant fear of becoming insane; exaggeration of time and space; vertigo; violent throbbing, aching pain in the forehead; drowsy, stupid look."

Much confusion exists among physicians with regard to the identity of the Indian hemp preparations. The cannab.s Indica should not be confounded with apocynum cannabium, also called Indian hemp, but possessing entirely different properties. The cannabis sativa is an Americanized product of the cannabis Indica.

Dose.—This will vary, according to the effect desired. One drop of the fluid extract is usually sufficient to develop its therapeutic properties, if the article be of good quality. The dose may be repeated several times a day. Different preparations of the drug seem to possess widely varying strength, so much so that some of them seem almost inert. I have been disappointed so often with the remedy that I seldom employ it, and I ascribe much of the cause of failure to inertness of the preparations used. I have never tried the specific medicine, but should do so if prescribing it again.

## CAPSICUM ANNUUM.

The only nervous affection in which capsicum has proven particularly serviceable is delirium tremens. Here it may excel the most approved nervines in calming the patient and promoting slumber. A good way of administering it is in beef tea. Beef tea, made red hot with capsicum, should be urged upon the patient until he has drank freely. Sometimes twenty grains of chloral may be administered with advantage, but usually the capsicum administered in this manner will be sufficient to steady the distracted nerves and induce a profound slumber, from which the patient will wake with his reasoning faculties restored and his nerves steadied.

It is surprising to note how much capsicum a drunkard in this condition can swallow without complaining. There is little danger of giving too much, and considerable danger that too little may fail to accomplish the result. This is an instance where there is no danger of overdoing the dose.

## CHAMOMILLA.

Chamomile is a remedy of high repute among the homeopaths as a reliever of some forms of nervous irritability. It is one of the few agents which possess marked dynamical properties without the power of impressing the system powerfully in large doses. (See principles of Medicine, page 19.)

The soothing influence of this agent seems to be exerted upon both the sensory and excito-motor nerves, allaying excessive sensibility to pain and many reflex symptoms arising from irritation of the vegetative system.

Neuralgia, especially in children, as earache, tic, abdominal neurosis, etc., may often be successfully treated with this remedy, though those cases where there seems to be an eminent susceptibility to pain—a morbid nervous receptivity,—are the cases which should more emphatically indicate it.

It also influences the mental sphere, allaying that apprehension and dread of pain for which susceptible persons, especially certain women, are noted. In these cases the actual suffering is not at all comparable to the dread of its consequences.

It is also valuable in spasmodic conditions attending teething in infants, and also as well in the reflex disturbances giving rise to the hysterical condition. As a remedy for infantile convulsions it is probably not equal to gelsemium or rhus tox., but for the erethism of hysteria it compares well with pulsatilla, not acting as promptly as that drug, probably, but more reliably in persistent cases.

The irritability, fretfulness, peevishness of teething children may often be readily controlled with it in small doses. I usually combine it with aconite in these cases, as the two act well together here.

Form for Administration.—The specific medicine.

Dose.—I have had good results from the use of half a teaspoonful of the 3x dilution in half a glass of water, a teaspoonful of the mixture being given every hour. In case of young children or very impressible women, the dilutions act better than larger doses. Scudder recommends (Specific Medication) from five to ten drops added to four ounces of water; dose, a teaspoonful every one or two hours.

## CHLORAL HYDRATE.

This remedy proves valuable in neuralgia, insomnia, insanity, delirium tremens, puerperal mania, night terrors of children and many other conditious where profound and restful slumber is an important element of successful treatment—especially when it is imperative that slumber follow soon. Many objections have been made to chloral, on account of its dangerous effects, but these objections should only apply to the abuse of the remedy, and not to its occasional use to fulfill some rational indication where no other agent seems to possess the potency to bring about the desired result promptly and effectively.

One dangerous element about the use of chloral is the uncertainty of the size of an effective dose for different individuals. With some persons, twenty grains of the drug will produce an apparently sound, healthful slumber

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in twenty minutes after administration, while with some double that amount may be required, and in others even this quantity will produce no apparent somnolent effect. A safe method of dosage is to begin with twenty grains and increase the amount ten grains at a time, every half hour, until the desired sleep follows. The rule of giving two grains for every year of age until the patient is twenty has been recommended by some. The maximum dose is estimated by Dr. H. C. Wood as twenty grains, repeated every hour, if necessary, until sixty grains have been administered. After this, several hours should elapse before more is given.

I have sometimes been obliged to resort to this remedy for the relief of severe headaches in women about the menopause, other remedies failing me; and I have hardly ever been disappointed in deriving temporary benefit from its use. I sometimes combine it with hyoscyamus, using ten drops of specific hyoscyamus with a solution of ten grains of chloral and giving three or four doses an hour apart, or until sleep follows. In delirium tremens it acts well to assist the effect of capsicum in producing slumber. Capsicum may do well enough alone, but if its effects are tardy a few grains of chloral will complete the treatment by inducing slumber, when several large doses of chloral without the capsicum would probably fail.

The drug is recommended by old school authorities as a calmative and hypnotic in diseases of children, and many other places where it should be discarded. It is too objectionable as to taste, if no other objection were urged, to render it fit for a children's remedy; but it is also too potent, and there are many other better remedies. This may be said in a general way: there is hardly a place where a malady of childhood can be treated with chloral better than with some less objectionable agent.

Form for Administration.-A solution of the hydrate in

water in the proportion of half an ounce of the vehicle to twenty grains of chloral.

Dose.—This has already been sufficiently discussed.

### CHLOROFORM.

Passing the use of this agent as an anæsthetic, notice of which would be out of place here, I will briefly refer to its use in spasmodic affections and neuralgia.

This is one of the most reliable remedies we have in puerperal convulsions, being prompt and effective in relieving the spasmodic action, and temporarily, at least, controlling the difficulty. It often serves the only requisite purpose of medicine here if the obstetrician is capable and attends to the requirements of the case in other respects. Its full anæsthetic effects by inhalation should be obtained here, the anæsthesia being prolonged until the patient has been delivered. Should the disease persist afterward a different line of treatment might be suggested.

For mitigating the severe pain of labor I value chloroform very highly, and am able to carry a patient through parturition usually without producing full anæsthesia and yet render the labor almost painless. I shake a little chloroform on a handkerchief, which I grasp suugly in the hand (crumpled) and have the patient inhale from it deeply, only while the contractions are present; as soon as they cease I remove the chloroform. The patient is thus largely oblivious of the pain, while conscious of what is going on. I repeat the maneuver with each successive contraction.

I have found chloroform a valuable agent in persistent hiccough. It may be administered in the form of chloroform water. Sometimes this may be advantageously combined with morphia, in such case.

As a topical agent in severe pain it often proves of great service in general practice. It should be applied by saturating a small cloth or handkerchief, folded to the size

of the hand, with the remedy, and this should be well covered with a large folded cloth which has been wrung out of warm water to prevent evaporation, after the cloth containing the drug has been laid upon the affected part. The cloth may at first need to be lifted every few seconds on account of the severe burning sensation occasioned, until the part begins to become insensible to it, when it may be allowed to remain for several hours if convenient. I have relieved severe attacks of lumbago and of frontal neuralgia in this manner. Abdominal pain may also be relieved by this application more speedily than by internal remedies, sometimes. However, I am in favor of the use of more specific internal remedies, as a rule. Knowledge of a variety of resources equips one for emergencies though, and this knowledge may enable him to succeed with a limited list of drugs, when he otherwise might fail.

# CIMICIFUGA RACEMOSA.

This remedy has proven beneficial in chorea associated with amenorrhœa. The cases where it is most likely to prove beneficial are those designated as "absentio mensium." When this form of amenorrhœais attended by the characteristic symptoms of chorea, cimicifuga is worthy a protracted trial.

I have found it a good associate for the bromides in epilepsy, where the disease is present in young girls and associated with absence of the molimina.

"It cures" says Hughes, "uterine epilepsy and hysteria; puerperal melancholia; the nervousness of pregnancy; and the restless and unhappy state of mind so often seen in uterine patients. The co-existence of sleeplessness is said by Hale to be a special indication for it in these mental states. It dissipates the inframammary pain in unmarried females, which is to the uterus what pain in the shoulder is to the liver; and also pains in the mammæ themselves so arising. It is above all useful in the sufferings of the climacteric age, relieving the sinking at the stomach, the pain at the vertex and the irritability of disposition better than any other medicine."

Dr.Seldon Talcott furnishes the following upon the application of this remedy to the treatment of the insane: "Headache throughout the whole brain, with sense of soreness in the occipital region; vertigo; brain feels too heavy and too large for the cranium; top of the head feels as if it will fly off.

"Great melancholy, with sleeplessness, followed sometimes by transient exhilaration; hallucinations of sight, sees rats, sheep, etc., sensation as if a heavy black cloud had settled over her and enveloped her head, so that all was darkness and confusion; at the same time there seems to be a weight like lead upon the heart; suspicious, indifferent, taciturn; takes no interest in household matters.

"Sleeplessness from nervous irritation; sleeplessness, with great depression and despair.

"There is a general rheumatic diathesis; severe cutting pains in the joints and in the back; in women there is, with the mental depression, a sense of weight and bearing down in the uterine region (also belladonna), with a feeling of heaviness and torpor in the lower extremeties; retarded menstruation; suppression of menses from cold, with rheumatic pains in the limbs; general muscular rheumatism; rheumatic pains in the head, extending down to the neck and back; tremulousness of the muscles throughout the body.

"Mental depression, associated with uterine disease; mental depression, accompanied by rheumatic pain; mental depression and tremulousness following overwork and active dissipation; delirium tremens; bad effects of opium."

## CINCHONA.

Peruvian bark and its preparations evidently profoundly effect the nervous system The condition produced by full doses is termed "cinchonism." This state is characterized by peculiar symptoms in the head, especially in the eyes and ears. There is deafness with tinnitus, the tinnitus preceding the former and being one of the characteristic symptoms of the general condition. There is also disturbed visual function, amounting, in some cases, to blindness. The brain is involved, as evidenced by headache, with fullness, weight, and tension with vertigo. Evidences of cerebral congestion are present in flushing of the face, eyes and ears. Delirium may follow, and even meningitis, as the result of exorbitant doses with a favoring condition of the system present.

"Periodicity" is the condition demanding quinine, which drug may be considered the representative of cinchona. And the influence which is most potent to interrupt periodicity is the condition known as "cinchonism." Whatever the character of the malady, if it manifest itself at a stated period during the day, or regularly every second or third day, quinine is the remedy to interrupt the periodical character of the disease and pave the way, at least, to a cure, if not to complete restoration of the patient. In many cases additional treatment must be instituted in order to effect a complete cure, but the remedies will hardly accomplish much until the periodical phase is banished.

Ague, periodical neuralgia, febrile and inflammatory diseases characterized by periodicity are the conditions demanding this remedy. Physicians who depend upon quinine to cure ague when a condition known as malarial cachexy is present are usually disappointed. It is not a blood corrector in any sense, and cannot be relied upon except to interrupt the periodical paroxysms, thus allowing more appropriate correctors of the depraved state, as alstonia, arseniate of quinia, chionanthus, or other indicated remedy to complete the cure.
Plan of Administration.-The effectiveness of quinia as an antiperiodic may be entirely lost through error in the plan of administration. The proper method of interrupting a periodical exacerbation is to induce the condition known as "cinchonism" to a moderate degree just prior to the time of the expected attack. To do this a single large dose of the drug, ten grains, may be administered two or three hours beforehand, when its full influence will be manifested at the time of attack and the nervous system will be so impressed that it will not yield to the subtle influence (periodicity). A good plan, and one which I preter, is to begin about eight hours before the expected exacerbation and give three or four grains every two hours until three doses have been administered. By this time a complete state of cinchonism will be present. The plan of giving small doses of quinine three or four hours apart during the twenty-four hours for antiperiodic effect is a very poor one and will almost always fail.

Other antiperiodics, as piperin, strychnia, euonymin, etc., have been in repute with some, and they doubtless are valuable in the treatment of many cases of periodicity; but quinia is the typical antiperiodic after all.

# CHELIDONIUM.

This drug has been used successfully in supra-obital neuralgia and in migraine of hepatic origin. It has also proven valuable in nervous dyspepsia. It has had but a limited use in these directions, and I have had no experience with it myself in this respect.

Form for Administration.-The specific medicine.

Dose.—Add ten drops to four ounces of water and give a teaspoonful every two or three hours.

# CUPRUM.

Copper influences the nervous system markedly in many cases of disease. Its leading property is that of an antipasmodic, and it acts promptly in many spasmodic states.

In obstetric practice the homeopaths employ it successfully in cramps of the calves and in violent after-pains. It is also of value in chorea to steady the muscles and thus complete the cure after other remedies have quieted the excessive agitation. The homeopaths place great stress upon this remedy in the second stage of cholera, in which cramps of the extremities constitute one of the principal features. However, they ascribe to it also an intestinal affinity. In the spasmodic cough of pertussis it rivals drosera, and I have several times found it effective when that remedy failed to produce the desired effect.

The meninges of the spinal cord and brain are influenced by copper. In attenuated doses it may be employed in cerebro-spinal meningitis where echinacea fails, especially in the late stages where structural change is imminent. It has been suggested as a remedy for paralysis attendant upon structural change in the spinal chord, as sclerosis, and it probably offers as much as any known remedy at present.

Form for Administration.—I have employed the 6x trituration of the acetate of copper.

Dose.—From one to three grains three or four times a day.

## CYPRIPEDIUM.

Cypripedium pubescens is an old Eclectic remedy, which has been too much neglected by our practitioners, for it possesses valuable properties as a nervine, sedative and calmative, in all cases where such an agent is demanded. The principal objection to it is the taste of the infusion—the most effective form for its administration.

In hysterical and despondent females, about the time of the climacteric, this is one of the best remedies that can be employed. I believe it influences the mental faculties here, operating to correct dementia of despondent or apprehensive nature. I recollect one case particularly, treated by me years ago, in which the patient was near a condition of dementia, completely restored in a few days with tablespoonful doses of this remedy, associated with bicarbonate of sodium to correct an evident hyperacid condition of the stomach. I do not use it very often now as I find it almost impossible to obtain a fresh article of the packed root in the market.

Scudder commends it in sleeplessness, nervous debility from atony, in neuralgia, delirium, etc. He also commends it as valuable to soothe irritation of the nervous system in restless, irritable children. He combines two drachms each of tincture of cypripedium and compound tincture of lavender with an ounce of tincture of lobelia, adding three ounces of simple syrup. (Specific Medication.)

Hale (New Remedies) suggests its use for the mental depression consequent upon venereal excesses or spermatorrhea. He states that it is equally useful when the despondency is the result of brooding over an imaginary spermatorrhea, or the imagined ill effects of nocturnal emissions, usually the result of reading the pernicious pamphlets sent out by quacks to ensnare the unsuspecting into their traps.

Form for Administration.—I prefer an infusion of the recent root.

Dose.---A tablespoonful repeated every three or four hours.

# ECHINACEA.

This agent seems to exert a marked influence upon the cerebro-spinal meninges in controlling inflammation of these parts. It is the most reliable agent I have ever found in that dreaded disease, cerebro-spinal meningitis, when it assumes the slow form. It is not prompt enough, I think, to be applicable to the active form of this disease, though I have never tried it here. But in the slow form I have not lost a single case out of many treated since I began to use this agent, now more than two years. I should not like to stake my all upon the proposition, but I believe echinacea is destined to work a revolution in the treatment of this affection.

In using it I employ the agent continuously during the course of the disease, but not to the exclusion of such adjuvants as each particular case may demand. With severe muscular pain present I might employ phenacetin, cimicifuga or caulophyllum, as assistants; gastric irritability might call for rhus tox.; high febrile action might demand the assistance of one of the sedatives; but echinacea is given throughout the case as the basic remedy.

Echinacea is also a pain-reliever of no mean merit. I have found it to relieve the intense pain of erysipelatous phlegmons, where there is considerable swelling and induration with little disposition toward purulency, very promptly when applied locally and administered internally. Dr. A. S. Tuchler found it to relieve the excruciating pain of cancer promptly when administered internally, in the advanced stage of a cancer involving the fauces—and the drug was found to control the pain until death ensued, though it would return when the remedy wa, discontinued.

Form for Administration.—The specific medicine.

Dose.—Half an ounce to six ounces of water; a teaspoonful every hour.

## EUCALYPTUS.

In anæmic states of the nerve centers attended by chorea, neurasthenia, hysteria and asthma, eucalyptol (oil of eucalyptus), in from two to five drop doses, is often beneficial.

Dr. Woodward found the tincture of eucalyptus effective in relieving neuralgia of the facial nerve in fifteen-drop doses. The neuralgia was periodical, and the remedy was prescribed on account of its reputation as an antiperiodic.

The local application of eucalyptol has proven efficacious in toothache, destroying the sensitiveness and relieving the pain. Dr. Horton commends the extract of eucalyptus in dental practice as an obtundor of pain where the dentine is sensitive.

Eucalyptus has borne a high reputation as an antiperiodic, but this effect must result from the continued use of the remedy, and come about slowly. I take it therefore that the antiperiodic effect is due more to its corrective quality than to any marked action upon the nervous system—it probably acting as a blood remedy to banish the malarial influence, whatever this may be.

# GELSEMIUM.

This is one of our old Eclectic remedies for muscular spasm, and it is one of the most reliable ones known for all forms of convulsions amenable to the action of remedies. It is a favorite remedy with the majority of our practitioners in infantile convulsions, in which case a better one could hardly be thought of. Eclampsia, tetanus, chorea and other forms of convulsive action yield to this remedy promptly in many cases.

Dr. E. R. Waterhouse of St. Louis and Dr. F. P. Mitchell of Redding, California, have called particular attention to the efficacy of this remedy in chorea. Both wrote articles for the *California Medical Journal*. Dr. Waterhouse's was published in the March number, 1890; Dr. Mitchell's arrived after the *Journal* had temporarily suspended publication and was never published. I consider both of them worthy of place here.

Dr. Waterhouse wrote as follows: "I have often stated to my students that I regarded gelsemium as being the most important remedy in the materia medica. I base my statement upon the fact that there is no other drug

that will fulfill so many important indications. We may get several distinct actions from the drug, according to the size of the dose and the condition of the patient. Many practitioners believe that they know all that is to be known regarding such a common remedy as this, but will be surprised at the many unrecorded uses they will find for it, by giving it their close attention for a period of a year's time.

"Within the last two years I have entirely cured several of the most aggravated cases of chorea that I have ever seen with gelsemium, and the cure was accomplished in about thirty days in each instance. In September, 1888, Benny L., aged twelve years, was brought to the college (American Medical, of St. Louis), for treatment. The history of the case was that the boy had been healthy up to his sixth year, when he was severely sick with diphtheria, chorea following the subsidence of the diphtheria, and for the following six years he remained about the same, in spite of continual treatment from 'regular' physicians, a dozen or more of whom were employed. I prescribed specific gelsemium, z ss, to be taken in doses of gtt. ii, four times a day. Within thirty days the boy was well.

"CASE II.—This patient was a bright little fellow of eleven years; had been a victim of chorea for over a year; was under treatment in this city for some time, when he was taken to Philadelphia and put under the treatment of a physician of world-wide reputation for six months, and at a fee of \$1500. Under his treatment the boy improved to some extent and was brought back to this city, but within a week after returning was as bad as ever. He came into my hands on June 3, 1889, about a month after his return from the East. He was not able to stand alone, or to articulate understandingly, or to feed himself. I gave him a vial of homeopathic globules No. 60, each globule having absorbed a single drop of tincture of gelsemium, by placing them in a shallow dish, and applying the medicine with an ordinary medicine dropper. Of this I directed that he take two of the pellets before each meal and one at bed time. He was brought to my office four times, the last call being on July 5th, when I dismissed him as cured, he having taken about one drachm of gelsemium. I have seen him often since that time, and there has not been the slightest symptom of the trouble manifest."

Dr. F. P. Mitchell writes as follows: "I read Dr. Waterhouse's article on Gelsemium in Chorea, in the March Journal, and wish to confirm the statements there made.

"About eighteen months ago I was called to see Benny V., aged 7; parents healthy, and family history free from any similar disease on both sides, although both are of pronounced nervous temperament. I found, upon inquiry, that the patient had been affected for nearly a year, and had been under the care of half a dozen different physicians before coming to this place, and for three months previous to this time he had been under the care of two 'regular' physicians here, but instead of getting better he was gradually growing worse

"I found him very anæmic; skin dry; tongue large and pallid; digestion very poor. He was unable to articulate a single word. There were great irritability and peevishness; nearly all the voluntary muscles appeared to be involved, the agitation being more noticeable on the right than on the left side.

"I first placed him on the following prescription :---

B. Fowler's solution, 3ss. Fl'd. ext, nux vom., gtt. x.

- iv.

Aquæ,

M. S.—Take a teaspoonful every two hours with small dose of sulphite of sodium.

"After one week's treatment I could see no change in the symptoms. I then placed him on the following :---

> R Gelsemium (normal liquid), 3 j. Water iv.

M. S.—Teaspoonful every two hours, with one grain of monobromide of camphor, morning and evening.

"In three days a decided improvement was noticeable, which continued, and in three weeks he was discharged as cured. No change was made in the treatment, except that after the second week he was put on the compound syrup of hypophosphites.

"Shortly after the discharge of the patient his parents moved with him to Oregon. After reading Dr. Waterhouse's article I wrote to them to ascertain whether the cure was permanent, and received an answer a few days ago stating that he has been free from any return of the disease."

Gelsemium has proven a superior remedy for pain in certain instances, and the character of pain in which it proves curative is decidedly neuralgic. Tic douloureux. intercostal neuralgia, toothache, and other painful affections of darting character have been successfully medicated with it. It is not as prompt a remedy here, however, as some others, and I would hardly select it unless there were conditions accompanying which an ordinary antineuralgic was not capable of meeting-as malaria, or a certain amount of febrile action, especially calling for In both of these cases the properan arterial sedative. ties of gelsemium would commend it, while its antineuralgia properties would be likely to prove more prompt and positive on account of the relieving of such complications.

The antispasmodic virtues of gelsemium commend it in obstetric practice, not only in the convulsions which sometimes attend but also in that more common and often troublesome and stubborn state known as rigidity of the os uteri. Here I have found it one of the most prompt and effective remedies I have ever employed. It should here be given in tolerably full doses—just short of a physiological effect.

Form for Administration.-The specific medicine.

Dose.—From one-tenth drop to ten drops, according to age and susceptibility.

## GOSSYPIUM.

Dr. F. P. Mitchell of Redding, California, has furnished me the following, as illustrative of the effect of gossypium in hysteria:—

"About two years ago I had a case which somewhat puzzled me, viz. : Mrs. McE., a young married woman, of lymphatic temperament, weight 150 pounds. I was called to see her one morning about four o'clock. I found her sitting up and crying. Her husband informed me that she had been laughing and crying alternately nearly all night, and that she had been more or less hysterical since the time of their marriage, some two years previously.

"I left gelsemium and pulsatilla, and requested the patient to call at my office in the afternoon, which she did. She then described her symptoms as follows: 'At first I get very irritable; then a tired, all-gone feeling, with sinking sensations, comes over me.' I inquired in regard to her menstrual function. This, she said, was somewhat irregular, coming on every three weeks, the discharge being of rather a light color. On examination I found the uterus undersized and of pale and anemic appearance. Sexual desire and pleasure were unknown. After summing up the symptoms of the case I came to the conclusion that the trouble came from an anemic condition of the reproductive organs. "After using various tonics—which I regarded as adapted to the case—with little or no effect for the better, I placed the patient on ten-drop doses of Lloyd's specific gossypium, with immediate benefit—all her unpleasant symptons disappearing almost magically. However, she says she has not been without the medicine in the house since.

"I have used gossypium since in a number of cases of similar character, and universally with beneficial results. In fact, I prescribe it in all cases where a tonic and nerve stimulant are required. It is, however, more especially valuable in cases of married women requiring such remedy—where the sexual appetite is indifferent or entirely absent."

Since reading Dr. Mitchell's report I have tried gossypium in two cases of well-defined hysteria, and found his statements to be corroborated to the fullest extent. The first case was that of a robust woman of thirty years of age, who, supposing herself pregnant five months after marriage, submitted to a curetting of the uterus at the hands of an inexperienced and reckless young practitioner, and was suffering from the reflexes due to the uterine irritation thus set up. Upon my first visit I found her in bed, convinced that she was going to die very soon. She complained of dyspnœa with tightness about the chest, strange feelings in the cardiac region, globus hystericus, and drawing and burning in the vertex. Her general aspect and demeanor presented unmistakable evidence of that peculiar combination of mental and physical symptoms recognized by the profession as "hysterical," though she had previously been perfectly well. She averred that she was wakeful throughout every night, expecting to die at any moment. After trying pulsatilla, passiflora, aconite and cactus grandiflorus, and thus consuming several days without affording the patient any benefit-the patient meantime being confined

to bed, I at length bethought me of gossypium and Dr. Mitchell's case, and administered it at once, though, I must admit, without much faith, as the case had proven so intractable in all its details thus far. However, my patient met me at the door the second day afterward, on the occasion of my following visit. She had been up and dressed all the morning, and declared that though somewhat weak, she felt as "gay as a lark, and was too well to stay in bed."

The second case was that of a married woman of thirty-three who, her husband informed me, had been afflicted for years with "nervous spells," brought on by the least excitement. When I first saw her her eyes were fixed and staring, and her hands clinched and resisting. Her husband informed me that she had too much company the evening before and became very nervous, finally breaking out into violent and uncontrollable laughter, which continued for hours. A neighboring physician was summoned, who administered chloroform to quiet her. In short, it was a pronounced and inveterate case of hysteria. I added two drachms of gossypium (specific medicine) to four ounces of water, and ordered a teaspoonful every hour. On the following day I found the patient quiet, rational, cheerful and tractable. The husband informed me that she began to improve soon after taking the first dose of the medicine, and rested well all night.

Though we may get only temporary results from this drug, it will nevertheless prove a boon to the physician who has been tormented with patients of this kind; for it at least relieves promptly, and leaves nothing but pleasant after-effects.

### HYOSCYAMUS.

The therapeutic effect of this remedy is apparently devoted exclusively to the remedying of nervous affections. Its effect upon the brain is a peculiar one, and is demanded where there seems to be irritation without congestion or other marked disturbance of the cerebral circulation. The irritation seems to be an excitement of the functional activities of the cerebrum, without appreciable disturbance of histological elements. In delirium, where such conditions prevail, hyoscyamus is the remedy for first choice. The delirium and garrulousness of convalescence from continued fevers, after the febrile action has subsided, call for it.

In full doses it temporarily relieves insomnia, but is hardly a cure for that condition, though in minute doses it is applicable to the permanent relief of restlessness during sleep or to the tendency to an excessive dreamfulness. Talking during sleep, where this is not a common habit but seems to depend upon undue disturbance of the cerebral centers, demands hyoscyamus in minute doses.

Nervous coughs may sometimes be promptly relieved by hyoscyamus after other accredited remedies have failed. The homeopaths recommend it in dry cough at night, constant while the patient is lying down but relieved by sitting up. Phillips, an English old-school author, recommends it in the same conditions, thus affirming his approbation of homeopathic materia medica in one instance at least

As a pain-reliever hyoscyamus is not as prompt as some other remedies, and the dose required is so large that it is liable to disturb the mental faculties unpleasantly before the narcotic effect is obtained; it is therefore not a remedy that will give satisfaction as a common resort for the relief of pain. However I have combined it with chloral many times as a remedy for menstrual headaches with good satisfaction.

Hyoscyamus is one of our most positive remedies for mental disturbances, its special province being in that direction. In all forms of insanity, as well as in many cases where some strong peculiarity of disposition predisposes one to querulousness or quarrelsomeness, this remedy assists in governing the weakness, to some extent at least, while in dementia the same tendency is often much relieved by its effects. Garrulousness is also one of the conditions that have been much benefited by hyoscyamus. I recollect a case of continued fever, treated years ago, in which the patient talked and sang incessantly day and night for several days, until small doses of hyoscyamus were administered; then, within a single day an appreciable difference was observable. I have since observed this action several times, though I have not had another so marked a case to apply it in.

Though not agreeing with me in all points I will quote what Dr. Seldon Talcott has written of it in its application to the treatment of the insane :—

"Hallucinations of sight, and great mental activity; trembling of the limbs; spasmodic twitching of the muscles of the back and in the organs of locomotion; delirium, accompanied by periods of stupor; thinks he is in the wrong place; foolish laughter; *almost always jolly;* talks in a hurried and cheerful manner; intensely jealous; at times lascivious; inclined to uncover the body and expose the sexual organs; sings amorous and obscene songs. Sleeplessness from excessive mental excitement; sleepless without any apparent cause; dreams of obscene things; has dreams of a terrifying nature and wakes with a loud scream. It is specially adapted to women who become insane during pregnancy or after parturition; to those who suffer with jealousy or unhappy love; to victims of delirium tremens, and to young people and children who are inclined to convulsive attacks, to epilepsy and to chorea."

Hyoscamus, alone or combined with hydrate of chloral, is a valuable agent in the treatment of delirium tremens, though it has not proven as effective in my hands as capsicum.

Form for Administration.—The specific medicine. Dose.—From the one-tenth of a drop to ten drops.

# HYPERICUM PERFORATUM.

St. John's wort is an old remedy to which the early Eclectics ascribed a wide range of action, using it in affections of the kidneys, bowels, bloodvessels, etc. An effect upon the nervous system was recognized, however, as it is recommended in the various editions of King's Dispensatory for hysteria and nervous affections. I wish to here call attention to its virtues in certain affections of the spinal cord.

The condition known as spinal irritation, diagnosed by eliciting burning pain by pressing gently upon the spinous processes of the vertebræ, and a condition attended by a protean group of ever changing reflex symptoms, finds one of the best remedies known in hypericum. The affinity of the drug for the spinal centers is marked, upon clinical test, and it is the only remedy upon which I have ever learned to look with favor in such cases.

Homeopathic authors dwell upon its value as a restorative where the spinal cord has suffered from shock or concussion. They characterize it as the arnica of the spinal cord. I have never had an opportunity to test the merit of these claims, but regard it as the only reliable remedy we have in spinal irritation.

A special symptom indicating it is a throbbing sensation, persistently invading the whole body,—in persons of nervous susceptibility—with absence of febrile action.

## IGNATIA.

Ignatia is of use in the treatment of dragging pains in the pelvis, especially in the right hypochondrium, uterine colic, dysmenorrhœa with colic, gastrodynia, and wandering pains in the abdomen and pelvis. It seems more especially the women's remedy and is best adapted to those of extreme impressionability. In such place the mental element is a prominent feature of the case, and is the principal feature calling for ignatia. Such patients are hysterical and very demonstrative, alternating from joy to grief. If the patient is melancholic she seems overcome with grief; she sighs frequently; is inclined to solitude; imagines herself greatly wronged by some supposed slight. Seldon Talcott, M. D. offers the following indications for ignatia under Medical Treatment for the Insane: "Congestive headache following anger or grief; headache with bruised feeling, or a sensation as if a nail were driven into the temples; occipital headache, better from pressure. Its effects upon the spine are shown by the sudden jerking of the limbs, by twitchings of groups of muscles, by a feeling of heaviness in the feet, with a sensation of burning in the soles of the feet.

"Intense, though partially suppressed grief; anxiety as if crime had been committed; grief following the loss of friends; grief of children after being reproved or punished by parents; fearfulness; irresoluteness; timidity; sad, quiet melancholy.

"Very light sleep; jerking of the limbs on going to sleep; dreams of one thing, particularly of the object of affection.

"Frequent sighing; desire to take a deep breath; sensitive spine; sharp, constricting pains in the anus; constipation; stools large and soft, but passed with difficulty; spasmodic cough from mental anxiety.

"Mental disorders from shock of bad news, from dis-

appointed love, from the effects of mortification; long continued but suppressed grief, occasioned by family afflictions or by financial misfortunes; chorea or epilepsy in children, whose troubles are occasioned by feeling that they have been unkindly or harshly treated."

A very good indication for ignatia is a persistent coldness of the feet and legs in the case of women about the climacteric. When this is attended by symptoms previously mentioned ignatia may be tried with fair prospects of benefit.

Form for Administration.—The specific medicine. I usually employ the third decimal dilution of this preparation.

Dose.—Where the specific medicine is employed in full strength, add from five to fifteen drops to four ounces of water and order a teaspoonful every two or three hours. Or add a teaspoonful of the third dilution to as much water and administer in the same manner. Where the remedy is administered for its influence upon the mental sphere the dilution is preferable.

## LACHESIS.

Lachesis, in common with other snake poisons, influences the nervous system very powerfully, spending its greatest force on the pneumogastric nerve. It is therefore a valuable remedy in certain nervous affections of the pharynx, larynx, œsophagus, heart, stomach and lungs—qualities, however, which will be noticed fully under the special therapeutics of those parts.

But the entire nervous system is more or less influenced, the spinal cord, the brain, and lastly the vegetative system, all coming more or less under its power. In the nervous prostration attending diphtheria, lachesis is one of the most reliable remedies that can be chosen. It is also valuable in the low stages of typhoid and other continued fevers where there is coma, subsultus tendinum, and other evidences of profound nervous prostration.

The condition of the sympathetic system known as vaso-motor ataxy, manifested by flushings, flashes of heat, and sinking sensations, observed during the climacteric, as well as at other times, is often promptly and permanently relieved by lachesis. Nervous dyspepsia has been cured with lachesis after other remedies have failed.

A characteristic indication for lachesis, according to homeopathic writers, is a sense of mental depression and uneasiness after waking from sleep.

Form for Administration.—From the 6x to the 10x trituration.

Dose.—From one to three grains, repeated every four or six hours.

## LOBELIA.

Scudder characterizes lobelia as "one of the most powerful vital stimulants in the materia medica." It acts upon the vaso-motor nerves, improving the circulation, while through the cerebro-spinal system it augments innervation generally. In full doses it relaxes the muscular system powerfully, thus proving, temporarily at least, one of the most prompt and reliable antispasmodics known. In spasmodic affections of children as well as of adults it is the favorite resort of many of our physicians.

In minute doses it is indicated in depression of the functions of the pneumogastric nerve, as indicated by præcordial oppression, sighing respiration, vomiting with prostration, gastralgia with feeble pulse, etc.

In full doses it is employed in infantile convulsions, tetanus, asthma, angina pectoris, etc.

Form for Administration.-The specific medicine.

Dose.—This will vary according to the effect desired. If the remedy is to be used as a vital stimulant or to control præcordial depression, ten drops may be added to half a glass of water (four ounces) and a teaspoonful given every hour. Such a dose will also be applicable to the gastric condition giving rise to nausea and vomiting. In angina pectoris or neuralgic pain attended by spasm about parts supplied by the pneumogastric nerve, from half a teaspoonful to a teaspoonful may be required to produce a prompt result.

## MELILOTUS ALBA.

Sweet clover has proven a very potent remedy in headache and neuralgia. I once cured a periodical headache which had been recurring every week for twenty years with this remedy; and the patient has remained free trom attacks since, now more than ten years.

This case occurred in a malarious district, and was probably of malarial origin. I have used the remedy many times since, and have been pleased with its effects in the treatment of idiopathic headaches and neuralgia not of reflex origin.

An old number of the Medical Investigator contains the following from the pen of Dr. H. R. Stout, of Jacksonville, Florida, on the use of this remedy in neuralgia:—

"Case I.-A gentleman had been subject to attacks of periodical neuralgia for fifteen or twenty years, affecting the right side of the head and causing almost complete destruction of the sight of that eye. The attacks were caused by fatigue, cold, or derangement of the The pain centered about the eye, and extended stomach. over the right side of head and neck, and left the scalp sore and tender to the touch. The pain during some of the attacks was agonizing in the extreme, and the patient would become wild and furious with its severity. I had used all the usual remedies, including morphine, at different times, but aconite and belladonna had generally rendered the best service. I first used the melilotus last fall, with the effect of completely 11

controlling the attack; and since that time, when taken soon enough, it has always checked or controlled it.

"Case II was a lady who for two months had suffered almost constantly from gastralgia, accompanied by vomiting and entire loss of appetite, or rather inability to eat from the suffering it occasioned. She had been subject to attacks of neuralgia of the stomach for about six years. The dorsal region of the spine was exceedingly sensitive, and the pain always proceeded from that point. She had always been under allopathic treatment, and for two months preceding my treatment had steadily grown worse.

"The proper remedies controlled the vomiting, and to a considerable extent the neuralgia, which came on at night more frequently, and was exceedingly severe. Sometimes she was hardly able to speak or breathe. The pneumogastric and solar plexes of nerves, with their branches, were the ones affected. I had been in to see her late one evening and found her suffering severely. Veratrum alb. seemed to control the attack, and I left her apparently improving.

"About two o'clock her husband came in great haste and said she was dying. While dressing I racked my brain to know what remedy I should give, and it occurred to me that melilotus perhaps would help me through. On arriving at the house I found her convulsed with agony, almost breathless, with cold extremities, and in a condition that demanded prompt relief. I prepared melilotus 3x, and the first dose took effect, and in one hour she was entirely relieved, and went to sleep. She was threatened several times after with a return of gastralgia, but melilotus invariably checked it. A month has now elapsed since an attack, the longest period she has passed without suffering, for a year.

"Case III was a gentleman who lately came from the

North for his health. His nervous system was broken down from close application to business, and for two months he had suffered extremely with gastralgia. Reasoning that his physicians had given the usual remedies I prescribed melilotus, with the effect to completely control the attack, and as he expressed it, the remedy relieved him more and left him feeling better than anything he had taken before. He left here, after a stay of a week or so, for another portion of the State, since which time I have heard nothing of him. I furnished him with a quantity of the remedy, as he was unwilling to travel without it."

I am sure Eclectic physicians would be well repaid for the investigation of this remedy, as it fulfills purposes as an antineuralgic that others will often fail to serve. Scudder commends it (Specific Medication) "in colic, painful diarrhœa, dysuria with painful desire to urinate, in dysmenorrhœa associated with lameness in the hip and along the course of the sciatic nerve, and in some cases of rheumatism were such lameness is a marked feature."

Form for Administration.—The specific medicine. In the absence of this the mother tincture of a reliable homeopathic pharmacy may be employed. I usually use it in the 3x dilution.

Dose.—Add a teaspoonful of the 3x dilution to half a glass of water and administer a teaspoonful every three or four hours during the day. In urgent cases the dose may be repeated every hour.

# MERCURIUS DULCIS.

This remedy, which consists of a trituration of calomel in sugar of milk—usually the 3x trituration—has a place in my practice which is not supplied by any other remedy in the materia medica.

The leading symptom that the patient is liable to complain of where it is indicated, is a tired feeling out of all proportion to any amount of physical exertion to which he may have been subjected. The tired symptom is present whether the patient is making any effort or not, and he dreads the slightest exertion, though otherwise in apparent good bodily health. The patient wakes tired, gets up tired, is tired all day and goes to bed tired; and the most careful examination fails to detect any other evidence of disease. If any symptoms of bodily derangement are found it will probably be that combination vaguely designated as "biliousness." With the tired feeling is often associated a sensation of drowsiness, so overpowering as to require the greatest effort to remain awake, even when the most responsible position demands a constant vigilance. In such cases the drowsiness is diurnal usually, and waketulness is the habit at night. This condition is oftenest present in malarious regions, and is liable to follow convalescence from chronic ague, though it may not depend upon any such cause. Here the mercurius dulcis often acts like magic, banishing the tired feeling and the drowsiness, and imparting a sensation of buoyancy and ambition to the patient which he may not have experienced for months before, in three or four days.

I am not a disciple of Paracelsus, and I realize that mercury is a very dangerous remedy to tamper with, but I know whereof I write in this particular, and I also know that the third decimal trituration is safe enough for an adult and also plenty potent enough to accomplish what I claim for it. I also know that we have nothing else that will fulfill this requirement.

For nearly six months I lived in the lethargic condition described here, trying everything that the ordi-

nary materia medica affords, and did not receive the least benefit until I used mercurius dulcis as I recommend it here; a few doses of this remedy permanently banished the difficulty. I have proven the remedy many times since, and have failed in but few cases. In women with disordered reproductive organs, where proper local measures are demanded, the remedy may fail, but these are not proper cases for it. The case must be idiopathic—depending on no sympathetic local trouble.

Dose.—I am in the habit of using two or three grains of the third decimal trituration three times daily. Higher attenuations may answer fully as good a purpose, but I have never employed them. (For directions for preparing triturations see Principles of Medicine.)

## MUTISIA VICLÆFOLIA.

This plant is used by the South American Indians as a remedy for epilepsy. It is also valuable in functional heart disorders induced by the effect of high altitudes, as well as being adapted to hysteria and allied nervous affections.

It seems to exert a selective effect upon the pneumogastric nerve, not only controlling cardiac difficulties but modifying convulsive coughs, and spasmodic croup.

Form for Administration.—Parke Davis & Co. prepare a fluid extract, of which the dose is from half a drachm to a drachm. It is not miscible in water.

# NITRO-GLYCERIN.

This remedy, known as glonoine to the homeopaths, has a high reputation among practitioners of that school as a reliever of the effects of sunstroke. From personal experience with it in a limited number of cases I am inclined to think very favorably of it, good results having followed

its use for the dizziness and cephalalgia continuing as long as three years after the attack. In recent cases, if the dose be not overdone, it is the best remedy we have—if any other is worth mentioning at all.

Glonoine is also a valuable remedy in headache, though discrimination must be exercised in prescribing it. Headaches aggravated by hot sunshine, menstrual headaches, headaches attending the pregnant state in plethoric women, and full throbbing headaches of almost any state, if there seems to be a predisposition to the habit, may be corrected by this remedy, in appropriate doses. Of course the headache of a febrile condition would not be the proper place for the exhibition of this agent. It has also been found valuable in neuralgia, in some cases, though we probably have numerous agents to be relied upon in this complaint with more certainty.

Form for Administration.—The second or third decimal dilution. Some patients are so susceptible that the third produces unpleasant effects, and the fifth should be used instead.

Dose.—Add ten to fifteen drops of the second dilution (one-per-cent solution) to half a glass (four onuces) of water, and give a teaspoontul every two or three hours. When the third or fifth decimal is employed, a half a teaspoonful of the medicine may be added to four ounces of water and the doses administered in the same manner. Acute cases, where the higher dilutions are used, may demand a more frequent repetition of the dose. In severe menstrual headaches or sun pain, the dose may be repeated every half hour or hour.

# NUX VOMICA.

Nux vomica primarily influences the motor centers of the spinal cord, producing in large doses clonic spasms of the muscles; but in therapeutic doses it favorably influences the motor, vaso-motor and vegetative functions generally.

In paralysis depending upon functional debility of the cord it proves valuable, though the doses must be somewhat material. In impotency depending upon a similar condition it is one of the most positive remedies we have; sexual indifference in women is also modified by its influence in many instances. Through the vasomotor center it strengthens the circulation, contracting meantime the arterioles. In paralytic incontinence of women, a condition to which those advanced in age are quite subject, it is one of the most positive remedies we have, relieving the dribbling and loss of control promptly; here the dose must be not less than a fourth to half a grain of the solid extract. In abdominal neurosis it is a favorite remedy with many of our physicians, Scudder giving us the specific indication of "atony" as indicating it, while he asserts that it is not the remedy in irritation; here we must think of colocynth or dioscorea. Pain pointing at the umbilicus is considered another special indication. In nervous dyspepsia with evidences of atony it has been found of much service. where the condition was not due to reflex causes.

In attenuations it tends to relieve hyperæsthesia of the nervous system, and controls unpleasant conditions of the temper, as moroseness, peevishness and quarrelsomeness. These conditions, of course, must be abnormal, and not the natural propensities of the subject, if we are rationally to expect benefit from the remedy; they must be developed in the course of morbid disturbance of the nervous system. The remedy probably acts by relieving a hyperæsthesia of the cerebrum. Headache is also benefited by nux, if there be an attending atony of the circulation and nervous energy, in the abdominal viscera. Some recommend it highly in sick headaches, but I have never known it to act very well in this condition. As a remedy for dyspepsia it is often of the greatest importance.

Nux is an eye remedy of considerable value in amblyopia, atrophy of the optic nerve, choroiditis disseminata, blurring of the sight from overheating, etc. Eye affections of those who have been addicted to alcoholism seem to be the most appropriate for its action.

# OPIUM.

I can add nothing to what is generally known of this drug and will refer the reader to the Dispensatory for whatever information he may require upon the subject. An energetic and reputable Eclectic will seldom use it and when he does a knowledge of its toxic effects and the proper dose, is about all that he needs.

As to its therapeutic effects, they amount to little except the property of paralyzing the sensory nerves and thus temporarily relieving intense pain until curative measures have time to succeed. The general tendency has been to prescribe the agent too often, as thousands of cases of opium addiction attest constantly. Morphia is more active, less bulky, and more uniform in strength than crude opium, and thus preferable for general use. The effects of the habitual use of opium and its salts are terrible and deplorable, and the true humanitarian will make as little use of the drug as possible. The maximum dose of the sulphate of morphia, for an adult, is one-fourth grain; however, a person accustomed to the use of the drug may require considerable more. It is a good plan to administer small doses and repeat at safe intervals until the effect is attained rather than to risk large doses in the start, for fear of fatal narcotism. Patients with heart disease are not safe subjects for morphine or other preparations of opium. The practice of administering morphine hypodermically is often advantageous, as it

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enables the prescriber to obtain the local, as well as the general effect, but the use of the hypodermic syringe in this respect is nevertheless overdone. Patients should be taught that it is safer to endure and suffer some pain for a time than to be lethalized too frequently with an opiate. The daily use of an opiate, continued for ten days or two weeks, accustoms the patient to it and forms the opium habit. A person can take an opiate frequently, at intervals, for a long time and not acquire a habit. One should see that the drug is not administered regularly every day for more than two or three days. We may thus, if diligent, be able to dispense with it altogether in the case. If not, an interruption of a day or two will render it safe to renew the drug for a day or two more. The scientific physician will dispense with the use of the drug at the first possible moment. Only quacks use opiates habitually.

## OSMIC ACID.

This agent has been used advantageously in the treatment of sciatica, in doses of a sixty-fourth of a grain, and also in ovarialgia. Dr. E. F. Hubbard, in the second volume of the Annual of Eclectic Medicine and Surgery, recommends it in the last named condition. He asserts that it is best to dissolve the acid in glycerine, in the proportion of osmic acid one and a half grains, distilled water and glycerine of each ninety minims, of which the hypodermic dose is five drops. The remedy should be injected over the sent of pain as nearly as possible.

As a remedy for epilepsy this drug seems to promise more than the majority of vaunted antiepileptic agents. Dr. Van Emon, in an article in an Eastern medical journal (name not now known to writer), published in 1890, offers some valuable suggestions with regard to its efficacy, which I will make use of here:— "Osmic acid is, chemically speaking, osmic tetroxide, the true acid not being known in the free state. It is a volatile, crystaline substance, softening at a moderate heat like wax. It is exceedingly volatile, and the fumes are intensely irritant and poisonous, so much so that it cannot be dispensed in a close room; and even in an open room a respirator should be used while handling it. It it is one of the most powerful oxidizers, and should be kept in hermetically sealed tubes.

"It is slowly dissolved in water, making a clear solution if kept in the dark; but in the light the solution rapidly undergoes decomposition, becoming dark or even black. Owing to its energetic chemical power, it should not be used in solution or even in combination with other drugs."

The writer uses kaolin as the vehicle for administration, combining from the one one-hundred-and-twentieth to the one-sixtieth of a grain of the active agent with a few grains of kaolin and putting up in sealed capsules. The following appended cases may prove interesting and instructive:—

"Case I.—In November, 1886, Mr. D. W. applied to me for treatment with the following history: Age 36 years, single; laborer, works at bridge building and railroads; no history of syphilis or traumatism. For about seven years has had frequent attacks of vertigo, with temporary loss of consciousness, sometimes as many as six or seven of these attacks occurring within twenty-four hours. Once or twice in six or eight weeks the attacks are so severe that he falls to the ground, and has more or less stupor for an hour or two. He has been compelled to abandon his usual line of work, for fear he might, in one of these attacks, fall into the water or from some height, and be injured or killed. He has been taking medicine, which, from his description, I conclude was the bromides. He was getting worse instead of better.

# "I put him on the following treatment:-

R

Osmic acid, gr. ii.

# Kaolin, q. s.

"Mix, dispense in 120 capsules, and seal. Directions: One capsule three times a day, two hours after meals.

"He continued taking his capsules regularly until June, 1887, almost twenty months. He never had an attack after the second week, and has resumed his usual occupation. About the date last mentioned he paid a visit to Illinois, and by my advice omitted the drug. At the end of six months he had three or four light attacks of dizziness, and at once resumed his medicine, and is now taking one-ninetieth of a grain three times a day. His general health is much better, and no deleterious effects have ever shown themselves from the use of the drug.

"Case II.—June 1887. Boy, aged 16, said by his brother to be a masturbator. This the boy neither affirmed nor denied. Has well marked epileptic fits, but of moderate severity. I gave him some good advice, and the same prescription as above. A little over a year later his brother brought in a 13-year-old sister with chorea, and reported that the first patient had no return of the fits.

"Case III.—J. V., æt, 46, married, has a family; farmer; no history of specific disease. Applied for treatment in 1888. He gave a history of sudden and complete loss of consciousness while working in a hayfield on a very hot day, followed by more and more frequent attacks of *petit-mal*, and occasionally of *grandmal*, loss of memory, at first scarcely noticeable, but becoming, after twelve months, very marked, with paresis, most marked in the lower extremities, with finally almost complete loss of mental power, ending in right hemiplegia, coma and death. In this case, osmic acid.

although faithfully tried, gave no relief. Neither did nitrate of silver nor the bromides, excepting that the latter drug, in very large doses (40 to 60 grains), relieved for a time the intense attacks of pain in the head.

"Case IV.—J. A., æt, 19, had grand-mal since infancy. In the early part of autumn in 1888, he had fits of great violence for more than seventy-two hours—that is, he never regained consciousness between fits. These fits were finally controlled by half-grain doses of morphine hypodermically; and he returned to his normal semi-idiotic condition. He took osmic acid for a short time without any results, as on December 12th he disappeared and his body was found in the Missouri River, after the ice went out in the spring.

<sup>a</sup> Case V.—G., aet. 43, farmer in good circumstances, married. Has had *petit-mal* for many years, manifesting itself by vertigo and loss of consciousness. He occasionally falls, but is usually able to keep up by holding to or leaning against something.

"These attacks come on about every sixteen or twenty days, and last from one to three days. During this time the attacks are quite frequent. As soon, however as nervous irritability is exhausted, they cease. Excepting that he feels dull for a day or two, he feels as well as ever. He has taken a great deal of medicine, without much, if any, effect. Early in 1887 he came under my care, and for about fifteen months I ran all the changes of the bromides, the only effect being to disorder his digestion and produce a full crop of acne. January 1st, 1888, he commenced taking osmic acid in doses of one-sixtieth of a grain three times a day. He could not, however, take it more than twice a day, on account of sick stomach. He is still taking it once or twice a day. Under date of August 29th, he wrote

as follows: 'Had some symptoms, last January, of their returning. I wrote to you and you sent me another box of pills My health is good.' He had run out of pills at this time and had neglected to get more.

"I have given the acid in three other cases. In one there was advanced Bright's disease as well as epilepsy. He could not take the medicine, and died in a few months from the kidney trouble. The others never returned the second time, and I lost track of them.

"To recapitulate: Whole number of cases treated, six; very greatly benefited, three; no benefit, three.

"All three of those not benefited are dead: One from cerebral softening, one from chronic Bright's disease, and one from accidental drowning. The last took the drug but a short time; the second one somewhat irregularly, but for quite a long time.

"While it is true that six cases are a very small number upon which to base conclusions, yet I think I may safely make the following deductions:—

"1. In all epilepsies dependent upon organic lesions of nerve tissues, osmic acid will do no good. Neither will any other drug, as far as a permanent cure is concerned. The case not benefited in which there was albuminuria, does not invalidate this statement.

"2 In epilepsies purely reflex in origin, osmic acid will prove beneficial, if not curative. I have not called any of the cases cured, although case second, I think, might be so classified.

"The osmic-acid treatment does not in any way interfere with the general health, so far as my observation goes. In this it has an advantage over the bromide plan of treatment."

# OXALIC ACID.

Under the caption, "Oxalic Acid in Spinal Congestion," I wrote the following article for the editorial depart-

ment of the California Medical Journal of March, 1890:-

"We have several times noticed in rambles after therapeutic novelties the affinity claimed by certain writers to exist between the spinal cord and oxalic acid, but having observed so many references to therapeutic possibilities not pressing upon attendant needs, we were not sufficiently impressed with the importance of this point to give it more than passing notice until recently.

"We have long cherished an idea, not original perhaps, nor possibly rare, that when an agent disturbs a part unpleasantly in massive doses, it is likely to seek the same part with good intentions if administered in doses sufficiently small to exclude the disturbing effect (dynamical doses). This is the sum total of support to the Hahnemannian theory, though we are not aware that many homeopathists lay claim to the proposition as we have put it.

"But, referring to oxalic acid, the poisonous effect of the drug evidently indicates that its disturbing influence is directed largely to the spinal cord. We need not wait for the picture presented to resemble closely such effect before prescribing it in disease, but have only to fix the fact that a condition of disturbance exists there, to send the remedy to the part in minute doses and expect an amelioration of morbid symptoms. Homeopathy never did better and does not offer any such rationale.

"Recently we prescribed for a case several times without benefit until oxalic acid was selected. There was a feeling of exhaustion, though the patient was around attending to business. Emaciation was a marked symptom, though the appetite was not specially poor. The prominent symptom was a weakness in the lumbar region, with tensive pains at night so severe as to destroy sleep, and these radiated into the abdominal viscera as well. The kidneys and entire urinary apparatus seemed relaxed and heavy. There was a sense of insecurity about the power of control here, though no loss of it. The feet and legs seemed to have lost the natural sensation, though under control and still sensitive when touched. There was soreness and aching in the bottoms of the feet. Insomnia was marked.

"Complete failure of a number of measures for rheumatism failed to benefit the pain, and the case from the start was evidently not rheumatism, though some of the symptoms might be mistaken for it. There was doubtless disturbance of the functions of the spinal cord. Luckily the idea of oxalic acid now occurred, and it was prescribed with almost magical effect. The patient slept soundly all night after taking four doses of the 6x trituration the first day and began to improve in strength, spirits, and general elasticity at once—is evidently recovering rapidly from a long-continued fag due to overwork and a wind-up of influenza, which threatened to make him speedily a bedridden invalid."

In several cases of similar character I have observed just as positive results since the publication of this article. We have no remedy which is more certain than this one to improve the lagging functions of the spinal cord when they are impaired by over-exertion, though as a tissue remedy I think it will prove of little service organic affections of the cord not being amenable to its influence.

Form for Administration.—The 6x trituration, of which a grain or two may be administered every four or five hours during the day.

# ŒNANTHE CROCATA.

This remedy has a doubtful reputation in the treatment of epilepsy. However, it is possible that the failures which have attended its use on this Coast have been due to the lack of a reliable article of the drug. Such favorable reports have been made upon the remedy by reliable men in our school, in other parts, that I am of the opinion there is still hope for the relief of one of our most stubborn nervous affections, in many cases, in its use. Dr. Waterhouse and Dr. Henderson, both Eclectic physicians have reported favorably of their experience with it. Both reports were made in the *Eclectic Medical Journal*. I have not Dr. Waterhouse's article at hand, but will reproduce Dr. H. L. Henderson's, which was reprinted in the *California Medical Journal* of March, 1886:

"In the December number of the Journal I read an article on the above drug from the pen of Dr. E. R. Waterhouse, in which he mentions the use of œnanthe crocata, or water hemlock, in the treatment of epilepsy. I, like a drowning man, was ready to catch at a straw, for I, at that time, had on my hands three cases of that treacherous disease, which were giving me no end of vexation of spirit, and withal threatening my reputation, professionally, in as many first-class families.

"I at once began, through my druggist, trying to procure the medicine, which, after several failures, we succeeded in getting from the homeopathic pharmacy of Humphrey & Co., of New York, in the form of a 'mother tincture.' I medicated pellets number 35, and directed my worst case to take two pellets every four hours. The spasms, which seemed to involve every flexor of the body and which were in rapid succession, ceased immediately with the administration of the remedy, and from that time (June 1st) to this, there has not been the least sign of an epileptic seizure. The patient still takes the 'little pills' twice daily. I will mention one circumstance in connection with the remedy in this case that may point to its mode of action. The patient was a young lady of

rather slender build. About one week after she had begun taking two of the pellets every four hours, she complained of a headache, and full feeling in the head, resembling the headache from glonoine. I at once ordered one pellet every four hours instead of two, and the headache disappeared in a few days, when I increased the dose, resulting in a reappearance of the same symptoms, and I was compelled to again reduce the dose. I am of the opinion that the drug causes a determination of blood to the nerve centers, thereby overcoming the anæmia on which I believe epilepsy depends.

"I have used the drug in two cases besides the one just described, with like results. One of the cases has been a confirmed epileptic for nine years, and has become almost an idiot; the spasms have ceased, and he seems to be in a fair way to recovery. I am now using it on a pauper at our county farm, who has been epileptic for thirty years, and has been in the insane asylum on two different occasions, and each time has been sent back to the county as incurable. I have been treating him but a short time, and the prospects for a cure look very favorable. If any of my readers have a case of epilepsy to treat, I would say, Get the medicine and try it. It must be given in very small doses."

Dr Stiles (New York Medical Times) reports the following case of epilepsy cured with cenanthe crocata:--

"October 30th, 1883, a gentleman, residing in one of the New Jersey coast towns, brought to us his boy, aged nine years, large-headed, light complexion, irritable, and nervous-looking. This child has had fits since his second year, thus described by his father: 'They occur at night (rarely by day), while asleep, and sometimes two or three in succession in a night; he seldom screams. generally catches his breath, and does not bite his tongue, although he occasionally froths at the

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mouth. • Sometimes he urinates unconsciously; picks his nose, is cross and irritable after his fits. He is smart and active when at play, and quick at his studies. He generally complains of a cold stomach a short time before he has a fit, with a good deal of pain. On retiring at night, he is very restless, turns and twists much, with. from appearance, a choking sensation. His legs appear very stiff and sore, more especially at or near night, so that he cannot walk without limping. Picks his nose a great deal, sometimes so much that it draws blood.'

"His father informed us that a year before he had been treated for worms, and had passed one seven inches in length. He had a good appetite, his bowels were regular, and he was growing fast.

"Belladona, hyos., ignatia, silica, and other approved remedies were used, with only the effect of increasing perceptibly the length of the intervals between the convulsions, and rendering them slightly lighter.

"December 20th.—We put him on silica, 30, each morning, and œnanthe crocata, 10, at noon and night.

"January 24th, 1884.—He was reported as 'a good deal better—has not had a fit in eleven nights.'

"February 25th.—'Has not had a fit in forty-three nights, and seems to be enjoying good health.'

"April 18th.—'I think you have cured him. He has not had a fit in nearly four months.'

"The patient has remained entirely free from his trouble, and in excellent health up to date of present writing."

The following case, described by Dr. F. H. Fisk in the *Chicago Medical Times*, is also corroborative evidence of the value of this remedy:—

"Miss H. E. G., æt. 16, sanguine temperament, wellgrown, robust appearence, but dyspeptic.

, "When 8 years old would have spells of absent-

mindedness. Would be listless and inattentive for a few minutes, then would be all right. Health at that age good. These absent-minded spells would occur at irregular intervals, and recurred up to date of applying to me for treatment for epilepsy. Menstruation began at about the age of 12; epileptic convulsions were manifest about the age of 14, and grew more frequent and more intense with time. Had been under treatment by allopaths, homeopaths and Eclectics. For the past six months the patient would have six to ten convulsions in twenty-four hours, if not kept stupefied with bromide of potash. It would require from sixty to one hundred grains per day to control the condition. The mind was beginning to show feebleness, and the functions of the body were subnormal. The convulsions did not occur at or near the menstrual period any more than at other times.

"I prescribed specific tincture œnantha crocata, minims 5, water 6 ounces, mix. Directions: Give a teaspoonful every three hours until there was some complaint of headache, then only every four or six hours, during the day, as would be necessary to control the convulsions. Result, not another spasm. The medicine was continued for three months and then omitted. At that time a little mental excitement brought on a convulsion. The medicine was resumed and continued for three months longer. No more convulsions, and the absentminded condition had disappeared. The young lady became gay, cheerful, with active mind, and entered society and took part in social entertainments as did other of her associates.

"When the remedy would be withheld for a short time a little mental excitement or mental fatigue would cause an epileptic seizure. The remedy was continued, gradually reducing the dose, for a period of about two
years. Since that time more than a year has elapsed, there have been no indications of epilepsy and no sequelæ. I have treated five other cases with like results."

# PAULLINIA SORBILIS-GUARANA.

This remedy promised great results at one time as a remedy for migraine, but proved so disappointing in the majority of cases that it soon passed into obscurity. It also was highly extolled as a remedy for asthma, but here, also, it failed to fulfill expectations. However, I think it is worthy of attention as a remedy for some forms of neuralgia. The greatest trouble in relying upon it is the obtaining of a reliable preparation. It has also proven curative in infantile intestinal troubles (cholera infantum), and chronic rheumatism.

I have used the specific medicine with the best results, and have found the remedy valuable in menstrual headaches where there seemed to be a lack of activity in the cerebral circulation—cerebral anæmia. I have also used it in neuralgias about the occipital region that were very stubborn with gratifying success. It has been recommended in obstinate forms of lumbago, but I have never tried it and cannot vouch for its effects.

Form for Administration.—The specific medicine. Dose.—From one to ten drops.

### PASSIFLORA INCARNATA.

This remedy was recommended by Dr. Phares, of Mississippi, years ago as a specific for tetanus. During the past few years it has become quite a favorite with many Ecletics as a remedy to relieve "nervousness" and induce slumber when the nervous energies have been distracted by over-excitement, by prolonged illness, or from nervous irritability due to reflex disturbance of the sexual organs.

In nervous females, about the menopause, or debilitated from prolonged hemorrhage, wakefulness is sometimes a very unpleasant and persistent symptom. Here I have found passiflora to be the best of remedies to promote slumber without disturbing after-effects. It promotes slumber, and at the same time proves a permanent tonic to the nervous system. It is well to combine it with pulsatilla in some of these cases, where the pulsatilla symptoms are pronounced.

In convalescence from continued fevers, cerebro-spinal meningitis and other prolonged diseases of acute character, I find it valuable during convalescence, to quiet the nerves and invite slumber. It is almost as positive as an opiate, and at the same time is entirely free from the objectionable after-effects of the various preparations of opium.

In the treatment of infantile convulsions it rivals rhus tox. and gelsemium. I often combine rhus tox. with this remedy, adding ten drops of each to half a common tumbler of water, and administering a teaspoonful every half-hour or hour, in cases where convulsions seem to be impending. If there is a febrile condition present I also add two or three drops of specific aconite. With this preparation in use I can leave a case with the confident assurance that no more convulsions will occur, when spasms have already been manifested.

Dr. Joseph Adolphus of Atlanta, Georgia, in an article published in the *American Medical Journal*, recommends it in tetanus, cerebral pain, dysmenorrhœa, tic douloureux, accelerated respiratory movement, pain in the rectum, and neuralgia of the heart. His cases are described in his own words, as follows:—

"The first case worthy of report was one of pain in the brain; a lady who had suffered for several months untold agonies, as she described her sufferings. Her pain was described as if a weight of many pounds was lying on her brain; the sense of pressure and tearing inside the

skull was fearful; her head and neck felt as if enveloped in ice; the pains ran down the back of her neck, and , finally reached the lower end of the sacrum, so that a slight touch of the coccyx caused exquisite agony. This was a case in which coccygodynia was associated with the cerebral and spinal disease. I failed to relieve the pain for more than a few hours at a time with all other remedies I had tried; at this juncture, when despair was taking the place of hope, I thought of passiflora, which I then administered in teaspoonful doses of the tincture every two hours. The result was something to be remembered, for she enjoyed an excellent and refreshing night's rest the following night, waking up in the morning nearly free from pain, and with a good relish for breakfast. I continued the medicine every four hours for several days, for no further uses for medicine seemed indicated, as there was a rapid and complete recovery.

"No longer ago than last October, I cured a case of painful menstruation with the medicine, after failing with viburnum prunifolium, gelsemium, etc. This was an inveterate case that had been going the rounds for two years.

"A few months ago I treated a case of neuralgia of the fifth pair, the ophthalmic branch being involved. As you know, the lenticular ganglion is anatomically and physiologically, together with a branch of the third nerve, all associated with the sensory and vasomotor functions in the eye. I found passiflora incarnata prompt in stopping the pain and clearing up vasomotor paresis and extreme dilatation of the pupil of the affected eye. The dose used was a tablespoonful of the saturated tincture of the root, every two hours.

"I find the medicament a valuable agent in all nervous affections attended by those peculiar excitements that lead one to suspect congestion of the cord and ganglionic centers. It undoubtedly acts as a sedative to the ganglionic cells in the gray matter of the cord; also on the ganglia in the thorax, pelvis, abdomen, as well as those in the brain. Its influence in quieting and sedating the vegetative system of nerves is very striking, and also the centers in the medulla oblongata.

"I attended a lady during her pregnancy on account of pain in her uterus, abdomen and pelvis; and one peculiar symptom was constant quick respiration, night and day, never less than thirty-five per minute. I determined to try passiflora, which I administered in halfteaspoonful doses every three hours. In twenty-four hours the respirations were reduced to twenty-six, and with the lowering came relief from pain. In forty-eight hours more the respiratory movements were reduced to twenty-one during wake, and never fell below eighteen during sleep. This case taught me to look on the action of the medicament as a sedative to the motor centers in the medulla, and most probably of the ganglion cells in anterior cornua of the cord. I also treated a boy three years old last fall who had a diarrhœa as a sequel to an acute attack of entero-colitis. I found the respirations fifty a minute; the bowel discharges were thin, watery, offensive, six to ten per diem. Other remedies failed on him; passiflora, in one fourth teaspoonfuls every two hours, worked a complete cure in three or four days. The first symptom to yield was the quick respiratory movement.

"In the convulsions of children we have in the passiflora a safe and almost specific medicament. It may be given in half-teaspoonful doses with confidence, repeated every hour until the convulsions cease.

"I used the medicament in a case of constant uproar and movement of the small intestine and more or less tympanitis, in a lady in the middle of her change of life troubles, in doses of a teaspoonful of the tincture repeated every two hours, with marked success.

"A lady complained of pain in her rectum continuously; the coccyx was also guite tender to the touch. There were several erosions on the lips of the os uteri; leucorrhœa and severe pain in the small of the back when a certain spot (over last dorsal and first and second lumbar vertabræ) was pressed on. I found she had been treated secundum artem for the uterine trouble, locally and constitutionally, to no certain satisfactory result. Her respirations were often twenty-eight to thirty per minute, much wakefulness, and at times feelings of constriction across her breast and a sense as if her heart would stop beating. Teaspoonful doses of the passiflora incarnata were the specific in her case. She continued it every four hours for two weeks, but from the outset of treatment she felt the right remedy was being administered.

"These rectum troubles in women are frequently met with in practice. I find the passiflora incar. the best single remedy I have for them.

"Recently a man consulted me for a constant pain in his heart; he described it as sharp, and like a pang often causing a sense of immediate dissolution, and fear of death was on him all the time; pulse irregular in rhythm, now rapid, next slower, occasionally a beat missing; sounds were normal, but accentuated and sharp. Passiflora incarnata was a specific in this case; no doubt the center and probably the local ganglia were irritated from some cause, and, whatever it was, the medicament removed both.

"I may have something more to say of this medicament in the future. It is only necessary to mention its value to suggest trial of it. I use the whole plant; but think the tops, blooms and leaves strongest in medicinal properties when gathered just about the time the fruit is beginning to form. The roots are best gathered in the fall.

"Alcohol and water respectively extract the medicinal properties. I make a saturated tincture of the dried root in 60 per cent. of alcohol. I have found a decoction of all parts of the plant active.

"I treated a lady last summer for sleeplessness; she was pregnant also; the whole plant in decoction was used, in tablespoonful doses, with happy results.

"By the way, I must not forgot to say, You will find it a valuable medicant in sleeplessness and tossing restlessness in your fever patients, I use the tincture in teaspoonful doses every four hours. It appears the remedy has a soothing effect on the whole nervous system, without any appreciable narcotic properties."

Form for Administration.—I usually employ the tincture obtained at a homeopathic pharmacy—the "mother tincture".

Dose.-From one drop to one drachm.

# PARALDEHYDE.

This remedy is valued by some on account of its hypnotic properties, which resemble those of chloral somewhat, but which are free from the depressant heart effects of that drug. Where chloral would be contra-indicated, then, on account of cardiac debility, this agent might be employed, if there were urgent demand for a prompt hypnotic, as in delirium tremens, hysteria, insanity, etc. It has been recommended in epilepsy, but clinical reports afford little testimony of its efficacy in that affection. It ranks with sulfonal as a sleep-producing agent, and can usually be dispensed with very well by Eclectic physicians, who possess so many other calmative agents of better general effect that they will seldom need to em-

ploy it. The dose will vary from twenty to forty drops. When a prompt hypnotic effect is desired the larger dose should be employed.

### PIPER METHYSTICUM.

Kava kava is one of our most reliable remedies for the cure of neuralgia, especially tic douloureux. It is very prompt in its action on the branches of the fifth pair of nerves, and should be thought of in all neuralgic states of the teeth, ear, eye, or points of distribution of the portio dura.

Neuralgia of other portions of the nervous system may be benefited by this remedy, though the greater portion of my experience has been confined to cases of facial neuralgia. On my return from the East in 1890, I was consulted by an old patron who had been suffering from a pain in the lower jaw, near the point of exit of the mental nerve, for several months, and who had consulted a number of physicians without relief. Piper methysticum cured promptly and in a few hours. I select this remedy first in cases of facial neuralgia, for while it is not infallible it acts more promptly and efficiently than any other agent I have ever employed, as a rule.

Gastric and intestinal neuralgia also yield to it, though the pain is usually reflex that submits most readily to its action; for instance: Pain in the pectoral region, arising from nervous dyspepsia, abdominal neurosis arising from urethral stricture or irritation of the testes or prostate; such character of neuralgia is better adapted to piper methysticum than a neurosis located at the actual seat of disease. The remedy also promises to prove potent in relieving the excruciating pain of renal colic.

Form for Administration .- The specific medicine.

Dose-Add from ten to twenty drops to half a tumbler

of water and order a teaspoonful every fifteen minutes, in urgent cases; ordinarily the dose may be repeated every hour.

## PISCIDIA ERYTHRINA.

Jamaica dogwood has proven a very useful remedy in various conditions involving the nervous system. In insomnia, neuralgia and sick-headache, it has proven a most acceptable remedy, being almost as prompt as opiates while it is devoid of the unpleasant after-effects that mark the influence of almost all forms of opium.

As a remedy to bring about pleasant and restful slumber in protracted insomnia I esteem it highly, especially if the patient be somewhat aged. Insomnia in such persons, if of nervous temperament, in cases of slight indisposition, is sometimes very stubborn, but will usually yield to this agent. Even if its effects finally become less and less marked, if the protracted insomnia can be once broken up, other soothing remedies, of less objectional nature, can then be employed successfully; for in some cases, without doubt, jamaica dogwood leaves behind its soporific effect more or less nausea, languor, and other unpleasant drug influence. While, then, there are remedies, as passiflora, rhus tox., aconite, etc., which I prefer to rely upon in the beginning, I usually choose jamaica dogwood in preference to chloral hydrate or any form of opium, when some positive soporific is demanded.

In late years I have sometimes employed instead antikamnia, sulfonal, antifebrine or antipyrine, but the superiority of any of these agents over piscidia is to be doubted, while I believe the vegetable remedy the safest one to rely upon in the majority of cases.

Jamaica dogwood has been highly extolled as a remedy for neuralgia in some quarters, and I am disposed to give it credit for valuable properties in this respect, though I have had little experience with it in this direction. In the "Newer Materia Medica," published by Parke, Davis & Co., are the reports of some thirty-three cases by different physicians, in which its value as a remedy for neuralgia is almost universally attested. It is also lauded as a remedy for migraine. The form of neuralgia in which it seems to have been tried most is tic douloureux; toothache and other accompaniments being mentioned. Some of the writers commend the local application of the fluid extract, introduced into the cavity of the tooth on a part cle of absorbent cotton. Dr. John Fearn, in an article contributed to the California Medical Journal, of April, 1888, extols it in tic douloureux, neuralgia of the kidney simulating the passage of a renal calculus, and in The Doctor's testimony, wherever he is well insomnia known, is a valuable guarantee of the merit of the remedy. It has also been used by Dr. J. P. Webb (now deceased), in neuralgic dysmenorrhea, with good results.

This remedy resembles, in certain respects, pulsatilla, passiflora, piper methysticum and plantago major.

Form for Administration.—The specific medicine. In the absence of this preparation Parke, Davis & Co.'s fluid extract may be employed.

Dose.—This should vary from a half-teaspoonful to a teaspoonful. I usually combine it with equal parts of simple syrup, and order a teaspoonful at a dose.

## PLANTAGO MAJOR.

This remedy ranks with piper methysticum in its influence on the fifth pair of nerves. It is a very reliable remedy for toothache, when this condition is amenable to the influence of therapeutics, both the local influence and the internal administration of the drug being of service. The carious cavity, when one is present, should be thoroughly exposed and a particle of cotton moistened with the specific medicine afterward applied. In connection with this, ten or fifteen drops of the specific medicine should be added to half a common tumbler of water and a teaspoonful administered every half hour until relief follows.

In aural pain it is also effective, a small portion of cotton saturated with it being inserted in the ear while the drug is also administered internally.

It is also valuable in tic douloureux, though not as reliable as piper methysticum.

The form for administration and dose have already been suggested.

# PULSATILLA NIGRICANS.

The German pulsatilla—pulsatilla nigricans—is the remedy that should be understood as being referred to in this article; the anemone nemorosa or American pulsatilla possesses similar properties, but is not identical with it as a remedy, and should not be confounded with it as some druggists are disposed to do. I have, several times during my practice, had druggists attempt to sell me preparations of American pulsatilla, assuring me that it was identical with the German preparation, both in species and properties. It is needless to remark that such druggists know little of Eclectic methods—the haphazard methods of "regular" medicine have been their custom.

Pulsatilla is the favorite Eclectic remedy for "nervousness." Scudder's leading indication in this respect is "a fear of impending danger." Where the patient seems unduly timid and fearful without commensurate cause, it will usually serve a good purpose, either alone or in combination, in the treatment of the case. It is best adapted to tearful, timid women, who are under the influence of uterine irritation; but it is by no means contra-indicated if the patient is a male, if there is prominent manifestation of undue dread of the consequences of the condition, when no really serious disease is present.

Functional heart difficulties, and those cases where the cardiac trouble is purely imaginary, are the conditions where it will oftenest prove most satisfactory. Imaginary difficulties of the heart are not uncommon, and cannot be talked or laughed away. If there is no disease in the heart, there is one in the brain, and pulsatilla is largely a mental remedy, soothing the disturbed mental equilibrium and tending to relieve fanciful alarm.

Pulsatilla is also a valuable remedy in neuralgic dysmenorrhœa. It will not accomplish a cure where the cervix needs dilating, and must be used with discrimination—though there is no danger in prescribing it unsuccessfully. The case of dysmenorrhœa, however, must be neuralgic, in order that benefit may follow its use. A favorite plan, with the majority of Eclectics, is to combine this remedy with cimicifuga in such cases, using from half a drachm to a drachm of each in four ounces of water, and administering a teaspoonful every two or four hours. In an urgent case, where the patient was suffering severe pain, the dose might be repeated every fifteen minutes.

Form for Administration.-The specific medicine.

Dose.—From ten drops to a drachm may be added to four ounces of water and a teaspoonful ordered as often as the urgency of the case demands.

### . PHOSPHORUS.

This remedy has received a great amount of credit as a vital stimulant from certain quarters, and this might be considered a rational proposition, seeing that it is one of the important constituents of nervous structure. The homeopathists value it highly in continued fevers, where the vital powers are apparently failing. It is a favorite remedy with them in the late stage of typhoid fever, and all febrile conditions of adynamic type, where there is impending paralysis. In such cases the dose must be very small—not more than a fraction of a drop of the third decimal dilution, but should be repeated often, say every hour or two. From my experience I am inclined to believe that the remedy has been overestimated in this class of cases.

As a remedy for neuralgia, I have seen phosphorus accomplish wonders in some obstinate and long standing neuralgias in old persons where other remedies of good repute entirely failed, even in affording temporary relief. It is not a remedy that will be used very often in neuralgia, in fact, I am of the opinion that we have a number of others more generally applicable; but in long standing, obstinate cases, it will sometimes help one out surprisingly well. In insomnia depending on cerebral anæmia, and in degenerative changes in the nervous system due to senility, phosphorus may sometimes be made avail of to good advantage. In brain fag or nervous exhaustion due to too prolonged application to mental or physical exertion, phosphorus may be prescribed advantageously in the majority of cases.

Mental aberrations may suggest the need of phosphorus, as hysteria, melancholia, and insanity, when these seem to be due to imperfect nutrition, or degenerative changes in the nervous structures.

Form for Administration.—I usually use the third decimal dilution. The tincture may be employed instead, but one is liable to overdo the dose unless extremely careful with the drug in this form.

Dose.—From half a drachm to a drachm may be added to four ounces of water and a teaspoonful administered every two or three hours. The remedy must act slowly is not adapted to acute cases.

## PHOSPHATES.

Phosphate of Lime.—This remedy has some reputation in the treatment of brain fag, the result of dissipation or overwork. It is not as reliable as some of the phosphates in this respect, its principal use in medicine being in the line of remedies for the osseous system. As a remedy for brain fag the dose should be small, a few grains of the 3x trituration answering the purpose well.

*Phosphate of Magnesia.*—The line of study pursued by Schuessler has afforded the best results in the application of this remedy to disease. It is an antispasmodic and antineuralgic of remarkable power in certain cases.

Dr. Fearn writes of this remedy in singultus as follows: "In an obstinate case of singultus, magnesium phosphate worked like a charm. The patient was suffering with typhoid fever. The fever had subsided nicely and the patient seemed to be doing well when this unpleasant feature commenced; the hiccough was almost continual, and so violent in character that the patient was shaken till he was sore for three days. I tried all the remedies I could think of with no satisfaction. Finally I put him on magnesium phosphate. The result was remarkable; when I called the patient was so much better that as I went into his room he said, 'Doctor, why did you not give me that medicine before?' After the medicine was laid aside for a while the trouble partially returned, but it was not nearly so violent; it was a kind of sobbing, and this yielded speedily to the remedy."

The same writer describes the effects of this remedy in neuralgia: "A patient sought my services a little while ago for the relief of acute sciatica. In a few days he was much relieved and thought the worst past. I cautioned him to avoid taking cold and bade him continue the treatment. In about three days more he again called, and said, Doctor, I thought I was cured, but the last two nights and to-day I have suffered terribly.' The pain was not continuous and yet it was not a periodic pain. It was a sharp, shooting pain, with a sense of constriction occupying the hip joint, the region of the sciatic nerve and the right hypochondrium. It was not regular in its action nor constant, but would come without warning and would leave without saying goodbye; in short it was spasmodic in character. Remembering from experience that magnesium phosphate is antidotal to this spasmodic character of pain, I gave the 3x in small doses every two hours. What was the result? The condition was removed —the pain completely relieved.

"In another case a lady about six months advanced in pregnancy suffered with spasmodic pain radiating from umbilicus to pubes, not constant, but coming and going, quite severe. Shall we give some carminative or anodyne? We might do so. But remembering that such a condition can be removed with magnesium phosphate I gave it here; results very satisfactory, as in other case."

The following clinical report by the author, published in an old number of the *California Medical Journal* illustrates, also, the value of the phosphates of magnesium and potassium in obstinate neurosis: Anxiety, business cares, and overwork had been telling on the patient for months. Finally, while on the local train between the ferries and home (Berkeley), he suddenly experienced a peculiar cerebral sensation and became unconscious, but in a few minutes recovered, and asked the conductor to assist him from the train when he arrived at his station, and had the presence of mind to remember a bundle which lay on the seat at his side, but was still dizzy and confused.

After arriving at home he experienced a severe spasmodic pain in the cardiac region, which was accompanied by faintness, shortness of breath, and coldness of the ex-13 tremities. This lasted several hours, and continued to return thereafter for two weeks or more, without improvement, sometimes several times a day, at irregular intervals. This finally became attended by more or less mental weakness at times, and, as his physician informed him that he was suffering from an organic affection of the brain, the result of apoplexy (referring to the attack on the train), he became very despondent.

After three or four weeks, with rest and treatment, he improved somewhat, but, in performing some trivial manual labor about his home, he experienced a relapse; and, as his physician (old-school) insisted that his days were few, he concluded to try an Eclectic physician, as he employed one in the East formerly as his family adviser.

When the patient came, in company with his wife, I found the case an unpromising one. He was past sixty years of age, of careworn appearance, despondent, and presenting marked evidences of nervous exhaustion. There was no paralysis, however, and no evidence of any loss of motor or sensory function, and upon making the effort he could call into use all his reasoning faculties —pretty good evidence that he had not suffered from apoplexy. He complained of sleepless nights from lancinating pains in the left pectoral region and left side of the face.

The prescription was potassium phosphate, 3x, to restore lost nervous energy, and magnesium phosphate for the spasmodic pains. Add ten grains to a tumbler half full of water, each agent to be prepared in a separate glass, and alternating give a teaspoonful every hour during the day, and until bedtime. In about a week the patient returned for more medicine, and marked improvement was observable. The careworn, despondent expression of countenance had given way to one of comfort and hope. He said he was better; had felt but one spasmodic attack since beginning the medicine, and could now go about and do light chores without becoming exhausted, and slept well at night. In another week his wife reported him "well as ever."

Magnesium phos. has been highly extolled as a remedy in whooping cough, but I am of the opinion that we have better remedies in drosera and cuprum. But as influences differ in their nature in different epidemics, and as this remedy has been indorsed by several of the enterprising Eclectics of the country, I cannot but believe that it possesses just claims to distinction in this affection.

The form for administration and dose have already been suggested.

Phosphate of Potash.—This remedy has already been referred to. It is useful in brain fag, in exhaustion of the nervous system generally, and even in structural change in the brain or spinal cord, if administered in the inception of the disease.

All conditions arising from loss of nerve power, as prostration, loss of mental vigor, depression. Grauvogl says: "Kali phos. is a constituent of all animal fluids and tissues notably of the brain, nerves, muscles and blood cells. All tissue forming substances retain it with the greatest obstinacy, all nutritious fluids contain it, hence we may conclude that it is indispensable to the formation of tissues. All the nerves retain their vitality for a long time and very completely, in a solution of kali phosphate."

This is considered by Schuessler as the prominent nervous tissue salt of the body. It is indicated by neuralgic pain occurring in any organ, if it is accompanied by loss of nervous power. It resembles pulsatilla somewhat in its mental characteristics, the patient being apprehensive without reasonable cause and inclined to tears. It is a remedy for paralysis, locomotor ataxia, epilepsy, hysteria. and other conditions of the nervous system coming on as the result of faulty action in the arrangement of the molecules of the nervous substance. In typhoid fever, where there is great prostration with jactitation, tremors, subsultus tendinum, and other evidences of nervous exhaustion, I have found it useful. The form for administration and dose have been sugted in the article on magnesium phosphate.

# RHUS TOXICODENDRON.

The influence of rhus tox. on the nervous system is of great service in many febrile conditions, as it combines with it valuable sedative properties. In all febrile states attended by extreme restlessness, this is one of the first remedies to be thought of. Some one has given the cry encephalique as the special indication for its use in the treatment of infantile affections, but if I were to associate the condition of restlessness with any other particular symptom it would be that of irritation of the digestive organs, as indicated by the pointed tongue, with reddened tip and edges. Whenever one finds this symptom pronounced, with his patient excessively restless, he cannot select another remedy which will compare with rhus tox. in promptness of action.

This combination of symptoms is very common in infantile affections, and in febrile diseases of delicate adults of nervous temperament; sometimes we encounter it in such chronic affections as phthisis, where I have employed rhus very satisfactorily a number of times, to control restlessness associated with nausea and other symptoms of gastric irritability. However, the effect in this particular case is more palliative than curative, the symptoms returning, usually, upon the withdrawal of the medicine. In the delirium of adynamic fevers rhus is one of the best of remedies, also. I am of the opinion that it controls disturbances in the cerebral centers marked by irritation and determination of blood. The difference between this remedy and gelsemium is, that the latter agent controls determination of blood to the brain generally, while rhus exerts more of a local influence upon certain of the cerebral centers. In other words, it influences certain local vascular areas within the substance of the brain without controlling the volume of blood that supplies the cranial cavity. In cerebral conditions amenable to rhus there is delirium, with bright eyes, contracted pupils, restlessness, and small wiry pulse, instead of the full bounding pulse of gelsemium.

In infantile convulsions I value rhus tox. above all other remedies with which I am acquainted. It has proven more effective in my hands than gelsemium, lobelia, or passiflora, though I often alternate it with the last named remedy. In any case where convulsions have occurred or seem impending, I can confidently assure the anxious parents or guardians that no more will occur after the patient has been placed upon rhus. And I can leave the case with the medicine feeling confident that my presence is not required to fortify me against the calling of another practitioner in my absence on account of threatening premonitions.

Rhus tox. has been recommended in various forms of headache, and often proves beneficial, though the transient cephalalgias to which many persons are subject are not its sphere. Where febrile conditions prevail and there is tendency to adynamia, we will get the best effect from it in this respect. The Homeopathic estimate of it is: "Congestive headache, with burning in the ears and vertex; vesicular eruptions upon the scalp; fullness and heaviness, and sensation of weight in the forehead; rheumatic pains in the back and joints of the shoulder, arm, and wrist; fullness and pain in the limbs on first moving in the morning, relieved by constant motion."

Rhus tox. acts upon the spinal cord, and has been used in paralysis, especially of the lower extremities, though I have never been very favorably impressed with this use of the remedy.

### Form for Administration.—The specific medicine.

Dose.—Add from ten to twenty drops to four ounces of water, and give a teaspoonful every one or two hours. Where there is much gastric irritability it may be given every fifteen minutes until the vomiting has been arrested. The dose here mentioned is for adults; children should have proportionately smaller quantities.

# SCUTELLARIA LATERIFLORA.

This remedy resembles cypripedium and pulsatilla in some respects in its action on the nervous system, all three being adapted to that peculiar combination of mental and physical symptoms denominated as "nervousness" However, its influence in other directions is quite dissimilar, it having proven curative in chorea, delirium tremens, convulsions, neuralgia, and functional heart affections. Professor King wrote of it as follows:—

"This is one of those valuable agents which a certain class of physicians consider inert; yet it has proved especially useful in chorea, convulsions, tremors, intermittent fever, neuralgia, and all nervous affections. In delirium tremens, an infusion drank freely will soon produce a calm sleep. Where teething has impaired the health of children, an infusion may be given with advantage. The scutellaria is one of our most valuable nervines and tonics, and is especially useful in cases of depression of the nervous and vital powers after long sickness, over-

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exercise, excessive study, or from long-continued or exhausting labors. One grain (scutellarin) will frequently produce its quieting and soothing effect, controlling nervous agitation, and inducing a sensation of calmness and strength."

Professor Scudder has written of it as follows: "It has been found remarkably efficacious in chorea, or St. Vitus' dance. Dr. Beach states that he has cured a great number of cases with it. We have used it in several instances with apparent benefit. In cases of great nervous excitement, with severe tremors, also in attacks of delirium tremens, it has in several cases afforded prompt relief.

"It has been extolled in many of the nervous and spasmodic affections so very common among women. It has attracted much attention in hydrophobia, and at one time enjoyed a high reputation in the treatment of that formidable disease, although the same reliance is not placed on it that was some years ago; still, it is resorted to, both as a prophylactic and curative agent, in cases of canine madness. Testimony is not wanting to establish the fact that many persons have been bitten by rabid animals, and avoided the development of the disease by the free use of scutellaria; while others, bitten at the same time, by the same animal, became hydrophobic. So many circumstances may occur to prevent the inception of the canine virus at the time of the bite-as the interference of clothes, or the speedy removal of it from the parts bitten, and thus preventing it from being absorbed-that we must view many of the cases said to have been cured by the exhibition of this article as hardly equivocal. 'A physician bitten by a mad dog, has assured me,' says Rafinesque, 'that himself, alone, had avoided the disease by using it, while others bitten by the same dog died.'

"Dr. Vandesveer, who is said to have introduced it to the notice of the profession of 1772, or, rather, to have discovered its prophylactic powers against hydrophobia, is said to have prevented four hundred persons and one thousand cattle from becoming hydrophobic; and his son is said to have relieved or cured forty persons who had been bitten, by the use of the same agent. These favorable reports of its efficacy are strongly questioned, and even denied by eminent physicians, while many of the botanic school report very favorably of its efficacy in that disease. It would seem that there ought to be some grain of truth among so much testimony. My observations have not fallen upon any such cases; but in one patient to whom I gave the scutellarin, the 1x, for a nervous affection, its administration was always followed by the symptom, 'spasmodic or constrictive closing of the jaws, and a tightness of the muscles of the face.' A proving might elicit symptoms which would account for its efficacy in hydrophobic conditions. I have used it successfully in several cases of tremors, and twitching of the limbs in typhoid fever; also in mild forms of hysteric spasms, and nervous irritation in pregnant females, etc." Professor Paine remarks of scutellaria:-

"It appears to manifest itself more particularly upon the gray nerve-tissue, and hence it is adapted to, and exerts a wonderful power in, most of the difficulties which originate in pathological conditions of this structure. All forms of chorea are promptly relieved by the proper use of this drug; in fact, it may be correctly pronounced a specific for these affections. I have tested it in every form of this affection, and if used persistently and judiciously in combination with such adjunct remedies as the constitution may indicate, it manifests a wonderful power. It is of great virtue in fevers, and other affections where the gray nerve-tissue has undergone partial degeneration and disintegration, or where the nerve force is impaired by this jeculiar pathological change. Thus

in subsultus tendinum, following fevers, in delirium tremens, and other spasmodic affections, as epilepsy, catalepsy, hysteria, etc., this remedy, combined with iron, is of vast importance. It is of great value as a tonic to the nervous system, where there is a general nervous debility, either from uterine disease or other constant irritations to the nervous system. I have used this remedy extensively in all female diseases, hepatic difficulties, and other chronic affections that influence the nervous system, and by uniting it with iron have found it to afford most prompt relief. My method of administering it in the low forms of fevers is to compound one or two grains with one grain of hyposulphite of soda, and give a powder four or five times a day. In hysteria, epilepsy, catalepsy, and other spasmodic affections of that class, I give it in stronger doses. I have cured some most obstinate cases of epilepsy by giving four or five grains, with equal parts of carbonate of iron, every two or three hours during the day, followed by occasional purges. Some most remarkable cases of hysteria have promptly vielded to two grains of scutellarin, administered three or four times a day in combination with chalybeates. In chorea. one grain combined with one or two of the carbonate of iron, every two or three hours, baths, friction, and well regulated diet, most promptly relieves, and where it is judiciously administered results in a permanent cure. This remedy has also been used to allay general nervous irritability; and I have frequently prescribed where there is a want of sleep or restlessness manifested on the part of the patient, one or two grains of scutellaria at bed time. with one or two grains of the prussiate of iron, and have found it to manifest quite as soothing an influence as opium or morphia."

Dr. Coe, another old Eclectic writer, offers the following on the merits of this drug:-

"We have found the scutellarin a remedy of great value in the treatment of *coup de soliel*, or sunstroke, particularly when the case has become chronic. We have met with entire success in many of these cases by the use of scutellarin and podophyllin. In the treatment of epileptic convulsions, as soon as we have secured a remission of the attacks by means of gelsemin, we employ the scutellarin with the gelsemin as a radical remedy. We have used scutellarin with benefit in threatened trismus, tetanic cramps, and other spasmodic disorders."

Hale recommends it in sleeplessness, night terrors, hysteria, delirium tremens, nervous agitation from pain or exciting emotions, etc.

It will thus be observed that this remedy filled an important place in the practice of our older physicians, and possibly is being too much neglected by modern men. Now, that a reliable preparation can be obtained, it is hoped that a trial of its merits may convince us that the claims made by Paine and others as to the efficiency of this remedy may be confirmed by modern experience. My own use of the remedy has been confined to its application to functional cardiac irregularities and to "nervpusness," with or without hysterical complication. In hysteria I consider it inferior to gossypium, the latter drug more specifically influencing the uterus, and thus controlling the agitation upon which the "nervousness" depends. However, it is an excellent calmative, either in infusion of the recent plant, or in the form of scutellarin, and should be resorted to oftener than it is as a remedy. In cardiac irregularity an intermittent pulse is a very good indication for its use. It is certainly one of our most reliable remedies here.

Form for Administration.—The specific medicine. Dose.—This may vary from one to twenty drops.

#### SILICA.

This remedy is sometimes useful in vertigo arising from sunstroke, neurasthenia, or epilepsy. I have derived some satisfaction from it in the treatment of epilepsy, though it does not prove curative. It prolongs the intermissions between the attacks, however, and in incurable cases it may lessen the frequency of the attacks by half, or more, when steadily administered for several months. I use the 3x trituration, in two or three-grain doses, three or four times daily.

## SOLANUM NIGRUM.

Solanum nigrum influences the cerebro-spinal system markedly, and has proven effective in cerebro-spinal meningitis, congestive headaches, amaurosis, ophthalmia, and convulsions in teething children; also puerperal convulsions, chorea, insanity, and the cerebral complications of typhoid fever. It resembles belladonna in its action upon the capillary circulation. Add five to ten drops of the specific medicine to half a glass of water and give a teaspoonful every hour, in acute affections.

# SOLANUM CAROLINENSE.

This is a new remedy introduced for the cure of epilepsy. I have had no experience with it myself, and shall publish two quotations from periodical medical literature to illustrate its claims for recognition.

The following is from Notes on New Remedies by Abram Smead:-

"I saw in the Virginia Medical Monthly, September, 1889, that Dr. G. L. Napier, of Blenheim, S. C., had used a tincture of the horse-nettle, with great success in epilepsy. I wrote to Dr. Napier to know what part of the plant he used, and how much to the pint of the menstrum. He replied that he filled a bottle half full of the ripe berries, bruised, and filled it up with sixty-per-cent. alcohol, and gave a teaspoonful four times a day. He also stated in the same letter that he prescribed it for a gentleman who had been epileptic eight years; the gentleman, misunderstanding the dose, took a tablespoonful four times a day. After taking it for a week he returned to the doctor and told him that he could not take the remedy any longer, as it kept him drunk all the time. He has not had a fit since he took the remedy. Dr. Napier also wrote that each dose should produce a feeling of drowsiness, and in obstinate cases he gave it every three hours until there were symptoms of vertigo. He also stated that it controlled puerperal convulsions."

The following is by N. Emmons Paine, M. D., of the Westborough Insane Hospital, from the New England Medical Gazette :---

"Before describing our use of solanum in epilepsy, I wish to tell what we have previously done for epileptics. We have always had about five per cent. of epileptics in our population. Just at present the exact number is twenty-nine. Probably no one would expect a cure of any of the cases who come to the hospital. They have, however, received medicines prescribed homeopathically, according to the symptoms. All the well-known remedies have been tried, and also many of the new remedies, and others not in general use. Probably no one medicine has shown more efficacy than belladonna. As individualization of remedies has shown scarcely any cures, I decided to experiment with all the cases at once, by giving them all one remedy for a definite period, and keeping a record of the attacks. Last November, the epileptics were given artemisia absinthium 1x, and that was continued until April. After that time, glonoine 3x was given until July, and then we began solanum car. tincture. Out

of all the patients treated, I have selected fifteen cases for tabulation. These have been taken for this purpose, because they have remained for the whole period, and because their fits were more or less regular in their appearance.

"The average number of fits for each one of the fifteen patients during the five months from November to April, when receiving absinthium, was 13.7; while under solanum, the average from July to September was 10.1, or about three and one-half fits less per month, for each patient.

"A further verification of these figures was made during the month of October. For niueteen days the ten women had no medicine, and the five men had none for seven days. The average number of fits in all these cases during the time they were without the medicine was 12.5, while under solanum from July to November 1st, deducting the days when not receiving the medicine, the average was 10.3.

"It is evident from these figures that solanum has reduced the number of fits about twenty-five per cent. It has not prevented that dangerous condition called *epileptic status* occurring in some of these patients. None of them have had any bad effects, or have shown any drug effects. Most of them have appeared better, and in some cases the improvement has been noticed by the nurses. Two of our male patients have left the hospital after taking solanum, but I am unwilling to ascribe a cure to that medicine, although both showed decided improvement immediately after beginning the medicine.

"Our manner of prescription was to give ten drops of the tincture in a glass of water, two teaspoontuis to be taken four times a day. On the first of October those names falling within the first half of the

alphabet had the quantity of medicine doubled, receiving twenty drops of medicine in a glass of water, and those in the last half of the alphabet have been given the first decimal instead of the tincture. It is too soon yet to give any results, or to show the average of the different quantities of medicine prescribed.

"In calling your attention to this drug, it is not with the claim that it will cure all cases of epilepsy, or that it will cure any case of epilepsy, but only to state that in our hands it has ameliorated the condition of chronic patients. We have not used it in acute cases, because we had no opportunity, but judging from its beneficial effects in our hands, I feel it is safe to recommend its use in general practice, where the disease has recently begun."

## STANNUM-TIN.

During the epidemic of influenza in 1891 I found the symptom, "Sense of exhaustion while speaking, with tired feeling in the larynx, the sensation extending to the stomach," a common and persistent sequel of that disease. I found no remedy that produced any beneficial effect except stannum, and this acted promptly, to relieve the local trouble and correct many concomitant symptoms. It evidently exerts a specific influence upon the nervous supply of the vocal chords.

Stannum also acts beneficially in neuralgia, especially supra-orbital pain, and has been found to benefit abdominal neurosis. Its best application is to chronic cases. It resembles sepia in its influence upon women suffering from the symptom termed "bearing down." Hughes asserts that it seems to strengthen the uterine ligaments.

Form for Administration.—The 6x trituration in two or three-grain doses three or four times daily.

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#### STRAMONIUM.

The principal province of this remedy is in the treatment of mania, delirium tremens and asthma. It resembles both belladonna and hyoscyamus in its cerebral action, being, however, less adapted to circulatory disturbances in the brain than belladonna, but having more influence upon mental excitability, while it partakes of the characteristic qualities of hyoscyamus in the control of mental illusions and hallucinations.

It is a favorite remedy among homeopathists in the treatment of delirium tremens and mania, especially puerperal mania, as there seems to be a relationship between its mental symptoms and the reproductive system. In low fevers, with loquaciousness attended by delirium, this is the most appropriate remedy. This condition is most likely to be present during convalescence. In fact, the condition known as loquacity, when occurring as an abnormal condition (not natural to the individual), is best remedied by this agent.

In addition to the conditions already named, in which it is of service, it has been used in chorea, epilepsy, hydrophobia and hysteria, with reputed success.

Dr. Talcott thus epitomizes the indications for stramonium in the treatment of insanity:---

"Extraordinary mental excitement; sudden and kaleidoscopic changes in the mental state; at times merry and enjoying himself by singing and dancing; at times proud, haughty, and intolerant of those around; at times full of rage, trying to strike with great vigor those within his reach; and, again, dullness of the senses, with stupid indifference to everything around him. Hope and fear, jollity and rage, frenzy and apathy, follow each other in rapid succession under stramonium; or the passions and the mental manifestations become strangely jumbled and mixed in their exhibition, under the influence of this stimulating drug. The stramonium patient desires light and company, and, at the same time, he is often terrified by bright objects, and seeks to fight those whom he constantly wishes to have in his presence. The stramonium patient has hallucinations of sight, in which horrible images are conjured up, and horrible animals are seen jumping out of the ground and running at the victim."

Form for Administration.—The specific medicine. I usually carry it to the 3x dilution. Of this I add twenty drops to half a common tumbler of water, and give a teaspoonful every hour.

### SULPHUR.

Sulphur may be referred to in this department as a remedy for neuralgia, asthma, and cramps of the muscles, especially of the lower extremities.

Dr. Waterhouse remarks: "Many middle-aged ladies complain of cramping about the calf of the leg and about the feet; it is the most troublesome after going to bed, and they are obliged to resort to almost all manner of applications before the trouble is relieved. Here I would administer the first decimal trituration, in doses of what would lie upon a ten-cent piece, four times a day."

Sulphur acts upon the sympathetic nervous system, improving the activity of all the vegetative functions, and when not administered in too large doses is a searching restorative, improving digestion, assimilation, blood-making and elimination. It is thus adapted to a large class of chronic affections.

It is a dogma of homeopathy that the treatment of all chronic cases may well be begun with the administration of sulphur. The logic in this recommendation is absent in homeopathic teaching, but there is some reason evidently in the premises of the case for such a proposition.

Sulphur resembles mercury in its influence upon the nervous system when the patient complains of tired, drowsy symptoms, though it is not so prompt nor effective in action, usually. However, when these symptoms are prominent and mercurius dulcis fails, we may try sulphur with considerable faith.

Sulphur influences the cerebral circulation to some extent, and is sometimes useful where the head seems chronically too full of blood, as evidenced by dizziness, tinnitus, or vertigo. Chronic headaches, depending upon the same cause, may also be benefited by the drug. Cerebral fullness of this kind may attend, or be the occasion of mental derangement. Sulphur has been recommended by alienists of the homeopathic school for certain forms of insanity. I do not think the drug will cause dementia, but it will cause cerebral fullness if its use be prolonged, and such interference might result in functional disturbance of the centers of ideation.

Form for Administration.—The 1x or 2x trituration. Dose.—One to three grains three or four times a day.

# SULPHATE OF NICKEL.

This remedy has been used with good effect in the treatment of periodical neuralgia, and headaches exhibiting an element of periodicity. The dose may vary from one-half of a grain to a grain of the 2x trituration. The large dose should not be repeated oftener than three or four times a day; the trituration may be given every hour or two during the paroxysms, and three or four times a day during the intermissions.

I would recommend a trial of this drug in stubborn headaches which resist other appropriate treatment.

### SUMBUL.

This is a vegetable product found in Asia, which resembles musk so much in odor that it is used to adulterate that drug. It also resembles musk in some of its therapeutic properties, though it promises to become a much more valuable member of the materia medica.

It is a remedy for hysteria, chorea, epilepsy, convulsions of teething children, spasmodic asthma, nervous palpitation of the heart, and neuralgia.

As a neuralgia remedy it sometimes acts like magic in relieving severe sciatica, tic douloureux, or angina pectoris after other approved remedies have failed. It is worthy a trial in every stubborn case of neuralgia.

As a remedy for restlessness and nervousness this remedy resembles pulsatilla somewhat, though in some forms of nervousness—those which amount to insomnia, or pending on delirium tremens—this remedy is more applicable.

Form for Administration.—The specific medicine. Dose.—From one to ten drops.

## TELA ARANEÆ.

The November number of the *Eclectic Medical Journal* for 1886 contains the following report on the clinical action of this remedy, by Dr. Pierce:—

"The first case, a male, aged two years, with dry, whistling cough, spasmodic in character, resembling whooping cough, with intermittent fever, no perceptible chill. Relieved in one day and cured in three days.

"The second, a male, aged four years, had terrible, irritable, spasmodic cough; parents supposed it to be whooping cough, cured with tela in twenty-four hours; also the intermittent fever in connection with it.

"Mrs. B. had sudden weakness come on her, followed by cold, chilly crampings, numbress of the extremities when sitting still or lying down, sexual orgasm at night, sudden weakness, and aching pains in the pelvis, extending slightly over the whole body, commencing at dark and lasting till midnight; very nervous. Telarelieved all symptoms in forty-eight hours.

"Mrs. T., aged 43, in her climacteric period, had sudden hot flushes come over her several times a day, followed by cold sweat, cold extremities, and chilly sensations. Tela relieved her in two days.

"Mrs. W., aged 41, attacked with uterine and left ovarian pains; very severe cramping, and remittent pains, with cool, clammy perspiration, cold extremities, previously affected with nocturnal orgasm, sudden nervous affections, and frequent metrorrhagia. A few doses of tela stopped the pains, and the flow ceased in a week's use of the medicine.

"Mrs. D., aged 45, in her climacteric period, had sudden twitching of the facial muscles, sexual irritability, nocturnal orgasm, formications and sleeplessness. Prescribed tela, which relieved her in a few days.

"Miss O. had complained of headache for ten days, from occiput to temple on the right side, running to the forehead, worse at night. Prescribed tela. Headache removed within twenty-four hours and no return.

"James W. has for several years had hot flushes come up suddenly, several times a day, followed by cold sweat; cool extremities, with chilliness. Tela relieved him in six hours.

"George N. had weak spells that came on irregularly several times during the day, and regularly at 6 P. M., also sudden aching pains in the pelvis extending more or less over the body, lasting until midnight, with great nervousness. Cured in thirty hours with tela araneæ.

"George H. had weak spells that came up suddenly with air puffing in his ears; would last half an hour, then were succeeded by cold perspiration, and cold extremities. Was relieved in twenty-four hours of all symptoms by the use of tela; continued medicine for three days and no return.

"Mrs. F. had typhoid fever, third week, with cold extremities, sore, aching pains in spots, worse in left foot and ankle, commencing after dark; in a half an hour, followed by a severe increasing headache in the right side, worse in the last half of the night. At 4 P. M. muscles of the neck stiff, and severe, aching pain in pterygo-mastoid and temporal regions to occiput, cool, moist perspiration, cold extremities. Three drops of tincture relieved her immediately.

"Mrs. H. complained of palpitation of the heart; pulse unaltered, cardiac affection, with cool, moist skin, and cold extremities. Prescribed tela with immediate relief.

"Miss B., ovaritis and slight metritis, following abortion, with periodical pains coming on at 3 P. M.; prescribed quinine for the periodicity which only anticipated the time of the paroxysm that came up at 1 P. M. with aggravations; then I learned for the first time that previous to her confinement she had numb spells, and extreme weakness came on her suddenly, which is among the best symptoms that indicate the use of tela, which I prescribed. Relieved entirely in two days.

"Charles S., afflicted with sudden painful palpitations of heart directly followed by smothering, profuse perspiration, and cool extremities, had been often troubled with numbness, removed by massage. Prescribed tela with quick relief.

"Mrs. J. W. was taken suddenly with uterine colic-like extreme abortion pains, sharp and constant, with nausea and rigors like the commencement of the second stage of labor, cold extremities, the os uteri tender to the touch, hard and congested. Five drops of tincture of tela removed it in five minutes, while other reliable medicines failed.

"John D., with pain in heart; came on suddenly with smothering respiration, numbress and cold extremities, pulse small and weak, followed by cool perspiration, and the paroxysms were periodical. Tela relieved him promptly.

"Miss Ida P. was troubled with cough when she was lying down, with a tickling behind the sternum, a cold, oppressed feeling in the chest, and numb sensations. It seemed as if much phleghm should be raised, but it could not. Tela relieved in a few hours all symptoms.

"Mr. N. E., an old toper, reforming under treatment from his last delirium. Commences suddenly at 3 A. M. to have a cool sensation running from the small of the back to the end of the penis, with an irresistible desire to pass urine, and from that time till 6 A. M. he passes
from one to one and a half gallons of clear, light, straw-colored urine, composition very slightly acid, no sugar, no albumin and rapid decomposition. Tela in three-drop doses every three hours relieved the paroxysmal flow when other medicines of good repute failed.

"Of the physiological action of tela araneæ I will not attempt to discuss, but to those who are competent, and are so situated that they can investigate its action, they will find that it has a dynamic power that will surprise the novice in its study, but of its therapeutical power I have a better understanding. Its specific indications are these, viz: Masked periodical diseases in hectic, brokendown patients. In all diseases that came up suddenly with cool, clammy skin and perspiration, and cool extremities; in nocturnal orgasm in either sex. Numbness of the extremities when sitting still or lying down. It relieves spasms of the arterioles, and stimulates capillary circulation. It relieves hyperæsthesia of the cerebro-

spinal nerves and the great sympathetic, that depends upon debility. It is the greatest heart stimulant in the materia medica, and lobelia is second only to it."

## VALERIAN.

Valerian resembles asafœtida, musk, sumbul and other nervines in its action on the nervous system, and is most applicable to chorea, hysteria, and the nervous affections attending the menopause. It is not always successfully employed because used indiscriminately as a nervine by many, the routine use of it not being liable to result successfully in every case.

Valerian influences the brain and produces a sense of exaltation often very desirable where there is marked mental depression and despondency, as in hypochondria and hysteria; and it is useful in headaches attending such conditions. It also influences the motor centers, and is thus applicable to spasmodic conditions of mild . character, though it is not a powerful antispasmodic and is not adapted to the relief of tonic convulsions. It is better calculated to steady that hyperæsthetic state which carries a patient to the verge of convulsive action than to relax it when it has once taken place. One great objection to it is its unpleasant odor, though in hysterical conditions this very property is sometimes valuable to impress the mind of the patient with the belief that she is taking something potent.

Form for Administration.—The specific medicine. Dose.—From two to twenty drops.

### VALERIANATE OF AMMONIUM.

This remedy, a great favorite with allopathists before the advent of sulfonal, antipyrine, antifebrine, antikamnia, etc., is sometimes useful in hysteria, and in cranial neuralg.a. In prosopalgia where the circulation of the superficial capillaries is impaired—where the face is cold, and the

extremities are cold, with considerable nervous excitability-it is a valuable remedy. It is also a calmative of considerable virtue in excitable, debilitated subjects, where "nervousness" is the ruling symptom. The salt may be administered in capsules, in doses of from five to ten grains, or the elixir may be administered in half to teaspoonful doses. Each drachm of the elixir contains ten grains of the salt; the greatest objection to it is its sickening odor.

## VERATRUM VIRIDE.

This remedy is useful to control irritation in the nerve centers resulting in neuralgia, headache and convulsions. Its use in neuralgia has not been very extended, and it has never reached prominence as a remedy for headache among Electics, unless the cephalalgia was a concomitant of febrile action, and here it is quite a favorite as an arterial sedative. But in puerperal convulsions it is one of our best remedies, though proper measures must be taken to complete delivery if the eclampsia occur prior to this, in order to give the remedy a proper trial. I have been much pleased with the action of the remedy in such cases and would make it my first choice if another such case should present itself.

Form for Administration.-The specific medicine.

Dose.—From the fraction of a drop to twenty drops. I am aware that the maximum dose named here is large, and would only employ it in extreme cases of puerperal eclampsia. As a sedative, five or ten drops may be added to half a tumbler of water, and a teaspoonful given every hour. Fifteen drops may be used, but care must be observed in cases where gastric sensibility is an individual peculiarity, as the drug, in over-doses, or longcontinued, is contra-indicated in irritation of the stomach, which it is liable to produce.
#### THE NERVOUS SYSTEM.

## XANTHOXYLUM FRAXINEUM.

The effect of xanthoxylum on the nervous system is marked by tingling sensations throughout the body akin to that caused by a faradic current. The drug is of importance in the treatment of neuralgia in anæmic, delicate individuals, and in dysmenorrhœa when the cause of pain is referable to hypersensitiveness. The remedy exercises an influence over the menstrual functions, bringing on the catamenial discharge in advance of its proper time when administered in large doses for several days in anticipation of the period.

Form for Administration.—The specific medicine. Dose.—From one-tenth drop to fifteen drops.

## ZINCUM.

Zinc is a valuable remedy in exhaustion of the brain from fag or anæmic state of the organ, and is useful for the physical and mental depression that frequently attends such a state. It is also of service many times in chronic headaches in anæmic patients, and in melancholic states of insanity.

Hysteria, hypochondria, paralysis, neuralgia, chronic sick headache, toothache, convulsions of children, and other nervous affections may be benefited with zinc.

The valerianate is a favorite form with many in the treatment of neuralgic headaches, tic douloureux, spinal neuralgia, sciatica, angina pectoris and ovarialgia.

The oxide of zinc is employed in nervous dyspepsia, with broad tongue and full abdomen.

The phosphide of zinc is used in locomotor ataxia, aphasia, and in degeneration of the structure of the brain—"softening of the brain." Professor Goss commends this form of zinc in vertigo, with pain in the cervical portion of the spine, cerebellum, and medulla oblongata. He gives it in one-tenth-grain doses three times a day. He asserts that it will be found useful in brain fag of business men who become pale, depressed and sleepless, acting promptly to afford relief. He also commends it, in combination with strychnine or nux vomica, for the relief of passive cerebral congestion, and for spinal anæmia.

Form for Administration.—The 3x trituration is my favorite form for both the valerianate and the phosphide. However, the crude drug may be effectively administered, the dose being the fractional part of a grain.

Dose.—Three grains of the 3x to one-tenth-grain of the crude drug (valerianate or phosphide), three or four times daily.

## FARADISM.

This important remedy in certain nervous affections was overlooked in the alphabetical arrangement of this department, but it must not be left out altogether, for I consider it one of the most prompt and effective in some cases, of any we possess.

In the treatment of chorea I have found it prompt and effectual in accomplishing a cure in every case encountered for the past thirteen years, and I have treated a considerable number of female patients, many of them young girls at puberty, during this time. It has been my lot to encounter but one case of it in the male sex—a boy six years of age—but he was promptly cured by faradic treatment. I have also used it for women who become choreic during pregnancy, with the best of results.

The method of application may be made very simple: Moistened sponges are attached to the conducting cords of a faradic machine and the positive is placed between the feet so that both are brought in contact with it, while the negative is placed at the nape of the neck. A moderate current is now applied, to be gradually strengthened as the patient becomes

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accustomed to it until the current has passed in this direction for five or eight minutes; then the current is sent across, by placing the positive at one foot and holding the negative in the hand of the opposite side for three or four minutes, the current being modified so that it is not unpleasantly strong for the hand during this time; then the sponges are changed so that the positive is placed to the opposite foot and the negative held in the opposite hand for three or four minutes, as in the second position. The treatment may be applied every day in severe cases in the beginning, to be omitted every second day as improvement follows, then once or twice a week until all choreic symptoms have subsided.

This treatment is applicable to anæmic and neurasthenic cases. I term it the "tonic treatment." Sometimes, where the patient is strong and robust, a treatment of sedative character will be more applicable than this. In such cases the poles should be applied in the same manner except that the negative, instead of the positive, should be placed at the feet. I have known the tonic treatment to markedly aggravate chorea in strong patients when the reversal of the poles would result in rapid recovery.

Faradism would well be worth all the trouble and expense entailed in having it always at hand if it were applicable to no other case of disease than chorea; but it is one of the most reliable known in certain forms of anæmia with nervous complication, while it is the only positive remedy in infantile marasmus.

Faradism is also valuable in various forms of neuralgia. I have cured pectoral pains of stubborn character, simulating angina pectoris, with it many times, as well as painful states of other parts. Dr. F. T. Paine, of Comanche, Texas (*Transactions State Medical*  Association), reports the successful treatment of a case of ovarian dysmenorrhœa with this agent, also three cases of ovarian epilepsy very much benefited, and one case of chorea cured. Unfortunately, this writer neglects to give us any light as to the method of application of the poles.

I have found faradism valuable in persistent insomnia. It is as positive a remedy as any we have in obstinate cases of sleeplessness brought on by worry and business strain, also in hyperæsthesia from any other cause; it not only conduces to the steadying of distracted nervous energies but promotes normal slumber.

There are other ways of deriving its general effect than that described here, but this is simple and effective and entails little exposure of person in its application. However, where the current is to be applied for the relief of pain the positive pele should be placed as nearly over the affected part as possible, while the negative is applied to such a spot as shall invite the current directly through it. Sometimes it may be necessary to introduce a pole into one of the var.ous cavities of the body for this purpose, and a variety of electrodes should be at hand.

### JACARANDA PROCERA.

This new candidate for professional favor has been used successfully in the treatment of epilepsy. Dr. Lyman Watkins writes of it as follows: "This new remedy, jacaranda procera, was given to a patient with epilepsy of fourteen years' duration, averaging from seven to ten fits a day. After the first day's use of the medicine not another epileptic attack occurred. The patient presents himself regularly at the college clinic, and is greatly improved in general health. He has been taking the remedy three months."

### ACONITE.

Aconite acts upon the general circulation, probably through the vasomotor center. It relaxes spasm of the arteries and improves the energy of the entire circulatory apparatus—heart, arteries, capillaries and veins—when administered in minute doses, thus conducing to increased activity of normal circulatory function, while the lessened oxidation of the blood results in a lowering of the temperature. Its quieting influence on the nervous centers relieves irritability of the heart, and abnormal acceleration of the pulse is thereby modified, while the general tone of the cardiac rhythm is improved.

Through favorable action on the sympathetic system secretion is encouraged in febrile conditions, and the skin and mucous membranes become moist, while the action of the kidneys is also improved—all this being the effect of minute doses frequently repeated.

Aconite is applicable to almost any acute febrile condition, but is more admissible as a sedative in the treatment of adynamic states than veratrum, jaborandi, or gelsemium. Being rather soothing in its influence upon irritated states of mucous membranes in small doses—especially that of the stomach—it is more applicable to febrile conditions attended by such irritation than some of the other vascular sedatives.

It seems selective of certain specialized vascular areas: one of these is the vascular supply of the larynx, and in all forms of acute inflammatory action in this tract (not membraneous or diphtheritic,) it will be found useful; in simple croup it is a specific. The vascular supply to the gastro-intestinal mucous membrane also seems particularly amenable to its effects, though after an inflammatory condition here has become chronic, or if it depend upon structural change, we cannot expect much effect from this agent. In cholera infantum it is a favorite remedy with all modern Eclectics, especially in the early stages. It combines well with ipecac to control the mucous discharges, colocynth to relieve severe pains and tenesmus, and erigeron or veratrum album to arrest profuse and exhaustive choleraic evacuations.

This remedy may be combined with more specific sedatives in almost any form of local acute inflammation with good effect, as its influence upon the general circulation is always favorable in such cases, while the promotion of secretion resulting is an efficient aid toward recovery. Thus, we may combine it with phytolacca in pharyngitis or mastitis, rhus in conjunctivitis or facial erysipelas, collinsonia in proctitis, echinacea in epidemic meningitis, etc.

Aconite is especially a remedy for children, delicate females, and other patients of highly developed nervous organization. In ephemeral febrile condition of children tending to convulsions, it is the vascular sedative par excellence, though after convulsive action has developed we might prefer gelsemium, jaborandi, or rhus tox.

In painful inflammatory conditions it is of great value, relieving pain more or less, while it tends to ameliorate nervous tension, lower temperature, and promote secretion; therefore its applicability to rheumatic fever and neuralgia complicated with pyrexia.

Subacute inflammatory conditions of all the mucous membranes are benefited by aconite. We make a practical use of this fact many times in managing such trivial matters as simple colds. Coryza and bronchial irritations of this character are pleasantly managed with this remedy. The stuffing up of the nasal passages is removed and tickling in the larynx and bronchial tubes controlled in a few days. By using the will power to overcome the impulse to give way to coughing and aiding the effort with aconite, severe colds may be speedily broken up in the majority of cases.

Form for Administration.—Lloyd's aconite is the most reliable preparation I have ever used. If there is any fault to be found with it it is too strong. I often dilute it with alcohol to the first decimal before dispensing.

Dose.—Five drops of Lloyd's aconite in four ounces of water, dose of the dilution a teaspoonful, is the proper proportion for an adult. The dose should be repeated every hour in all acute febrile and inflammatory conditions.

## Adonis Vernalis.

This remedy acts principally on the heart, improving its power and increasing arterial tension. As a result of this there is an increased flow of urine, and this effect may prove curative in dropsy the result of enfeebled cardiac action.

In valvular insufficiency, with regurgitation at the aortic or mitral valves, adonis has proven very effective. In dropsical conditions complicated with such a state it is one of our most reliable remedies.

It is also valuable in functional cardiac disturbances, as intermittent beat, irregularity, or enfeebled action. Through its tonic effect the entire circulation may be improved when feeble; its influence on the pulmonary circulation is valuable in cardiac asthma.

Wood believes that this drug is a vasomotor stimulant as well as a cardiac stimulant and tonic. In view of this we may find it of value in numerous conditions depending upon enfeeblement of the vascular supply in the part,

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as congestive headache of passive character, and in chronic congestive conditions of other parts.

Form for Administration.-The specific medicine.

*Dose.*—From the fraction of a drop to two drops. A cumulative effect may result if large doses be incautiously administered. Over doses may cause gastro-intestinal disturbance with vomiting and purging.

# ÆSCULUS HIPPOCASTANUM.

This remedy exerts a general influence over the portal circulation, over the vascular supply of the respiratory mucous membrane, and over the circulation in the uterine cervix.

In hemorrhoids from portal congestion, or in reflexes from this state, as headache, pectoral, lumbar or sacral pain, dyspepsia or spasmodic asthma, æsculus hippocastanum will be found a valuable resort. The special condition indicating the remedy in hemorrhoids is fullness and dryness of the rectum, without constipation. Associated with these symptoms is usually a sensation of fullness in the right hypochondriac and epigastric regions.

It is useful for the aching in the back liable to attend pregnancy, though usually these cases are hemorrhoidal, the result of pressure. However, this remedy relieves congestion of the cervix uteri, seeming to influence the vascular supply in this part proceeding from the uterine arteries, and is especially indicated when there is a sensation of throbbing in the pelvis.

Aching in the region of the liver, when attended by hemorrhoids, will suggest the use of this agent, the condition probably being congestion of the portal capillaries. If the diagnosis be correct æsculus is the remedy.

Painful conditions of the rectum not hemorrhoidal may demand this agent; any congestive state of the hemorrhoidal circulation is amenable to its influence, and also diseases arising therefrom. Spasmodic stricture, rectal neuralgia, fissure, proctitis, during its later stages, —all these conditions demand the judicious exhibition of æsculus hippocastanum.

Form for Administration.—The specific medicine. Dose.—From one to five drops.

## ACETANILIDE-ANTIFEBRIN.

This is one of the derivatives of aniline which have been employed extensively within the past few years in some quarters to reduce the temperature in fever. It is effective, without doubt, but it is much more liable to be followed by debility than the vegetable—organic—remedies. It reduces the contractile power of the heart, in large doses, causing diastolic arrest of cardiac action, with complete paralysis of both motor and sensory nerves. In smaller doses it increases the action of the skin and kidneys; the blood-pressure is at first increased but it soon falls as the action of the heart becomes slowed.

I am not in favor of the use of this drug as a cardiac or arterial sedative, as we have others more satisfactory and less dangerous. Even in moderate doses, when its use has been long continued, symptoms of poisoning, cyanosis and fatal collapse have resulted from it. It is especially contra-indicated in patients suspected of being subject to fatty or dilated heart. Its continued use tends to the breaking up of the blood-corpuscles and to lessening of the alkalinity of the entire fluid, and for this reason especially, its use should be interdicted in low fevers, where such changes are already liable to occur.

The influence and use of this agent in nervous affections has already been referred to. In inflammatory rheumatism antifebrin may sometimes be used with advantage, though its administration in large doses for a considerable length of time should be avoided.

Dose.—The dose may vary from two to five grains every four hours.

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#### ANTIPYRIN.

This remedy is closely related to antifebrin, and is even more objectionable as a remedy than that agent. Its depressant effect upon the circulation is marked and long-continued, Doubtless many cases of heart failure and death therefrom are attributable to the use of this remedy. It is more dangerous than opium and its preparations, or chloral, and should be used but seldom, if at all.

Dose.—The ordinary dose varies from five to ten grains.

## APOCYNUM CANNABINUM.

This remedy produces tonicity of the heart and bloodvessels improving their functional power. It increases arterial tension thereby augmenting the flow of urine, and in some renal dropsies proves rapidly curative.

The active principle of this agent, apocynin, is an energetic heart tonic, acting like digitalis.

Form for Administration.—The specific medicine will be most convenient, though where the fresh root can be obtained an infusion is to be preferred in the treatment of passive dropsies.

Dose.—From the fraction of a drop to ten drops of the specific medicine. The dose of the infusion of the fresh root will vary from half a tablespoonful to two table-spoonfuls.

## ARNICA MONTANA.

Arnica has a very limited use in affections of the circulatory system. It has a decided effect, however, in certain cases of weak and painful heart, the result of over-exertion. This has been termed "heart strain." We sometimes find a permanent sense of debility, attended by dull, aching pain left after some severe taxation of the muscular powers made during temporary excite-15

ment, as during a fire or some other accident, and ordinary cardiac remedies fail to benefit. Here we find cimicifuga or arnica just the thing. My preference in such cases is cimicifuga, but sometimes arnica does better.

Form for Administration.—The specific medicine. Dose.—From the fraction of a drop to five drops.

## ARSENITE OF COPPER.

This drug, in attenuated doses, is applicable to the treatment of cardiac complications which arise during chorea. Disturbances of this kind are not rare, and they are liable to lead to valvular disease if allowed to continue long. This will hardly be the case where faradism is intelligently applied early, but the complication of cardiac irregularity with murmurs, would suggest this agent even then.

Hale refers to a condition known as "choreic heart" in which this remedy is applicable. In this condition the ordinary symptoms of chorea are absent, the spasmodic and irregular action being confined to the muscle of the heart. This condition is marked by singular aberrations in the cardiac rhythm; at one time the beats are violent and irregular, and at others feeble and unsteady. The disease is liable to occur in girls at the age of puberty, who might be considered good subjects for chorea proper.

Form for Administration.—From the 3x to the 6x trituration.

Dose.—From one to three grains every four hours during the day.

## ASCLEPIAS TUBEROSA.

This remedy is applicable to disturbances of the circulation in parts supplied by the distribution from the thoracic aorta, especially the area supplied by the bronchial arteries. It exerts its best effect in pneumonia, being applicable to the acute stages of all forms of this condition, whether the pulmonary parenchyma or the respiratory mucous membrane be involved. Painful inflammatory conditions of the walls of the chest, as pleurodynia, costal rheumatism and neuralgia, pericardial pains, etc., are also ameliorated by it.

Asclepias exerts more or less of an influence upon the general circulation, lessening arterial tension and promoting perspiration and the flow of urine.

The old Eclectics used this remedy much as a febrifuge, and often with good results. In the exanthemata, it favors the appearance of the rash, and in painful inflammatory states it promotes secretion from the skin and relieves pain, resembling jaborandi in this respect somewhat, though it is not as potent here.

Its proper sphere is in circulatory disturbances in the vascular area described by the distribution of the bronchial arteries, and if we reserve it for this place we shall not confuse it with more appropriate remedies, and will hardly fail to derive satisfaction from it in acute disease of this part.

Form for Administration.—The specific medicine or an infusion of the recent root. The specific medicine being more standard as regards strength we will usually give it the preference.

Dose.—From one to ten drops.

### ASPIDOSPERMA QUEBRACHO.

The tendency of quebracho is to restore the normal relation between the pulmonary circulation and cardiac action when this has become disturbed. In the condition known as "cardiac asthma" this is one of our best remedies. As illustrative of its action in certainconditions of this character, I will quote a report of cases in which it was employed successfully, written

for the California Medical Journal by Dr. John Fearn, in 1883:-

"I have been using this remedy for about two years past, and so far the result of my observations are, that it is a stimulant and tonic to the pneumogastric nerve, and especially to the cardiac and pulmonary branches of that nerve.

"My first case was an engineer, aged about 45 years. He came complaining of a cough. He coughed very little in the day-time, but still it was troublesome; there was some difficulty of breathing. His face wore an anxious look, his eyes were sunken and his lips and mucous membranes were cyanotic—all showing depression. His pulse was small, hard and intermitting; it would beat twice and then there would be an intermission.

"I inquired whether his cough troubled him worse between the hours of one and four in the morning. He replied, with much emphasis that it did. That was the time when he had his principal trouble. On inquiry I found that he was working where he was exposed to strong fumes of ammonia, and as he was in poor physical condition I reasoned that the ammoniacal fumes had produced irritation of the pneumogastric, and that the cough, difficult breathing, and intermittent pulse were the result; ordered him to keep away from the fumes as much as possible. Prescribed:—

> R Fl. ext. quebracho, zi Elix. simpl. zvii.

M. Sig.-Dose a teaspoonful every three or four hours.

"The next day the report was, Much relieved, rested better, coughed less, cyanosis very sensibly ameliorated. The medicine was kept up for a few days with the addition of a good tonic, and the patient was discharged. As confirming the diagnosis with respect to the ammonia:

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Months after the attack just mentioned, while suffering with a cold in the lungs, he was again exposed to the ammonia fumes and the same symptoms returned, aggravated by the cold. The same remedy, aided by a few doses of quinine afforded relief.

"Case No. 2.—A lady who was being treated by her physician for an ovarian difficulty took cold, which settled upon her lungs. Her physician being out of town, I was called upon to give present relief. Examination revealed: pale and anxious face; cyanotic lips and mucous membrane; difficult breathing; troublesome cough; intermittent pulse; and all these symptoms aggravated from soon after midnight to 4 A. M. Prescribed:—

**R** Fl. ext. quebracho, in two drop doses, in syrup of tolu every two or three hours. Result: breathing and cough relieved, and circulation much improved.

"I have since used it in cases of asthma with like good results; others have used it at my suggestion and report favorably. I am a thorough believer in Professor Scudder's theory that we have medicines that are specific, not only to certain diseases, but to conditions of disease. Past experience justifies me in predicting for this remedy a wide field of usefulness in asthma, capillary bronchitis, and emphysema. But no matter what the disease, if there is imperfect oxygenation, if the totality of symptoms point to depression of the functions of the pneumogastric, as seen by intermittent pulse, difficulty of breathing, cough and cyanosis, and especially if these symptoms are aggravated in early morning, I would say, Give quebracho a trial."

Dr. E. R. Waterhouse remarks (American Medical Journal):"Quebracho is another new remedy added to our materia medica, already overflowing. It fills a place hitherto unoccupied. It will relieve dyspnœa and distress due to capillary bronchitis, and also when due to

the later stages of consumption. Often a single dose of ten or fifteen drops of the fluid extract will make the patient reasonably comfortable for twenty-four hours. In cyanosis due to disease of the heart, its action is not as prompt as in diseases of the respiratory organs. Still, it will be of considerable benefit. The remedy appears to stimulate the respiratory centers and assist in the oxygenation of the blood."

The following is from an editorial written by myself for the April number of the *California Medical Journal*, 1890: The recent epidemic of cough(la grippe) has afforded a number of cases in which quebracho has proven an excellent resource. It is not a remedy for asthma in its pure form, but in those cases in which there is want of compensation between the cardiac and pulmonary circulation it affords good satisfaction.

This quality renders the agent valuable in both pulmonary and cardiac diseases, and places it in both lists of remedies as an available agent where a stimulant to the excito-motor nerve filaments distributed to these parts is demanded.

Advanced stages of bronchitis in debilitated patients often present us with the quebracho picture: There is labored, sighing respiration, or a sense of suffocation is complained of, the lips are blue and cyanotic in appearance, and we find upon examination that this is associated with feeble, systolic impulse, as evidenced by the soft, compressible pulse, or the feeble cardiac sound heard upon auscultation. As an asthma remedy where a stimulant to the pneumogastric is required, it often serves a good purpose.

Form for Administration.-I have usually employed the fluid extract manufactured by Parke, Davis & Co.

Dose.—From five to fifteen drops, repeated every three or four hours.

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## BELLADONNA.

This remedy influences the circulation powerfully, contracting the arteries and increasing arterial tension, but spending its most important therapeutic effect upon the capillaries. It is a brain remedy, and in acute delirious states with furious ravings is useful, in attenuated doses.

I value it most highly for correcting congestive conditions of the capillaries in febrile states-a use of the remedy the credit of which belongs largely to Professor Scudder. The indications calling for it in this particular are: soft, feeble, compressible pulse, doughy, clammy condition of the tissues, especially of the face, with pallidity, and a sensation of swimming -dizziness-in the head on arising from the recumbent posture. The dizziness may exist if the patient remains in the recumbent posture; I consider it an important symptom. With it is often associated dull headache, and the pupils may be dilated. It is a condition frequently found attending febrile states in delicate persons of nervous temperament. The drug must be given in very small doses here in order to avoid producing unpleasant effects.

Belladonna exerts a curative influence in puffy redness about the face and eyes of erysipelatous character, the connective tissue being involved. It is not as universal and prompt an agent as rhus here usually, but it will often succeed when rhus fails.

Form for Administration.—The 3x dilution of the specific medicine.

Dose.—Add from half a drachm to a drachm to four ounces of water and give a teaspoonful every one or two hours. Or, add about five drops to the same amount of water and administer in the same way.

### BROMIDE OF POTASSIUM.

Large doses of the bromide of potassium tend to paralyze the action of the heart and may result in diastolic arrest. In more moderate doses the drug causes contraction of the blood-vessels throughout the circulatory system, this being followed later by dilatation. Followed for a considerable length of time the bromide of potassium causes anæmia of the tissues by contracting the arterioles, the result being most marked by loss of nervous power.

The clinical use of this remedy is to control the vascular disturbance in certain abnormal conditions attended by active cerebral and spinal hyperæmia. Among these may be named epilepsy with cerebral determination, delirium tremens, puerperal mania of furious character, somnambulism of children with night terrors, migraine, and the reflex irritation attending infantile diseases.

Though bromide of potassium lowers the temperature, it is not a desirable remedy for pyrexia, as it promotes the rapid breaking down of tissue and is liable to produce debility of the circulatory system through its direct action on the heart. Remedies which sedate while they improve the power of the circulatory system in small doses, as aconite, veratrum, jaborandi, etc., are more desirable as vascular sedatives. However, there might be a case where the bromide of potassium would be a more proper sedative than any of these. It has long been a great favorite with allopathic physicians, for this purpose.

Dose.---From two to ten grains.

## BRYONIA ALBA.

This remedy influences the capillary circulation, acting as an equalizer where febrile conditions are characterized by alternate chilliness and heat, especially if attended by pains about the chest. The homeopathists lay great stress upon its influence in inflammatory affections of serous membrane, but its value in this direction is very much overestimated. It has been a standard remedy with them for rheumatism, but is comparatively worthless, according to my experience, in this complaint.

Its effect upon several of the viscera is most favorable, controlling capillary congestion and subduing inflammatory action. In pneumonia, and in inflammatory conditions of the trachea and larger bronchi, it has always proven of superior service, and has been the favorite remedy with a large share of the Eclectic physicians in influenza. Here it proves a superior cough remedy by subduing the capillary engorgement of the respiratory mucous membrane, while it undoubtedly quiets a certain erethism of the nerve filaments distributed here and to which much of the persistency of the symptoms is due.

In subacute inflammatory conditions of the liver, due to hyperæmia of the capillaries of the hepatic artery, it is a valuable remedy. The symptoms which should call for it are full, tensive pain complicated with occasional sharp darting in the right hypochondrium, with slightly jaundiced complexion and obstinate constipation. It possesses an affinity for the cerebral circulation as well as the property of obtunding sensibility here in a measure, and is of service in certain forms of headache. Scudder commends it in headaches where there is frontal pain extending to the occiput, constant and severe, but not sharp, with right cheek flushed.

The vascular area of the mammary gland is also influenced by bryonia, though we have a superior remedy here usually in phytolacca. However, where pain is an important element of mastitis, of full, tensive character, bryonia may be combined with the latter remedy or employed alone with good result.

Form for Administration.-The specific medicine.

Dose.—Add five or six drops to half a common tumbler of water and give a teaspoonful of the mixture every one or two hours.

## CACTUS GRANDIFLORUS.

This remedy specifically influences the heart, acting through the cervical ganglia of the sympathetic, as it also influences the circulation of the brain, which derives control from the superior ganglion of this group. Cactus grandiflorus is a remedy of function largely if not entirely, and is applicable to palpitation and irregularities of almost all forms. It not only influences the sympathetic nerve but also the distribution of the pneumogastric, spending some of its effects on the stomach and lungs, but it evidently constantly impresses the cardiac ganglia, as its tendency is toward regularity of rhythm.

Through its tonic effect upon the heart many affections of other portions of the body may be favorably influenced, when these depend upon want of proper blood supply, dependant upon inadequate cardiac action. Thus we find that diseases of the kidneys, general anasarca, and other structural affections may be due to this cause, and amenable to a treatment which comprehends promotion of vigorous and healthy action of the heart.

We will use cactus grandiflorus principally for its tonic and regulating effect upon the heart. Palpitation, intermission in rhythm, pain, and difficult respiration dependent upon cardiac derangement will call for it. It has little effect in structural troubles, though in cardiac dropsy the result of debility it sometimes acts very promptly. In persons of excitable or nervous habit, when cardiac disturbance with palpitation is prominent, cactus will be found of much service as a remedy.

Prof. Scudder thinks (Specific Medication) that the continued use of this remedy permanently strengthens the heart. He believes that its action on the brain through the sympathetic renders it a valuable remedy in diseases of this organ. Prof. Goss asserts that it is a specific in angina pectoris.

Form for Administration.—The specific medicine.

*Dose.*—From one to two drops, repeated every three or four hours during the day.

## CAFFEINE.

Hale says of this remedy: "Caffeine is probably the most powerful heart energizer yet discovered. In massive doses it will rapidly tetanize the healthy heart. In threatened cardiac paralysis, five grains every two hours has apparently snatched the patient from the jaws of death. In those cases of rapid heart failure which sometimes occur in pneumonia, typhoid fever, and extreme dilatation, two grains every two or three hours have restored the force and rhythm of the heart in a short time."

This remedy evidently acts, like several other cardiac agents, through the first cervical ganglion, as it also presides over the cerebral circulation, being useful in headaches characterized by cerebral hyperæmia.

One or two grains given every two or four hours serve a good purpose in relieving the congestion of the lungs in pneumonia of aged persons, by stimulating the heart and assisting the pulmonary as well as the bronchial circulation. In the weak heart of typhoid fever, and during convalescence, where there is great debility, it also serves a valuable purpose.

It has been used successfully in the treatment of chronic albuminaria, during the late stages when heart failure has resulted. It should not be used in acute albuminaria. It is superior to digitalis as a heart tonic, and has no cumulative effect.

Form for Administration.—The alkaloid or the citrate, the latter being more soluble.

Dose.—From two to five grains. The ordinary dose may be cautiously increased to ten or twelve grains, though not more than two such doses should be given during the day. It is better to increase the frequency of the dose than enlarge its quantity.

## CALCIUM FLUORI. .

This remedy influences the nutrition of the walls of the circulatory organs, and is applicable to degeneration of structure in chronic disease. In aneurism, atheromatous changes, varicosis in any part, or in impending apoplexy, where degeneration of the vascular walls is suspected, this is the most reliable remedy that can be prescribed.

I have been in the habit of administering it to elderly persons who have experienced the premonitory symptoms of apoplexy, with the belief that the arterial walls were thus strengthened and the patient promised a greater length of life and freedom from paralysis on account of it.

I think we have a much better remedy for hemorrhoids, usually, in collinsonia, but would think favorably of this in senile subjects where the ordinary remedy failed. I am not of the opinion that collinsonia does more than influence function, and if structure were to be improved I would at least alternate the function remedy with a tissue remedy. There is one consolation in administering this agent; it can do no harm and may do much good.

I regard this agent as the most reliable one we possess in endocarditis. It acts speedily and permanently in affording relief from this very serious condition.

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### Form for Administration.-The 3x trituration.

Dose.—Add ten grains of the 3x to four ounces of water and give a teaspoonful every two or three hours during the day.

# CANNABIS INDICA.

'This remedy influences the heart and may be used with success in palpitation accompanied with sharp stitches in the part.

It also influences the circulation in the mucous membrane of the genito-urinary sphere, and has been used successfully in blennorrhoea and vesical irritation.

It has been reported favorably upon in the treatment of cerebro-spinal meningitis. Referring to this, Hale observes (New Remedies) that he has learned to restrict the remedy to the first stages of the malady or the stages of irritation and congestion.

Form for Administration.-The 1x dilution of the specific medicine.

Dose.—From one to five drops.

### CAPSICUM ANNUUM.

Capsicum is a topical stimulant of considerable power, but is digested before absorption into the circulation and thus loses much of its character as a stimulant. After being swallowed, however, it acts upon the mucous membrane of the alimentary canal, and imparts a marked glow of warmth to the whole system. Its reflex influence partly and its invigorating influence upon the arteries besides, doubtless conspire to a better capillary circulation, as the drug has been proven a valuable remedy in ague and other congestive conditions.

It exerts an influence on the circulation of the bladder and rectum, and has been found of benefit in the treatment of hemorrhoids.

Combined with quinine it is a valuable adjunct in the

breaking up of periodical attacks of congestive diseases, as congestive remittent, and intermittent fevers. The dose here should be large.

Capsicum invigorates the coats of the arteries, and has proven a successful remedy in uterine hemorrhage. A favorite prescription of a Physio-medical practitioner with whom I was formerly frequently thrown in contact, was powdered capsicum liberally added to a glass of hot milk to be drank freely. It was a very efficacious . remedy, though such cases must be treated rationally the proper means adapted to each one.

### CARDUUS MARIANUS.

This remedy is particularly adapted to the splenic portion of the portal circulation though it has been extolled by some therapeutists as a tonic to the venous system generally, acting to improve the power of the venous walls and guard against dilatation and varicosis. It has been used successfully in chronic congestive states of the kidneys, spleen and liver, with the best of success.

The following case, reported from a German medical journal illustrates in a general way what has been accomplished by it by one who prescribes for general conditions: "A workman in the gold and silver mines at Bockstein, suffered for some years from the disease called in Germany *Die Bergsucht*, or mountain phthisis, a complex of disorders of the stomach, spleen, and kidneys, with insomnia, want of appetite, mental irritability, languor, and general weakness. After a fortnight's use of the drug, in the tincture, four drops, four times a day, his pale color had given place to a rosy tint, his eyes, which before were dim, had become bright, his despondency had disappeared, his voice was strong, and the activity of the limbs had

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returned. He said to me: 'You have made a new man of me; only now do I understand the value of health,' He had no return of the trouble."

A few years ago I had a very similar case. A woman near the climacteric had passed through a protracted run of malarial fever, which had been complicated with more or less, nervous prostration and mental irritability and despondency, and, instead of convalescing readily she continued debilitated, irritable and despondent. She continually complained of a pain under the left breast, in the region of the spleen; she imagined she was going to have cancer of the breast. Her complexion was sallow, her appetite capricious, and her bowels constipated. She remained in tolerably good flesh, as she belonged to the corpulent type. I was not the attending physician, but saw her several times in consultation, but the treatment devised by her regular attendant and the counsel failed to benefit. Finally the regular attendant became ill and the patient applied to me to attend her until his recovery. While casting about in my mind for a suitable remedy that had not been tried, the above case as reported came to mind, and I determined to give carduus a trial. Having about two drachms in my office I gave the vial to the patient instructing her to take two drops at a dose before each meal and at bedtime, or four times a day. In a short time the patient returned for more medicine and reported herself much better. The despondency was entirely gone, and a few week's more use of the drug cured her entirely.

I think that carduus resembles polymnia uvedalia and grindelia squarrosa very much in its action on the portal circulation, influencing the areas supplied by the splenic and gastric arteries more than those supplied by the superior and inferior mesenteric. It certainly does

not reach to the hemorrhoidal circulation, as I have had no favorable experience with it in the treatment of hemorrhoids. In hepatic disturbances it exerts a more marked influence than these remedies, and some, if not all of its value as a remedy in the mental despondency that accompanies the picture indicating its need is from this action. In dyspepsia depending, upon fullness of the portal capillaries, if this be due to lack of energy in their walls, not due to obstruction in the liver, it may have a very satisfactory effect in relieving the difficulty.

Form for Administration.—I am in the habit of using a tincture which I obtain at a homeopathic pharmacy.

Dose.—Add from ten drops to a drachm to four ounces of water and administer a teaspoonful three or four times a day.

### CEANOTHUS AMERICANUS.

This remedy belongs to the same group with carduus marianus; it influences the capillaries of the upper portion of supply to the portal vein, though it possesses less of an affinity for the distribution to the liver than that remedy. Its important influence is upon the splenic vessels, and it has earned a reputation in the treatment of the condition known as "ague-cake," which has not been more than rivalled by our old favorite, polymnia.

During the last American war this remedy stood in good place among some of the army surgeons for the relief of the splenitis that accompanied malarial attacks among the troops, and it was afterward reported upon very favorably by the medical men who employed it. In private practice it has also won many admirers as a spleen remedy.

The indication for it is deep-seated pain in the region of the spleen, even though there be no apparent enlargement of the organ present. It is, without doubt, a remedy for such pain when there is prominent evidence of splenic hypertrophy present, but it acts promptly in relieving sympathetic pain here when other parts are the actual seat of the disturbance. For example: In a case of metrorrhagia complicated with pain—deeply seated—in the left hypochondriac region, ceanothus cured promptly, not only the pain but the metrorrhagia; in a case of jaundice with severe pain in the left side, ceanothus cured, but failed to relieve the jaundice, which was afterward cured by chionanthus.

The best place for ceanothus is evidently not in the most acute phases of splenitis. Here polymnia will act better. But ceanothus is more specifically indicated when the active stages have passed off—when the pain is not aggravated by pressure, and even in long standing cases where there is hypertrophy.

As illustrative of the action of this agent in long standing splenic hypertrophy, I will quote the report of cases published in the *Monthly Homeopathic Review* by Dr. J. C. Burnett, an English homeopathist, in 1879:—

Case I.—"A young lady of about twenty-six consulted me for a chronic swelling in the left side under the ribs, with considerable cutting pain in it. She stated that it was worse in cold, damp weather, and she always felt chilly; the chilliness was so severe and long-lasting that she had spent the greater part of her time during the previous winter sitting at the fireside, and now she was looking forward to the winter with perfect dread. In the summer she had felt nearly well, but the lump and the chilliness and pain nevertheless persisted, but it being warm she did not heed it much, it being quite bearable.

"Ceanothus Americanus quite cured her of all her symptoms, and subsequent observation proved its per-16

manency. Often during the following winter she called my attention to the fact that she was not chilly and felt well.

Case II.—" Chronic splenitis.—This young man was sent to the dispensary by the then manager of Messrs. Thompson and Capper's Birkenhead establishment, and was occupied in the Liverpool post-office in some light but ill-paid employment. His whole trouble consisted of a severe pain in the left side in the region of the spleen, and he had long vainly sought relief of many, probably at dispensaries. He therefore put in an early appearance at my new dispensary to try the new doctor, probably on the well-known principle of the new broom. He had become quite lowspirited and began to fear he would become totally unfit for work, and naturally that was a very serious matter for a young married man. He told me he had formerly helped his wife in her household matters, doing the heavy, rough work, but the pain in his side had now become so bad that he could not carry a bucket of water into the house or even sweep up their little yard, as handling the broom pained him so dreadfully. I was pressed for time, and prescribed ceanothus in pilules of a low dilution, and promised to go into his case that day week, meaning to percuss the part and ascertain whether the spleen was enlarged. He returned that day week almost well, and the following week was quite well. At my requesthe reported himself some time afterwards, and he still continues well.

Case III.—"Some four years since, perhaps a little more, I treated a lady of about 55. She complained of rigors at frequent intervals, and pain in the left side, both of long standing.

"Leucorrhœa had lasted some twenty years, and was

profuse, thick, and yellow. She had been for years under the best allopathic physicians of Chester, and finally given up as beyond the reach of medical art, evidently on Moliere's principle that "nul n'aura de *l'esprit que nous et nos amis.*" Nevertheless, the patient came under my care. Her last physician had finally suspected cerebro-spinal mischief, and hinted at incipient paralysis.

"The pain in the side was the most prominent and distressing symptom, and for this I prescribed ceanothus. In a month the pain was entirely cured, and also the leucorrhœa, while the cold feeling was very much diminished, but not quite cured. I have also never succeeded in quite curing it with any subsequent treatment. I watched the case for nearly four years, and thus am able to state that the pain in the side and the leucorrhœa never returned, and the chilliness never became very bad but still she had a little when I saw her last."

I have prescribed this remedy several times in chronic splenic affections with most pleasing results. It is a valuable addition to (or member of,) the group of remedies adapted to the treatment of splenic congestion.

Form for Administration.—I have usually prescribed the homeopathic tincture, but have no doubt that the specific medicine is fully as effective, and I would prefer to patronize an Eclectic firm.

Dose.—Add from ten to twenty drops to four ounces of vehicle and give a teaspoonful every three hours during the day.

## CERASUS VIRGINIANA.

This remedy is known by many as the prunus virginiana. It is a valuable heart tonic and sedative, and assists in controlling excitability of the pneumo-

gastric nerve, thus affording relief to coughs complicated with cardiac deficiency and disturbance.

It is a valuable remedy where the pulse is rapid and weak, and in cases of dilatation of the heart. I have also known it to act favorably in the treatment of endocarditis, as a palliative, until calcium fluoride has brought about its effect.

Its action through the pneumogastric is signalized by a most happy effect upon the digestive and hepatic functions. In dyspepsia complicated with jaundice, an infusion of the fresh bark of wild cherry in preserved cider is one of the most positive agents for this condition I have ever known. The infusion should be cold, and should be taken in wine-glass doses three or four times a day.

Form for Administration.—For ordinary purposes, the specific medicine.

Dose.--From ten drops to a drachm, according to age and circumstances.

### CEREUS SPECIOSISSIMUS.

This is a remedy highly recommended by Dr. R. A. Kunze of New York a few years ago for certain cardiac affections, but of which I know nothing from personal experience. At the time of publication of Dr. Kunze's article detailing his knowledge of it a portion of it was published in the *California Medical Journal*, and from this I will reprint what seems most important in regard to it:

Case I.—"Tricuspid Regurgitation from Valvular Insufficiency.—Mrs. T., aged 36, a widow living in this city, called in a brother Eclectic to treat her, early in January, 1878.

"Patient belonged to the bilious temperament. Lost her husband two years ago. For several years a number of different physicians had treated her for

dyspepsia and nervous debility, with quinine, iron, and gentian tonics. The Doctor found her suffering from an attack of cardiac syncope which lasted four hours. She had cold hands and feet, could not lie on her left side, and suffered much from dyspnœa. There were lancinating cardiac pains toward the left shoulder blade, accompanied by faint feelings. The radial impulse was imperceptible, and cardiac impulses were much the same. The first heart's sound, or systole, could not be made out, and the second, or diastole, was very feebly represented. A gurgling sound under the ensiform cartilage convinced me that there was a leaky tricuspid valve. From the arrested heart's action there followed deficient oxygenation of the blood and a good deal of systematic congestion. "She had a croupal cough, with some expectoration, headache in cerebellum and vertex, and the features had a bluish or purplish shade of color.

"Before I saw the case the doctor had given the patient one-drachm doses of a saturated tincture of prickly ash berries every hour, until she regained consciousness. On my arrival I gave fifteen drops of tincture of cereus speciosissimus in water, at a dose, and repeated it every three hours.

"Previous to my being called, the doctor had failed to restore the warmth of the skin, with the external remedies usually applied in such cases. After the administration of cereus speciosissimus, a better current seemed to flow in the peripheral vessels, and an equilibrium was established. But when this medicine gave out a week later, and following the contraction of a cold from wet feet, she had another bad attack of cardiac syncope, lasting two hours. This happened about the first day of her catamenial flow, which received a sudden check.

"I prescribed cereus speciosissimus in the following combination:-

RTinct. cereus s.,ziss"gelsemium,zss

M. Sig.-Gtt. xl in a little water every three hours.

"On seeing her the following day, I found that the menstrual flow had returned, and that the distressing cardiac pains were quite relieved. The persistent and irresistible cough of the previous day was entirely removed. The medicine was now given in doses of gtt. x—xv, three times a day, under which she continued to improve. Gradually her headache yielded, and the cardiac impulses became more perceptible. Radial pulse likewise much improved in force and rhythm.

"March 10th, her feet for the first time in a long while were restored to their natural warmth.

"March 14th, saw her in consultation with the family physician. In consequence of removal to new quarters, she suffered from some excitement and worriment. Her pulse was feeble, soft and small, 120 per minute, regular in rhythm, but not strong, as from an enfeebled organ. Some throbbing of the temporal arteries. Respiration a little improved during the last few days. A peculiar feature of her case was that a week preceding menstruation, the left side of her head and body, including the breast, spleen, ovary, leg, and foot, begins to enlarge or swell, which gradually again subsides at the decline of her period. When thus enlarged the spleen is painful. The left breast is at least one-third larger than the right one. Her catamenial flow was coming on again and I convinced myself of this state of affairs. As yet she was unable to go in the street. Gave her ten drops of tincture cereus speciosissimus every three hours.

"March 15th. Much improved in every way. Very

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little of dyspnœa left. The usual vertex headache generally present at the menstrual period is now absent for the first time. Has taken a long walk, lasting three hours, for the first exercise. Ordered continuation of the same treatment.

"March 18th. Pulse full and regular, 80 per minute. The heart sounds stronger and systole more perceptible. Chest vibrations from tremulous heart still noticeable, and about every ten minutes. Menstrual discharge better in quantity and darker in color. Spleen feels tender still, although left side swelling of body much diminished. Continue same treatment. "March 20th. Patient keeps on improving. Pulse 75 beats per minute. Can now take considerable more exercise without much fatigue, respiration is free from oppression and she sleeps well the entire night, which formerly it was impossible for her to do. The case made a speedy recovery, and for two years afterward I have heard no further complaint of the trouble."

Case III.—" Case of Cardiac Dyspnæa Superinduced by Left-side Hypertrophy with Mitral Stenosis.—Dr. Otto W., age 40, an analytical chemist from Switzerland, and residing in Williamsburg, N. Y., called on me Dec. 15, 1884. Digitalis, which he had given a constant trial, failed to give relief, and the other remedies suggested were of no better account.

"He was of a nervous temperament, and inclined to melancholy on account of financial misfortunes, having married a Jewess, against the wishes of her parents, and raising a small family of children. He discovered that he could not hold his situation as chemist in a manufacturing establishing. From acid fumes, to which he was exposed, the dyspnœa grew worse, and he relinquished a position only to find out that he was without friends or means to provide bread for the little ones. The mental strain upon his nerves produced an increase of cardiac trouble. Trying to get another situation, he found that walking increased the dyspnœa and cardiac pains. Another physician, who had given him a few doses of cactus grandiflorus, which caused the first relief experienced in a long time, advised him to come and see me. I gave him fifteen-drop doses of cereus speciosissimus tincture four times a day.

"Under this treatment he slowly and gradually kept on improving, and for a year, during which I occasionally saw him, he kept tolerably well, considering the nature of the disease."

# CEREUS BONPLANDII.

This is one of the best of the cactus remedies, and has proven so reliable in my practice, as an agent to increase the contractile power of the heart muscle, improve its nutrition and regulate its rhythm, that I use it as many employ digitalis—as my every-day heart tonic.

In cardiac dropsy it combines well with convallaria majalis, assisting the action of that agent to bring about restoration. In debility of the heart, as that which followed so many cases of influenza in 1890-1, it has a very decided and permanent effect. It is devoid the objectionable features of digitalis and more effective as a cardiac tonic.

Dr. J. V. Shoemaker, an old-school author who has made a surreptitious study of the Eclectic materia medica, evidently was not experimentally acquainted with the cactus family as cardiac remedies when he wrote of them in his Materia Medica and Pharmacology that they are special favorites "with a class of practitioners who prefer to drop about a certain number of drops of the remedy in about a certain quantity of water, of which about a teaspoonful may be taken

in about so many minutes in order to work the most miraculous medicinal effects. The influence of the mind upon the body and the therapeutic effect of expectant attention are well illustrated by some of these cases."

This is in bad taste in Shoemaker, when we recollect that the best part of his work consists in what he has drawn from our therapeutics. But it is the gratitude we have been wont to receive from this quarter, and I suppose we must bow to the inevitable.

Form for Administration .- The specific medicine.

Dose.—From three to ten drops every three or four hours.

## CHELIDONIUM MAJUS.

This remedy presides over the vascular area supplied by the hepatic artery. Inflammatory conditions of the interior of the liver, subacute or acute, are benefited by its administration, though suppurative tendencies may yield better to potassium chloride.

Many sympathetic conditions yield to this use of chelidonium, as bilious headaches, liver coughs, and intestinal irritations due to disturbance of so important a portion of the digestive system. Hepatic congestion must result in more or less disturbance of the portal supply, and such disturbance of the abdominal capillaries may yield promptly to chelidonium. Therefore hemorrhoids, splenic congestion, dyspepsia and other gastric disturbances may find a very efficient remedy in chelidonium.

Chelidonium is especially the remedy for jaundice when there is obstruction due to swelling of the mucous lining of the biliary ducts from subacute inflammatory action here. Catarrh of the biliary ducts is not an uncommon disorder, and when present is subject to many relapses, due to atmospheric changes; in such case chelidonium is the best remedy we have. The homeopathists recommend chelidonium for almost every disease known; but I think we can use it more effectually by reserving it for this place—for its influence on the hepatic circulation.

Pain in the region of the liver is a very common symptom when chelidonium is indicated. The pain may be full and aching, or sharp and lancinating. Commonly we may expect a dull, aching, or full, tensive pain to predominate, with occasional stitches complicating. The temperature may be slightly elevated, but not necessarily.

Some writers lay special stress on the character of the stool in the indications for this remedy, but clay-colored evacuations must be the result of absence of bile in the alimentary canal, whether it be due to obstruction or failure of the bihary cells to separate it. Fullness, with tenderness, would be a better indication, but this symptom need not be present in order to make the indication clear. Hepatic congestion cannot always be determined by palpation, and tenderness need not always attend vascular fullness.

Form for Administration.—The specific medicine. Dose.—From five to fifteen drops.

## CIMICIFUGA RACEMOSA.

This remedy exerts little influence upon the circulatory system worthy of mention except to control certain painful states of the heart, which may result in speedy and permanent damage.

I think that it is the most positive remedy we have in cardiac rheumatism, when begun early and given in full doses, its effects usually accomplishing the arrest of the disease before it becomes confirmed.

For this purpose I require the recently obtained root, at least the product should not be more than a year old, and from this I prepare a strong decoction. Of this I require the patient to take a wineglassful every two hours or oftener until the tensive pain subsides. The indication that too much is being taken will be a full, dull headache, but this will soon pass off, though when it appears the doses of the medicine should be made smaller, or should be suspended for a few hours.

I have little faith in cimicifuga in chronic cardiac rheumatism, though it will always be found useful to alleviate acute aggravations. Cimicifuga and jaborandi combined are the two prime remedies in acute cardiac rheumatism, though cimicifuga is the preferable one where there is the least danger of heart failure.

# COLLINSONIA CANADENSIS.

This remedy increases the tonicity of the heart, and thus improves a feeble circulation when the heart muscle is functionally at fault. But its best place is in congestive conditions of the parts supplied by the hemorrhoidal vessels. Congestion of these parts even to dilatation of the hemorrhoidal veins is promptly relieved by collinsonia.

Painful conditions depending upon disturbance of the blood-supply here yield to collinsonia. Hemorrhoids is a condition which can be relieved with this remedy better than by any other known, as a general rule. Proctitis calls for collinsonia, though acute inflammatory conditions about the rectum might be better treated with a combination of this remedy with aconite. Collinsonia is often a valuable remedy to relieve the tenesmus attending dysentery and cholera infantum of dysenteric character. In any inflammatory or painful condition about the rectum collinsonia should be thought of as a probable remedy.

I have found this agent of service in relieving the inflammation and pain in the rectum following surgical operations upon the part; and in the treatment of piles by the hypodermic method it is a good plan to follow
an application of this character with two or three-drop doses of green-plant tincture of collinsonia, three or four times a day, as less inflammation is liable to attend the sloughing process. I recently treated a case that had been maltreated by a quack, a surgical (?) operation having been performed for piles and the patient left with the rectum in a most horrible condition from the knife and carbolic acid. After ten days' suffering the patient sent for me, and I found the most urgent symptom was excruciating pain in the part whenever the bowels moved, or whenever the upright position was assumed. This all passed away in three days under the influence of small doses of collinsonia. This patient had been a fearful sufferer from hemorrhoids for years, but ultimately recovered completely, the collinsonia soon controlling the local irritation so that proper surgical procedures confirmed the cure.

Form for Administration .- This remedy grows in many places in New York, Western Pennsylvania, Ohio and Kentucky, according to my own' knowledge. It is a beautiful, aromatic plant, growing waist high, in open woods and shady, damp places, along the fences. It flowers in August and September, and should then be gathered and covered with alcohol. It needs no bruising, but should be packed-leaves, blossoms and stems -in a fruit jar or other glass vessel, and enough alcohol added to cover it well. In two weeks we will have as good a preparation of collinsonia as can be manufactured. The tincture is prepared by homeopathic pharmacists in much the same manner, from the green The specific medicine is prepared from the root, plant. and is not so effective.

Dose.—This will vary from one to five drops. It may be repeated every hour in acute cases, or two or three times a day in chronic ones.

# CONVALLARIA MAJALIS.

There seem to be much confusion among old-school writers as to the physiological and therapeutic action of convallaria, and they are the only observers who have been giving the remedy more than clinical attention. It is certainly poisonous in large doses, its active principle convallamarin causing death in a few minutes from suspended heart action, when introduced into the circulation.

In therapeutic doses this remedy strengthens the action of the heart. In somewhat larger doses it quiets cardiac excitement, and might be applicable to the early stages of carditis. It has been highly extolled in mitral insufficiency to relieve the dyspnœa and palpitation present. In cardiac dropsy it often acts promptly in relieving the sensation of fullness in the thorax, as well as the dyspnœa, and in removing accumulations of serum from the face and extremities. I think it the prime remedy for cardiac dropsy, and would think of this first in a pronounced case of the kind.

In cardiac debility following epidemic influenza, typhoid fever, or other prostrating diseases, it will be found efficient in relieving the sense of faintness about the cardiac region, and in promoting a normal circulation.

I have combined convallaria with cereus bonplandii in cardiac dropsy with good results, though it acts well alone. It is important to know that a reliable preparation is being used.

Form for Administration.-The specific medicine.

Dose.-From five to ten drops four or five times daily.

# DIGITALIS PURPUREA.

In my experience digitalis is a very much overestimated remedy. It may seem to possess superior virtues by those who are not familiar with better cardiac remedies, but those who have employed the different members of the cactus family, convallaria, adonis, and other agents in this class, are not liable to proclaim the virtues of digitalis very loudly.

However, there is no disputing that digitalis possesses an affinity for cardiac function, if not for cardiac structure, and we will never know too much about this class of agents. Probably an important reason why digitalis has disappointed so many is, that so many unreliable preparations have heretofore been offered in the market. I have never known digitalis to accomplish much positive effect except in the form of infusion. In this form I have known it to relieve anasarca, complicated with, or depending on cardiac difficulty, very promptly. However, that it possesses the power of convallaria in this respect I am very much in doubt.

Scudder asserts (Specific Medication) that digitalis may be emyloyed as a sedative to lessen the frequency of the pulse and lower the temperature in fever, but it has not been used for this purpose to any extent. He also suggests its use to arrest capillary hemorrhage in asthenic conditions, asserting that it may be employed with much certainty. Both Scudder and Goss assert that digitalis resembles aconite in its action as a sedative, Goss commending it in fevers and inflammation of atonic type. It however does not promote secretion from the skin as aconite, but rather spends its force in this respect upon the kidneys.

Shoemaker recommends it in valvular disease stenosis of the mitral and tricuspid valves—after compensating hypertrophy has ceased to keep up the work of the heart, but interdicts its use before this. He also commends it in cardiac dyspnœa or cardiac asthma due to pulmonary engorgement, the drug resembling quebracho in this respect. He commends it in hemorrhages also, referring to metrorrhagia, menorrhagia, purpura hemorrhagica, hæmoptysis, epistaxis and other sanguineous fluxes.

Forms for Administration.—An infusion of the recently dried leaves; the specific medicine.

Dose.—A fluidrachm of the infusion; of the specific medicine, from the fraction of a drop to five drops.

# ECHINACEA ANGUSTIFOLIA.

Under remedies influencing the nervous system I have referred to the action of this agent in the treatment of cerebro-spinal meningitis, and while I am disposed to believe that it specifically influences the vascular area concerned in the nutrition of the cerebrospinal meninges, its effects upon the general circulatory system should not be overlooked.

Its influence on the capillary circulation is not comparable with that of any other remedy known, for while it is a stimulant to the circulation in these vessels it also seems to endow them with a certain amount of recuperative power or formative force by which it is constituted not only a general stimulant and tonic to the circulation, but also peculiarly so as regards local inflammations of debilitated or depraved character.

In adynamic fevers it equalizes the circulation while it acts as a sedative to abnormal vascular excitement, and lowers the temperature, if this be elevated, while if this be subnormal its singular effect upon the vital forces conspires toward a restoration of the normal condition. It is thus the sedative *par excellence* in typhoid fever, cerebro-spinal fever, malarial fever with asthenia, diphtheria, etc.

Internally and locally it is the remedy for malignant carbuncle. In erysipelas with phagadenic tendencies it should be given internally and applied locally. In pharyngitis it assists the action of phytolacca materially, in obstinate cases, in effecting a cure.

As a sedative it is comparable in some respects with baptisia, rhus tox, lobelia, aconite, and belladonna, partaking of the properties of all but excelling them in every respect. In inflammatory states of the enteric mucous membrane it will be found of use, usually in cases of dysentery and cholera infantum which have become semi-chronic. It ought to be a valuable remedy in epidemic dysentery, on account of its superior virtues in depravation of the blood.

Form for Administration.-The specific medicine.

Dose.—From ten to fifteen drops repeated every hour or two, according to urgency of symptoms.

# ERGOT.

Ergot slows the heart, lessens the calibre of the arteries and dilates the veins. The abdominal veins are notably dilated from the action of this agent. The power which this remedy possesses of lessening the calibre of the arteries renders it an exceptional agent in arterial hemorrhage; and in destructive ulceration of internal organs where it is impossible to apply pressure it often becomes a dernier resort for the arrest of profuse losses of blood. As it lowers blood pressure it ought to be a valuable remedy in impending apoplexy and in aneurism, though in the latter disease its use would be demanded for too great a length of time to justify much dependance on it. It is principally employed in uterine and pulmonary hemorrhages.

Ziemssen remarks as follows of the action of ergot on the circulation:----

"The main question connected with this circumstance is how this contraction of the arteries is brought about. It was formerly assumed that ergot caused

contraction of the arterial vessels by stimulating their muscular coat, so that they were in a state of active contraction. This contraction of the arteries was then further traced to an influence which ergot was supposed to exert upon the vasomotor center. A true cramp of the arteries was, therefore, regarded as the effect of ergotine, a cramp that, under some circumstances, might last long. A considerable shock has been given to this view of ergotine's action universally prevalent till lately, from the circumstance that the increase of blood-pressure to be postulated a priori from so strong a contraction of the arteries has not been found by any of the later investigators, except Eberty, in their experiments on blood-pressure with the kymographion. Thus, Holmes, Hermann, and Wernich found almost constantly a more or less considerable decrease of blood-pressure. The diminution of blood-pressure directly contradicts an active contraction of the arterial vascular system; again, as Wernich shows, such a contraction is disproved by the beneficial influence on arterial aneurisms, which Langenbeck, Hermanides, and others produced by ergotine injections. Lastly it is opposed by Willebrand's observations, mentioned above, in regard to the diminution in the volume of the heart.

"The question which must arise is: How, then, is arterial contraction induced? If it is not active it must be passive. The heart must, in a given space of time, pump less blood into the periphery than in its natural condition, because less blood is conveyed to it by the systemic and pulmonary veins. Such an accumulation of blood in the veins is only possible by a diminution of the tone of the veins, as Wernich insists. This dilatation of the veins, this increased amount of blood in them, can be directly proved. Ac-17

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cording to Wernich's observations, it is the veins of the mesentery, of the uterus, of the bladder—the abdominal veins generally—which show most clearly this engorgement after the introduction of ergotine."

As would be supposed, the temperature falls rapidly under the influence of large doses of ergot, a fall of four degrees below normal having been observed during its administration for the cure of uterine fibroids, and yet the drug has not been used with success in the treatment of fever.

Form for Administration.—The specific medicine or normal liquid ergot prepared by Parke, Davis & Co. Dose.—From five to ten drops.

#### ERIGERON CANADENSE.

This remedy seems to possess an affinity for the capillaries, as it is a very positive agent for the arrest of capillary hemorrhage and profuse watery evacuations from the mucous membrane of the bowels, and from the kidneys.

I believe it is one of the best remedies we have to arrest passive hemorrhages from the lungs, stomach, uterus, kidneys or any other part, its action being prompt and effective if it is in the nature of this class of remedies to succeed in the case. Of course we would not expect it to close an open artery or vein, and must combine common sense with a knowledge of anatomy and physiology in the adaptation of therapeutics to disease. In the early stages of pulmonary consumption it may be tried, though the pulmonary infarction may be such as to defeat its prompt action here. In passive uterine hemorrhage it is very valuable, though in abortion, with bleeding from open vessels, it would be suicidal to depend upon any drug alone. Here proper tamponing must be resorted to if we would check the bleeding properly. Metrorrhagia

and menorrhagia afford a good field for its action, as well as passive hæmaturia.

I have had such surprising results from the action of an infusion of the fresh plant in the exhaustive discharges of the choleraic form of cholera infantum with this remedy that I shall always hold it in the highest esteem. Upon several occasions I have evidently saved life with it when death seemed imminent. I have had a strong decoction made and allowed the child to drink freely of it in each case, which it would do on account of the extreme thirst due to rapid reduction of the fluids of the body from the evacuations. I think it ought to be a prime remedy in cholera, after the vomiting has been stayed.

I have had good results from its use in the profuse watery discharges of hydruria. It constringes the capillaries of the kidneys, and thus proves effective.

Form for Administration.—A decoction of the green plant. It grows plentifully in every State of the Union in which I have ever been, and grows in the season of the year when most needed.

Dose.—From a tablespoonful to a teacupful, as the stomach will retain it. It is harmless, and the dose should be liberal in order to derive the best effect. In urgent cases it may be repeated every few minutes; ordinarily every two hours.

#### FARADISM.

General faradization is a valuable promoter of the general circulation, as well as of local parts, and is more useful than drugs in some cases. Its effect is that of an *equalizer*, the blood flowing more equally to all parts of the body. A patient with habitually cold extremities may have the warmth restored to them and his general system invigorated by the effects of a course of general faradization. In amenorrhœa, farad-

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ism will establish the menses in a few weeks, if judiciously selected and applied. An ague chill can be interrupted by faradism, and its return prevented by a proper use of the remedy, especially if it be aided by properly applied vapor baths.

The influence of faradism on the heart is favorable when a general application of it is made and repeated every two or three days for several weeks, though it is not of marked service in cardiac affections, excepting the early stages of cardiac rheumatism. Here it may be passed through the thorax, the electrodes being held opposite—positive over pectoral muscle, negative over inter-scapular space—with good effect.

In dyspepsia, nervous exhaustion, hysteria, chorea, chlorosis, and other conditions in which enfeebled circulation often plays an important part, faradism is a valuable remedy on account of its beneficial effects on the circulatory system.

The method of applying the general tonic treatment has already been described. (See page 34.)

# FERRIC PHOSPHATE.

This is Scheussler's remedy for febrile and inflammatory conditions. In persistent elevation of the temperature in threatened organic disease, or in fevers which assume chronicity, this agent will be found the most reliable sedative and antithermic known, that can be used with safety.

This appears very unreasonable at first, but only needs to receive careful trial for confirmation. It only proves what a confirmed set of blockheads "scientific" physicians have been for years, in their estimation of the therapeutic qualities of iron.

Ferric phosphate is not as much of a favorite with me as with many, as a sedative, but where febrile

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action lingers and other sedatives fail, I consider the existence of some organic disease almost unmistakably present if a few days of this remedy fail to lower the temperature.

In the early stages of organic affections, as hepatic sclerosis, pelvic cellulitis, or salpingitis, ferric phosphate alternates well with potassium chloride, to prevent the exudation of plastic material by lessening the amount of inflammatory action.

Scheusslerian disciples employ it altogether as a sedative, and place implicit confidence in its virtues in all cases, but I think it best to reserve it for that class of cases where there is a tendency to chronicity in the fever, or where there is great adynamia, with febrile action. In the latter case, however, I should be inclined to prefer echinacea, if there were any demand for a corrective of septic tendency.

Form for Administration.—The 3x trituration. This may be obtained at a homeopathic pharmacy or prepared in the office after the directions laid down in the Principles of Medicine.

Dose.—Add five grains of the 3x trituration to four ounces of water and give a teaspoonful every hour.

# FERROCYANURET OF POTASSIUM.

This should not be confounded with the cyanide of potassium, which is a deadly poison. This agent may be administered in fifteen-grain doses without bad effect while the eyanide is dangerously poisonous in the sixtieth of a grain.

Ferrocyanuret of potassium strengthens and equalizes the circulation. It is valuable in weak and irritable heart, as well as other functional cardiac troubles, while it has been employed successfully in cardiac hypertrophy.

It also improves the tone of the arteries, and is

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valuable in the treatment of asthenic cases where the extremities are habitually cold. It also possesses sedative properties akin to those of ferric phosphate, and is the remedy to prescribe when with a cardiac difficulty is associated febrile action with elevated temperature.

Hale (New Remedies) recommends it in chlorosis, where the heart is particularly enfeebled, and the blood in a watery condition, with excess of white corpuscles and a dropsical condition impending, but faradism will discount any drug here so much that I would not give it a favorable thought. The tonic treatment of faradism repeated every second day here will be the proper treatment.

Dose.--This may vary from a small quantity of the 3x trituration to two to five grains of the crude drug, administered every three or four hours.

## GELSEMIUM SEMPERVIRENS.

Through the vasomotor centers gelsemium acts on the heart and arteries, more especially the heart, lessening blood-pressure and calming excitement. Observers of physiological effects of the drug assert that it produces little if any effect upon the circulation, J. Burden Sanderson among them affirming, from a kymographic experiment upon a rabbit, that it exerts no influence upon blood-pressure. Against these assertions, however, we have the clinical experience of thousands of Eclectic physicians, who aver that gelsemium is one of the best remedies we have to control febrile action, lessen determination of blood to a part, and lower temperature. From these facts it may be suggested that experimentation with drugs in large doses will not always enable one to judge of their dynamical action-therapeutic applications.

Professor Scudder has given us the best therapeutic

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application for gelsemium. This may not correspond with the physiological action of the drug in every respect but it is eminently practical and applicable to its best effects. His indications point to irritation and determination of blood to the brain as denoted by flushed countenance, bright eyes with contracted pupils, and general restlessness and irritability. Such symptoms mark the premonition of convulsions in children, and when present call unmistakably for gelsemium.

But it is best not to be restricted by these indications. I am satisfied that gelsemium is one of our best sedatives in malarial fevers, and I do not wait for the marked symptoms, as described by Professor Scudder to appear before prescribing it. If there is the pulse of asthenia with arrest of secretion and febrile action, attended by headache and considerable nervous irritability, the condition of the pupils should not be taken too much into account in prescribing the remedy. Professor Scudder lays considerable stress upon the cerebral influence of the remedy, but I think we lose a valuable application of it to ordinary febrile conditions when we reserve it for these cases alone.

I regard it as an exceptionally valuable sedative in the treatment of malarial fevers, as it seems to act, not only as a sedative and promoter of secretion, but as a neutralizer of the malarial element, whatever this may be. I employ it here in combination with aconite, veratrum, jaborandi, and other sedatives, or singly as circumstances seem to require.

I do not think gelsemium is a sedative for continued fevers, though the condition described by Professor Scudder might be present in the early stages of typhoid fever, and the remedy do good service for a short time in correcting determination of blood to the brain; but it will be found best in ephemeral fevers and malarial attacks. In the cerebral disturbance of typhoid fever large doses of gelsemium are liable to result in depression and coma if continued for too long a time.

It seems to exert an influence upon the pelvic viscera, controlling, to some extent, disturbance of the circulation in the uterus. In vesical irritation it has acted well in combination with eryngium, and in inflammatory dysmenorrhœa it possesses some virtues. I have used it with success in spermatorrhœa following exhausting diseases, though it is more than likely that this influence is due to its effects on irritated nervous centers.

Form for Administration.—Probably there is no other remedy that is so liable to prove disappointing, if the common preparations of the drug trade be relied upon, as this. A preparation of the recent plant product is the only reliable form. The specific medicine is always to be depended upon.

Dose.—From the fraction of a drop to five drops. I ordinarily add twenty drops of the specific medicine to four ounces of water and give a teaspoonful every hour, in febrile cases, to an adult.

#### GRINDELIA SQUARROSA.

This remedy exerts an influence over the splenic circulation. It is applicable to cases of chronic splenic congestion, complicated with dyspepsia and hepatic torpor. I have cured splenic congestion of long standing, marked by dull pain in the left hypochondriac region, indigestion, sallow complexion and general debility, promptly, several times with this remedy. It should be given three or four times a day for several months, to derive its full benefits in long-standing cases.

In the Newer Materia Medica published by Parke Davis & Co. are a large number of reports of cases treated by physicians in various parts of the United States, in which its efficacy in enlargement of the spleen and in chronic malarial troubles is almost universally attested.

The credit of introducing this remedy is due an Eclectic physician, Dr. J. H. Bundy, who experimented upon himself until he had mapped out its therapeutic plan largely, and which has proven, in practice, the proper place for it.

Form for Administration.-Parke Davis & Co's. fluid extract, or the specific medicine.

Dose.—From five to ten drops, three or four times a day, in chronic cases. In acute cases it may be given every two hours.

# HAMAMELIS VIRGINICA.

Hamamelis is the most positive tonic to the walls of the veins of any remedy in the materia medica. It stimulates and strengthens the muscular coats of the veins so permanently that radical cure of various varicose conditions has been accomplished by its use. Shoemaker, an old-school authority, evidently unwilling to give an Eclectic remedy its full meed of credit, observes that some of the therapeutic power possessed by the extract may depend upon the alcohol it contains. Notwithstanding this he admits that varicose veins, varicocele and internal hemorrhoids may be permanently cured by its protracted use.

While it is not as generally applicable as collinsonia to rectal disease, nor as positive a cure for the hemorrhoidal condition as a rule, it will be found a very positive agent to relieve venous hemorrhoids. I have effected many permanent cures of recent venous hemorrhoids with it. It is also applicable to the treatment of varicosis of the lower extremities, and in convalescence from phlegmasia dolens it proves an efficient aid.

It is also a valuable remedy in passive hemorrhages, whether from the kidneys, lungs, uterus, or other part of the body. It seems to have a general affinity for the entire venous system, selecting no particular vascular area for its action, but markedly affecting relaxation of the veins wherever occurring.

In hemorrhagic states of the mucous membranes hamamelis is a valuable topical application, serving to arrest oozing from abraded surfaces very promptly when properly applied. It is also a valuable topical agent in superficial inflammations, as in diffusive inflammation of the skin from chafing or irritating discharges, soothing pain and acting as a cooling dressing.

Form for Administration.—Any good distilled extract. The dark fluid extract is worthless.

Dose.—From ten to twenty drops.

# HELLEBORUS NIGER.

This remedy has an action upon the heart similar to that of digitalis. It is little used as a medicine but may possess valuable properties as a remedy for the circulatory system. It was used much by the ancients as a remedy for dropsy. The active principle, helleborin, is a powerful cardiac stimulant.

## HYDRASTIS CANADENSIS.

The influence of hydrastis on the circulation is somewhat unique. Dr. E. M. Hale remarks: "It is due to Professor Schatz, of Europe, that he should be given the credit for the discovery of the real sphere of this drug. He is one of the deepest thinkers and shrewdest experimenters in the Old World. Possessed of almost perfect knowledge of human and animal physiology, he is competent to interpret the meaning of the changes which drugs cause in the living body. I have not before me the records of his experiments with hydrastis, but it will suffice to say that hydrastis causes contraction of the muscular coats of the arteries, without initiating contractions of muscular fibers elsewhere. Upon this one fact hinges the action of this drug. Ergot causes such contraction, but it is associated with contractions of other muscles. The same may be said of adonis, convallaria, digitalis, and nearly all cardiac remedies."

Dr. Wilcox gives the following indications for the use of hydrastis upon the philosophy of Professor Schatz: "The author gives the fluid extract of hydrastis, thirty drops three or four times a day, in cases of fibromyomata, subinvolution, and hemorrhagic endometritis. According to him, it checks the bleeding from uterine fibromyomata by the production of persistent anemia, unaccompanied by the distressing cramps of ergot or the flooding from the alternate contractions and relaxations. So in the cases of small fibroids, it is preferable where their expulsion would probably be attended by hemorrhage or septicæmia.

"In hydrastis he sees a sovereign remedy in endometritis fungosa, even when curetting has failed to arrest the bleeding. He has seen a fatal result from the apparently simple operation of curetting. That there is great danger is attested by the number of so-called antiseptic curettes to be found in the market. With the use of hydrastis no confinement to the bed is necessary.

"Hydrastis canadensis, by its faithful use will often render Emmet's operation unnecessary. The uterus becomes smaller, the leucorrhœa diminishes, the erosions heal, the displacements become rectified. Apparently it is to this class of cases that Shivestizeneff refers, although he does not recognize a lacerated cervix.

"The author has treated successfully five cases of climateric hemorrhage with hydrastic.

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"The results obtained in these cases he regards as admirable, and he believes he has a valuable remedy in this class of cases, which oftentimes are very difficult to relieve. It is only fair to say that he has also used the bromides sparingly, and arsenic somewhat vigorously; but he feels positive that, in removing one cause of general anemia, hydrastis has been of great benefit.

"Nine cases of pelvic inflammation have come under his care, which have been treated with hydrastis, and since using hydrastis he has abandoned the use of iodine, and to some extent hot water and local treatment. He recommends it in pyosalpinx, thinking it reduces the hyperæmia without contracting the tubes.

"He in this way treated three cases of congenital anteflexion with marked relief of symptoms.

"The author thinks that a timely use of hydrastis may, in many cases, prevent operations now considered necessary, and also obviate the necessity of wholesale gynæcological examinations, which in the case of girls he rightly deprecates."

The same influence doubtless operates in the beneficial effect which follows the use of this remedy in catarrhal conditions of the mucous membranes. In many cases of leucorrhœa and blennorrhœa its effects are very satisfactory, both when it is employed locally and constitutionally. It has long been a favorite with Eclectic practitioners as an injection in gonorrhœa, though I believe that echinacea is superior to it here.

Form for Administration .- The specific medicine.

Dose .- From one to twenty drops.

# TBERIS AMARA.

This remedy possesses an affinity for the heart, and has been employed successfully in cardiac asthma, cardiac dropsy, in hypertrophy of the heart with excessive action, and other conditions where digitalis might be thought of. It does not act precisely like digitalis, but resembles it in therapeutic properties somewhat, and also quebracho, in its effects in cardiac dyspnœa.

It is worthy a trial in obstinate heart' affections where more approved remedies fail.

Form for Administration.—The tincture of a homeopathic pharmacy.

Dose.-From five to ten drops.

## IPECAC.

The influence of ipecac upon the general circulatory system is somewhat uncertain, but its effects upon certain local vascular areas is pronounced and of valuable therapeutic significance. It is asserted that the drug causes contraction of the capillary arterioles, and thus acts as an inhibitor of capillary engorgement of the parts upon which it exerts its influence.

The pulmonary mucous membrane and the intestinal mucous membrane, are the parts most markedly influenced by ipecac, so far as its effects upon the circulation are concerned.

During the stage of hypersecretion in acute inflammation of the pulmonary mucous membrane, ipecac is among our most reliable remedies. It, however, is not so applicable as some others in special cases, tartar emetic acting more promptly when indicated by dyspnœa, great effort at raising phlegm attended by prostration and profuse perspiration, indicating lack of power in the respiratory center, with marked subcrepitant rhonchus; but as a sedative to the irritated and weakened vessels in the part it is often most valuable. Where some other remedy is prominently indicated I often alternate it with ipecac in these cases, thus deriving the influence of ipecac on the circulation, while the alternate improves the respiratory power (tartar emetic), or relieves the thoracic pain (bryonia), or equalizes the circulation between the heart and lungs (quebracho).

Ipecac tends to relieve irritation of the pulmonary mucous membrane and arrest hypersecretion attending bronchitis or acute coughs, and may be prescribed here with considerable certainty. It also arrests pulmonary hemorrhage in minute doses.

In irritation of the enteric mucous membrane it is one of our most reliable remedies, the circulation in the part being very favorably influenced by it if the disorder is acute. In dysentery we have no more positive agent, and in cholera infantum it is capable of curing the majority of cases unaided, though where the discharges are water instead of mucus-where we have choleraic symptoms-it bears no comparison with erigeron or veratrum album. In mucous cholera infantum it relieves the pain and tenesmus, lessens the frequency of the evacuations, and restores the patient in a few days, if other conditions are favorable. Of course an intelligent attention to the requirements of digestion, and to other proper details must be considered at the same time. However, I am not in favor of relying on the single remedy in the treatment of this disease. Ipecac can usually be alternated with some other remedy that will augment its restorative powers, as aconite, colocynth, collinsonia, kali bichrom., etc.

# Form for Administration.-The specific medicine.

Dose.—From the fraction of a drop to a drop. In cholera infantum, from ten to fifteen drops may be added to four ounces of water and a teaspoonful administered every hour. I usually add from two to five drops of specific aconite to this, or ten to fifteen drops of the 1x dilution.

#### JABORANDI.

In minute doses jaborandi relieves irritability of the heart and blood-vessels and tends toward bringing about a normal equilibrium of the general circulation when this has been disturbed by febrile action. In large doses it produces profuse perspiration, coldness of the surface, ptyalism, vomiting and sinking sensation; carried further it may cause complete diastolic arrest of the heart's action.

Under judicious dosage it is our most valuable arterial sedative, promptly controlling febrile action, lowering the temperature, and promoting normal secretion from the skin, lungs, and kidneys, while the circulation is equalized and an agreeable sensation of coolness and comfort imparted to the general cutaneous surface. It is thus valuable in all forms of fever not marked by great adynamia, and in inflammatory conditions its general effect is attended by amelioration of the local hyperæmia of highly satisfactory character. We probably do not possess another as valuable agent in inflammation attended by osthenic conditions as this in our entire materia medica.

In inflammatory rheumatism, from the most active forms, where the tissues are swollen to fullness of the skin, and the pain is excruciating, to more passive forms where joints are swollen and stiff but not exceedingly painful, there is nothing else in the materia medica like it for promptness of action in relieving the local symptoms. Under its influence, though here a few full doses may be needed, the most severe pain subsides, and swelling and redness are soon gone—not that there need be redness to indicate it, for many of these cases may be so subacute as to be pale and painless, though the joint may be swollen and stiff. Some of these patients may be able to be about their daily avocations, though complaining of swelling, soreness and stiffness in the joints. I find jaborandi to be the best prescription here.

Jaborandi has other valuable uses which will be noticed in their proper order.

Form for Administration.-The specific medicine.

Dose.—Where prompt action is desired to relieve severe pain, from fifteen to thirty drops of the specific medicine may be given at a dose and repeated in half an hour if necessary, though I would not recommend the repetition usually, within the hour. As a febrifuge and antithermic—sedative to the arterial system—I would add from one to four drachms to four ounces of water and administer a teaspoonful every hour.

# KALMIA LATIFOLIA.

This remedy is an arterial sedative, but has not been much used for such purpose. Goss mentions it approvingly as a remedy for syphilis, and refers to its action as a sedative to the arterial system, and Hughes (Manual of Pharmacodynamics) ascribes to it some value in cardiac affections, neuralgia, and rheumatism.

In Dr. Carroll Dunham's "Lectures on Materia Medica" is an interesting report of a case of cardiac disease following acute rheumatism which had been pronounced hopeless, but which recovered on this remedy. The Doctor diagnosed the case as acute endocarditis and prescribed the remedy with little faith of any favorable effect, but the patient, a little girl of ten years, recovered fully, no valvular murmur remaining.

Kalmia has been used successfully in Bright's disease of the kidneys, the effect probably being due to its

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power over blood-pressure in the renal arterioles, and inhibition of the current in vascular excitement.

Professor King recommended this remedy very highly in syphilis, in febrile and inflammatory diseases, and in cardiac excitement. He also extolled it in ophthalmia and neuralgia, The homeopathists enriched their materia medica very much from Eclectic sources a few years ago through Hale, many additions being the result of Professor King's experience and observation.

Form for Administration .- The specific medicine.

Dose.—From five to fifteen drops, in chronic cases; in acute phases from ten to twenty drops should be added to half a tumbler of water and a teaspoonful of the mixture given every hour.

## LACHESIS.

This is a remedy that is seldom used for its influence on the circulatory system, but sometimes it serves a most valuable purpose. In impending cardiac paralysis it seems to stimulate the sympathetic, and prompt the cardiac ganglia in such a way as to restore cardiac action very satisfactorily. Such a condition is liable to occur in diphtheria and in the continued fevers of old persons.

The indication for it, according to Hughes, is a tremulous action of the heart. I have used it in old and enfeebled patients, where the pulse was too rapid to be counted and scarcely perceptible, and where there seemed to be no possibility of a survival for more than a few hours, very successfully. Upon the following day the patient would seem to have been almost completely restored. It is a valuable heart remedy in the cardiac exhaustion which often attends severe cases of diphtheria.

Form for Administration.—The 6x trituration. This may be obtained at any reliable homeopathic pharmacy.

Dose.—From one to two grains, repeated every two hours.

## LOBELIA INFLATA.

In large doses, short of emesis, this remedy depresses the circulation, lessens blood-pressure and lowers the temperature; in minute doses it acts as a stimulant to the circulation, improving the power of the heart and capillaries, and equalizing the distribution of the blood.

I am not an admirer of lobelia myself, as I can almost always find something that will act more satisfactorily, but the remedy undoubtedly is worthy of consideration, as regards its effects on the circulation.

Scudder regards it as specially indicated when there is præcordial oppression, with enfeebled circulation, feeble, oppressed pulse, of empty, doughy character, with general bodily fullness lacking elasticity. Hale, with his usual presumption (New Remedies), claims all these symptoms as belonging to the similimum of this remedy.

However, we will seldom find a case in acute practice where lobelia can be used with satisfaction as a substitute for one of the more accredited sedatives, whatever may be said of special indications. Its principal use will always be in pulmonary difficulties, where it exerts a controlling influence over the circulation in the pulmonary mucous membrane. Here its influence resembles that of ipecac very much, and it can be relied upon in a similar class of cases.

Form for Administration.—The specific medicine. Dose.—From the fraction of a drop to ten drops.

#### LYCOPUS VIRGINICUS.

This remedy is classed as a sedative by Scudder, and it doubtless possesses such properties, though it is not as generally applicable to the treatment of febrile dis-

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eases as some of the more generally known arterial sedatives. However, its action on the heart is pronounced, and it may be prescribed in tumultuous states of this organ, where febrile action is not very high, and where pulmonary symptoms are a complication. In incipient phthisis, for example, where such a state of affairs is present, it is a very applicable remedy. An additional virtue commending it in such cases is its value in hæmoptysis. It is also of value in hemorrhages from the kidneys. It has been recommended in the treatment of exophthalmic goitre, Dr. Hector (Chicago Medical Times) reporting very favorably upon its use it this affection.

It has been used successfully in the treatment of diabetes mellitus, and has been very highly extolled by reputable writers in our school for this use. It has also been used with advantage in the treatment of functional heart affections, irritability with depressed force being offered as an indication for it by Hale.

The testimony of most observers as to the action of this remedy agrees that the blood-vessels are recipient of its principal therapeutic action.

Rafinesque, whose knowledge of the indigenous remedies of this country was very extensive, considering his time and the fact that he was a foreigner a large part of his life, offers a very complete and comprehensive description of this remedy, written in 1828:—

"The lycopus virginicus is an excellent sedative, subtonic, subnarcotic, and subastringent. It has only lately been taken notice of, while the lycopus vulgaris was extolled in Europe for fevers. Schoeff only mentions its qualities, and it is omitted in all the works of materia medica, except Ives and Zollikoffer. The first inquirers on its properties were Drs. Pendleton and Rogers, of New York, who have published several cases of hæmoptysis and incipient phthisis cured by it. This has been confirmed by Drs. J. M. Smith, Ives, Lawrence, and myself.

"It is now much used in New Jersey. The whole plant is employed; it has a balsamic, terebinthinaceous smell, peculiar to itself, when bruised, which is stronger in the seeds. The taste is pleasant, balsamic and slightly bitter, but to some it appears mawkish and nauseating. It is described as partaking of the properties of digitalis, sanguinaria, cimicifuga and spigelia, but it is neither diuretic nor anthelmintic, and is rather one of the mildest and best narcotics (sedatives) in existence. It acts somewhat like digitalis, and lowers the pulse without producing any of its bad effects, or accumulating in the system. It is, therefore, altogether preferable to it, and not only as an equivalent, but even a valuable substitute, as I have ascertained upon myself and others. Volumes have been written upon digitalis, a rank poison, and this excellent substitute is hardly noticed yet. It has, however, been used in the New York hospital, and round very beneficial; it lessens the frequency of the pulse, and allays irritation and cough by equalizing the blood. It is said to be most useful when febrile excitement has been subdued, but I have seen it subdue it by itself, as with other tonics.

"I have made many experiments with this plant, and the results are, that although it does not cure consumption, nor heal the lungs, it is a very useful remedy in hæmoptysis, a plethoric habit, and internal inflammation. I consider it a very good substitute for all narcotics (arterial sedatives?) prussic acid, and even bleeding, since it produces the same state of the pulse and arterial system, without inducing any debility, or acting on the heart or brain in any injurious manner. It may be used in many diseases, and whenever it is required to quell inordinate action of the circulation. "I have been informed that it has been commonly used in New Jersey for diarrhœa and dysentery, which it helps to cure. It is a good adjunct to tonics in fevers. It is also peculiarly useful in the inflammatory diseases of drunkards, in diseases of the heart, etc.

"I deem it the best sedative in almost all cases; it does not seem to act on the nervous system, but chiefly over the blood-vessels. The usual way to take it has been in the form of a warm infusion, allowed to cool, taken as a drink, without much nicety about the quantity. In hæmoptysis I prefer a lemonade made with a weak tea of it, or a syrup made with it. A very strong infusion may also be used by putting one or two teaspoonfuls of it in tonic or refrigerant drink."

Form for Administration.—The specific medicine. Dose.—From five to twenty drops.

## NITRITE OF AMYL.

Nitrite of amyl promptly relaxes the arterial coats and the arteries become over-charged with blood. The brain seems to suffer most from this arterial distension. The temporal arteries throb powerfully, or distinctively, the face becomes flushed, and the sense of fullness in the brain is attended with giddiness and confusion of ideas.

The relaxing effect of the drug on the arteries has been made avail of in the treatment of angina pectoris, where it is one of the best remedies known. Whether the effect is due to the specific effect of the drug on the arterial coats or to its antineuralgic influence may be a question, but the fact remains that it is a most reliable remedy here. Inhalation of a few drops of the remedy affords prompt relief.

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As a remedy to arouse the circulation in chloroform narcosis nitrite of amyl has been highly valued, but I think that position—head down and heels up and the effect of slapping the patient's back over the thorax is fully as effective, if not more so. Lowering the head is probably the best means to be resorted to in these cases.

Dose.—From one-fourth drop to one drop internally, or from three to five drops by inhalation.

## NITRO-GLYCERINE.

The action of this remedy on the circulation resembles that of nitrite of amyl in some respects, though it stimulates the heart when failure of that organ is imminent, and has a wider range of action in other ways. It exerts a controlling influence over the cerebral circulation in minute doses and thus relieves congestive headaches; in angina pectoris it can be relied upon with almost as much certainty as nitrite of amyl. It exerts a good influence over the circulation in the kidneys, and has been highly extolled by DaCosta in certain forms of Bright's disease, marked by renal cirrhosis. In such cases it should be combined with some permanent heart tonic as digitalis, strophanthus, or cereus bonplandii.

Neither this remedy nor nitrite of amyl should be administered to old people lest it result in serious accident to the attenuated or brittle arteries.

Dose.—From the one-thousandth to the fiftieth of a drop.

## NUX VOMICA.

Nux vomica causes vasomotor spasm and increases arterial tension, thus energizing the circulation. It seems more especially adapted to the area supplied by the distribution of the cœliac axis, especially those organs supplied by the gastric and hepatic branches of this artery.

In atonic derangements of the stomach, where there is evidence of feeble circulation, it is a valuable remedy for dyspepsia and associate troubles. Professor Scudder gives as an indication for it a sensation of fulness in the right hypochondrium, and this sensation is liable to attend a sluggish condition of the capillaries of this part. As the circulation of the supply from the gastric and hepatic is improved a corresponding improvement may be observed in the portal circulation generally. The remedy thus becomes indirectly a reliever of congestion of parts supplying blood to the portal vein. Its influence may extend to the hemorrhoidal plexus, and so improve the circulation here as to relieve hemorrhoids, though it cannot be considered a reliable remedy for this condition.

In nux vomica cases the almost certain impairment of the hepatic circulation will be evidenced by a more or less jaundiced condition of the skin, dull pain, and fullness in the right hypochondrium.

Nux is not a remedy for inflammatory conditions of the liver, but must give way here to chelidonium, but when the circulation is enfeebled it is perhaps the best remedy we have.

Form for Administration.—The specific medicine. Dose.—From the fraction of a drop to ten drops.

# PHYTOLACCA.

While phytolacca has little influence over the general circulation it exerts an almost indispensible influence over inflammatory states of certain local vascular areas. These are the mouth and pharynx, and certain portions of the reproductive apparatus, notably the mammary glands in the female, and the testicles in the male. Its influence upon acute adenitis is also marked, though its action upon the lymphatics will be considered under a separate head.

Its effects on the oral mucous membrane are best displayed in the treatment of aphthous states of the part, though any subacute inflammation of the lining of the mouth is usually promptly relieved by it. There are few cases of aphthæ—usually a very stubborn disease under other treatment—that will not yield promptly to the influence of this agent. Sometimes, where there is considerable ptyalism, jaborandi does better, but this is the exception rather than the rule. I usually combine the phytolacca with small doses of aconite in such cases, but would recommend the substitution of jaborandi where profuse ptyalism is a marked symptom.

In inflammatory affections of the pharynx and fauces this is the leading remedy in all acute cases, where diphtheria is not the condition to be treated, but in such cases it is useless, for the reason that it possesses no antidotal power over this specific affection. However, it might follow the disappearance of the exudation to strengthen the circulation here, but would not be as reliable as echinacea. In follicular tonsillitis in acute pharyngitis, and in common sore throat the result of taking cold, there is nothing like it. Half a drachm of the specific medicine added to half a glass of water, dose a teaspoonful every hour, soon affords satisfaction; often the first dose will impart a sense of relief to the patient. However, I would write the prescription as follows, ordinarily:—

> R Phytolacca, 3ss. Aconite, gtt. v.

Aqua, ad. q. s. ziv.

Sig .- Take a teaspoonful every hour.

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In inflammation of the mammary gland, either puerperal or traumatic, it is the most positive remedy we have. If the breast is properly managed in other respects there can hardly be a case where puerperal mastitis will occur. Should this result, the remedy will prove a valuable aid in encouraging recovery, the abscess emptying and healing speedily under the general influence of it when assisted by proper support and manipulation.

The influence of phytolacca on the testicle in inflammation of that part is also an important one in all cases of orchitis. It acts well alone or in conjunction with pulsatilla, with which I combine it probably to satisfy a whim, though both these remedies are indicated in such affections. Ovaritis should also be amenable to the influence of phytolacca, though on account of difficulty of diagnosis, or lack of skill, or carelessness, little that is positive may be asserted with regard to any past clinical experience in this direction.

The dose and form for administration have already been suggested.

## POLYMNIA.

Polymnia uvedalia influences the circulation of the spleen markedly, as well as of the entire abdominal circulation, though its influence upon the general portal circulation may be due to the fact of its influence on the spleen. It also influences the circulation in the glandular system generally with preference for the ductless glands.

Its best place is in splenitis with engorgement, as, the condition which often attends chronic ague ("ague cake"). Here we have a very positive remedy in polymnia, the agent promoting the flow of blood through the organ and strengthening the capillaries. Whether it promotes the rythmical action of the spleen is a question, but this is doubtful, as the remedy exerts its influence in enlargement of other glands where this action is not supposed to exist.

Its desirable influence over the circulation may be made avail of in the treatment of many cases of dyspepsia, where there is congestion of the gastric and hepatic capillaries, depending on a lack of proper impulse from the spleen which doubtless assists in the movements of the blood in the portal circulation, acting as a vis a tergo in propelling the blood forward through the portal vein. Here the sensation of fullness and burning experienced in the gastric region may often be promptly dispelled by the use of appropriate doses of polymnia. While not acting directly on the digestive functions then, the remedy may constitute a valuable remedy in dyspepsia, by removing obstruction to the circulation in the digestive 'apparatus and thus promoting function.

As to its influence on glandular structure generally, I will reproduce a report from Dr. J. W. Harvey, published in the eighth volume of the *California Medical Journal*:—

"Having read of the use of polymnia uvedalia in the treatment of enlarged spleen, I determined to give it a trial in glandular enlargements generally. And for the benefit of the readers of the *Journal* I will state my experience with two cases in recent practice.

"The first case was that of a girl ten years old. The external appearance was that of a cyst or tumor as large as a hen's egg, and swollen internally, causing the tongue to point to the roof of the mouth. The tumor was hard and resisting to the touch, but not painful. General health of patient good. I prescribed specific uvedalia, gtt. ii every four hours, to be taken in a little water. To the tumor I had the uvedalia ointmeni applied, rubbing it in well and using heat to produce absorption. What was the result? This tumor, which had been perceptibly growing for six weeks, was removed in ten days.

"The second patient was a child four years and six months old. The difficulty was a case of hypertrophy of the spleen of over one year's standing. I had treated this case before in November, 1886, carrying out the usual stereotyped plans, exhausting the remedies generally used in such cases, but with no good results so far as reducing the spleen was concerned. On my return from the California Medical College in April this year (1887), the case was presented again and I determined to use uvedalia, which had been so highly recommended.

"At this time the patient was pale and anæmic, no appetite, slight fever every day, but no distinct chill. The spleen seemed to fill almost all one side of the abdominal cavity, extending as low down as the anterior superior spine of the ilium, and as far to the right as the median line. To the touch it was hard and resisting.

"I prescribed arseniate of quinia, 3x trit., one grain every three hours; specific uvedalia gtt. ii three times a day. Externally the uvedalia ointment was applied over the region of the spleen night and morning, toasting it in well with heat. What were the results? In six days the arseniate of quinia was stopped, there being no fever. The uvedalia was used both locally and internally as before. To summarize: the treatment was commenced May 6th, and at this date, June 8th, the spleen has decreased in size onehalf; it feels soft; appetite is good; she has had no fever since the first week, and all symptoms point to a speedy and complete recovery." In the same volume Dr. J .C. Andrews reports the following case:-

"Mrs. M. came to consult me in regard to the condition of her daughter, aged nineteen years, single, whose appearance was not unlike that of a woman some seven or eight months advanced in pregnancy; but the character of the family, as well as that of the daughter, was above reproach. She had presented this condition for years, and had the sympathy of all right-minded people, but her appearance would provoke remarks from the vulgar.

"The mother gave me the history of the case, and suggested, as an opinion, that that much abused organ -to which, as a last resort, they can ascribe all disease with all the authority and zeal that ancient custom assures-the liver, was at fault. I interposed an objection, as her complexion would not warrant the assertion, as it was as clear as the most fastidious could desire. I at once informed the mother that I could not venture an opinion until an examination of the case was had, which was consented to, and at the day appointed, the young lady, in company with her mother, was promptly on hand; with becoming modesty she reluctantly submitted to the examination, which was carefully conducted, and I soon discovered the outlines of a tumor which filled the left hypochondrium, and reached below the umbilical region, when I unhesitatingly pronounced it an enlargement of the spleen, and informed the mother it could, without difficulty, be cured, but would consume months of treatment, which was agreed to and I prescribed the following:-

B Specific uvedalia, 388.

ziiiss. Aqua pura,

M. Sig .-- One teaspoonful four times daily. Apply

the uvedalia ointment to the abdomen morning and evening, with brisk friction under heat, or toast in with a hot iron.

"These prescriptions were renewed from time to time, and directions persevered in with unflagging zeal, until now, near five months, the spleen is reduced to almost its normal size."

Current Eclectic medical literature contains many similar reports which confirm the high estimate placed upon this agent in hypertrophy of the spleen. Of the many other useful places to which it is applicable, through its influence on the abdominal circulation, we have much yet to learn.

The form for administration and dose have been suggested in the preceding quotations.

# PULSATILLA NIGRICANS.

The German pulsatilla exerts a specific influence upon the veins, in certain regions, that is worthy of mention. In fact the capillaries in certain vascular areas are undoubtedly influenced by it, as in orchitis, prostatitis and ovaritis.

The action of pulsatilla in varicosities is not often put to practical test, as we have more reliable remedies, probably, in hamamelis, for general relaxation, and in collinsonia and æsculus, for hemorrhoidal conditions. Its best use perhaps in this respect, is in the treatment of crural phlebitis following parturition (milk leg), and dilatation of the spermatic veins (varicocele).

The circulation about the eyes and ears also comes under the influence of pulsatilla. In painful catarrhal otitis I have found this remedy of much service, and in neuralgia about the meatus and in the ear (earache), I find it a very reliable remedy, especially in children. I have never made much use of it in inflammatory affections of the eyes, but some therapeutists dwell strongly upon the value of the remedy here, especially in irritation of the lachrymal apparatus, as lachrymation in the open air and in catarrhal inflammation of the lachrymal sac.

In using it for pain in the ear a particle of cotton may be moistened with the specific medicine and carefully pushed into the meatus, though this will not interdict its use internally at the same time. However, the local use of the agent may be sufficient.

Form for Administration.-The specific medicine.

Dose.—Ten to twenty drops may be added to half a glass (four ounces) of water and a teaspoonful given every two hours, in orchitis, ovaritis, prostatitis. In chronic cases, as varicocele or varicosis of the crural veins, the dose need not be given so often.

## PULSATILLA NUTTALLIANA.

This is known by some botanists as the anemone nemorosa, and is the American pulsatilla which has been confounded by druggists with the German variety. It possesses similar properties with the German variety but is said by Hale to be more active. That writer asserts that it restores suppressed discharges from the mucous membranes, when these have been arrested by cold. He instances rheumatism following the suppression of catarrhal discharges, and also periostitis and synovitis. It ought to be useful in gonorrhœal rheumatism.

It has been serviceable in the treatment of varicose states of the venous system, and in the removal of ecchymoses, acting through the circulation. It is the constitutional remedy for black eye. Whether it will be found to exert any restraining influence upon the capillary debility found in purpura hæmorrhagica remains to be seen.

This remedy, like its congener, possesses an affinity

for the reproductive apparatus of the female, though it differs somewhat, and the two should not be employed indiscriminately.

Form for Administration.—The mother tincture of a homeopathic pharmacy.

Dose.—Add from ten to twenty drops to four ounces of water and order a teaspoonful at a dose, repeating as often as the circumstances of the case warrant; acute cases call for frequent repetition of dose, while chronic affections are better treated by giving the doses further apart—three or four times daily.

## RHUS TOXICODENDRON.

Rhus impresses the vaso-motor center to influence the circulation, and it is a valuable sedative in continued fevers, where the pulse is small and wiry, and where there is considerable nervous erethism present. As it is credited with antiseptic properties, which it seems to possess, it is especially valuable in those stages of fever where there is depravation of the blood, evidenced by red, pointed tongue, with dryness, and delirium with marked restlessness. In such cases the pulse is usually small and wiry. Professor Scudder suggests a vibratile pulse as indicative of its need.

I find rhus a favorite remedy with many of our practitioners in the treatment of typhoid fever, as well as other continued fevers where these symptoms prevail. Combined with aconite it constitutes the ideal sedative. In all febrile states, whether idiopathic or symptomatic, where a nervous element seems to be prominent while the fever inclines to assume a typhoid condition, it is the sedative to combine with aconite to meet the nervous element, while the sedative influence is unmistakeable. In cholera infantum, typhoid pneumonia, gastric intermittent and remittent
fevers and many other conditions these suggestive symptoms will be found, and rhus will be the most acceptable remedy to choose.

In such cases, one characteristic symptom will be a pointed tongue, with reddened tip and edges. This may be accompanied with nausea and vomiting, in fact it is almost certain to be the case, though not invariably. Here is one of the most unmistakeable indications for rhus. There is a certain relationship between the gastro-intestinal functions and the sympathetic, and through this with the cerebro-spinal system, which manifests itself in a pointed tongue, with reddened tip and edges, and when I prescribe rhus in such a case I do not merely expect to relieve a gastric irritation,-though I will do this casually if it exist-but I expect to get behind this and sedate certain vascular areas in important nervous centers. It is upon such principles as this that a certain element of specific medication depends-a drug need not necessarily be devoted to the relieving of the symptom manifested by the tongue exclusively, but reaching backward through a connected chain of reflexes, it may finally reach the fons et origo of the morbid state, and there balance a disturbed equilibrium.

Rhus selects the vascular area about the conjunctiva and the ocular appendages to demonstrate a local influence through the circulation. Really the whole of the upper portion of the face is influenced by this remedy, and inflammatory conditions here, especially of erysipelatous tendencies, are promptly controlled by its influence. I have relieved erysipelas of the face that had been recurring at intervals of several years and persisting with much severity for months at a time, promptly, with small doses of rhus, only a few days use of the remedy being needed to banish the difficulty at each outset, until it ceased. In conjunctivitis, I have used it with excellent success, in both acute and subacute attacks. It seems to influence the capillary circulation markedly here, being capable of aborting the habit of styes—a very troublesome one when confirmed—and of fortifying the parts against the recurrence of these annoying pests. In scrofulous ophthalmia of children, where the conjunctivæ and edges of the lids are inflamed and catarrhal, with ulceration of the edges of the lids, lachrymation and photophobia, this remedy will often work wonders. It acts well here in combination with acetate of potassium.

The circulation of the skin and connective tissues is amenable to the influence of rhus when inflammatory conditions exist here, though the inflammation that yields best is erysipelatous in character. Cutaneous erysipelas is best treated with this remedy, excepting, possibly, echinacea.

Form for Administration.—The specific medicine.

Dose.—Add ten to twenty drops to four ounces of water, and give a teaspoonful every one or two hours.

# SCOPARIUS.

The broom plant yields a principle which specifically influences the heart; this is known as sparteine, and it is a very reliable agent to strengthen the action of the heart and augment arterial tension. Its best therapeutic application, perhaps, is to the treatment of chronic parenchymatous nephritis, where normal heart action and arterial tension are important.

Germain See recommends sparteine in heart failure, the result of mitral disease, in from one-sixth to onefourth grain every four hours. It is regarded with favor in the treatment of cardiac irregularity. It is also a valuable remedy in cardiac asthma, as well as in exophthalmic goitre.

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Sparteine is also a valuable remedy for dropsy depending on insufficiency of cardiac action, the arterial tension aiding the natural diuretic effects of the drug, to produce copious and permanent evacuation of superfluous fluids. It is said to be a true diuretic, in that it increases the solid constituents of the urine, as well as the quantity evacuated.

The dose of sparteine sulphate should vary from one-sixth to one-fourth grain, repeated every four hours.

# SCUTELLARIA.

Scutellaria possesses valuable properties as a heart remedy. In minute doses it acts promptly in controlling irregularity of the heart, when this is functional and of nervous character. The irregularity to which it is best adapted is characterized by an intermittent pulse. I have employed it for this purpose many times and consider it very reliable.

A writer in the American Homeopathist details his experience with it as follows:---

"Mrs.-, a hard-working farmer's wife, of Irish extraction, robust, between forty-five and fifty, was attacked with inflammatory rheumatism in March, 1884. After she had been suffering for two or three days, I was called to see her. Both knees were swollen, also the ankle of the left side (the first attacked), together with her left shoulder and wrist, this attended by great pain night and day in all these places. Much worse from the least motion; sweat frequent, great thirst, temperature 1041. A few days of aconite 3x, bryonia 3x, alternating, and followed by pulsatilla 3x, relieved the attacks. There were no heart complications. But in June of the same year a second attack, brought on by getting wet in a rainstorm, did produce from the first, heart trouble. It was soon allayed (my call-book shows but two calls) by aconite 3x.

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"This attack left an irritability of the heart, with indistinct first sound, or rather the first sound was slightly obscured, and more or less trouble from palpitation followed. The attacks came on under excitement or extra exertion. Scutellaria 3x, two or three drop doses, controlled the heart trouble readily, and she kept the remedy by her all summer. During the following winter to the present time she has had little trouble from the heart, and no renewed attacks of rheumatism. It is now more than six months since she has called for medicine.

"A number of cases of nervous palpitation have been quickly relieved every month of my practice by the use of one to three drops of the 2x dilution once or twice a day for a few days, and these it is not necessary to describe.

"A second case of organic heart trouble is of more interest:

"Mr.-, thirty-five years old, a strong, large-framed, six-foot farmer, called at my office to show an angrylooking ulcer on the left ear; base whitish, depressed, oozing a watery fluid. On the left side of his chest, extending from the breast downward, was an eruption oozing in a similar way, of the size of two hands, so he said; the whole beginning with a few pimples that spread rapidly as soon as scratched. The itching was so intense at night that he could not forbear scratching, and this only made things worse, so much so, that he had not had a good night's rest for a fortnight. Before the eruption he had been troubled more or less constantly with a sharp pain in the region of the heart. great dyspncea on exertion or excitement, and tormenting restlessness at night. Now, there was no pain at all in the heart. Auscultation showed strong obscuration of first sound.

"The prescription, however, was graphites 4x trituration, one and one-half grains, powder morning and night, and graphites ointment(Boericke & Tafel's) used in very small amounts, twice or thrice a day. In five days he returned perfectly cured of the eruption on the chest and ulcer on the ear, but complained of the old, sticking, stabbing pains in the heart, and the still restless nights.

"As soon as he had worked for an hour or so in the morning, he had to go to the house and rest nearly as long, before he could do anything more.

"Pulse was irritable on least exertion; nights very restless, much of the time spent in walking the floor from pain; appetite poor, and he himself generally discouraged.

"Scutellaria 1x dilution three drops, gradually increased to five—morning, mid-forenoon, noon, midafternoon, before supper, at bedtime. Six days after he walked into my office and said: 'Doctor, I never had a medicine take hold of me so before. I was better right off. In two days all the pain left me, and I have slept all night, right through, for the last two nights. I eat better and feel better than for a year past.'

"His history showed an acute attack of rheumatism in March, 1885. He went away a happy man, and I turned to my medicines with greater faith in scutellaria lateriflora."

The doses here recommended are about the size that we would employ—perhaps a trifle smaller, and the results if as represented indicate a wide range of action for this agent in cardiac affections. I am satisfied that Eclectics have not given it enough prominence among their heart remedies.

Form for Administration .- The specific medicine,

Dose.—Add ten to twenty drops to half a glass of water and give a teaspoonful every two or three hours.

# SPIGELIA.

Pink root exerts a specific influence on the heart, increasing its systolic power at first, but later on causing debility of the organ, in large doses. Its best therapeutic effect is exerted upon the endocardium, and it is a very positive remedy in endocarditis, though not so reliable probably as calcium fluoride. However, as this class of remedies is rather small we may do well to include it in the list until it has been more fully supplied with reliable ones.

Rheumatic endocarditis is the most appropriate place for the remedy, though its specific effect on the endocardium makes it applicable to other forms. It is valuable in guarding the heart against relapses of cardiac rheumatism, and also of service in cardiac palpitation, in certain instances.

Neuralgic conditions of the heart, attended by palpitation are benefited by this agent, and usually cured. Angina pectoris, and painful states of the heart with pain extending down the arm have been cured by spigelia.

The spigelia anthemis is the variety to be employed here, though the spigelia marylandica has been associated with it; however, the latter remedy does not possess as marked cardiac properties as this.

Form for Administration.—The mother tincture from a homepathic pharmacy.

Dose.—From ten to fifteen drops in four ounces of water; dose, a teaspoonful every two hours.

### STERCULIA.

Kola-nut improves the power of the heart, and improves the tone of the general circulation, when this

### THE CIRCULATORY SYSTEM.

is debilitated. It exerts a special influence over the circulation in the digestive apparatus—the vascular apparatus supplied by the cœliac axis—and promotes digestion, while it exhilarates the entire system. Possibly this influence upon the hepatic circulation accounts for its value in melancholia and hypochondriasis.

As a heart tonic it is adapted to the stage of convalescence of exhaustive fevers, to phthisis and other debilitated conditions of lingering nature.

Form for Administration.—A tincture from the recent article, or the paste.

Dose.—Add a drachm of the tincture to four ounces of water and give a teaspoonful of the mixture every two hours; or from two to ten grains of the paste.

### STROPHANTHUS.

This is a very much over-estimated remedy, but has been a great fad with some physicians for several years past. We possess so much better cardiac remedies in the Eclectic materia medica than this, that I cannot speak very highly of it from my experience. However, as we intend to individualize our cases, there may be occasional places for strophanthus, though convallaria, cereus bonplandii and cactus grandiflorus are better remedies for frequent resort.

Strophanthus increases blood-pressure and invigorates the action of the heart in medicinal doses, and has been used with success in heart failure, dropsy, and in cardiac dyspnœa. It has also been extolled in pulmonary congestion dependent upon deficient cardiac action, as well as to relieve cardiac asthma and whooping cough.

It acts in cardiac dropsy similar to convallaria, but is not so reliable, according to my observation. It is considered inferior to digitalis, by many physicians, as a cardiac stimulant and tonic, though it does not con-

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tract the arteries as digitalis does, its influence in increasing blood-pressure being due to its action on the heart.

I extract the following from a number of the Therapeutic Gazette, issued in 1887:-

"In this country Dr. C. L. Dana has extended our knowledge of the action of this plant through the report of a series of cases read before the Practitioner's Society of New York, on December 3, 1886, in which he has used the drug. In one or two cases of Bright's disease, in which Dr. Dana used this drug, little or no striking benefit was observed as regards the cardiac irregularity and weakness, while in three cardiac cases progressive improvement occurred, while the drug was being administered. In two cases marked improvement occurred after strophanthus was administered, while previously no special improvement was observed, three cardiac tonics having been already tried without avail in one case and two in the other.

"Dr. A. A. Smith also states that strophanthus had been used in the wards of Bellevue Hospital. In two cases of pulmonary œdema it was administered with good results. The first was a case of mitral systolic and double aortic lesion, in which pulmonary œdema developed after unusual exertion. Five minims of the tincture were given every four hours, and the patient recovered. He also reported a case of emphysema, in which this drug appeared to produce excellent results.

"Dr. Beverly Robinson, at the same meeting, read notes of twelve cases in which strophanthus was used with success, even in some instances after other cardiac tonics had failed to produce any result, though perhaps it is worthy of note that often the mere change from one cardiac tonic to another will increase the quantity of urine for a day or two, or more."

### STRYCHNIA.

Strychnia increases blood-pressure and augments the circulation, being valuable in debilitated conditions for this purpose—if not overdone, to cause nervous excitement—in malarial districts where the circulation has become enfeebled and there is a congestive tendency. In states of collapse in cholera or in yellow fever, it has been extolled as a stimulant to the nervous system and to the circulation. In such cases it may be injected hypodermatically, the dose being repeated if necessary, at intervals, until the effects of the drug have been derived. It is also useful to steady the system in chronic alchoholism, and its use hypodermatically constitutes a large share of the "Keely" system for the cure of drunkenness.

Probably the excellent effects of this drug in impotency and enuresis in elderly persons is due to the influence exerted upon the circulation in the spinal cord, or upon the centers from which the requisite impulses originate, which call up the functions which seem lacking in these diseases.

Strychnia seems to exert a special influence upon the circulation in the gastric mucous membrane. In poisoning by this drug the part is found to be congested, and to evince the effects of enough disturbance to indicate an active excitement before death. In clinical use the drug is often useful where the mucous membrane of the stomach is irritable and hyperæmic, and where considerable catarrhal discharge attends the difficulty. The dose should be attenuated here as high as the 3x, at least. In this quantity—two or three grains—it is a valuable remedy in many cases of dyspepsia. Sometimes the 6x trituration will act more effectively than a lower attenuation; the dose must be minute, in such a case, that the condition be not aggravated.

# VERATRUM VIRIDE.

Veratrum, in large doses—poisonous—paralyzes the vasomotor center and the respiratory tract. It rapidly lowers the temperature in such cases, and when given in minute doses it strengthens the functions of the vascular system, at the same time acting as a thermal depressant.

In minute doses then veratrum is a valuable remedy in febrile and inflammatory conditions, improving the power of the heart, blood-vessels and respiratory functions, promoting secretion from the skin, lungs and kidneys, and calming nervous excitement. It is especially indicated in inflammation of the area of distribution of the bronchial arteries, and has been considered a specific in the early stages of pneumonia.

Its general action as a sedative, however, commends it, and in any case where the temperature is elevated and the pulse full and hard, with arrest of secretion, and other evidence of febrile action, veratrum is a valuable remedy if not contraindicated.

The contraindication consists of a sensitive state of the stomach inclining to gastric irritation. Veratrum readily induces nausea, if not vomiting, in such cases, and should be avoided, however much indicated in other respects.

Veratrum is valuable in malarial fevers, in inflammatory rheumatism, in congestive headaches, in erysipelas —active stages of—and in almost all forms of inflammatory action, when not contraindicated. However, I believe we possess better remedies in almost every instance.

This was a favorite topical remedy in local inflammations with Professor Howe, and he often recommended it in his writings, but I have been disappointed with it here so many times that I do not consider it very favorably. I think that echinacea is far superior to it in any place where it would be indicated as a topical remedy for inflammatory action.

Professor Scudder asserts that veratrum is a stimulant to all the vital functions—vegetative processes—acting through the sympathetic nerves to remove obstruction to the 'capillaries and give tone to the entire cardiovascular system. As the circulation becomes free the normal power of the heart and blood-vessels returns and the rapidity of the pulse and excitement of the vasomotor system subside to the healthy condition.

Veratrum is contraindicated in asthenic conditions. Where the pulse is small and the circulation feeble, we have more appropriate remedies in aconite, belladonna, rhus tox, echinacea or ferric phosphate 3x. There ought to be a condition of sthenia present to suggest its use in febrile action.

Form for Administration .- The specific medicine.

Dose.—About half a drop for an adult: Add fifteen drops to half a glass of water and give a teaspoonful every hour. Thus the small dose is frequently repeated and the influence is steadily kept up.

# THE LYMPHATIC SYSTEM.

# ALNUS RUBRA.

Alnus possesses, in some quarters, the reputation of reducing enlarged lymphatic glands, and is, therefore, entitled to a place in this department. Although credited by some writers with a direct influence in glandular enlargements it has never been used to any great extent for this purpose, but has been relegated by old authors, to that class of agents vaguely termed "alteratives." These remedies are credited with purifying the blood by some unknown process—of improving the processes of waste and nutrition and correcting syphilitic dyscrasiæ and scrofulous states. This would be crediting the remedy with a number of different qualities, all of which it may possess

If alnus specifically influences the lymphatic glands it no doubt plays an important part in the process of the elaboration of the blood, indirectly, by encouraging the functional—if not structural—power of these parts. That it does this there is no question in the minds of those who are familiar with its action. Where a scrofulous cachexia is prominent, as manifested by indolent swellings, obstinate cutaneous ulcerations, and tendency to glandular suppurations, this remedy is one of our best indigenous agents.

It will not correct the suppurative tendency as readily as the sulphide of calcium, perhaps, but it will go further into the case than that remedy and correct underlying states which are indirectly etiological factors in the suppurative state, and remedy at the same time concomitant ills, thus covering a much more extensive territory than that drug, in a curative sense. However, there would be no good reason why the lime salt and the vegetable remedy might not be administered in alternation and the advantage of the conjoint action of the two remedies thus be derived, when this seemed urgently demanded.

I was once familiar with the practice of a "Thomsonian," who relied almost entirely upon this remedy in all chronic affections. It was his tonic, blood purifier and all round remedy for every chronic affection, and his success, in many cases, was phenomenal. The lympkatic system represents the tap-root of animal life, and a remedy which can augment its functions when the economy is disturbed, offers many probabilities of success.

The value of this class of remedies in syphilis is due, in all probability, to their power of improving the activity of the lymphatic glands, as induration and impaired function of these organs is one of the pernicious effects of this disease. Syphilis, scrofula, and other dyscrasiæ depending upon faulty elaboration in this system are very favorably influenced many times by this remedy. And while many cases of skin disease are probably dependent upon a fault of the plastic power of the skin, others are the effect of faulty glandular action and may be much benefited by the administration of agents influencing the lymphatic system.

In chronic ulceration, obstinate eczema and depraved states of the blood in any form, this remedy is commendable for a trial.

Form for Administration.-The specific medicine.

Dose.—Erom one to ten drops three or four times a day.

### AMPELOPSIS QUINQUEFOLIA.

The American ivy is a remedy credited with a marked influence over the lymphatic system, though its direct effect in the way of lessening glandular enlargement is not proven. However, its effects on the blood-making functions are such that there is little doubt that they are due to a dynamical influence on these organs.

Ampelopsis is applicable to those vitiated conditions of the system termed "scrofulous," and it doubtless acts by improving the functional energy of the organs concerned. It is not a very powerful agent, and will be used but seldom, as there are more positive remedies of its class.

Prof. Goss asserts that ampelopsis is a valuable remedy in leucocythæmia, regulating the proportion of white blood corpuscles and improving the nutritive functions.

Form for Administration.—A tincture of the green leaves.

Dose.—From ten to thirty drops, three or four times daily.

# ARCTIUM LAPPA.

This remedy is credited with anti-scrofulous properties, and is supposed to influence the lymphatics in struma and syphilis, but the testimony rather seems to prove its affinity for the skin, as it is in affections of this organ that it has accomplished the most positive effects. Possibly this "alterative" influence may be accredited somewhat, but the proposition that it positively influences the lymphatic system may be accepted with reserve. I think the only scrofulous affections that will be found to improve under its influence are those manifesting themselves upon the skin, and these are probably due to a local depravity of tissue, rather than to faulty elaboration of the blood. (See Skin Remedies.)

#### THE LYMPHATIC SYSTEM.

# BADIAGA.

Fresh water sponge has been but little used and is probably not destined to play an important role in the therapeutics of the future. It manifests an affinity for the Meibomian glands, and has been recommended as a remedy for scrofulous swelling of the lymphatics. In some respects it resembles the salt water sponge.

## BARIUM, IODIDE OF.

Iodide of barium exerts a specific influence on the lymphatic glandular system, though it doubtless spends its best influence on the tonsils. In all scrofulous enlargements of the lymphatic glands, however, it is a useful remedy, also for ovarian tumors in scrofulous subjects, for scrofulous ophthalmia with swelling of the meibomian glands, and for swelling and induration of the testicles.

Form for Administration.—The 3x trituration.

Dose.—From two to three grains three or four times a day.

### BARIUM, MURIATE OF.

The chloride of barium is a favorite remedy with some of the homeopathists in the treatment of scrofulous inflammation of the lymphatic glands, especially those of the mesentery. Dr. Goullon extols it highly for this condition in his work on scrofula.

The form for administration and dose should be the same as that of the iodide of barium.

### BERBERIS AQUIFOLIUM.

This remedy exercises a pronounced effect upon the lymphatic system, as evidenced by its remarkable influence in the arrest of ulcerative action. But it also proves a prompt remedy in syphilis, and scrofula, as well as in depravation of the blood in other cases dependent on imperfect functional service of the lymphatic system.

One of the best places for berberis in this respect is its application to the treatment of chronic bronchitis, in syphilitic, scrofulous, or senile subjects, in whom there is probably enlargement and irritation of the bronchial glands in connection with the irritation of the mucous membrane.

I have cured some very obstinate and long standing cases of bronchorrhœa of this character with this remedy. Sometimes it may be well, especially if the subject be syphilitic, to begin with a combination of this remedy with the iodide of potassium, though the iodide should be dropped after the first month. Ulceration of the cutaneous surface and also of the mucous membranes, when dependant upon faulty glandnlar action yields to this remedy very promptly.

The form for administration and dose have already been referred to.

# BROMINE.

Bromine is a remedy of prompt action in the reduction of strumous enlargement of lymphatic glands. In order to derive a speedy effect the dose should be very small, say a grain or two of the 6x trituration, repeated three or four times a day. I have seen marked results follow the use of this remedy in such cases.

# CALCAREA CARBONICA.

This remedy is not, as its name might imply to some, the carbonate of lime, but it is prepared from oyster shell (calcarea ostrearum), and represents an organic principle, peculiar to itself, upon which its medicinal property depends.

Calcarea carb. is an important remedy in scrofula and scrofulous conditions due largely to faulty action of the lymphatic glands. Lack of nutrition and proper bony formation as evidenced in rickets, is due, probably to this cause, as well as the head sweating of a certain class of debilitated infants, in which we have no other remedy so positive as this.

As regards the action of this remedy in scrofula I will quote from Hughes' Manual of Pharmacodynamics:

"Calcarea carbonica performs wonders in ophthalmia; like sulphur, it removes scrofulous pot-bellies, if I may be allowed the expression; like phosphorus, it cures scrofulous diarrhœa. Dr. Goullon cites cases of tabes mesenterica, of strumous ophthalmia and otorrhœa, and of diseases of the joints and vertebræ in such subjects, where calcarea has proved curative. Dr. Gourbeyre shows that scrofula was one of the chief maladies in whose treatment the animalized forms of carbonate of lime gained their ancient repute. My own experience with it is especially in the treatment of mesenteric disease, in which-if not too far advanced-it is an invaluable remedy. You remember the enlarged abdomen of cretinism. This brings us also to bronchocele, of which Goullon writes: 'The swelling of the thyroid gland is so intimately connected with scrofula that its former name-strumahas been applied to the diathesis.' He gives three cases of the disease cured by calcarea. They were all simple hypertrophies; but the power of the drug over cystic growths-of which I shall speak presently -would encourage its use in the cystic form also of goitre. Dr. Gourbeyre relates the favorable experience of a French practitioner (Chlyssiol) in this disease with powdered egg-shells, and a case of his own, in which a large but soft goitre of many years standing disappeared in seven months under Hahnemann's calcarea carbonica in the fourth trituration."

Calcarea carbonica is a favorite remedy with me in the treatment of muco-purulent discharges from mucous membranes, when they depend upon a scrofulous condition of the system—when they occur in persons most predisposed to scrofulous affections. I have arrested bronchorhœa diagnosed by good observers of disease as phthisis with it in a few weeks, in more than one instance. I have cured chronic pharyngitis, and inflammation of the posterior nares attended by profuse discharge with it, many times. I have prescribed it in profuse leucorrhœa, both of uterine and vaginal origin successfully, though I do not prize it so highly here as in affections of the pharynx and respiratory tract. I have been disposed to ascribe an affinity for those parts to it.

Form for Administration.—The 3x trituration is the form I am in the habit of using.

Dose.—From one to three grains, repeated three or four times a day.

# CALCAREA FLUORATA.

This is recommended by Schuessler for enlargement of the lymphatic glands, and is asserted to accomplish said results by improving the tonicity and structural integrity of the walls of the lymphatics.

On this point Schuessler remarks: "A disturbance of the equilibrium of the molecules of calcium fluoride causes a continued dilatation, or chronically relaxed condition of the implicated fibers. If the elastic fibers of any portion of the vessels of the connective tissue or of the lymphatic system have arrived at such a condition of relaxation, the absorption of a solid exudation in such a part cannot take place. In consequence, induration (hardening) of the part sets in. When the elastic fibers of the blood vessels suffer a disturbance of the molecules  $\frac{20}{20}$  of calcium fluoride, such pathological enlargements of blood vessels take place, which make their appearance as: hemorrhoidal tumors, varicose (dilated) veins and vascular tumors."

By referring to the remedy under "Inorganic Proximate Principles," a more complete consideration of this subject may be found. There is no question that the deductions of this author, in this direction, are entitled to much consideration. I have proven in practice the application of calcium fluoride to enlargements of the lymphatics, though it is liable to fail, as well as other remedies.

Form for Administration.-The 3x trituration.

Dose.—Add five grains to half a glass of water and give a teaspoonful every two or three hours.

# CALCAREA IODATA.

The iodide of calcium also belongs to this group, though Schuessler does not include it among his remedies. It is especially serviceable in enlargement of the cervical lymphatics accompanied by cough of persistent character and other evidences of attending enlargement of the bronchial glands. In such cases the iodide of lime is the remedy for the cough, while it dissipates the glandular enlargement, and completes the cure.

Such a condition as this is liable to be attended by chronic bronchitis, in the case of scrofulous children, and iodide of lime is one of the most appropriate remedies that can be chosen. It may be administered in the form of triturations—the 3x—or in solution. Larger doses may answer the purpose, but there is no advantage in them over minute ones.

## CALCAREA SULPHURATA.

The sulphide of calcium is a very reliable remedy for affections of the lymphatic glands of inflammatory

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nature, possessing the power of controlling adenitis before suppuration has begun, as well as of hastening this process when it has become unavoidable, limiting, meantime, the destructive action.

The best influence of this remedy is developed in chronic conditions, acute affections being better controlled by phytolacca and other remedies. But in chronic inflammation of the lymphatic glands, this is probably the most positive agent we have, if the tendency is toward suppuration.

Ringer remarks: "An unhealthy child, from six to twelve years old, perhaps in the course of measles or scarlatina, is the subject of a slight sore throat, which produces behind the angle of the jaw considerable enlargement of the glands, and the swelling, of stony hardness, may be large enough to interfere with swallowing, and even to push the head on one side. Very deep-seated suppuration takes place, and for a long time there is neither redness of the skin nor fluctuation, and the pus very slowly makes its way to the surface, so that a fortnight, three weeks, or even a month may elapse before the abscess bursts, or is fit to be opened, when a deep hole is left, with considerable induration around it. So great are the pain and constitutional disturbance that the child sometimes dies; and even if this fatality be averted, the deep discharging hole heals very slowly, owing to the indurated and unhealthy state of the adjacent tissues. Now, in such a testing case, if we give a tenth of a grain of sulphide of calcium mixed with a grain of sugar of milk, every hour or two, the results are most striking. The pain and constitutional disturbance begin to diminish, the swelling becomes smaller, the pus reaches the surface in four or five days, leaving when it is evacuated, a benign wound which quickly heals."

#### THE LYMPHATIC SYSTEM.

In another portion of this work (page 66) I have described a case where the remarkable power of this remedy over suppuration of the lymphatic glands was manifested.

Form for Administration.—Gelatine coated pellets containing half a grain of the drug are the least objecttionable, as the unpleasant taste and odor are concealed. One of these may be given three or four times a day.

# CARBO ANIMALIS.

This remedy has a reputation in certain quarters in the treatment of indolent glandular enlargements, as those from syphilitic infiltration, and from absorption from adjacent chronically irritated parts in other cases. It is adapted to depraved conditions of the system depending on glandular obstruction and faulty elaboration of the blood, as in scrofula and syphilis.

Form for Administration.—The third decimal trituration. Dose.—Two or three grains, three or four times daily.

### CISTUS CANADENSIS.

Rock rose enjoys considerable of a reputation among the homeopathists as a remedy to influence the lymphatics, and is used by them in the treatment of scrofulous enlargements of the lymphatic glands, with success. Hale compares it with the "antipsorics," calcarea, corydalis, graphites, hepar sulphur, phytolacca and stillinga. He asserts that he has made some brilliant cures of swelling and suppuration of the cervical lymphatic glands, and also of scrofulous abscesses, scrofulous hip disease, scrofulous eruptions, as tetter, chronic erysipelas, etc., with it. He further asserts that it has a decided affinity for the glands of the mucous membranes, thus proving highly valuable in scrofulous ophthalmia, scorbutic gums, and catarrhal inflammation of the nasal and pulmonary passages. It might be thought favorably of in scrofulous affections of the mesenteric glands.

Form for Administration.—The tincture from a reliable homeopathic pharmacy.

Dose.-From the fraction of a drop to ten drops.

# CORYDALIS FORMOSA.

Turkey corn, though not a remedy which visibly influences the lymphatic glands, evidently affects their functions, if we are to judge from the results obtained from its use in syphilis and scrofula. Its specific action in syphilitic nodes has already been referred to, but it evidently influences the elaboration of the blood when this is faulty—in scrofula or syphilis.

Hale suggests that corydalis resembles the action of iodide of potassium, mercury and other mineral remedies, which have been accredited with a positive action on the lymphatic glands. However this may be, I am quite positive, from my experience, that this is one of our most reliable functional remedies to influence faulty action of the lymphatic system, and that it has few equals.

The dose and form for administration have been given in another place.

# IODIDE OF IRON.

This combination is of service in scrofulous inflammation of the lymphatic glands, wherever located. It will be found especially beneficial in pallid, anæmic cases, where there is marked deficiency of tonicity with hectic fever. In syphilis complicated with anæmia, it may sometimes be found useful when this condition prevails. The remedy may be prescribed in the form of a syrup, of which the dose may be from ten to thirty drops.

#### THE LYMPHATIC SYSTEM.

### IODINE.

Though very much overestimated, iodine may be thought of as a probable remedy in all cases of inflammatory condition of the lymphatic glands, and in all conditions resulting from obstruction to the circulation through these organs, and in all conditions depending upon faulty performance of their functions.

I think the best use of iodine is in chronic lesions of the glandular system, several of our vegetable remedies being more effective in acute conditions. The best form for introducing the remedy into the system is in the form of the syrup of hydriodic acid, to which remedy reference is made for further particulars in this respect.

If the iodine is to be administered internally it should be given in the form of triturations, the first being prepared from the tincture as directed in Principles of Medicine, under Forms for Administration. The 3x or 6x trituration will be found most satisfactory.

## MENISPERMUM CANADENSE.

The vine maple is a favorite alterative with our old Eclectics, acting directly, apparently, on the lymphatic glandular system, and correcting perverted states due to faulty action of the elaborating power of these glands.

Combining with this property that of a stomachic and tonic, it proves a valuable aid when scrofulous or syphilitic conditions are complicated with digestive derangement of functional character. It has been accredited with specific hepatic properties also. It is of little value unless prepared from the fresh root, and as it is not in the list of specific medicines only the rural practitioner, who is acquainted with it or possesses a knowledge of botany, will be able to procure a good article.

Form for Administration.-The fresh root tincture,

prepared by covering the root with alcohol, and allowing it to macerate fourteen days.

Dose.—From ten to thirty drops, repeated four or five times a day.

# POTASSIUM, IODIDE OF.

The iodide of potassium assists in the removal of worn out tissues, and acts through the grandular system in doing this, in some measure at least. It possesses a marked power over the action of the lymphatics, without doubt, though in adenitis and in chronic enlargement of the lymphatics, we probably possess better remedies.

The great sphere of potassium iodide is in the removal of old syphilitic deposits, in which it is a powerful remedy, and when administered with some vegetable "alterative" remedy it does not produce much debility if not followed too long in large doses. In old and obstinate syphilitic skin affections this remedy may be combined with berberis aquifolium or menispermum, with marked advantage, the morbid deposits melting away and their sites being readily healed. In such cases the iodide should not be continued for more than a month at a time, to be followed by the vegetable remedies which seem best adapted to the improving of blood-making and proper activity of the lymphatic system, as berberis, corydalis, stillingia, etc. I believe the berberis aquifolium to be the best, in many cases.

The dose of iodide of potassium will vary much, though if we are to make a marked impression in a short time it must be as large as the patient can bear without producing unpleasant drug effects. It may range from ten to thirty grains, largely diluted with water, three or four times a day. Some authorities assert that as much as two, four, or six drachms may be given per day with excellent effects in syphilis. It is certain, however, that

#### THE LYMPHATIC SYSTEM.

large doses ought not to be continued long, as iodism is likely to follow and a condition worse than that of syphilis be entailed upon the patient. The precaution of liberal dilution should not be forgotten.

# PHYTOLACCA.

This agent is one of the most reliable ones we have in the treatment of acute adenitis. It is specially valuable in the inflammatory action liable to occur in the cervical lymphatics due to absorption from the fauces in the late stage of scarlatina. However, in all forms of acute inflammation of the lymphatic glands, it will be found a very useful remedy.

This remedy influences other grandular organs besides the lymphatics, as, for instance the mammæ, the testes, the thyroid, etc.

Extract of phytolacca berries (the juice) seems to lessen the amount of fluids in the body, or, perhaps I better say, the amount of fat. But I am inclined to the belief that the value of the agent in obesity does not consist so much in its power to remove fat as to stimulate the absorption of superfluous fluids in persons of lymphatic temperament. In those who are stout on account of the deposition of fat, the remedy produces no marked effect so far as the reduction of the weight is concerned, though it may improve general elasticity. On this subject a writer in the *Homeopathic News* remarks:—

"I have used the phytolacca as an anti-fat remedy for several years, and know that it is good, having proved it on myself. My grand-father was a great ale and beer drinker, and of course had a very large corporation—big belly. He used to tell me that grand-father would never be dead as long as I lived, meaning that I would grow like him. This used to scare me as a child, but judge of my annoyance, as I grew to manhood, and found the prediction becoming true, and in late years I was very much troubled about it. In studying phytolacca, I saw the statement about birds, and began trying it, and always with much benefit. My own corporation is entirely gone. I can stand upright, look down my body, and see everything. I used one drop of tincture made from berries picked from a tree in my garden. Equal berries to their weight of alcohol. The berry juice, with only enough alcohol to prevent their fermentation is the best; then one drop doses night and morning are enough.

"While I was taking these drops I felt as light and springing as a bouncing ball; could run and jump with any boy. I am now fifty-eight years old, and take my Saturday half holidays in the cricket field, playing that manly and scientific game. I have used it on others, and all with benefit. Some very fat women have been made comfortable. I have used it in the solid extract prepared after Professor Waterhouse's formula. By actual measurement their adipose has been reduced by inches. It was easier to keep track by measure than by weight. In a few cases they have said they gained in weight, while they grew less in bulk, but all confessed to the elasticity they felt."

Form for Administration.—The specific medicine, when an action on the lymphatics in adenitis is desirable. In obesity, the inspissated juice of the ripe berries only, should be employed. This is prepared by crushing the ripe fruit, and after straining through a fine seive or coarse cloth, to remove the seeds, allowing the product to evaporate to a waxy consistency in the sun. This is administered in doses of three or four grains, repeated three or four times daily. The dose of the specific medicine—in adenitis—should be a drachm to

### THE LYMPHATIC SYSTEM.

four ounces of water, from which a teaspoonful may be taken every two hours.

# RUMEX CRISPUS.

Yellow dock is one of the best "alteratives" possessed by any school of medicine, and its most valuable properties doubtless depend upon its action on the lymphatics.

I am satisfied that this agent has never received the attention that it deserves as a remedy for dyscrasias depending on deficient action of the lymphatic glandular system. It is almost worthless as usually found in the drug market, and we have but one reliable form in commerce, viz., the specific medicine; but the plant grows almost everywhere, and it is an easy matter for the practitioner, from Maine to California, to gather it and dispense a fresh preparation.

The green root affords a preparation—tincture or infusion—which is unexcelled in chronic cutaneous affections depending upon faulty glandular action, as well as in chronic enlargement of the lymphatic glands. In affections of these organs where faulty elaboration of the blood is attended by indolent ulcerative or other chronic inflammatory conditions, this agent will be found a potent one. It assists retrograde metamorphosis and the building of better tissue, invigorating the vegetative system as well.

Form for Administration.—The specific medicine or an infusion or decoction of the fresh root.

Dose.—Of the specific medicine fifteen or twenty drops three or four times a day. The infusion may be given in doses of a wineglassful as often, while the decoction may be about a tablespoonful at the same intervals.

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### STILLINGIA.

A tincture of the green root of this plant is a valuable remedy in scrofula and syphilis, and probably much of this excellence depends on its action on the lymphatic glandular system.

King, Scudder, Goss and other Eclectic writers have indorsed stillingia as a reliable remedy in affections of the lymphatics, but many have nevertheless been disappointed with its action. The explanation for this lies in the fact that the virtues of the root are lost in drying, and those who have been most successful have used preparations from the fresh article.

# THE DUCTLESS GLANDS.

## CALCAREA CARBONICA.

Triturated oyster shell exerts an influence on recent cases of goitre, which is sometimes very positive. In long standing cases however its use will usually be followed by disappointment. Professor Snyder, of the Cleveland Homeophatic Hospital College, used to place great stress upon the use of this agent in combination with spongia, in the treatment of goitre. It was his stereotyped treatment, and he prescribed for numerous cases in his clinic, usually with good results, but with an occasional failure. I have since employed it successfully in a number of cases, usually using it in combination with spongia, though I have prescribed it alone with good results. It is not always successful, but it influences the part, without doubt.

Form for Administration.—The 3x trituration of calcarea carbonica, as supplied by homeopathic pharmacies.

Dose.—From one to three grains three or four times a day.

## CARLSBAD SALTS.

The sprudel salts are prompt in many cases in their action on the spleen, when it has become hypertrophied. from chronic congestion. In the enlargement attending cases of malarial cachexy this remedy has proven very serviceable sometimes, as I know from observation. However, I prefer the quartette—polymnia, grindelia squarrosa, ceanothus, carduus marianus—of vegetable remedies, which are likely to succeed when the salts fail.

# CARDUUS MARIANUS.

Carduus marianus influences the spleen, being especially valuable in nonmalarial hypertrophies, where polymnia and other remedies of this class fail. The indication for it is dull, aching pain in the region of the spleen, extending under the left shoulder blade, and attended by despondency and physical debility of marked character. It relieves the pain when there is no enlargement appreciable. It has been recommended for leucocythæmia, but I have no knoweledge of its virtue in this direction.

Form for Administration.—The tincture from a homeopathic pharmacy.

Dose.—The fraction of a drop, repeated three or four times a day.

### CEANOTHUS AMERICANUS.

This is a very reliable remedy for splenic troubles. It relieves pain in the spleen as promptly as any remedy in this class, and removes chronic hypertrophy. It is an old Eclectic remedy, being mentioned in old editions of the American Dispensatory, but its affinity for the spleen was not mentioned by our early writers. It came into extensive use in the army during the war with the South as a remedy for "ague-cake," and has since been largely adopted by practitioners of our school for the same purpose.

Form for Administration.—The specific medicine. Dose.—From the fraction of a drop to ten drops.

## CORALLORHIZA ODONTORHIZA.

Dr. E. W. Schooley (*Eclectic Medical Journal*) reported a case of goitre cured with this agent very speedily, a few years ago. No report of its use in this direction has been made since, however, and its value may still be regarded as hypothetical; at least not fully established. The remedy was administered in the form of an infusion and drank freely. The goitre was complicated with bronchial irritation, for which the remedy was specially intended, and the goitre was incidentally relieved. This remedy is fully described in the American Dispensatory.

# GRINDELIA SQUARROSA.

This remedy has proven curative in chronic affections of the spleen of stubborn character, and should not be omitted from this list. In chronic dyspepsia depending on long-standing malarial disease, and in painful states of the stomach where the spleen seems to be involved, it should be recollected as an agent liable to effect speedy relief. It not only relieves the pain and fullness in the splenic region attending, but seems to act as an invigorator of the system, improving the power of the vegetative processes, thus augmenting digestion and assimilation.

It possesses antimalarial virtues, and is therefore especially valuable in splenic congestion occurring in malarial cachexy.

Form for Administration.—The specific medicine. Dose.—From five to twenty drops.

# IRIS VERSICOLOR.

This is Professor Scudder's specific for goitre. I have been very well pleased with my experience with it, especially in recent cases, but it will frequently fail, as 'will every other remedy recommended for this condition.

One important consideration is the obtaining of a preparation which represents the properties of the fresh or recent root. This can be accomplished by using the specific medicine, or by preparing a tincture in the office when the plant can be readily found. The variety of which the root presents a mottled appearance when cut, is the best, according to Scudder.

Dose.-From a fraction of a drop to ten drops.

#### THE DUCTLESS GLANDS.

# MENISPERMUM CANADENSE.

This remedy seems to exert an influence upon the functions of the spleen in leucocythæmia, when that organ is especially involved, correcting the tendency to the presence of white corpuscles in the blood and to attendant splenic hypertrophy. But little positive is yet known regarding this action, but enough has been demonstrated to encourage further investigation.

Form for Administration.—A saturated tincture of the fresh root.

Dose.—From ten to thirty drops, three or four times daily.

# PHYTOLACCA.

I wish to call attention here to the value of phytolacca in enlargement of the thyroid gland. From reports which I consider reliable I believe it to be one of the best remedies we have for bronchocele. Dr. H. H. Webster, formerly of North Jackson, Ohio, used it successfully, for years, for this purpose, and always with satisfactory results. He considers it superior to iris, calcarea carb., spongia, or any other remedy in this class.

### POLYMNIA UVEDALIA.

The specific affinity of polymnia for the spleen has been attested by various Eclectic physicians for many years, and has become one of the established points in our therapeutics. Its action is prompt and unmistakeable, when disturbances of the circulation here are to be controlled, or their sequelæ removed.

It not only acts promptly in the removal of the enlargement known as "ague cake," but it proves resolvent of other indurations. Probably I may say without challenge that this is *the* typical spleen remedy—which excels all others in promptness and positiveness of action. There is but one form of splenic enlargement in which its value will not soon be attested; and this is a condition that defies most efforts for its removal, because it depends upon a deeply seated constitutional depravity, which is an etiological factor in a series of changes of which the splenic derangement is but one of many. I refer to leucocythæmia. Even in this case I have known polymnia to appreciably diminish the size of the spleen, though this was probably on account of its influence over the circulation here, the disease proceeding to an unfavorable termination unchecked, the enlargement of the spleen being but partially reduced.

Form for Administration.-The specific medicine.

Dose.—From five to twenty drops three or four times a day.

## SPONGIA.

Spongia exerts a selective influence on the thyroid gland, though there are other agents which are more powerful in this respect, as a rule. I have alternated spongia with calcarea carb., in old cases of goitre with satisfactory results, but would usually expect more from iris or phytolacca.

Hughes, one of the most rational of homeopathic writers on therapeutics, writes of this remedy in his Manual of Pharmacodynamics as follows:—

"Burnt sponge has been used ever since Arnold of Villanova introduced it in the fourteenth century, as a remedy for goitre. Hufeland and all authorities of his time express the utmost confidence in it, and Joseph Frank says it is as sure as cinchona in intermittent fever. Since the discovery that it contained iodine, and that this agent by itself displayed marvelous antigoitrous properties, sponge has fallen into disuse in ordinary practice, Vogt alone among modern therapeutists protesting that it will cure when iodine fails. In homeopathic practice it has not undergone this neglect. Hahnemann says that the endemic bronchocele of the inhabitants of valleys, being always essentially the same affection, ought to be curable by the same specific; and this he considers spongia to be. He states that one or two doses of the attenuated tincture (he does not state how far attenuated) suffice for the purpose. If this is spoken from experience, it ought to be tested more widely than it has been. Dr. Hering can only find three cases of cure by it in infinitesimal doses, and Dr. Hoyne reports but one more; and of these one alone answers to Hahnemann's description. I know, however, of another; and probably many testimonies could be borne to it."

Form for Administration .- The tincture from a homeopathic pharmacy, or the 3x trituration.

Dese.-From the fraction of a drop to ten drops of the tincture. Of the trituration, from one to three grains three or four times daily. The dose of the tincture may be repeated as often.

## STROPHANTHUS.

Strophanthus is accredited with the property of selecting the thyroid gland for a portion of its field of action. Its action in this direction was accidentally observed while treating a case of cardiac trouble, the goitre which afflicted the patient at the same time disappearing under its influence. It would probably repay trial in exophthalmic goitre.

# URTICA DIOICA.

The seeds of the stinging nettle are reported to have removed goitres. A tincture should be made from the fresh seeds by covering them with pure alcohol and allowing them to macerate fourteen days. Of this from a fraction of a drop to ten drops will constitute the dose. Internal remedies may often be externally assisted, in the treatment of goitre, by the local use of polymnia ointment. An ointment of biniodide of mercury has also been highly extolled in some quarters.

#### THE DIGESTIVE ORGANS.

# THE DIGESTIVE ORGANS.

### ACONITE.

Aconite is a valuable remedy in the treatment of morbid states of the alimentary canal. In angina faucium and follicular tonsillitis it combines with phytolacca to constitute a very successful prescription, the result being almost immediate relief in most instances. In this case the proportion is from five to ten drops of aconite, from a half drachm to a drachm of phytolacca, and four ounces of water, of which the dose should be a teaspoonful every hour.

In gastric irritation it is valuable, the aconite alone serving a good purpose, though its combination with rhus tox. is usually more satisfactory. Five drops of aconite and ten or fifteen drops of rhus in four ounces of water, furnish the appropriate strength for teaspoonful doses, which may be repeated every half hour or hour, according to the urgency of the symptoms. In some forms of cholera infantum, in cholera morbus, and in diarrhœa from irritation, the same prescription is very successful, not only relieving nausea and vomiting but controlling diarrhœa.

Aconite combines with ipecac to control many cases of infantile diarrhœa, cholera infantum and other intestinal irritation attendant upon dentition, as well as dysentery and other acute gastro-intestinal irritation in adults. It is a favorite and effective ally of other remedies of this class in almost all forms of recent vascular disturbance of the gastro-intestinal mucous membrane.

In aphthous inflammation of the oral mucous membrane, acute in character, aconite and phytolacca combined as already directed, constitute a specific treat-

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ment, few cases refusing to yield to two or three days of their use.

Form for Administration .- The specific medicine.

Dose.-This has already been suggested.

## ÆSCULUS HIPPOCASTANUM.

This remedy spends its main influence on the circulation of the lower portion of the alimentary canal.

Its best effects are manifested in congestive states of the hemorrhoidal vessels, and we may expect prompt beneficial results from it in the treatment of many cases of piles.

Dr. Richard Hughes writes as follows regarding the influence of this remedy on the rectum and anus (Manual of Pharmacodynamics):—

"The region most constantly and strongly affected by the horse-chestnut is that of the rectum and anus. No prover escaped its influence there; and beyond the many forms of distress experienced by others—dryness, fullness, constriction, sense as if a foreign body were there, heat, itching, in two, one of whom had never had piles before, these morbid growths (?) were produced. Correspondingly, æsculus has acquired a high reputation in the homeopathic school as an antihemorrhoidal medicine. I have several times affirmed and illustrated its value; and Dr. Hale cites numerous testimonies of like import. The form of the disease in which I have found it specially efficient is that in which the only connected symptom or appreciable cause is constipation, and where there are much uneasiness and pain but little bleeding."

Chronic throat trouble is often a concomitant of rectal irritation; and here this remedy will be found serviceable. It has even been recommended by some writers as a remedy for follicular pharyngo-laryngitis.

Hale (New Remedies) recommends this remedy in hepatic congestion, when accompanied by hemorrhoids, and
suggested by aching, pinching pains in the right hypochondrium, which are aggravated by walking.

Dr. Hart (quoted by Hale) considers throbbing in the abdominal and pelvic cavities, especially the pelvic, a keynote for its selection as a remedy. This allies æsculus to hypericum, somewhat, though the throbbing of the latter is general—all over the body and nervous system while that of æsculus is probably a result of disturbance of the hemorrhoidal and portal blood vessels.

Form for Administration.-The specific medicine.

Dose.—Add from ten to twenty drops to four ounces of water and order a teaspoonful four or five times a day.

#### ÆTHUSA.

This remedy seems especially adapted to the gastro-intestinal disturbance of bottle fed babies, when milk is the diet used. In cholera infantum and infantile diarrhœa arising during hot weather, æthusa rivals ipecac in its beneficial effects.

Though authors have attempted to discriminate as to the particular symptoms that call for the remedy, the knowledge of its specific affinity and application will be sufficient to enable one to apply it in practice without such symptoms as "great anguish and crying; disposition to jump out of bed and escape from the room; great anxiety expressed by the face, often accompanied by the linea nasalis," etc. All these symptoms might occur in an ipecac case, and this remedy help promptly. When symptoms can be made to assist in the selection of a remedy they are to be desired, but not to cumber the ground with needless verbiage. Æthusa may be found useful where ipecac would seem indicated and fail, upon trial, to cure.

Form for Administration.—The 3x dilution from the tincture of the fresh plant. That found at a homeopathic pharmacy will usually be reliable.

Dose.—Add a drachm to four ounces of water and give a teaspoonful every hour.

### AILANTHUS.

This remedy has proven curative of malignant sore throat, ulceration of the tonsils, and other inflammatory conditions of the tonsils marked by adynamia and persistency. It is worthy of trial when other well tried remedies fail.

## ALETRIS.

Aletris farinosa specifically improves the functional power of the stomach, and is appropriate to any case of indigestion, especially in women whose reproductive organs seem to share in the disarrangement. As a stomach remedy, however, we need not reserve it strictly for female patients, for it acts well in the treatment of gastric disorders of the male.

Goss affirms that it is a valuable remedy in the gastric depravity that leads to diabetes, and states that he has found excellent results to follow its use in such cases.

This remedy may be thought of in dyspepsia where digestion is slow and difficult and attended with flatulence, especially in the anæmic debility of chlorotic girls and pregnant women.

Women prone to habitual abortion are often subject to feeble digestive functions, and aletris will here be of excellent service.

It is also of service in the morning sickness of pregnancy; probably one of the best and most reliable we have. It may be given in ten-drop doses of the specific medicine, and repeated every three or four hours during the day.

Form for Administration.-The specific medicine.

Dose.—Add half a drachm to four ounces of vehicle and order a teaspoonful four or five times daily.

#### ALSTONIA.

Alstonia is a valuable remedy in lienteric diarrhœa, in dysentery with malarious complication, and in atonic dyspepsia. It is one of the best remedies known in chronic malarial poisoning; and gastro-intestinal troubles depending upon, or complicated with, such a condition would suggest its use in practice.

Dose.—From two to four grains, three or four times a day. As the drug is extremely bitter, it should be taken after meals (powdered bark) in capsules.

### ALUMINA.

Hughes asserts that this remedy has the characteristic feature of "dryness, with more or less irritation," to indicate its use in the treatment of affections of the mucous membranes. "Thus it has proved curative in morbid sensitiveness of the nasal mucous membrane to cold; in chronic dry catarrh of the conjunctiva, even when it is granular; in chronic pharyngitis, where the membrane looks dry, glazed and red; in dry, hacking coughs from pharyngeal or laryngeal irritation; in dyspepsia from deficiency of gastric juice, and in constipation from lack of intestinal secretion."

Form for Administration.—The 10x dilution. Dose.—Five or ten drops three or four times daily.

### AMMONIUM, MURIATE OF.

Chloride of ammonium has been used successfully to remove catarrh of the stomach and intestines, especially after this has become chronic. It also exerts more or less influence upon the liver, being adapted to catarrh of the biliary ducts and to the relief of the pain which attends. Some writers have claimed antineuralgic virtues for it when the pain is located in the substance of the liver—hepatalgia.

Dose.—From ten to thirty grains three or four times a day, dissolved and well diluted in water.

# ANANASSA SATIVA.

The fruit of the pine-apple plant contains a peculiar ferment, which is a valuable aid to digestion, and will be found useful in dyspepsia. Being of acceptable flavor to many, a cold infusion of the sliced fruit is serviceable in the treatment of febrile states where there is lack of digestive power, especially in protracted fevers and in convalescence, relieving thirst and improving alimentation.

Pine-apple is also destructive to the tænia, and should be remembered where other means fail to expel this parasite.

### APIS.

Certain inflammatory conditions in the throat demand apis. The peculiar character of the angina faucium that would suggest the remedy is an evenly spread, puffy swelling, extending over the general surface, confined to no particular portion of the throat.

The puffiness would seem to be from involvement of the submucous tissues. There is not much redness nor pain, the character of the latter symptom resembling that of the sting of the bee. Some cases of sore throat in which there is an erysipelatous complication present us with such a group of symptoms, and will suggest apis as the remedy. Scarlatina also often offers such a condition for treatment.

Form for Administration.—The specific medicine. Dose.—From the fraction of a drop to a drop.

## APOCYNUM CANNABINUM.

Apocynum selectively influences the upper portion of the pharynx, and is applicable to acute infiammation of this part involving the posterior nares. It is almost as positive as phytolacca in its influence here, and when the irritation is confined to this spot, especially if there seems a predisposition to contract the trouble on slight exposure, it is the preferable remedy.

The remedy also has an application in dyspeptic conditions attending diabetes insipidus, "a sensation at the pit of the stomach, of sinking," being asserted as a characteristic symptom calling for it.

Form for Administration.—The specific medicine. Dose.—From the fraction of a drop to five drops.

# ARGENTI NITRAS.

Nitrate of silver possesses a selective affinity for the alimentary canal. Its effects are not marked above the stomach, but here it seems to exert considerable power over the reparative functions of the mucous membrane, proving one of the most reliable agents known in perforating ulcer, and playing an important part in the relief of gastric catarrh, gastralgia and flatulent dyspepsia accompanied with pain and cardiac disturbance.

Its action, however, is not confined to the stomach, for it has proven very successful in the treatment of chronic diarrhœa, with or without ulceration of the bowels, also in dysentery and cholera infantum where the irritation has become chronic and the recuperative powers of the gastro-intestinal mucous membrane seem to have become impaired.

Form for Administration.—The remedy must be reduced to very minute doses in order to derive a kindly and efficient action from it. I have employed the sixth decimal dilution with satisfaction in several cases, and would recommend that attenuation.

Dose.—The dose of the attenuation will vary from one to ten drops. Shoemaker recommends from one-sixth to one-half grain of the crude drug.

#### ARSENIC.

Arsenic influences the entire intestinal canal, from the mouth to the anus, though in many instances other remedies excel it. It is not a remedy that is usually applicable to apthæ, but in cases apparently depending upon constitutional depravity it will sometimes effect a cure when phytolacca, jaborandi, lachesis and other remedies fail. In cancrum oris it has a reputation among the homeopathists, and must be a remedy here worthy of trial at least.

In gastritis, especially the chronic form, and in gastric disturbances where burning in the stomach is a characteristic symptom, it usually helps, if it does not effect a cure. In such gastric states where aggravation follows the retrocession of a cutaneous eruption, arsenic sometimes helps magically. It also acts well in duodenitis, and in dyspeptic states resulting therefrom.

In certain cases of intestinal irritation arsenic is a valuable remedy. In dysentery, where the disease has lasted for several weeks, so as to have assumed a semi-chronic condition, and where the vitality of the mucous membrane has become more or less impaired, it excels the more popular ipecac and other vegetable remedies in effecting a cure. In chronic or advanced stages of cholera infantum, where the patient is wasting, and where there may arise suspicion of structural change in the mucous membrane, arsenic should be thought of.

It is an irritant of the nerve centers, and should be used with caution where there is marked irritability of the nervous system, as it is liable to aggravate this condition very much.

The arsenite of copper has been found of service in the treatment of cholera, to arrest the discharges and relieve the cramps. It has also been employed successfully in the treatment of the late stages of cholera infantum, to relieve excessive pain, and at the same time derive the intestinal influence of the arsenic. Cuprum relieves spasms and neuralgia, and thus constitutes an advantageous ally to arsenic in such cases.

The arseniate of strychnia has been used in chronic diarrhœa complicated with paralysis of the bladder, rectum, and lower extremities.

Form for Administration.—Fowler's solution is a good form where the simple arsenic is used. The arsenite of copper may be given in the 3x trituration. The arseniate of strychnia may be given in the 3x or 5x trituration.

Dose.—Of the Fowler's solution, add from five to ten drops to four ounces of water and give a teaspoonful every three or four hours. From one to three grains of the trituration of the arsenite of copper or arseniate of strychnia may be administered at a dose and repeated as often as three times a day.

## ARUM TRIPHYLLUM.

Wild turnip influences the buccal mucous membrane, and is applicable to irritation of this part in scarlatinal patients and others suffering from continued fevers in whom such symptoms appear; there is great soreness in the mouth, the tongue is red and sensitive, and the lips and corners of the mouth are cracked and incline to bleeding. The patient, especially if a child, seems irresistibly inclined to pick at the affected parts, even when this is attended with hemorrhage, and even if delirious and unconscious of surroundings. I have seen this condition several times in cerebro-spinal fever, and have been pleased with the action of arum in the treatment.

Form for Administration.—The specific medicine.

Dose.—Add five drops to half a glass of water (four ounces) and give a teaspoonful every two hours.

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## AURI ET SODII CHLORIDUM.

The chloride of gold and sodium is useful in gastric troubles attended by despondency and a desire for death. The mental symptoms of this drug stand out prominently, and should not be lost sight of in adapting it to gastric difficulties.

It is also sometimes useful in syphilitic ulceration of the throat after the abuse of mercury.

Form for Administration.-The 3x or 6x trituration.

Dose.—From two to three grains, repeated three or four times daily.

### BAPTISIA.

Baptisia is an excellent remedy for all acute inflammatory conditions of the alimentary canal attended by depravity of tissue as the result, and showing a tendency to breaking down of structure. The characteristic indications for its use are purplish or dusky discoloration of the mucous membrane, when this can be seen, as in the throat, with sloughy appearance and prune-juice exudation.

Its principal use will be in the treatment of malignant sore throat, typhoid dysentery and typhoid fever. Whereever there are marked evidences of prostration of the nervous system attending such cases, with tendency to drowsiness and stupor, with the local condition suggested by prune-juice discharges and purplish or dusky mucous membranes, with fetor of the breath or secretions, baptisia should be the first remedy prescribed, and should be the leading remedy throughout the treatment.

It probably serves to fortify the mucous membrane of the small intestine against the structural changes liable to be induced by the effects of typhoid fever, and it is a good plan to administer it from beginning to end in this

disease, as it is likely to shorten the duration of the affection and lessen the amount of breaking down, thus providing against probability of perforation.

It is said to possess marked sedative properties, and this might be considered an additional argument in favor of its use here, especially as it combines with this property that of a blood corrective—antiseptic or antizymotic.

It is particularly valuable as a remedy in typhoid affections which occur epidemically. A few remedies seem adapted to the correction of epidemic influences, and baptisia is one of the leading agents of this class. It has proven one of the best agents in the materia medica in many epidemics of typhoid dysentery, as well as of typhoid fever.

# Form for Administration.—The specific medicine.

*Dose.*—Add from ten to fifteen drops to half a glass (four ounces) of water and give a teaspoonful every one or two hours.

#### BARYTA, CARBONATE OF.

Baryta carbonica selectively influences the tonsils, and is valuable in acute parenchymatous inflammations of these parts, controlling vascular excitement and averting suppuration. It is thus a very good preventive of quinsy, when administered early in the disease, often serving to abort the inflammatory action before the formation of pus has begun.

This remedy is also valuable in chronic enlargement of the tonsils, though not so reliable as in acute swelling.

Form for Administration.—The sixth decimal dilution, obtainable at a homeopathic pharmacy.

Dose.—From five to ten drops, repeated every three hours in acute cases; three or four times a day in chronic tonsillar enlargements.

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# BARYTA, IODIDE OF.

This remedy bears a better reputation with some observers in chronic enlargement of the tonsils than baryta carbonica. It has reduced tonsillar enlargement rapidly after the carbonate has failed, according to the testimony of some writers, but my experience has not been favorable to it in such cases; however, this has been limited, and the remedy possesses so good a reputation in some quarters that I present it in this place.

Form for Administration.—The 3x or 6x trituration, obtainable at a homeopathic pharmacy.

Dose.-Two or three grains, three or four times daily.

## BENZOATE OF LITHIUM.

This remedy has been commended by good authority for its action in the relief of the gall-stone habit. Dr. E. R. Waterhouse contributed the following to the American Medical Journal in 1889: "Try benzoate of lithium, ten grains dissolved in an ounce of water, directing the patient to take a teaspoonful of the mixture every three or four hours. I have cured some of the most obstinate cases I have ever seen with this remedy. One case had been treated by several physicians, and came into my hands with a severe irritation of the bladder. I prescribed the lithium, and after taking the remedy for several weeks the patient was free from the urinary trouble, and there has been no return of the gall-stone colic in three years, while before the lithium was taken she suffered from the attacks as often as every week or ten days."

### BERBERIS AQUIFOLIUM.

Berberis is one of our most reliable agents in dyspepsia, and seems to invigorate the gastric functions while it improves the power of the assimilative processes. Being a valuable blood and skin remedy, its influence as a gastric

agent comes into additional service in the treatment of scrofulous and syphilitic states, where digestive disorders interfere with the proper effect of other correctives.

Combined with iodide of potassium it permits of large doses of that agent for a considerable time without intolerance, and the system rather gains than loses in strength, as is the case where the iodide is pushed to extreme limits alone. Where iodide of potassium disagrees with the stomach, it is a good plan to combine it with berberis, as the latter agent seems to overcome the difficulty.

Berberis has been employed with success in gastric troubles complicated with hepatic affections, frequently. In cirrhosis of the liver complicated with gastro-enteritis, it has been found of important service; also in hepatic torpor complicated with dyspepsia. It is valuable in chronic constipation, combined with cascara sagrada.

Form for Administration .- Parke, Davis & Co.'s fluid extract.

Dose.-From five to thirty drops.

## BERBERIS VULGARIS.

The barberry possesses a reputation of old for its excellence in hepatic torpor. It belongs to the class with chionanthus, in its property of improving the functional activity of the bile-secreting cells. Where there is no obstruction to the free passage of bile along the biliary ducts this agent acts as a gentle stimulant to the secretory processes of the biliary cells, and is an effective remedy in jaundice.

This remedy also improves the functional powers of the stomach, and acts well in dyspepsia, especially where the hepatic torpor is a concomitant. It acts gently on the bowels, and is a purgative in large doses. In doses just short of this influence it improves the functional power of the duodenum and relieves intestinal dyspepsia. Barberry has been recommended to relieve pain during the passage of gall-stones.

Form for Administration.—A decoction of the recent bark, or the tincture from a homeopathic pharmacy.

Dose.—Of the decoction, a teaspoonful four or five times a day. In some cases a table-spoonful may be required to effect the desired purpose. The tincture may be given by adding half a drachm to four ounces of water and giving a teaspoonful every three hours.

# BICHROMATE OF POTASSIUM.

The entire alimentary canal is influenced by this remedy, from the pharynx to the colon, as far as the sigmoid flexure. It heals chronic ulceration of the pharynx, even if syphilitic, and is applicable to gastric catarrh, even when this has gone on to organic change in the mucous membrane of the stomach. It is one of the remedies which act positively in the treatment of round ulcer of the stomach, effecting a cure in some cases, I am certain. In dyspepsia with gastric catarrh and yellow coating of the tongue it has been considered *the* remedy *par excellence*.

In mucoenteritis it is a useful remedy, and in some acute diarrhœas, as those sometimes occurring during the winter months, attended by much pain and tenesmus, it acts like a charm in relieving, and seems to be about the only one that will cure promptly in such cases, unless we except kaki. It is valuable in chronic diarrhœa, and seems to exert a favorable influence over the recuperative power of the alimentary mucous membrane, encouraging restoration.

In chronic dysentery, where there has been structural change in the lower bowel, where there has been ulceration of the mucous wall of the colon, it compares favorably with arsenicum and mercurius corrosivus in its curative action.

Form for Administration.-The 3x trituration.

Dose.—Two or three grains, repeated every two or four hours.

## BISMUTH.

Bismuth is commonly used in practice in two forms, the subnitrate, and the liquor bismuth.

The subnitrate of bismuth is soothing to the gastrointestinal mucous membrane and is useful in water-brash and associated dyspepsia, and in gastric irritation of acute character attended by vomiting.

It is a very reliable remedy in persistent vomiting, when this is due to local irritation of the stomach and not to reflex disturbance. It is indicated by the elongated, pointed tongue, with reddened tip and edges, accompanied by persistent nausea and vomiting. It is an associate of rhus tox., ipecac, lobelia and aconite in this respect. I usually prefer rhus in such cases, as it more appropriately meets other indications liable to attend, but sometimes bismuth succeeds when this remedy fails. It often acts successfully when the tongue lacks the specific indications.

The subnitrate has been used with success by many practitioners in the treatment of diarrhœa, usually in combination with small doses of morphia. I think there will be found but few cases where some other remedy will not be preferable, as the use of the narcotic must always be objectionable and we can manage this disease without it; however, there might be a case where such treatment would prove the very thing.

The liquor bismuth is a good remedy in many cases of chronic dyspepsia and chronic diarrhœa—and the former is usually complicated with the latter. The liquor bismuth answers best in the diarrhœa of the heated term, though it is applicable to intestinal troubles occurring at any period of the year. It is a valuable remedy to follow convalescence from dysentery and cholera infantum with, to promote healing of the irritated mucous membrane and insure complete recovery.

Dosage.—The subnitrate may be given in from one to three grains. The dose of the liquor may vary from onefourth drachm to one drachm.

#### BOLDO.

Boldo is one of the new remedies introduced from South America. It is a quieting, soothing agent, causing drowsiness, when taken in full doses. It allays the gastrodynia of dyspepsia, and exerts a favorable influence in hepatic torpor. It seems to be adapted to dyspeptic conditions complicated with jaundice, when there is pain in the stomach during digestion and considerable nervous irritability.

Form for Administration.-Parke, Davis & Co.'s fluid extract.

Dose .- From one to ten drops.

## BROMIDE OF POTASSIUM.

Bromide of potassium allays irritability of the pharynx, and is sometimes useful to quiet the disposition to frequently swallow, or attempt to clear the throat by hawking, occasionally attending pharyngitis in nervous persons. Lachesis relieves this complication usually, but sometimes fails.

Spasmodic stricture of the œsophagus and globus hystericus may sometimes call for potassium bromide. In enteralgia of children, Ringer extols it highly, and Hale indorses the statement in New Remedies. The following conditions are described by Ringer as indicating it:

"The walls of the belly are retracted and hard, while the intestines, at one spot, are visibly contracted into a hard lump, the size of a small orange, and this contraction can be traced through the walls of the belly, traveling  $\frac{22}{22}$ 

from one part of the intestines to another. These colicky attacks, unconnected with constipation, diarrhœa, or flatulence, occur very often, and produce excruciating pain. Sometimes they are associated with a chronic aphthous condition of the mouth. They generally resist all other kinds of treatment but the bromides."

This practice must be confined to infants and young children, less than two years of age.

Hale commends bromide of potassium in chronic constipation, asserting that many long standing and obstinate cases have been cured incidentally while it was being administered for some other purpose.

Dose.—From a tenth of a grain for infants, to ten or twenty grains for adults, according to circumstances.

## BRYONIA.

Bryonia, in minute doses, is occasionally a very positive remedy for costiveness in infants nourished on cow's milk or other constipating diet. I have cured such cases with this remedy, but have oftener failed. It is not very reliable.

Bryonia is sometimes useful in the treatment of dyspepsia, gastralgia being the indication for it. The pain comes on whether the stomach is empty or full, and seems to depend upon a predisposition of the muscular walls of the stomach to ache, rather than upon gastronomic abuses. It here classes with cimicifuga, which proves an excellent remedy for gastralgia when the muscular walls of the stomach are the seat of rheumatoid pains.

Hepatic affections are often relieved by bryonia. It is indicated when there is slight jaundice with stitching pains in the region of the liver—as though the serous envelope were inflamed. It has been termed a gastro-hepatic remedy—useful in digestive and hepatic disturbances when the reciprocal relations of these functions are disarranged.

Form for Administration .- The specific medicine.

Dose.—Add ten drops to four ounces of water and give a teaspoonful every one or two hours.

## CARBO VEGETABILIS.

The absorbent and antiseptic properties of this agent adapt it to fermentive states of the alimentary canal, and it has acquired a reputation in the treatment of water-brash and other conditions where the trouble depends on septic influences.

Acidity and flatulence are symptoms that call for its administration, as well as a sensation of fullness and oppression—as though one could not draw the diaphragm downward—this occurring soon after eating.

Form for Administration.—The 1x or 3x trituration of the wood charcoal of commerce.

Dose.—Two or three grains after each meal, and oftener if necessary.

# CARDUUS MARIANUS.

I have referred, under Remedies Which Influence the Circulatory System, to the influence of this remedy upon the circulation described by the distribution of the coeliac axis. In addition to this it seems to exert some influence over the functions of the stomach and liver, though whether it reaches further than the circulation may be some question.

It has been recommended in the vomiting of pregnancy, swelling and painfulness of the liver, jaundice, tenderness and hardness of the right hypochondrium, gallstones, abdominal pain and stitches in the side attending bilious conditions.

It is a powerful and valuable remedy, and one which will

repay any one for a careful clinical study. Its virtues have not been half determined.

Form for Administration.—The tincture from a homeopathic pharmacy.

Dose.—Add ten or twenty drops to half a glass (four ounces) of water and give a teaspoonful every three or four hours.

## CHAMOMILLA.

This is substantially the anthemis nobilis of some authors, though the use of the two names gives rise to confusion.

Chamomile influences the alimentary canal, but is a feeble remedy, and will hardly be of service except in the treatment of colicky infants. Here I usually prefer the 3x dilution of colocynth. However, chamomile sometimes does better, and is especially applicable to cases attended by diarrhœa, or where there is great irritability and restlessness.

#### CHELIDONIUM.

Chelidonium is the remedy for jaundice when the condition depends upon a congestive state of the liver or on catarrh of the biliary ducts dependent thereon, resulting in obstruction to the free flow of bile. With some practitioners it is a favorite routine remedy for jaundice, without reference to the pathological condition, and it usually proves effective. I would suggest it where there is pain in the right hypochondrium and right shoulder, the pain in the hypochondriac region being full and tensive or throbbing.

It has proven effective in the treatment of gall-stones, and in bilious dyspepsia, with severe headaches. It somewhat resembles nux vomica in its action on the liver, having, however, a more marked effect on the circulation.

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Inflammation of the liver, both acute and chronic, jaundice from obstruction of the biliary ducts, and other hepatic disorders are amenable to the action of this remedy. *Form for Administration.*—The specific medicine.

Dose.—From the fraction of a drop to ten drops.

#### CHELONE.

Balmony is a mild tonic, applicable to dyspepsia complicated with hepatic torpor. It improves the digestive power of the alimentary canal, and stimulates the bile secreting functions of the liver at the same time, thus being adapted to quite a large class of cases.

It is a valuable tonic after malarial fevers, serving to promote functional activities likely to have been interfered with, especially if the secretions have been locked up through the action of quinine. In tolerably large doses it acts as a gentle purge, an influence very acceptable in many such cases.

The 2x or 3x trituration of chelonin is a valuable remedy in many long standing cases of dyspepsia. Chelonin is an active principle obtained from the crude drug.

Chelonin is also an active parasiticide of the alimentary canal, being especially efficient in the destruction of the lumbricoid worm.

Form for Administration.-The specific medicine.

Dose.—Ten to thirty drops. The chelonin may be given in doses of one or two grains, or the 2x or 3x trituation may be used in two or three-grain doses.

## CHENOPODIUM.

This remedy is of service in the destruction of the round worm, being one of the most reliable anthelmintics. The oil is employed in doses of from five to fifteem drops.

The seeds, combined with jalap, equal parts, may be infused or boiled, the resulting liquor serving a very positive purpose as an anthelmintic. Of this a tablespoonful

or two should be given, when the stomach is empty, three or four times daily for several days. When a recent article of the seeds is obtainable we have no more reliable remedy for the purpose.

### CHIONANTHUS.

The fringe tree is a reliable remedy to dynamically encourage the functional activity of the bile secreting cells. It is the leading remedy with a large majority of modern Eclectics in the treatment of jaundice, if the trouble depend upon want of activity in the secretory function of the biliary apparatus. Where there is obstruction to the flow of bile along the ducts we cannot expect so much from it.

Professor Goss was first to call attention to the virtues of this remedy, I believe, and he has given us one of the best in the materia medica. He asserts that he was led by mere accident to test the tonic and cholagogue powers of this shrub. He had been salivated several times for jaundice following intermittent fever and had given up to die, when a fellow student induced him to try the "old woman's remedy," chionanthus. This grew plentifully on the sandy soil about Augusta, Georgia, where he was attending lectures. He took a tablespoonful of a tincture made in gin before each meal, and in ten days was practically well, the jaundice having departed and appetite and digestion being restored.

It is a splendid remedy for the jaundice of malarial cachexia, and in chronic ague complicated with jaundice its use will assist very much in effecting a cure. I have cured many stubborn cases of the kind with chionanthus and arseniate of quinia.

It should be remembered that it is not the remedy to relieve jaundice due to inflammatory action of the liver, or obstruction of the biliary ducts. It is only adapted to

torpor of the bile-secreting functions where something is needed to arouse cellular activity in the biliary apparatus. *Form for Administration.*—The specific medicine. *Dose.*—From two to fifteen drops.

#### CIMICIFUGA.

Cimicifuga is adapted to the treatment of dyspeptic conditions in which the muscular walls of the gastrointestinal canal is affected by rheumatism. Rheumatoid conditions of the muscular walls of the alimentary canal are not uncommon, and are liable to affect persons who are subject to muscular rheumatism in other parts.

Dull, aching pain, with tendency to metastasis, aggravated by eating or drinking, a sensation as of a hard lump in the stomach with the walls contracting upon it in persons with a tendency to muscular rheumatism, as indicated by history of former attacks, would suggest cimicifuga. I have relieved many such cases with it, as well as with caulophyllin. I use the caulophyllin in the 1x or 2x trituration; the cimicifuga in the decoction of the recent root, in tablespoonful doses.

# CISTUS CANADENSIS.

Rock rose specifically influences the mucous membrane of the mouth and throat, and is particularly applicable to the treatment of chronic pharyngitis, thus being in the same class with penthorum. It is useful in long standing pharyngeal irritation, where there is dryness of the membrane, blueness, with tickling, itching, and other irritation in the pharyngeal vault.

It sometimes proves useful in laryngeal irritation due to contiguity to an irritated pharnynx. It then may be capable of relieving tickling, laryngeal cough.

Cistus also influences the digestive tract lower down, and has been successfully employed in the treatment of chronic diarrhœa and dysentery. In sponginess and scorbutic irritation of the gums, where there is tenderness and bleeding about the teeth, this is a reliable agent.

Form for Administration.—The tincture supplied by a reliable homeopathic pharmacy.

Dose.—Add a drachm to four ounces of water and give a teaspoonful four times daily, in chronic inflammation of the pharynx. In more acute troubles the dose should be repeated oftener.

#### COLLINSONIA.

Collinsonia is a tonic to the digestive organs and benefits some cases of dyspepsia. Probably the cases benefited most markedly will be found to be those arising from rectal derangement—a very common cause of indigestion.

The special use of the remedy is for the treatment of hemorrhoids, and other rectal disturbances. In hemorrhoids, even though they have become chronic, its effects are usually pronounced. The pain and fullness soon subside and the unpleasant features of the case all disappear, and often the cure seems lasting; at least the difficulty may not return for years.

In severe rectal pain, even where there is no ocular evidence of structural change, collinsonia will often prove curative. Whether the drug exerts any influence over the sensitive nerves of the part to relieve neurosis I am unable to say, but it seems sometimes as though this might be the case. I have relieved the most excruciating rectal pain with collinsonia in a few minutes that formerly would have seemed to imperatively demand the use of a powerful opiate, and the pain once relieved would not return.

Occasionally, after a surgical operation on the rectum, the patient is harrassed by severe pain for several days, and the attendant will be tempted to administer an opiate. This, however, is liable to be followed by constipation, and collinsonia will here be a better remedy, as in a few days its effect is usually very satisfactory in relieving the suffering.

The irritation attending rectal pockets, rectal ulcers, fistula ani, and other rectal and anal troubles may be much modified by the use of collinsonia, and though such palliation would not usually serve an intelligent purpose, yet there are times when something of the kind is very desirable.

Shoemaker recommends collinsonia locally in spasmodic stricture of the anus, and though such treatment cannot serve any permanent purpose, yet it illustrates the power of this drug over the functions of the lower portion of the alimentary canal.

There is a certain form of abdominal pain which is promptly relieved by collinsonia, and though this is not a frequent symptom it occurs sufficiently often to demand attention. This is pain confined to the hypogastrium, presumably of rectal origin. If not evidently proceeding from vesical complication collinsonia may be employed with confidence. I have relieved several cases of chronic hypogastric pain since I began to prescribe collinsonia for it, promptly and permanently. Formerly, I failed to accomplish anything satisfactory with other remedies.

Form for Administration.—A saturated tincture of the fresh plant.

Dose.—Add from one to two drachms of the tincture to half a tumbler of water and give a teaspoonful every few minutes, in acute pain. For more chronic states give a teaspoonful every three or four hours.

## COLOCYNTH.

Colocynth is one of the most prompt and powerful remedies we possess for the relief of enteric colic. Its specific influence on the intestines is pronounced, large

doses being capable of exciting active catharsis and irritation of the mucous membrane, this amounting to hemorrhage and dilatation of the hemorrhoidal veins in some instances, accompanied by severe tenesmus.

The part most promptly influenced by it is the lower bowel, and it makes some very satisfactory cures of cholera infantum and dysentery, being especially indicated when the disease is attended by intense pain when pain is a prominent feature of the complaint. Much blood in the evacuations has been considered an indication for it by homeopathic authorities.

Though colocynth seems to influence the circulation of the lower bowel to a marked extent, it is more a remedy for neuralgic than for circulatory disturbances, and relieves neuralgic colic magically in many cases, twisting, griping pains about the navel being the favorite symptoms of the homeopathists. However, it is adapted to pain in any portion of the alimentary canal below the œsophagus, and will prove useful in many a case of gastralgia of neuralgic character.

It has been my favorite remedy for neuralgic colic for years, and I hardly ever find it necessary to use any other. I find a very minute dose sufficient, though the specific medicine diluted in water answers a good purpose.

Colocynth is a valuable medicine in chronic constipation, if medicine can prove effective. I have found minute doses of it serviceable in the treatment of constipation in children and delicate females, when other remedies would be objectionable. The minute dose averted objectionable features while the intestine was sufficiently stimulated to promote daily evacuation.

Form for Administration .-- The specific medicine.

Dose.—Add from three to five drops to four ounces of water and give a teaspoonful every ten or fifteen minutes,

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in urgent cases. Where the pain is not severe, but inclined to linger, a teaspoonful may be given every hour. In treating colic in children I prefer a few drops of the third decimal dilution in water, instead of the crude medicine.

## CURARE.

The arrow poison of South America seems to exert an influence over the functions of deglutition, and has restored the power of swallowing when this has been paralyzed. But little use has been made of the drug in this direction thus far, and its use must still be largely experimental. It has been used with success in a few cases of hydrophobia, but as curare is a composition prepared by the natives, and its exact origin unknown, it is possible that it will be found varying in strength and properties-

Form for Administration.—A solution of the drug in alcohol, the 2x or 3x dilution being the best form for administration.

Dose.—Add from ten drops to half a drachm to four ounces of water and give a teaspoonful every one or two hours.

#### DIOSCOREA.

Wild yam has long sustained a reputation among Eclectics as a remedy of high order in the treatment of colic. It seems to specifically influence the nervous supply to the alimentary canal and control painful conditions depending upon irritation in these parts.

Dioscorea and colocynth resemble each other very much in their action in abdominal pain, and I am of the opinion that it will be difficult to discriminate between the cases where either will be most applicable. It seems to me that rotation—the use of the second if the first fail —will be the only way to select the better if both need be tried.

Though the traditional remedy for bilious colic among Eclectics, it seems that the distinction of the bilious symptoms has long been dropped, and it is employed indiscriminately, whether vomiting of bile attend the colicky state or not. Flatulent colic and other forms of abdominal neurosis yield as readily as the bilious form. The remedy is highly endorsed by some practitioners in the colic attending the passage of gall-stones, in combination with full doses of gelsemium.

It may be useful to allay the pain of dysentery, diarrhœa and cholera infantum, though I think we have better remedies in such cases. It seems to possess antineuralgic properties, and has been successful in the treatment of facial neuralgia, pain and spasm in the rectum, bladder and uterus, in sciatica, etc.

It has also proven valuable in many cases of gastralgia, and should not be forgotten in the management of this sometimes stubborn difficulty.

Form for Administration.—The specific medicine. Dose.—From five to thirty drops.

#### EPILOBIUM.

This is Professor Scudder's specific for muco-enteritis, and it exerts a very favorable influence upon the small intestine, when there is irritation of the mucous membrane. It is valuable in acute diarrhœa, dysentery and colic, relieving irritation, quieting pain and arresting discharges, but it fills a greater want by controlling chronic diarrhœa and dysentery.

Scudder asserts that he employed epilobium extensively in the treatment of chronic diarrhœa during the war of the rebellion, and with a success not to be obtained with other remedies tried.

I think we have one remedy comparable with this, viz., kaki,—Japanese persimmon,—which exerts a very positive influence in similar cases. Both these drugs have been highly extolled for the intestinal irritation of typhoid fever.

As with some other of our indigenous remedies, epilobium acts best in decoction; but, as it is not readily obtainable in the recent state at all seasons, the specific medicine must usually be relied upon.

Form for Administration.-The specific medicine. Dose.-From one to twenty drops.

## ERIGERON CANADENSE.

This is one of the most widely distributed plants I have any knowledge of. I have found it growing in every part of the United States and Canada that I have ever visited—except on the American Desert—and in many parts of Europe. It grows about the ruins of Pompeii at the foot of Mount Vesuvius, in Germany, Austria and France, and probably in England, though I was not outside the great cities there to note the character of wild plants.

It is in its prime at the very time that it is most needed, viz., the season of the year when cholera infantum and other summer fluxes are liable to occur.

I have found it the most reliable remedy I have ever employed in the profuse, exhaustive discharges of cholera infantum, when the disease assumes the choleraic form and the fluids of the body rapidly pass away with severe tenesmus and cramps. This is a form of the disease to which ipecac is not adapted.

Erigeron resembles veratrum album in its property of arresting copious, watery discharges from the bowels, which pass away with a gush and are profuse; though there is the difference that erigeron must be given in full doses—a decoction drank freely—while veratrum album acts well in the third dilution.

I prepare a decoction from the fresh plant and allow patients to drink of it freely, which children suffering with the choleraic form of cholera infantum will usually do. It may be given warm or cold, a little sugar and milk being added for those who so desire. Immediate results follow, and a grave case will be changed in its aspects within an hour. I have saved life with this remedy several times.

It is adapted to diarrhœa in adults also, and cannot be excelled in acute cases, where vomiting does not cause its rejection. It ought to prove a useful remedy for cholera.

## ERYNGIUM AQUATICUM.

Water eryngo exerts some influence on the alimentary canal, and will occasionally be found useful in the treatment of chronic pharyngitis complicated with laryngeal irritation, as well as in diarrhœa of teething children when the discharges are largely mucus.

I have found it a good remedy in dyspepsia, where a persistent tendency to gastric irritation is present. Here we find the edges of the tongue red and tender with nausea and disgust for food arising upon slight provocation. The best place for the remedy is in irritation of the urinary organs.

Form for Administration.—The specific medicine. Dose.—From one to twenty drops.

#### EUONYMUS.

Euonymus aids digestion and improves the secretory functions of the liver. It proves a good aid to digestion in convalescence from intermittent fevers, as it combines some anti-malarial qualities with its action on the digestive and biliary organs. Another important property is its mild aperient effect, which doubtless contributes to its value in indigestion complicated with constipation. Goss declares that euonymin, an active principle of this agent, increases the amount of bile secreted, its function, it seems to me, resembling that of chionanthus, with which Professor Goss combines it.

Form for Administration.—The specific medicine. Dose.—From the fraction of a drop to thirty drops.

# GENTIANA QUINQUEFLORA.

This drug is highly extolled in some quarters as a remedy for chronic debility of the organs of digestion and assimilation. It has proven a reliable remedy for the treatment of chronic ague, and may be used with satisfaction after convalescence from this disease, to improve the digestive and assimilative powers and prevent relapse.

Form for Administration.—A saturated tincture of the recent root.

Dose .- From five to twenty drops.

### GERANIUM MACULATUM.

This remedy has recently been used with reported success by J. V. Shoemaker, M. D., as a restorative in the treatment of incipient phthisis. He prescribed it in drachm doses of the fluid extract before meals and at bed-time, and reported remarkable success from its use. The cough lessened under its influence, the night sweats disappeared and the appetite improved, while the patient gained strength and weight and the pulse returned to normal. We must receive such reports as this with some allowance, but the suggestion is worthy of notice at least.

Geranium acts as a tonic to the mucous membrane of the alimentary canal, sometimes proving curative of chronic pharyngeal catarrh, while in diarrhœa from relaxation of the intestinal mucous membrane it has effected some prompt cures. The place for it is in the relaxation which follows subsidence of inflammatory symptoms during the late stages of dysentery, and some forms of diarrhœa.

Form for Administration.—The specific medicine. Dose.—From five drops to half a drachm.

## GUAIACUM.

In a clinical lecture given in Edinburgh in 1889, Dr. Morrell McKenzie remarked as follows regarding the treatment of tonsillitis:—

"A person who has once had acute tonsillitis never really gets well, though he may appear to do so. The treatment, therefore, is important. One of the most popular remedies is aconite-originally, I believe, a homeopathic drug, but now used extensively by allopaths, (though I object to the term)-and strongly recommended by Dr. Ringer. It has certainly never in my hands proved to be of the extraordinary value which he asserts. On the other hand I have found guaiacum, which used to be given in the form of the ammoniated tincture, very efficient. I recollect a Manchester surgeon, Dr. Crompton, who used to come a good deal to the Throat Hospital about the time it was founded, telling me I should find much more benefit by giving it in the form of a powder; and I did so, letting the patient take a pinch of the resin. This was rather disagreeable, and after a time I had it made into lozenges containing about three grains in each. In this form it makes an excellent remedy. Nine cases out of ten will get well rapidly if one of these lozenges is given every two hours at the outset."

#### GYMNOCLADUS CANADENSIS.

This remedy appears in Hale's New Remedies, and is accredited with a specific influence on the throat. Angina faucium, with drawing pain in the tonsils and uvula, are among the symptoms said to have been caused by it, and

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it has cured similar cases. Dr. Delameter asserted that a bluish color of the throat was characteristic of it. We are not much in need of this agent, even if it will accomplish all that has been suggested, but it may help out in some stubborn cases.

Form for Administration.—The 3x dilution of a tincture from a homeopathic pharmacy.

Dose.—Add from half a drachm to a drachm to half a glass of water and give a teaspoonful every two hours.

# HÆMATOXYLON CAMPEACHIANUM.

Logwood was one of the favorite remedies of the late Professor Howe. He extolled it highly in the treatment of diarrhœa. I have used it to a limited extent, and believe that it possesses some virtues in the treatment of painless diarrhœa in which there is relaxation of the intestinal mucous membrane without irritation. It is not a remedy of wide range of application, and will fail oftener than it will succeed.

Form for Administration.—A strong decoction of the the aqueous extract.

Dose.-A teaspoonful or more repeated every hour.

### HELONIAS.

Helonias dioica improves the digestive and assimilative powers in appropriate cases, and may very properly be classed in this department, though its prominent place is among remedies influencing the female reproductive organs. Its best place as a remedy for indigestion and mal-assimilation is in those cases which are complicated with reproductive disturbances in women, though it is not to be discarded as a tonic to the digestive organs in the opposite sex.

In digestive disturbances the result of reflex action from uterine irritation it is often very useful, especially in chlorotic anæmia, where indigestion is attended by 23 anorexia. It has also proven useful as a tonic after such debilitating disease as diphtheria.

In the nausea and vomiting of pregnancy it is a prime favorite with some practitioners, and it is a fine remedy here in many cases.

In the digestive disturbances apt to attend albuminuria it is also an appropriate remedy, and it possesses a reputed efficiency in the treatment of this disease independently of its action on the digestive functions—a specific action.

Form for Administration.-The specific medicine.

Dose.—From five to twenty drops.

## HYDRASTIS.

Golden seal possesses a long established reputation for its influence on the mucous membrane of the alimentary canal.

In aphthous conditions it sometimes proves very successful, though it is not as reliable as phytolacca. It is in the cases where phytolacca and jaborandi fail that it will be liable to act most positively—cases that have passed into a semi-chronic state.

Where the vault of the pharynx is involved in a catarrhal inflammation, and there is much dropping of mucous into the throat, hydrastis should be recollected.

In gastric catarrh, and in dyspepsia with putrid eructations and sense of emptiness and "goneness" in the epigastric region, minute doses of hydrastis often benefit.

It resembles chelidonium in its power of controlling catarrh of the biliary ducts and in the relief of jaundice hinging thereon.

Hughes recommends hydrastis for constipation, as Scudder does nux, the patient being ordered a single drop of the tincture in water in the morning before breakfast. This author also alludes to the use of the remedy

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in hemorrhoids and prolapsus ani-doubtful qualities, I am inclined to believe.

Form for Administration.—The specific medicine. Dose.—From the fraction of a drop to ten drops.

## INGLUVIN.

This is a peculiar digestive principle obtained from the gizzard of the common domestic fowl (gallus domesticus). It differs from other digestive substances, being a bitter principle, and is sometimes adapted to dyspeptic conditions when digestive ferments prepared from the stomach and pancreas of the pig fail to benefit.

Ingluvin is applicable to the relief of the vomiting of pregnancy as well as to other gastric disturbances. In this it is asserted to be a specific, though it certainly will fail at times as well as the best of other remedies for this complaint. It may be given in ten or twenty-grain doses three or four times a day.

In tabes-mesenterica, where food of every description is vomited, it may be combined with the aliment so that it will be retained and appropriated.

Doubtless this preparation, like other digestive aids, has been overestimated, but it has really proven efficacious in domestic practice for too long a time to permit the imputation of worthlessness to dwell upon it. It is worthy of trial at least in cases requiring a digestive principle.

#### IODIDE OF ARSENIC.

This remedy is sometimes very positive in the treatment of diarrhœa of children occurring in hot weather and depending on epidemic influences—at least seeming to be perpetuated by them. In lingering cholera infantum, after the inflammatory symptoms have subsided and a condition of marasmus has supervened, it is also one of the best remedies we have.

Form for Administration .- The 6x trituration.

Dose.—From one to three grains, repeated every two hours.

## IODIDE OF POTASSIUM.

A rather novel use for this salt has been suggested within the past few years, viz., its application to the treatment of typhoid fever. In 1881 Dr. Oatman, in the *Pacific Medical and Surgical Journal*, advocated the idea that iodide of potassium impresses the lacteal glands in this disease in such a manner as to fortify them against the entry of the typhoid poison into the blood, and that they are also better enabled to assist in eliminating what may gain access.

Since this many favorable notices of this plan of treatment, and reports of cases successfully treated, have appeared in the medical journals from time to time, and the point is worthy of record.

It is asserted that the iodide of potassium treatment very much shortens the course of typhoid fever, and that when its use is begun early no enteric symptoms develop.

## IPECAC.

Ipecac is a specific emetic, and in minute doses it operates to quiet inverted peristalsis, thus becoming a valuable agent in gastric irritability, especially where the mucous membrane is involved.

It also seems devoted to the intestinal mucous membrane, and is one of the most positive remedies known for the relief of acute irritation of the bowel attended by mucous discharges. In mucous diarrhœa of both adults and children it is usually efficacious, often serving to allay the accompanying pain and arrest the discharges, and its action is kindly and permanent.

In cholera infantum, where the evacuations are small and composed largely of mucus, it is very effective if begun early. It may be used alone or combined with aconite, though the latter drug assists its action where febrile symptoms are a marked accompaniment. Where the evacuations are profuse and watery, and voided with a gush, it will not succeed. Here erigeron canadense or veratrum album will be found preferable.

Ipecac is not a remedy for chronic irritation of the alimentary mucous membrane, and should not be depended upon after the trouble has become deep-seated. As taught in Principles of Medicine, a remedy which influences the vascular supply of a part largely is not to be depended upon after structure has suffered beyond the blood vessels, and ipecac is not a remedy which reaches beyond the circulation in its effects, to any great extent.

In cholera infantum, then, and in other bowel complaints which have assumed a chronic or semi-chronic state we would omit it and think of epilobium, arsenicum, mercurius cor., and other remedies more adapted to the influencing of the nutrition of the part—to the building of better tissue.

Ipecac is a valuable remedy many times in the treatment of the diarrhœa that accompanies the process of dentition, for though it will hardly ever arrest it entirely it modifies it and renders the little patient more comfortable—less peevish and troublesome—and better adapts the alimentary canal to the reception and tolerance of food.

Ipecac will cure dysentery unaided by anything except a favorable regimen, though it is not a rapid remedy. Doubtless the sulphate of magnesium or podophyllin treatment will accomplish a cure more quickly in many cases, but if the podophyllin treatment fail it is almost certain to leave bad results behind, while ipecac is safe and pleasant. It is well to combine it with aconite here,

which cannot but assist, if appropriate dosage be considered.

Form for Administration.-The specific medicine.

Dose.—Add from ten to fifteen drops to half a glass of water and give a teaspoonful every hour.

## IRIS VERSICOLOR.

Iris exerts a specific influence on the gastro-intestinal mucous membrane, and is valuable to allay irritation, in small doses, and relieve the reflex disturbances arising from this condition. It cures sick headache arising from morbid accumulations in the stomach, and also the neuralgic pains of certain dyspeptic patients which are reflected to the pectoral muscles and head.

In stomatitis, with burning in the mouth and fauces, iris is a remedy that may be prescribed with a considerable degree of confidence. It is not an infallible specific but there is no doubt that it selectively influences the mucous lining of the mouth as far back as the ramifications of the salivary ducts, as it induces ptyalism in full doses and controls this condition in minute quantities when the result of disease.

Iris relieves colic and diarrhœa, and is sometimes valuable in treatment of cholera infantum. It is also a good remedy in gastralgia, acting more specifically than dioscorea or colocynth, which possess more marked affinities for parts lower down the alimentary canal.

Form for Administration.—The specific medicine. Dose.—From the fraction of a drop to five drops.

## JABORANDI.

Jaborandi specifically influences the salivary glands and mucous membrane of the mouth and fauces. It is useful to arrest ptyalism and stomatitis, especially the aphthous form.

I have cured aphthæ complicated with profuse ptyalism

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promptly with jaborandi, after several other remedies have failed, a number of times.

Form for Administration.—The specific medicine.

Dose.—Add ten drops to four ounces of water and give a teaspoonful every two hours.

# JUGLANS CINEREA.

This remedy, in minute doses, allays intestinal irritation, and is useful in intestinal dyspepsia, dysentery, and diarrhœa attended by irritation. In full doses it relieves constipation.

Form for Administration.—The specific medicine. Dose.—From the fraction of a drop to five drops.

## KAKI.

The Japanese persimmon has been highly extolled in some quarters for its influence in intestinal irritation. I have some personal knowledge of it that is very favorable but will quote an extract from a letter from Dr. J. W. Huckins bearing on the subject, which affirms the high estimate placed on it :—

"I use kaki in dysentery, ulceration of the bowels, chronic diarrhœa and typhoid fever. For the diarrhœa of typhoid fever it has no equal. When I am called to see a patient with this disease I put him on kaki in the beginning and continue its use throughout the course of the disease, and I have never had any trouble in controlling the intestinal irritation in any case. It is always indicated. It cleans the tongue, relieving the tenderness of the abdomen, and controls diarrhœa and thirst.

"In intestinal troubles its action is unsurpassed by any other remedy that I know of. For dysentery it excels them all. I have treated over sixty cases of this disease with kaki with the best of results. It relieves the distressing abdominal pain and tenesmus in a few hours.

"I find it valuable in almost all forms of diarrhœa
without reference to the evacuations. It is equally efficacious in simple mucous diarrhœa, in the feculent form and in that of typhoid, as well as in chronic difficulties.

"I use it in gastric catarrh with satisfaction. I have used it with good results in several cases where other remedies have failed.

"For ulceration of the bowels and catarrh of the colon and rectum I know of nothing better, as it seems to excite a renewal of life in the entire intestinal tract.

"I am now treating a lady who has ulceration of the stomach, and I am giving her no other remedy than kaki, and she is getting better every day. She says that I am the only physician who has benefited her at all. I treated a gentleman living near Kankakee, Illinois, in 1886, who contracted chronic diarrhœa during the late war, and who never found any relief, though he had been treated by many physicians. I cured him in three months with kaki, and up to 1891 he had had no return of the old trouble. It is the best remedy for intestinal troubles I have found in all my experience, and I have used it for seven years.

Form for Administration.—"I like the decoction best. I put from one to two drachms in half a pint of boiling water and let it steep half an hour. Then I let it cool.

Dose.—"Of this I give from a tablespoonful to a wineglassful every hour or two, or every three or four hours, as I think the case requires."

### LACHESIS.

Lachesis corrects some nervous symptoms connected with the function of swallowing better than any other remedy. It relieves the sensation as though the act of swallowing must be continually repeated when the throat is empty; the feeling of uneasiness that causes the patient to be always swallowing and hawking when there is nothing to remove; the feeling as though there is a dry spot in the throat tickling and irritating, and the sensation as though there was a lump in the throat on empty swallowing. In short, it is the remedy for the irritable pharynx, as well as for the irritable larynx.

Lachesis has also apparently an affinity for the cæcum, and has been used successfully for inflammation of this part; and in certain nervous conditions of the rectum, as tickling, throbbing, and other sensations where there is little actual disturbance but considerable nervous irritability it sometimes acts promptly in quieting the symptoms.

Form for Administration.-The 6x trituration.

Dose.—From one to two grains, repeated three or four times a day.

## LACTATE OF STRONTIUM.

Strontium lactate, though a new acquisition to the materia medica, gives promise of considerable usefulness as a remedy for gastric debility and albuminuria. In regard to its action in indigestion and depravity of the nutritive functions generally, it may be stated that eminent French observers have testified to its innocuousness and great efficacy.

"In the course of the investigations which demonstrated the absolute innocuousness of the pure salts of strontium, Dr. Laborde, the Chief of the Physiological Laboratory of the Faculty of Medicine of Paris, had occasion to observe the remarkable influence of these salts in promoting assimilation and nutrition, and relieving obstinate and paintul cases of dyspepsia associated with painful manifestations.

"His conclusions have since been confirmed by numerous clinical observations made by Prof. Germain See, bearing on the value of strontium salts in affections of the stomach, in the treatment of which he considers them far superior to the alkaline carbonates."—Western Medical Reporter.

Dose—From ten to thirty grains, three or four times a day.

# LACTIC ACID.

This is a valuable agent in infantile diarrhœa when other remedies fail. It is indicated by green stools, attended by pain and gastric irritation.

It is also a valuable remedy in dyspepsia, to combine with pepsin, when there is lack of secretion. Its most positive action, however, is in the treatment of green diarrhœa of infants, where it acts as a specific.

Dose.—For infants, one-half drop, repeated every hour. A good plan of dosage is to add a teaspoonful to half a glass of boiled water and sweeten to taste with white sugar. This forms a pleasant article, which the child will take readily. A teaspoonful may be given every hour or half-hour, according to urgency of symptoms,

## LEPTANDRA.

Leptandra is one of the old Eclectic liver remedies, now little used. It was supposed to possess some remarkable virtue as an invigorator of hepatic function, but that it contains any specific property, or that it specially influences favorably any particular function of the liver, I am in doubt.

As "cholagogue" properties have been ascribed to it by some of the older writers, it probably is supposed to have encouraged a flow of bile. Probably many of the properties ascribed to it are the result of speculation.

It may be considered a very feeble agent, and one that may be conveniently dispensed with by the substitution of others more direct and positive in the majority of cases.

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### LYCOPODIUM.

Lycopodium resembles carbo vegetabilis somewhat in its action on the stomach, and is valuable in water brash with flatulence. It is also valuable in dyspepsia with palpitation and constipation. In fermentation of food attended by borborygmus and accompanying indigestion, it may be favorably thought of as a remedy.

In excessive acidity of the stomach it has its advocates as a remedy, though I am inclined to believe, from my limited experience, that we possess better agents for that condition.

### Form for Administration.—The specific medicine.

Dose.—Add ten drops to half a glass of water and give a teaspoonful three or four times a day:

# MAGNESIUM PHOSPHATE.

Dr. H. K. Leonard writes as follows of this remedy as used by him in the treatment of a case of dysentery :---

"In treating a case of dysentery lately I was at my wits' end to control the terrible pain in defecation. Merc. cor. suited the case well, and the stools were growing less frequent but the pain was increasing, being so severe as to cause fainting. Something had to be done if I held my case. The pain in the rectum and abdomen was very severe, more in rectum than abdomen. The tenesmus was like a prolonged spasm of the muscles employed in defecation. I employed Schuessler's magnesium phosphate in hot water. A hypodermic injection of morphine could not have acted quicker. The pain was almost entirely relieved by the first dose. The whole condition changed for the better, and I discharged my case the next day."

# MAGNESIUM SULPHATE.

The general laxative action of the sulphate of magnesium is not of importance here. Its action in small doses

is that of a specific in dysentery. This was Prof. Howe's favorite remedy for that disease, and in one place in the *Eclectic Medical Journal* he wrote of it as follows:—

"As a medicine (in dysentery), sulphate of magnesia has proved the most efficient in my practice. A grain in a tablespoonful of water, and repeated every hour, constitutes efficient medication. In the course of two or three days the drug action reaches the lower bowel—the colon—and empties the sacculi of that organ or viscus, moving from lodgment impacted particles of fecal matter; and such action is in the line of cure."

Whether the theory of cure be correct or not one fact remains, and that is, the clinical evidence that the drug will cure many severe cases promptly.

### MELILOTUS.

Melilotus is a serviceable remedy in the treatment of colic and diarrhœa attended by much pain. In dyspeptic headaches it is a valuable remedy, and the reader is referred to the department devoted to remedies for diseases of the nervous system for light on this subject.

### MERCURIUS CORROSIVUS.

Mercurius cor., in minute doses, specifically influences the reparative power of the mucous membrane of the colon, and is one of the most positive remedies known for cholera infantum and dysentery, after the vitality of this part has been injured by prolonged inflammatory action.

In many cases of long standing dysentery and cholera infantum the mucous lining of the colon and rectum becomes chronically inflamed, and breaking down of the structure of the part in the form of ulceration in different places is liable to occur. The evacuations become semipurulent and the patient lingers in the stage of convales-

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cence, instead of recuperating as he should were recovery progressing properly.

Here mercurius corrosivus comes in to promptly heal and energize the affected part, arrest the evacuations, relieve the pain and tenesmus, and restore normal functions. It is as positive a specific here as any in medicine, and the size of the dose is so minute that no valid objection can be urged against it as to toxic properties.

Form for Administration.—For adults, the 3x trituration; for children, the 6x trituration.

Dose.-Two grains, repeated every two or three hours.

# MYRICA CERIFERA.

This remedy is much used by the physio-medicalists in catarrhal conditions of the alimentary canal, as chronic gastritis, muco-enteritis, and chronic diarrhœa, to arrest the discharge of mucus and stimulate and tone up the gastro-intestinal mucous membrane.

Some practitioners have used it with success in typhoid dysentery, but they have neglected to tell us what particular typhoid condition or symptom indicates its use.

Myrica also possesses properties adapting it to the treatment of aphthæ and jaundice, though I imagine it will never become very popular here, considering the number of more reliable agents in our possession.

# NUX VOMICA.

This remedy exerts a considerable influence over the nervous supply to the abdominal viscera. It relieves nausea and vomiting due to lack of, or perverted innervation, and it relieves gastric and intestinal pain attending the same condition.

In congestion of the portal circulation, especially that of the liver, it is nearly equal to chelidonium, and it improves the general tone of the organ, enabling it to perform its functions better after exhausting diseases.

It acts on the digestive functions, relieving pain and aiding digestion where there seems to be a lack of power in the nervous energies of the gastro-intestinal functions. It is especially valuable where there is corresponding lack of hepatic activity.

Professor Scudder considers the broad and pallid tongue an indication of atony of the abdominal viscera, and asserts that in this condition nux is a remedy for vomiting, for colic, for torpor of the liver and associate viscera, and for constipation. The pain in colic indicating it is said to be that pointing about the umbilicus. As for myself, I think we have better remedies than nux in abdominal pain, whatever the symptoms, though in chronic troubles it may sometimes succeed when other means fail.

Another picture indicating nux, offered by Professor Scudder, is: "a yellow sallowness of the skin and about the mouth." This, he refers to chronic disease.

Nux undoubtedly influences both the nerves and muscles of the digestive organs, and is adapted to all forms of indigestion where want of tone in either of these structures is present.

Form for Administration.-The specific medicine. Dose.-From the fraction of a drop to five drops.

## **ENOTHERA** BIENNIS.

This remedy has a high repute in some quarters in the treatment of the choleraic form of cholera infantum and in watery diarrhœa.

It has also been used with remarkable success in dyspepsia, where there was vomiting of food, distress after eating, and restless nights, aggravated by a desire to urinate. However, this effect can only be expected where the symptoms arise from functional disturbance.

It has also been used in dysentery where tenesmus was marked and considerable bloody mucus was discharged.

In typhoid fever it has been found useful to allay irritation of the intestinal mucous membrane and lessen the chances of serious mischief from the inflammatory action which precedes the ulceration of Peyer's patches, while it is argued that it may prevent ulceration if its use be begun in time. In this it resembles baptisia and kaki.

Form for Administration.-Parke, Davis & Co.'s fluid extract.

Dose.-From ten to thirty drops.

# OLEUM CAJEPUTI.

This was an old time favorite in the treatment of intestinal disturbances attended by watery diarrhœa. It acts promptly in cholera morbus, and is of service in the management of cholera nostras.

During the first few years of my practice I relied on the compound tincture of cajeput in the treatment of cholera morbus, and found it to act well, but later I became attached to the combination of aconite aud rhus tox., on account of less unpleasantness about the dose.

Form for Administration.—The 1x dilution in alcohol. Dose.—From five to thirty drops.

# OLEUM OLIVÆ.

We make use of olive oil for its specific effects in the prevention of the formation of gall-stones. This property has been disputed by some, but clinical evidence is strong in favor of its efficacy. When the habit of gallstone formation has once been fixed it is difficult to correct with remedies not specifically adapted to it; and when trial has convinced us an agent will accomplish the purpose, no far-fetched logic can gainsay it.

I have known olive oil to thoroughly break up the gallstone habit after it had been confirmed for several years, and after other remedies had failed, in several instances.

Olive oil seems adapted to the treatment of some forms.

of intestinal dyspepsia. In catarrh of the pancreatic duct, or in hypersecretion of this gland, it is of undoubted merit. I have known intractable forms of dyspepsia, apparently of pancreatic origin, alleviated by the habitual eating of pickled olives at meals. They might prove a substitute for the oil in the gall-stone habit.

Form for Administration.—The genuine article ought to be obtained. Much of the olive oil of commerce is largely obtained from cotton seed. The olive oil of California manufacture should be demanded, and from a reliable manufacturer, as much of the oil of this State even is adulterated.

*Dose.*—The patient should take a wine-glass full three or four times daily, and continue for several months after the last paroxysm.

### PANAX QUINQUEFOLIUM.

This agent (comfrey) bears the indorsement of both Professor Scudder and Professor Goss, as a remedy for nervous dyspepsia.

Goss asserts that in dyspepsia from sedentary habits and from close mental application it is a valuable tonic, it probably acting through the pneumogastric nerve.

Form for Administration.—The specific medicine.

Dose.—From five to fifteen drops.

# PANCREATIN.

This is a digestive ferment usually obtained from the pancreas of the pig. It resembles pepsin in many of its properties. It digests proteids, though it is active in an alkaline, instead of an acid medium. This element is termed trypsin. Another principle of pancreatin resembles bile in action and emulsifies fat. Still another is an amylotic ferment, converting starch into sugar, like ptyalin.

The composition and properties of pancreatin suggest

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its use in various forms of intestinal dyspepsia, as a temporary measure. In diphtheria, trypsin is valuable to dissolve the membrane and favor its expulsion. In hæmaturia, with clots in the bladder, it has been recommended as an injection to dissolve the blood.

In giving pancreatin by mouth it should be recollected that its effects are expected to be exerted in the intestine, and it will be best to precede its administration by the use of bicarbonate of sodium in full doses to neutralize the effect of the acid of the stomach during transmission.

In intestinal troubles attended by the evacuation of chylous fæces, fatty diarrhœa, and in disease of the mesenteric glands, pancreatin may afford temporary relief.

The vomiting of pregnacy is often allayed by the use of pancreatin.

Dose.—From three to five grains. When given for intestinal dyspepsia it should be taken two hours after meals.

# PAPAIN-PAPAYOTIN.

This is a product from the common pawpaw. This shrub, in common with other vegetable growths, has been found to contain a principle which effectively digests proteids.

Papain has been successfully used to digest the membrane in diphtheria, applied with a camel-hair brush or by atomization. It possesses no power to prevent a return of the exudation.

Papain is vermifuge, and has been employed successfully for the removal of the lumbricoid worm. In dyspepsia attended with pain after eating, acid eructations and constipation, papain is often useful to assist the action of the proteolytic ferments. Its highness of price interferes with its general use, or its substitution for pepsin or pancreatin.

Dose. \_\_\_\_ Two or three grains.

### PAULLINIA.

Paullinia sorbilis (guarana) enjoyed a high reputation for the relief of sick headache at one time, but has rather lost its prestige. It specifically affects the intestinal mucous membrane, and is useful in anorexia, enteralgia and diarrhœa.

It has been very serviceable in the treatment of cholera infantum, especially some cases which tend to run into a chronic form. In the intestinal irritation of teething children it will often exert a favorable influence, soothing the irritability of the nervous system and arresting or modifying the diarrhœa.

Form for Administration.—The specific medicine. Dose.—From one to ten drops.

## PEPSIN.

This substance represents the digestive principle of the gastric juice. As found in commerce it is usually obtained from the stomach of the hog. The pepsin may sometimes be found lacking, in gastric indigestion, and the prepared article may assist the normal process if administered at the time. But it is overestimated as a remedy, and at the most can only be expected to accomplish temporary results.

Pepsin may be employed to artificially digest nutritive enemata when cancer of the stomach or round ulcer preclude the taking of food per mouth. It also acts as a solvent of diphtheretic and other false membranes, and of coagula in the cavities of the body, as when blood in the bladder has become clotted.

It must act in association with an acid solution in order to accomplish the purpose for which it is employed.

Dose.—From three to five grains.

# PENTHORUM.

Penthorum sedoides (stonecrop) specifically influences the pharynx and fauces, improving the plastic

power of the mucous membrane and assisting its recuperation in cases of chronic disease. It is adapted to all cases of chronic inflammation here attended by purple, congestive appearance, with dryness and sense of fullness and irritation. In chronic inflammation of the pharynx with catarrhal proclivities it is also of value.

It is a remedy that acts slowly, and must be persevered in if proper results are to be attained. It is of little value in acute cases.

I have known it to incidentally improve bad cases of indigestion while it was being taken for pharyngitis. I believe it will prove a very successful agent in many cases of nervous dyspepsia.

Form for Administration.—The specific medicine. Dose.—From one to ten drops.

### PELLETIERINE—PUNICINE.

This is an alkaloid from pomegranate bark. It is reputed a very reliable agent for the expulsion of tapeworm. Its somewhat extravagant cost is the principal objection to its common use as a tænicide.

Dose.—One drachm of the ten-per-cent solution of the sulphate or tannate.

### PHOSPHORUS.

There is considerable testimony in favor of the value of phosphorus as a remedy for the relief of chronic rectal irritation. In chronic proctitis following acute attacks it certainly affords benefit, though it may disappoint those too ardent as to expected benefits.

Dr. Richard Hughes relates a case in his Pharmacodynamics, in which it cured a chronic rectal inflammation of eighteen months' standing within two months. In this case there was discharge of blood and pus, with tenesmus. In another case there was mucous discharge with difficult defecation, following an acute attack of proctitis, and ribbon-shaped fæces, suggesting incipient

stricture. This also yielded to phosphorus, in attenuated doses (the 30th).

#### PHYTOLACCA.

Phytolacca decandra is as positive a specific in its influence upon the circulation in the pharynx and fauces as any we have in medicine. In acute inflammation here that depends on vaso-motor causes and not on diphtheria —which depends upon a local fungus in the start—it is very positive.

In the slight congestions which follow colds phytolacca cures in a few hours. In acute pharyngitis, attended by difficulty in swallowing, aching in the throat with a sensation of fullness, it is prompt in relieving the symptoms in a day. In follicular tonsillitis attended by painful soreness in the throat with aching pains in the muscles generally, stiffness in the muscles of the throat and neck and marked febrile action, it is the most reliable remedy in the materia medica.

Though it usually acts effectively alone it is best to combine it with aconite, as the combination is liable to produce better results (see Principles, The Single Remedy Versus Combinations).

Another very positive property is the action of phytolacca on the mucous membrane of the oral cavity. In the sore mouth so common in infants it will cure speedily if proper attention to cleanliness and diet is observed. In ulceration of the mouth, not mercurial, it proves promptly curative, and in simple stomatitis it has no superior. In stomatitis attended by profuse ptyalism it is a good idea to combine jaborandi with the phytolacca, in appropriate doses. It is equally effective in stomatitis affecting adults.

The juice of the berries is an admirable remedy for acsarides, as I have discovered while administering it for antifat purposes. It reaches the rectum in a few days after its administration is begun, and if then assisted by copious injections of warm carbolated water, it will expel the parasites effectually.

Form for Administration.—The specific medicine is always reliable, where preparation of the root is required, as in aphthæ, pharyngitis, tonsillitis, etc. The inspissated juice is easily prepared from the berries by the process of expression and exposure to the sun on earthen trays.

Dose.—Of the specific medicine, add half a drachm to four ounces of water and order a teaspoonful every hour. Two or four grains of the inspissated juice may be taken three times a day.

## PIPER METHYSTICUM.

This remedy is a very positive one in treatment of neuralgic conditions of the dental nerves, when not the result of exposure of the pulp. It ranks with plantago major in this respect, and is worthy of trial in any case of toothache, though one must be reasonable in not expecting too much where nothing but operative interference is likely to benefit.

Piper methysticum is also valuable in the treatment of indigestion, and has been highly lauded both as a secret and legitimate remedy. It is a stimulating stomachic, improving the digestive powers when these have been debilitated by sexual abuse or severe mental strain.

In toothache, it may be administered internally and applied to the cavity—if this be possible—by saturating absorbent cotton and inserting.

Form for Administration.--The specific medicine. Dose.-From the fraction of a drop to ten drops.

### PLANTAGO MAJOR.

This remedy selects the fifth pair of nerves for its principal field of action. It is valuable in toothache, not only to relieve radiating pains by its action through the circulation, but to soothe the part locally, the irritated dental pulp being amenable to its influence. In this affection then it is well to combine the local action with the constitutional or specific effect.

Plantain also has a use in aphthæ, colic, diarrhœa, cholera infantum, dysentery, etc.

Form for Administration.—The specific medicine. Dose.—From the fraction of a drop to five drops.

# PODOPHYLLUM.

We have little need of the old use of podophyllum as an emeto-cathartic, or even for its cathartic action; it is too harsh and unpleasant a remedy here to justify its use. Its application to affections of the alimentary canal then must be in minute doses, and here both it and podophyllin are valuable remedies.

Professor Scudder considers podophyllum a stimulant to the digestive functions, and recommends it in indigestion, and as an adjuvant to other restoratives in old syphilitic lesions.

The third decimal trituration of podophyllin has been used by many Eclectic physicians successfully in the treatment of cholera infantum. The mucous form of the disease is that to which the remedy is particularly applicable.

Prolapsus ani of long standing in children usually responds to the third decimal of podophyllin, administered in two or three-grain doses three or four times a day.

Sporadic dysentery in the adult may usually be promptly cured by cathartic doses of podophyllin, the drug being administered in broken doses until the characteristic yellow stools occasioned by it appear, and then discontinued. When the effects of the drug are gone the dysentery will have disappeared also. But this plan of treatment is decidedly injurious and ineffective in epidemic or typhoid dysentery, and may produce very serious results by establishing an intestinal irritation which will afterward be difficult to control. Such treatment then, while very prompt and satisfactory in appropriate cases, must always be administered with caution.

Professor Goss asserts that podophyllin is an active defibrinizer of the blood, and is consequently a potent remedy in inflammatory diseases of a sthenic type, such as rheumatism. I have never thought of it as a remedy for such complaints, but Professor Goss' experience has been extensive, and he is a good observer of drug action, and this hint may not come amiss.

I am an unbeliever in the traditional use of podophyllin for hepatic disease. If the remedy influences the liver appreciably it exercises little salutary effect in disease of that part, if my observation has taught me aright. I think it should be discarded from the list of liver remedies.

Podophyllum probably acts on the duodenum, ileum and jejunum, exerting little influence on the colon, but selecting the rectum for its final effect on the alimentary canal. In ulceration of the duodenum, and in irritation of the small intestine generally, even to that of typhoid fever, if the dose be minute, it is capable of exerting a most desirable effect in many instances. The form of dysentery to which it is most adapted is that confined almost exclusively to the rectum. In simple proctitis it will probably be found effective.

Form for Administration.—Where the podophyllum is used, the specific medicine. The podophyllin may be employed in the 3x trituration. Dose—This may be very minute. The trituration of podophyllin may be given in two or three-grain doses every three or four hours. The specific medicine from podophyllum may be given in doses varying from the tenth of a drop to ten drops.

## POLYGONUM.

Hydropiperoides is a very certain remedy for flatulent colic. It is indicated where there are cutting, lancinating pains, with griping, rumbling of the bowels and flatulence, with forcible, windy evacuation of liquid stool.

It is not a remedy that will be required very often, and we might dispense with it without much loss.

Form for Administration.—The specific medicine.

Dose.—Add ten drops to half a glass of water and give a teaspoonful every five or ten minutes until relief from pain follows.

### POLYPORUS.

Polyporus officinalis exerts an influence on the hepatic and intestinal structures, proving a good remedy in some cases of jaundice where there is torpor of the biliary functions, and of diarrhœa and dysentery when these are of malarial origin or depending on such influence.

The antiperiodic power of polyporus is not to be forgotten. It is in cases manifesting periodicity that it will do its best work as a corrector of gastro-intestinal troubles.

Form for Administration.—The tincture from a homeopathic pharmacy.

Dose.—From the fraction of a drop to five drops.

## POLYMNIA.

This remedy influences the circulation in the cœliacaxis-distribution, and is applicable to digestive troubles dependent on congestion of the first capillary distribution of this portion of the portal circulation. It is applicable to dyspeptic conditions attended by fullness in the epigastrium, sense of weight and sinking, and burning when due to fullness of the gastric capillaries. It should be continued for several weeks, in order to derive its full benefit.

Form for Administration.—The specific medicine. Dose.—From five drops to half a drachm.

# POPULUS TREMULOIDES.

It is difficult to suggest the line of action of this remedy, but it is a valuable agent in the treatment of dyspeptic conditions in debilitated subjects. It is a good remedy to improve the tone of the stomach in patients debilitated from protracted fever, or from long standing disease of the reproductive apparatus, especially in nervous and hysterical women.

Trembling poplar also possesses anthelmintic properties. It has been used in domestic practice for the expulsion of the lumbricoid worm.

Form for Administration.—A saturated tincture of the fresh bark.

Dose .- From five drops to half a drachm.

## POTASSIUM CHLORIDE.

Schuessler's tissue salt is a valuable remedy to be thought of in chronic affections of the liver when fibrous changes are suspected. In cirrhosis and even in acute hepatitis, when the stage of exudation is impending, this remedy promises a little more than any other, to say the least.

I am of the opinion that it will cure cirrhosis in its incipiency, and even after the disease has become advanced it will manifest a good influence, if properly administered.

In acute hepatitis it will avert threatened suppuration if administered in time, and rapidly lessen the congestion of the affected liver.

# Form for Administration .- The 3x trituration.

Dose.—Add five grains to four ounces of water and give a teaspoonful every two hours.

## PRUNUS VIRGINIANA.

This remedy is valuable in debilitated conditions of the digestive and assimilative organs following jaundice from hepatic torpor. It improves the appetite, augments the digestive powers, and promotes normal evacuation.

Form for Administration.—I have used a preparation of preserved cider and wild cherry bark with the best results. A quart bottle is loosely packed with the fresh in-. ner bark of the wild cherry and afterward filled with pleasant apple cider. This may be taken in small wine-glassful doses three or four times a day. In the absence of the opportunities for such a combination the specific medicine may be used in five or ten-drop doses.

### PTELEA.

Wafer ash is a splendid tonic, and will afford satisfaction in debilitated states of the stomach and small intestine as frequently as any other remedy. It improves appetite, digestion, assimilation and retrograde metamorphosis.

It improves the power of the pneumogastric nerve, and has been useful in some cases of dyspnœa. At one time it was considerably lauded as a remedy for asthma, but has been found wanting as a means of much service here.

Hale characterizes this remedy as a powerful one, not active, like podophyllin and iris, but pervading. It ought to be adapted to tissue changes in any part for which it has a specific tendency.

Form for Administration.-The specific medicine.

Dose.-This may vary from one drop to half a drachm.

# , PULSATILLA NUTTALIANA.

The American pulsatilla resembles the European species very much in its therapeutic action, manifesting nearly the same affinities. It differs somewhat, however, in its action on the alimentary canal, its influence on the pharynx being marked, and its action on the intestine more pronounced.

It acts very promptly in many cases of dyspepsia where there is irritation of the gastro-intestinal mucous membrane. Where such disturbance exists lower down it is a valuable remedy in diarrhœa. In vomiting, especially the vomiting of pregnancy, it is of service, acting promptly in many cases.

As a remedy for colic from reflex intestinal irritation it is a prompt and efficacious remedy in many instances. Its general action being that of a modifier of vascular disturbance of the capillaries of the mucous membrane, the local irritations and reflexes arising therefrom are all modified by it.

Form for Administration.—A tincture from the fresh plant. This may be obtained from any respectable homeopathic pharmacy.

Dose.—Add from five to fifteen drops to four ounces of water and give a teaspoonful every hour or two as required by the urgency of the case.

## PUNKAMA.

This agent has lately been highly extolled for the expulsion of tapeworm. Its high price has thus far interfered with its general use. It may yet, if its production become less expensive, prove a remedy of frequent recourse.

### RHUS AROMATICA.

While, in practice, it might be well to reserve this remedy for its specific effect on the urinary organs, its influence on the bowels in diarrhœa and dysentery should not be forgotten. The introducer of rhus aromatica, Dr. J. T. McClanahan, describes its action in these diseases as follows:—

"August E. This little boy was taken early last summer with diarrhœa. Stools pale and thin, running from him like water; no particular pain or fever. He was pale and emaciated; limbs trembling; scarcely able to stand alone; skin unusually cool and bowels flabby. R tincture rhus aromatica, zss.; three drops in water after each stool. With proper diet and care the little boy recovered rapidly.

"Mr. F., laborer; called July 17th. Stated that he was suffering from what the doctors called chronic dysentery, and that he had been in this condition for two months. He further stated that he had averaged five stools each twenty-four hours for that length of time; sometimes copious, sometimes scant—the latter accompanied with pain. At times stools consisted largely of of blood and mucus; at other times almost of pure blood. Patient was thin, countenance anxious, bowels flabby, skin sallow, and he was scarcely able to walk. This was a bad case and I determined to use no other remedy until I had given the rhus aromatica a fair trial. Under the influence of ten-drop doses of this remedy, together with boiled milk diet, my patient made a complete recovery. No other medicines necessary."

Form for Administration. — The specific medicine. Dose. — From one to ten drops.

### RHUS GLABRUM.

Common sumach is a useful remedy to relieve stomatitis ulcerata and sponginess of the gums attending scurvy and purpura hemorrhagica. It acts as an astringent to the intestinal capillaries and proves useful in some cases of

diarrhœa. It has been recommended in dysentery, where the disease has advanced to ulceration of the intestinal mucous membrane. It will not be needed often, as we possess better remedies for almost every place where this is applicable.

Form for Administration.—A saturated tincture of the inner bark.

Dose.-From five to twenty drops.

### RHUS TOXICODENDRON.

Rhus tox. fills a very important place in this department. It is the remedy par excellence for gastric irritation, and will usually serve to promptly arrest the vomiting attending gastro-intestinal disturbances and fevers where gastric irritation is a complication.

The indication for it is "pointed tongue with reddened tip and edges." If there be a "strawberry" tip on the tongue the indication is still more marked. When fevers present such phases they are very stubborn and unpleasant cases to treat until this complication has been banished; and when this has been accomplished the whole train of symptoms often yields at once to other treatment, if not without additional medication. As rhus possesses valuable sedative properties for the circulation it is highly appropriate in all febrile cases presenting such symptoms.

In cholera morbus, rhus tox., a few drops in a glass of water, dose a teaspoonful every fifteen minutes, constitutes the most reliable remedy I have ever tried. It relieves the vomiting promptly, the patient hardly vomiting the second time, and the cramps and diarrhœa cease at once. I usually combine aconite with rhus here, and would commend the following: R specific medicine aconite gtt. x, specific rhus tox. gtt. xv, aqua şiv. M. and give a teaspoonful every ten or fifteen minutes.

In cholera infantum, where "head symptoms" are prom-

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inent, or where there is marked restlessness, or where there is a pronounced epidemic influence at work, rhus is one of the foremost remedies. It seems to be one of the group of remedies adapted to the correction of the genus epidemicus, and in both cholera infantum and typhoid dysentery aggravated by such an element it will come into service at an early date, wherever well understood as a remedy. It combines a special influence on the gastro-intestinal mucous membrane with a power of controlling a certain cerebral excitation almost certain to attend such cases.

Form for Administration.—The specific medicine.

Dose.—Add ten or fifteen drops to half a common tumbler of water and give a teaspoonful every hour, unless otherwise directed.

# RUMEX CRISPUS.

Yellow dock is a good remedy in nervous dyspepsia with pain in the epigastric region, aching in the left chest or shooting pains in that region, accompanied with flatulence and eructations. It is especially indicated as a dyspepsia remedy where the pains radiate to the left pectoral region.

It also relieves diarrhœa and dysentery, where the discharges are watery and not very painful.

Form for Administration.—The 3x dilution of the specific medicine.

Dose-Add a teaspoonful to four ounces of water and give a teaspoonful every hour.

## SANTONINE.

Santonine destroys the lumbricoid worm. It also possesses properties commending it as a remedy for the urinary organs, but this quality will be considered in another department.

As a vermifuge, santonine should be administered when

the stomach is empty, that its effect may be fully produced. And the subject should avoid eating for an hour or more after the medicine has been taken.

It is one of the most convenient and positive remedies in the materia medica for this purpose, and it may be triturated with sugar so as to be taken without objection by children.

Form for Administration.—The product of any reliable drug house.

Dose.—From the fraction of a grain to three grains, repeated three or four times a day.

# SODIUM SULPHATE.

This is a very positive remedy for the green diarrhœa of children. In this respect it is an analogue of lactic acid, both this and that acting specifically to arrest green discharges in teething infants, whether it be cholera infantum or other disturbance of the alimentary canal.

It is also one of the few remedies applicable to the treatment of typhlitis, and here it serves a good purpose, when used discriminatingly.

In some forms of liver trouble bordering on hepatitis, where the liver is swollen and sensitive to pressure, it relieves promptly, though this is a condition of irritability rather than inflammation, probably.

Form for Administration.—The 3x trituration.

Dose.—Add five grains to half a glass of water and give a teaspoonful every hour.

# SPIGELIA MARILANDICA.

Pink root is one of the old indigenous anthelmintic agents. It is an excellent remedy for the expulsion of worms, but is rather unpleasant for administration.

Spigelia exercises considerable influence over eye, heart and nervous affections of painful character (neuralgia), but these properties should be named in their appropriate places.

Form for Administration.—A saturated tincture of the fresh root.

Dose.—As an anthelmintic, for a child three years of age, from ten to thirty drops, administered when the stomach is empty.

# STANNUM.

Stannum relieves abdominal pain of obscure origin, and has been employed by the homeopathists as an anthelmintic. They highly indorse it in "worm colic," and assert that it is efficacious in the abdominal pain of hypochondriasis.

While this may seem somewhat indefinite, it will be well to remember the remedy in stubborn pain in the abdomen proceeding from causes not discernable, as this remedy searches deeply the vegetative nervous system, especially that represented by the pneumogastric branches, and is always worthy a trial when other remedies fail.

It may also be found beneficial in sick headache and the vomiting of pregnancy.

Form for Administration.—The 3x trituration, obtainable at a homeopathic pharmacy.

Dose.—Two or three grains, repeated three or four times daily.

### SUMBUL.

In Russia this remedy has been quite extensively employed in the intestinal irritation of typhoid fever, in dysentery, and in diarrhœa. It has been used with success, according to reports, in the active stage of cholera.

Hale asserts that it is destructive of ascarides, when there is bloated, drumlike abdomen, picking at the nostrils, etc. I am of the opinion that time is wasted when efforts are made to remove ascarides by medicine administered per mouth, though there may be such an effect exerted in exceptional cases.

Form for Administration.—The 3x trituration. Dose.—Two or three grains, repeated every three or tour hours.

# TAMARINDUS.

The flowers of the Egyptian tamarind have been found a most excellent remedy for hemorrhoids. In some quarters it is considered a specific. Dr. J. C. Probst, writing in the *Pharmaceutical Record*, claims to have had the most extraordinary results from its positive curative powers and especially so as this has been in cases deemed incurable and given up by other physicians He has noticed, after giving his patients three or four wineglassfuls of the decoction, that they were instantly relieved of the persistent itching and burning sensation, while the excrement seemed materially altered by it.

### THYMOL.

Thymol is a very positive agent for the expulsion of tapeworm. It is a powerful depressant and should be used with some caution, but it is capable of causing the speedy removal of this parasite when properly used.

The proper method of procedure consists in the administration of a cathartic at bedtime the night before the thymol is to be administered, and early the following morning the remedy is to be given in ten-grain doses every fifteen minutes until the worm is evacuated. My own experience with this remedy has been very satisfactory.

Thymol has been used by old-school practitioners as a remedy in typhoid fever, fermentative processes of the bowels being presumably checked by it, while the temperature is diminished and head symptoms ameliorated.

## TRIOSTEUM.

Hale recommends feverfew in bilious headaches with gastric irritation and in migraine. He also suggests its 25 use in bilious colic, diarrhœa and dysentery. If these are its affinities—the various portions of the alimentary canal —the combination of sedative properties with them, which it possesses to a slight extent at least, suggests its employment in all inflammatory conditions of the gastro-intestinal mucous membrane.

Form for Administration.—A saturated tincture of the recent root.

Dose.—From one to ten drops every three or four hours.

# URANIUM, NITRATE OF

Nitrate of uranium probably influences the glycogenic functions of the liver, as glycosuria is often relieved by its use. It is best adapted to the forms of diabetes mellitus that are complicated with dyspeptic states. Here it is one of the best remedies we possess, and will cure a large percentage of the cases in which it is employed, if discriminatingly used, and persisted in.

It is also adapted to round ulcer of the stomach, the pyloric extremity of the stomach being a point of selection with it. Here it rivals potassium bichromate, and will afford good satisfaction.

Form for Administration.—The 3x trituration. Dose.—Two or three grains four times daily.

### VERATRUM ALBUM.

This remedy is adapted to the control of watery evacuations from the bowels, when they are forcibly expelled with a gush. In other words, it is adapted to watery diarrhœa attended with spasmodic action of the muscular coats of the intestines and abdominal muscles.

It is adapted to cholera morbus, which presents us such a picture, and the homeopathists have lauded it in the treatment of cholera Asiatica. In cholera morbus it arrests the vomiting and crampy diaarhœa promptly, though it is not more efficient than rhus tox. I have used it with the best of satisfaction in the treatment of the choleraic form of cholera infantum where the characteristic gush of the evacuation suggests its need. Here no other remedy acts as promptly, unless it be erigeron or kaki.

Form for Administration.—The 3x dilution of the specific medicine.

Dose.—Add half a drachm to four ounces of water and give a teaspoonful every fifteen minutes, in urgent cases.

# XANTHOXYLUM.

Xanthoxylum influences the muscular fibres and mucous coat of the intestine, relieving spasm of the former and irritation of the latter. It is therefore applicable to inflammatory conditions there, especially those attended by spasmodic states of the muscular walls.

It has been used successfully in cholera morbus, cholerine, cholera, diarrhœa and dysentery. It may prove especially valuable where severe tenesmus is a marked symptom, and where the evacuations have been arrested by astringents and the irritation remains.

Some of the old Eclectics used it in typhoid fever with reputed success. Its action on the intestine, with its stimulating properties, might adapt it to the late stage, where a stimulant was desirable.

Form for Administration.—The specific medicine. Dose.—From the fraction of a drop to ten drops.

#### THE RESPIRATORY ORGANS.

## THE RESPIRATORY ORGANS.

## ACONITE.

Aconite is an important remedy in the early stage of almost any inflammatory condition of the respiratory organs. It relieves the slight congestion of the pulmonary mucous membrane which follows sudden atmospheric changes readily, and in addition to being very appropriate for colds, it answers well to control inflammatory action in the beginning of bronchitis and pneumonia.

It is well, usually, to combine this drug with asclepias, veratrum, rhus tox., or other appropriate remedy, though when well chosen it is capable of accomplishing much good alone. In infantile pneumonia minute doses of aconite in connection with the tepid water pack to the chest proves a very effective treatment. Here the single drug is often more effective than a combination.

The special sphere for aconite in respiratory diseases is in acute affections of the larynx. Here we find it one of the most prompt we have in the treatment of croup, and in other forms of laryngitis, as it seems to possess an affinity for this part. From one to three drops of the specific medicine, according to the age of the child, should be added to four ounces of water, and a teaspoonful administered every fifteen minutes, for a few times. This will usually control the croupy cough and other unpleasant symptoms promptly. In the hoarseness that attends colds in the larynx in adults, in the first stage it is also a very good remedy. At a later stage the second or third decimal trituration of bichromate of potassium is more effective.

Form for Administration.—The specific medicine.

Dose.—Add from one to ten drops to half a glass of water and order a teaspoonful as often as the needs of the case require.

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## ALNUS RUBRA.

Dr. A. D. Ayer contributed an article on this agent as a remedy in hay fever to the *Eclectic Medical Journal* a few years ago, from which I will quote, as the disease referred to demands all the reliable remedies we can muster:—

"September 5th, a prominent politician sent for me, saying: 'Can you get me fixed up so I can go to the State Convention the 9th?' His face was red, eyes running a steady stream; as he expressed it, during the night before his eyes 'had run ten barrels of water.' Pupils contracted, tongue white with yellow streak in the middle, a constant sneezing, tightness across the chest, slight acceleration of the pulse. I gave gelsemium, gtt. xxx, water ziv; teaspoonful every four hours, alternating with lobelia, gtt. v, water ziv, teaspoonful every four hours, two hours after number one. I also left four one-half-gr. sulphite of soda powders, one to be taken on the tongue every hour after taking gelsemium. Left tag alder, distilled extract, to be snuffed up the nose, full strength every half hour.

September 6th. Face and eyes natural, no discharge from eyes, smarting all gone from nose; tongue, white all gone, but a dirty half-brown, yellow appearance present. Pulse normal; tightness across the chest a little worse, with a slight cough, tickling in the throat. Gave bryonia in place of gelsemium; continued lobelia, only oftener. Gave an old-fashioned dose of podophyllin with cream of tartar; bowels had not moved. Found uvula elongated. Ordered tag alder snuffed up the nose as before, and to gargle with it.

September 7th. Tongue nearly clean; three movements of the bowels; begun to be hungry; no tickling in the throat; no discharge from nose or eyes; no headache; some tightness across the chest, which is always a trouble with him when he has a cold. Two others in the family informed me then that they had begun to sneeze, but had stopped it by inhaling tag alder.

"The next day, September 8th, my patient left town and returned the 10th, but no return of the sneezing. Believing this was a typical hay fever case, is why I have gone into such lengthy details."

The writer refers to other uses of the remedy, but they have no bearing here.

# ARUM TRIPHYLLUM.

Indian turnip possesses a selective affinity for the larynx. It is not a remedy that will be called for often, but in some cases of chronic laryngitis it will be found of excellent service. In the disease known as "minister's sore throat" it will often prove curative in a very short time. Where the larynx is ulcerated, with much irritability of the part, it is reliable. The sudden hoarseness and aphonia that sometimes afflict public speakers prior to a more severe affection of the larynx is usually amenable to minute doses of this agent.

Form for Administration.—The expressed juice of the fresh plant, triturated in sugar of milk. This is the form sold at homeopathic pharmacies.

Dose.—From two to three grains of the 3x or 6x.

## ASCLEPIAS TUBEROSA.

Asclepias tuberosa, though seemingly a feeble agent, is quite active in controlling excitement in the area of distribution of the bronchial arteries. It is therefore very useful in pneumonia and bronchitis, while the active stage is in progress. I have employed this remedy in these conditions for years with the best of results, and regard it as the most positive agent of its class that we possess.

Though effective alone, there are certain states of the nervous system which render it desirable to combine

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this agent with such a remedy as aconite or rhus tox., and this I commonly do, though I expect the asclepias to largely control the hyperæmic condition of the respiratory organs.

Form for Administration.—The specific medicine or a decoction of the recent root.

Dose,—From one to ten drops of the specific medicine. The dose of the decoction will vary from a tablespoonful to an ounce. The dose should be repeated every two hours in acute conditions—the only class of cases in which it is indicated.

# BICHROMATE OF POTASSIUM-KALI BICHROMICUM.

Bichromate of potassium specifically influences the respiratory and gastro-intestinal mucous membranes. Its most positive effect in the respiratory sphere is its influence upon the larynx. Here we find it capable of removing the hoarseness left after the first few days of a cold in the larynx marvelously well. Twenty-four or fortyeight hours' use of the remedy here in appropriate doses does the work; the hoarseness and attendant cough promptly subside. This was one of the bits of specific medication that Professor Howe was willing to copy. The response must have been so prompt upon his first use of it (probably made to condemn) that he was captured. At least old numbers of the *Eclectic Medical Journal* contain commendations of this use of the remedy from his pen.

Potassium bichrom. also acts lower down, upon the bronchial mucous membrane. Many cases of hard, rasping, bronchial cough, of subacute character, will be immediately benefited by it. It does not possess the affinity of tartar emetic for the smaller tubes, and is of little use for the suffocative cough of "capillary bronchitis," but when the irritation is higher—along the larynx, trachea, or bronchi—it is a valuable remedy, though as already suggested, its specific place is in the treatment of laryngeal irritation attended with *hoarseness*, with dryness or little expectoration. I have several times prescribed it for public speakers who were hoarse from over-exertion, prior to their going before an audience, and found it to do good service. I have also prescribed it for singers with fully as good results.

Form for Administration.-The 3x trituration.

Dose.--From one to three grains, repeated every two or three hours.

## BRYONIA.

Bryonia alba specifically influences the structures about the thorax, and is applicable to irritation of the pulmonary mucous membrane, as well as to painful conditions of the muscular and serous structures here.

Its best place is in the treatment of acute coughs, and those usually the accompaniment of epidemics of influenza; it is an excellent remedy for the cough of common colds. It was a favorite remedy with many practitioners during the epidemics of la grippe of 1890-91.

The trachea and its bifurcation seem to be the regions best affected by bryonia, other remedies being required when the irritation is lower down, the selective affinity for regions of the respiratory mucous membrane being as marked with this remedy as with some others. The cough that calls for bryonia is hard, explosive and rasping, and there is pain behind the sternum, evidently proceeding from the region referred to. The cough of bryonia is dry, absence of secretion being one of its characteristics. It is of little value in chronic coughs.

Form for Administration.-The specific medicine.

Dose.-Add from five to ten drops to four ounces of water and give a teaspoonful every two hours.

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# CACTUS GRANDIFLORUS.

This is one of the most useful remedies in pulmonary hemorrhages that I have ever employed. In the hemorrhage attending incipient phthisis, and in the advanced stage of interstitial pneumonia, it acts promptly after other approved remedies fail. I have found it a most welcome aid in a number of cases where it seemed as though the hemorrhage must continue, in spite of treatment.

### Form for Administration.-The specific medicine.

Dose.—Add ten or fifteen drops to half a glass of water and give a teaspoonful every hour until the hæmorrhage ceases.

# CALCAREA OSTREARUM-CALCAREA CARB.

This is more commonly called calcarea carbonica, but this term is misleading, as it is not merely carbonate of lime, but represents an organic principle, just as distinct as that occurring in a vegetable product. It is prepared from the middle layer of the oyster shell, and this contains more than the inorganic constituents of carbonate of lime.

This agent is one of the most positive we have to improve the relaxation attending profuse discharges from the mucous membranes, and its special field is the respiratory mucous surfaces. In profuse bronchorrhœa where the mucous membrane is relaxed, and where there is considerable cough without much inflammatory action or elevation of temperature, it acts very promptly. I have cured several cases of chronic cough with it that have been pronounced phthisis by practitioners of experience, though of course the disease did not extend deeper than the mucous membrane.

In some cases of acute coughs the disease will suddenly assume a bronchorrhœa, expectoration becoming so profuse as to appear alarming. Here the calcarea carb. will relieve in two or three days, when other remedies would hardly make an impression in that time. Its sphere, however, is more especially in the treatment of chronic coughs.

Form for Administration.-The 3x trituration.

Dose.—Two or three grains, repeated every two hours in acute disease, and three or four times a day in chronic cases.

# CASTANEA VESCA.

Chestnut leaves possess the reputation of curing whooping cough. This remedy is vouchsafed for by so many writers that the testimony as to its efficacy seems overwhelming. I have never tested it because I have been able to succeed with more familiar remedies, though I may encounter an epidemic where these may fail, and be glad to bring it into requisition.

A trial of the fluid extract was made in the Philadelphia Hospital a few years ago, in which fifteen cases were put on the use of the drug in from thirty to sixty drops every three hours. The paroxysms decreased rapidly after the beginning of treatment, though severe before, and marked by the characteristic whoop, and by the fifth day the disease was arrested, except in three cases, and these were very much ameliorated.

Medical journals from different sources contain confirmatory reports of the efficacy of this remedy. As the action is probably on the respiratory center it is not improbable that other forms of spasmodic cough will be found to yield to it. Scudder recommends it in those cases in which there is "unsteadiness of gait and a disposition to turn to one side."

Form for Administration.—A saturated tincture of the green leaves, gathered in September or October.

Dose.—From ten to twenty drops, repeated every two or three hours.

## CAUSTICUM.

This is a remedy long in use by the homepathists for its influence on the larynx. It is a preparation of potassium hydrate, obtained by Hahnemann by digesting caustic potash in alcohol, and then saturating with vinegar to neutralize the potash. This is diluted with alcohol.

Causticum is applicable to the treatment of paralytic affections of the larynx, and to laryngo-tracheal catarrhs. Sometimes we find a combination of these difficulties, viz., a partial paralysis of the laryngeal muscles with an attendant profuse catarrhal secretion from the laryngeal mucous membrane. Such a complication would call for attenuated doses of causticum, for this remedy would promise a little more for the condition than any other remedy, excepting stillingia, perhaps, though it might fail.

Form for Administration.—The dilution may be obtained from any homeopathic pharmacy of repute. The second or third decimal dilution will fulfill the purpose best.

Dose. — From the fraction of a drop to ten drops.

# CHLORIDE OF AMMONIUM.

This remedy is highly prized by some Eclectics on account of its action in cough; usually that of the first stage of bronchitis or of the active stage of catarrhal pneumonia being its best place. It seems to exert a favorable influence on the hepatic secretions, and is particularly applicable to coughs which are complicated with torpor of the liver and sluggish circulation about the abdominal viscera.

Form for Administration.—The crude salt, and as the taste is quite objectionable it should be concealed in capsules. Or, it may be well diluted in water.

Dose.—From one to three grains, repeated every two or three hours.
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## COLLINSONIA CANADENSIS.

While I prefer to reserve collinsonia for its effect on the rectum and anus, it doubtless exercises more or less of an influence on the respiratory organs, and has been highly recommended by Scudder as a remedy for the treatment of minister's sore throat, this suggesting an affinity for the larynx.

I have used collinsonia in asthma with satisfaction, deriving prompt benefit, but have been inclined to ascribe the results to a removal of rectal irritation and consequent arrest of reflex pulmonary disturbance.

Collinsonia has been accredited with virtues as a cardiac remedy, and has been said to cure cough depending on cardiac disturbance. How true this is I am unable to say from my own observation, but the testimony to the assertion is good. The remedy evidently sustains a relation to the compensation between the heart and lungs, which is worth thinking about in disturbance of this relationship however the difficulty may be manifested, whether by cough, difficult respiration, or cardiac palpitation.

Professor Scudder declares that it is a remedy for the respiratory apparatus when the difficulty is located in the larynx. with irritation, change of voice and inability to use it without bringing on disturbance of its functions, a condition very similar to that calling for lachesis.

Form for Administration.-A saturated tincture of the fresh plant.

Dose.—From the fraction of a drop to five drops, repeated hourly in acute affections, and four or five times a day in chronic cases.

## CORALLIUM RUBRUM.

My experience with this remedy has been limited, though I have prescribed it in a few cases of whooping cough with good results. It is applicable to chronic convulsive coughs, including pertussis and other coughs of nervous character. It evidently influences the cough center specifically, and is not adapted to that class of pulmonary affections that have their origin in the lung tissues.

Dr. Hughes, in his Manual of Pharmacodynamics, relates the following case, which illustrates the field of action of this agent:---

"On February 1st, 1867, I was asked to see the daughter of the Rev. S. E ......... In the previous November she had had a very troublesome cough, which resisted all the treatment of the ordinary kind directed against it. Change of air was at last prescribed, and immediately on arriving at Norwood the cough ceased. She returned home at Christmas time; but the cough gradually reappeared, and had now assumed its former intensity. I found her firing minute-guns of short, barking cough. This, I was told, went on all day; and for half an hour or so toward evening increased to a violent spasmodic paroxysm. In other respects the health was fair. She was nearly 13, and had not yet menstruated. The larynx and trachea were not tender, and the cough gave no pain. I ascertained on inquiry that she was of nervous temperament, and had more than once manifested hysterical symptoms. I gave her a drop of corallium 3c three times a day. On the 5th I saw the patient again. The cough had steadily diminished since beginning the medicine. There had been no paroxysm for two evenings, and I heard not a single bark during my visit. By the 9th the cough had quite gone; and it did not return. Since this time corallium has become quite a favorite medicine with me for hysterical and other spasmodic coughs; and I am rarely disappointed by it."

Form for Administration.—The 6th decimal dilution, to be obtained at a homeopathic pharmacy. It is prepared from the red coral.

Dose .- Two or three drops two or three times a day.

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### CORALLORHIZA ODONTORHIZA.

The crawley root possesses an affinity for the bronchial mucous membranes, and proves a valuable remedy in chronic coughs, allaying irritation and improving the recuperative powers of the structures involved. It is a valuable sedative, exerting its influence especially on the pulmonary mucous membrane, and ought to be valuable in acute bronchitis. The objection to it as a remedy for frequent use is its scarcity.

It may be used in decoction of the fresh plant, or in the form of a saturated tincture of the fresh root.

### CUPRUM

Copper influences the cough center, and is a good remedy for some cases of whooping cough, though I think we have a more reliable remedy in drosera, usually. It resembles corallium rubrum, somewhat, in its influence on the cough center, being adapted to spasmodic coughs, laryngismus and spasmodic asthma. The cases of this kind that would especially indicate the remedy are those in which the convulsive tendency is so marked that the patient is liable to go off into convulsions. Such cases in children, complicated with whooping cough, should cause one to study copper as a probable remedy.

Form for Administration.-The acetate of copper, in the 5x or 6x trituration

Dose.—From two to three grains three or four times a day.

### DROSERA.

This is one of our most valuable remedies for spasmodic coughs, its affinity for the cough center being marked and prompt in action. It is the favorite remedy for pertussis, and seldom fails to cure, if its use be persisted in for a week or ten days, though several days may be consumed in producing an impression with it in some cases. I have given it five or six days in some cases with no apparent benefit, when good effect would suddenly become marked and permanent. Where the patient is known to have been exposed to the contagion it is a good plan to anticipate the onset of the disease with the remedy, as the cough is then not liable to become very severe. When it has become established it requires a reasonable time to secure the impression of the remedy on the affected part.

It would seem also that drosera exerts an influence over the periphery of the filaments from the cough center, as in the cough of measles it is nearer a specific than any other remedy we have. I have quieted the explosive cough of a noisy houseful of children affected with measles by it more than once, and I always try it in the beginning of a measles cough, as I have reason to expect a prompt response from it.

Coughs marked by tickling in the larynx, when of spasmodic character, are often benefited by drosera when not from the influence of whooping cough or measles. There seems to be something of an affinity for the laryngeal sphere about this remedy, as it brings about good results in some cases of cough with hoarseness, thus allying itself with aconite, spongia, potassium bichromate, etc.

Form for Administration.-The specific medicine.

Dose.—Add from ten drops to half a fluidrachm to four ounces of water and give a teaspoonful every three or four hours.

### ECHINACEA.

Echinacea has not an extensive field in this list, though there is one place where it is not rivalled by any agent in the materia medica. I have reference to threatened pulmonary gangrene. When this occurs in connection with pneumonia we may administer echinacea with full assurance that if it is possible for medicine to accomplish a cure this one will do it.

Form for Administration.—The specific medicine.

Dose — Add two or three drachms to four ounces of water and order a teaspoonful every hour.

## EUPHRASIA.

Eyebright exerts an influence over the upper portion of the respiratory membrane, affecting the nasal and lachrymal mucous portions of this part. It is best adapted to acute fluent catarrh of these sections, *fluent coryza* being the popular place for it with those who employ it.

In the catarrhal inflammation of these parts attending measles it acts well in lessening the severity of the symptoms, and its use will be found an admirable means of averting the unpleasant sequelæ with which the ocular appendages are often afflicted after a neglected case where the catarrhal symptoms are severe. It acts well here in combination with aconite, gelsemium, jaborandi, or other sedative.

Form for Administration.—The mother tincture of a reputable homeopathic pharmacy.

Dose.—Add from ten to twenty drops to four ounces of water and order a teaspoonful every hour.

## GELSEMIUM.

Gelsemium is a remedy that comes into play in many cases of acute inflammation of the pulmonary mucous membrane. It can hardly be said that it possesses an affinity for this part more than for any other, but its power in controlling determination of blood renders it very acceptable in acute congestive states here, whether it be the effect of a common cold or something more serious. It will be found a very reliable remedy to prescribe in the treatment of coughs, in their early inception, though it has no place in the management of chronic coughs, unless it be for aggravations.

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Combined with aconite, it is useful in the early stage of bronchitis, pneumonia, laryngitis, etc. It lessens determination to the part, promotes normal secretion, and equalizes the circulation of the blood in the organs. It thus may largely assist in aborting an inflammatory condition which otherwise might prove very serious. I regard it as specially valuable in malarious districts, as its antimalarial properties are useful, even in pulmonary affections occurring under such influence.

Form for Administration.-The specific medicine.

Dose.—Add twenty drops to four ounces of water and give a teaspoonful every one or two hours; such a dose would be appropriate for an adult.

## ICTODES FŒTIDUS.

Skunk cabbage is not a remedy of great promise, though it manifests an affinity for certain portions of the respiratory apparatus. It has been found of service in asthma and bronchitis, but can hardly replace our best remedies in these fields. It is not used very much, and will probably not become a general favorite.

Form for Administration.—A saturated tincture of the recent root.

Dose.-From one to eight drops.

## INULA HELENIUM.

Elecampane is an important remedy in this department, and one that has been too much neglected by the profession. It is one of the most positive remedies we have in bronchial irritation, and is applicable to either acute or chronic phases.

I found it the most positive remedy I could select in the treatment of the severe cases of cough that attended la grippe during the winter of 1889-90. In my own case it relieved the sub-sternal pain and teasing cough at once, after a fruitless search of several days among the best remedies of this class that I was familiar with. I afterward found it, throughout that season, a very reliable resort for the relief of a large number of similarly afflicted patients.

It has cured more than one stubborn case of chronic bronchitis, to my knowledge, and may fairly be classed among our best indigenous remedies for irritation of the pulmonary mucous membrane. It acts best on the large air passages, notably the trachea and bronchi. Its effect in irritation lower down is not of much worth. Here we must rely upon lobelia, ipecac, tartar emetic, or, if the parenchyma of the lung be involved, asclepias.

It combines very well with the last named remedy in the treatment of stubborn coughs, the two covering a large portion of the respiratory tract below the larynx. I have used the two in the following combination with splendid results:—

B. S. m. inula helenium, f<sub>3</sub>ii.
S. m. asclepias tuberosa, f<sub>3</sub>ii.
Simple syrup, f<sub>3</sub>ii.
Aqua, ad q. s. f<sub>3</sub>iv.

In acute cases a teaspoonful of this may be given as often as every half-hour, until the cough becomes lessened, and afterward every hour or two as circumstances demand.

Form for Administration.-The specific medicine.

Dose.—From five to ten drops, repeated as often as the case demands. Acute cases demand frequent repetition of the dose.

### IODIDE OF ARSENIC.

This remedy seems to exert its best influence in the respiratory affections attending epidemic catarrhal fevers. Hale recommends it where there is a corrosive character about the discharges, causing erosion of parts upon which they are allowed to flow. It has been a favorite remedy in several epidemics of catarrh with some practitioners, as in the "epizootic" of 1872, and in the catarrhal form of the grip of 1890.

Hale asserts that it is nearly a specific for hay fever, and he also recommends it for old nasal catarrhs, where the discharges become foetid and bloody, scabs form in the nose, and the disease extends to the throat.

Form for Administration .- The 3x trituration.

Dose.—Two or three grains every two or three hours.

### IPECAC.

Ipecac is a remedy that will come in play frequently in the treatment of affections of the respiratory organs. It selects the small bronchial tubes for its principal field of action, and is very useful in allaying irritation here, when of acute or subacute character. In minute doses it is also a valuable remedy in pulmonary hemorrhage of passive character, lessening the amount of blood expectorated with promptness.

It is useful in capillary bronchitis, colds, acute bronchitis and pneumonia, acting very favorably in most cases, relieving cough and diminishing expectoration, if too large doses are not administered. Its action resembles that of tartar emetic somewhat when minute doses are administered, the remedy being valuable to relieve the dyspnœa and rattling in the chest due to clogging of the bronchioles, though it is not so prompt or reliable as the antimonial preparation—tartar emetic, 3x.

Some authors assert that ipecac is valueless in acute bronchitis, but I have had considerable experience which causes me to doubt the assertion, though it certainly is more appropriate to the subacute than to the active stages of bronchial irritation—more applicable to the cough of convalescence. It has been extolled in croup, and is a favorite domestic remedy in the form of the syrup, but I think we have so many better remedies that we can well dispense with it in this respect.

Form for Administration.—The specific medicine. Dose.—From the fraction of a drop to five drops.

## JABORANDI.

Pilocarpus pinnatus controls excitement of the general circulation, in appropriate doses, and thus becomes a valuable remedy in all cases of acute inflammation of the respiratory organs.

It is of service in the early stages of bronchitis, combined or alternated with elecampane, potassium bichrom., bryonia, aconite, etc. In pneumonia, it combines or alternates well with asclepias, in the early stage, and with potassium chloride, during the stage of exudation. Administered with caution, it is one of the best sedatives we possess in all inflammatory conditions of the respiratory organs in their active stages.

Form for Administration.—The specific medicine.

Dose.—From one to five drops, repeated every one or two hours.

## LACHESIS.

This remedy is a very useful and prompt agent in some cases of disturbance of the respiratory organs when properly selected. It must prove disappointing to the indiscriminating practitioner, because there are only a few cases where it is indicated, but where these occur nothing else will suffice, and this cures magically.

The larynx seems to be the point of action, or rather the laryngeal nerves, for irritability of the larynx is the leading indication for it. The lachesis patient coughs uncontrollably, the cough being provoked by the least excitement, and the irritation being pointed out as existing somewhere in the throat, by the patient. Sometimes this is referred to the posterior nares, sometimes to the muscles of deglutition, sometimes to the pharynx, the patient describing the sensation as though there were a splinter or other foreign body in the throat. The lachesis patient coughs violently when the least portion of dust or a draught of cold air is breathed. In most of these cases a careful examination will reveal a total absence of any local disturbance to account for the paroxysms of cough.

If the practitioner will remember the application of lachesis to the *irritable larynx*, or the *irritable laryngeal nerves*, this usually being associated with disturbance of the muscles of deglutition, he will be able to cure some cases of cough otherwise intractable. Patients of extremely susceptible and nervous temperament are the ones usually presenting the symptoms demanding it.

Form for Administration.—The 6x or 10x trituration, obtainable at a homeopathic pharmacy.

Dose.—Two or three grains three or four times a day. Only a few doses are needed to bring about the desired result if the remedy is properly chosen. Two or three days time will suffice to cure.

### LOBELIA.

I confess that lobelia has never been a favorite with me in the treatment of diseases of the respiratory system. It is nauseous, and not so reliable for any particular condition as some other appropriate remedy. It has quite a wide range of application, and is liable to be a favorite with that class of practitioners who do not discriminate very closely in making their selection, for it benefits quite a number of abnormal conditions. For example:—

It relieves croup, but not as promptly and pleasantly as aconite usually; it affords temporary relief in asthma, but this use soon wears off, the remedy losing its effect

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and becoming of little use; it is an expectorant, assisting in the loosening of a cough, and acts on the small bronchioles to lessen profuse expectoration in capillary bronchitis, though not as well as tartar emetic. I think we are using a second rate remedy when we are depending on lobelia in any pulmonary difficulty, if we are able to select discriminatingly from the valuable list offered outside of its sphere.

Form for Administration.—The specific medicine. Dose.—From the fraction of a drop to ten drops.

## LYCOPUS.

Bugle weed possesses certain virtues entitling it to a place in this department. It exercises a control over the circulation in the pulmonary vessels which is of value in the treatment of chronic inflammatory affections, and through this influence, probably, modifies passive pulmonary hemorrhage. It is one of our most useful agents in the hemorrhages that occur in the course of phthisis pulmonalis.

Through its influence on the heart it largely affects the pulmonary circulation, and seems to preside over the compensatory action between the heart and lungs. In coughs depending on cardiac obstruction or insufficiency it acts very promptly. The hemorrhage and cough occurring as a sequel of cardiac difficulty will always suggest lycopus as a remedy.

Form for Administration.—The specific medicine. Dose.—From the fraction of a drop to ten drops.

### PHOSPHORUS.

Phosphorus has been allotted too much space as a pulmonary remedy, though it is deserving of mention. The homeopathists have lauded it since the days of Hahnemann, as a remedy, though the Austrian homeopathists were the first to emphasize its merits as a remedy in pulmonary congestions. It has been used in the early and late stages of pneumonia, with reputed success, and also in hacking, dry coughs, either of the early stage of phthisis, or from other causes.

I think that we can very well dispense with phosphorus as a cough remedy, as we have reliable substitutes for any place it can supply.

### PROTOIODIDE OF MERCURY.

This remedy in the third decimal trituration has a specific influence on the larynx, and is a prompt remedy in croup and hoarseness. It may be given in two or threegrain doses.

### POTASSIUM CHLORIDE.

Potassium chloride is the remedy to use during the early stage of hepatization, in pneumonia, to assist the absorption of plastic lymph and prevent the processes of resolution or gray hepatization. It is *the* remedy to bring about absorption of plastic material and prevent suppuration in any part of the body, and it is no less prompt and efficacious here than in other parts.

I think I have seen this remedy save life in pneumonia, in a number of instances through this virtue, and would not like to be without it in treating a case of this kind after the first stage had terminated unfavorably.

I have also used it successfully in some cases of chronic bronchial cough where it seemed that the trouble depended upon the presence of plastic exudates and a tendency to their increase. It is the only remedy of any account that we possess for the treatment of fibrous pneumonia, and promises much, if its use be begun at a comparatively early date.

It is not difficult to cherish a sentiment of scepticism with regard to this agent, as the dose seems remarkably small for the results to be expected, but it only needs a fair trial to convince the observer that it will do all that has been claimed for it.

Form for Administration.-The 3x trituration.

Dose.—Add five grains to four ounces of water and give a teaspoonful every hour.

### POTASSIUM, IODIDE OF.

Professor F. Cornwall observes, in an article in the Calitornia Medical Journal:-

"From quite an extended observation of nasal diseases I have come to some definite conclusions regarding the significance of ulceration and loss of the cartilage of the septum. I have a recollection of so great a number of these cases which have afterward shown a tendency to ulceration of the soft palate and pharynx as to cause me to anticipate such an occurrence in any case wherein the septal trouble exists.

"It is difficult for me to tell whether the constitutional cause or condition is inherited syphilis or what is called strumous, but so many have been actively benefited by iodide of potassium as to cause me to prescribe alteratives in which this salt is incorporated very often. I have at this time three cases illustrative of this—all with old septa and recent ulcerated pharynges—and iodide of potassium acted charmingly in all; not only stopping the ulcerative process, but rapidly improving the health."

# PRUNUS VIRGINIANA.

Wild cherry possesses pulmonary virtues, though it is not a remedy that will come into frequent use. It is not a remedy for acute pulmonary diseases, and not one that will be often used in chronic cases.

It is what might be termed a "sedative expectorant," assisting in the raising of tenacious mucus in chronic pneumonia and phthisis, imparting, at the same time **a** soothing influence, and improving the respiratory power and cardiac action, thereby aiding pulmonary circulation. Its action is somewhat similar to that of lycopus, though it differs from that remedy in possessing little if any power in hemorrhage.

Being a tonic to the digestive and assimilative organs it is a useful remedy in chronic pulmonary disease where the system is debilitated.

Form for Administration.—The specific medicine. Dose.—From five to twenty drops.

### QUEBRACHO.

Quebracho improves the respiratory power through its joint action on the heart and lungs, and is valuable in certain forms of dyspnœa complicated with insufficient cardiac action. It is valuable in some forms of asthmatic bronchitis, and in pure asthma, where there is a lack of cardiac compensation. It is also valuable in the dyspnœa of emphysema.

Form for Administration.-Parke Davis & Co.'s fluid extract.

Dose.-From ten to thirty drops.

## RHUS TOX.

Rhus is often useful in the treatment of acute coughs, its influence being best in influenzas where the cough is dry and tickling, and the unpleasant sensations are shifting about from one portion of the respiratory tract to another. Tickling in the bronchial tubes, racing up and down, with dry, spasmodic, uncontrollable cough are some of the indications for rhus tox, as a cough remedy.

Rhus combines well with aconite in bronchitis, especially the early stages of infantile bronchitis. It not only acts as a sedative, controlling vascular excitement in the area of the bronchial artery, but it soothes, through its influence on the nerves of the part, the erethism which contributes largely to the aggravation and perpetuation of the disease.

Rhus is of little service where there is expectoration, its proper field being the controlling of dry, tickling coughs, and the early stages of inflammatory pulmonary affections. However, I have found it useful in the treatment of some cases of phthisis where there was redness of the tip of the tongue, with nausea. In such cases rhus seems to improve all the symptoms, relieving the gastric irritation, soothing the cough, promoting the appetite and contributing to natural sleep.

Form for Administration.-The specific medicine.

Dose.—Add from ten to fifteen drops to four ounces of water and give a teaspoonful every hour or two.

## RUMEX CRISPUS.

Yellow dock manifests an affinity for the larynx and trachea, and sometimes proves a valuable remedy in stubborn coughs having point of origin here. It is best in summer coughs, and not very applicable to those which come on during changeable seasons, from cold.

It has been extolled as a specific for hay fever, but my experience does not justify such a conclusion; I have found it excellent in a few stubborn, dry, summer coughs.

Form for Administration.—A saturated tincture of the fresh root.

Dose.—This must be small in order to get the dynamical influence in irritation of the respiratory organs. Add ten or fifteen drops to half a glass of water and give a teaspoonful every two or three hours.

### SAMRUCUS CANADENSIS.

The common elder furnishes a principle which manifests an affinity for the nasal mucous membrane. Its principal use has been for the obstructive catarrh of infants, and here it has made some very pretty cures. I have prescribed it myself a few times with prompt results.

Form for Administration.—The specific medicine.

Dose.—Add ten or fifteen drops to four ounces of water and give a teaspoonful every hour.

## SANGUINARIA CANADENSIS.

Blood root is adapted to irritation of the trachea and bronchi. It is not a pleasant remedy to take, and will not be administered very often after the practitioner has become acquainted with *Nitrate of Sanguinarina*.

In the treatment of stubborn coughs arising from tracheal or bronchial irritation the nitrate of sanguinarina is likely to afford complete satisfaction, if administered in appropriate doses and given a fair trial.

Form for Administration.—The 3x trituration of the nitrate of sanguinarina.

Dose .- From one to three grains.

## SCILLA MARITIMA.

Squill is a remedy of considerable value in bronchial irritation with profuse secretion, if used in minute doses. In large, or full physiological doses, it produces relaxation of the mucous glands and causes bronchial catarrh. In order to avoid such an effect—which cannot be salutary—the dose should be small enough to shun it.

### SODIUM SULPHATE.

The sulphate of sodium is one of the leading remedies recommended by Schuessler for coughs, and one of the leading characteristics is: expectoration, of thick, ropy, greenish character. This may be present in humid asthma, or in bronchitis.

Form for Administration.-The 3x trituration.

Dose.—Add five grains to four ounces of water, and give a teaspoonful every two or three hours.

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### SPONGIA TOSTA.

Spongia is restricted, as regards its action on the pulmonary organs, to the larynx. It is a remedy for croup and croupy coughs, and is of service sometimes for the relief of hoarseness.

The homeopaths regard it highly as a croup remedy, but I much prefer aconite in the early stage, and potassium bichromate later on.

However, we may sometimes find this remedy will act better than either, and should not forget its existence when puzzling over an obstinate case of croup.

By referring to the index it will be seen that quite a group of croup remedies may be studied, and the motto should be remembered: "If at first you don't succeed, Try, try, again."

Hughes (Manual of Pharmacodynamics) says that spongia is of value in the cough of laryngeal phthisis. It probably relieves temporarily the teasing cough of this affection, and will be found effective in other laryngeal coughs.

Form for Administration.—The second or third decimal dilution.

Dose.—Add ten or twenty drops to four ounces of water and order a teaspoonful as often as necessary—every half-hour, hour, or second hour.

### STICTA PULMONARIA.

Sticta pulmonaria specifically affects the trachea, especially the upper portion. It is of little value in ordinary coughs, but in hay fever and summer influenza it is one of the best remedies we have, where the patient locates the point of irritation in the upper portion of the trachea.

The cough of sticta is wheezing and rasping, dry and persistent, and comes on during the months of July and August, in the dusty season of the year. I have been much pleased with my success with it in the treatment of such coughs—and these refuse to yield to ordinary remedies.

Sticta also influences the nasal mucous membrane, and has cured chronic nasal catarrh of long standing. Possibly its operation, in obstinate tracheal and laryngeal coughs may be due to this influence, these coughs being the result of reflex irritation. In hay fever we have such effects, and here sticta has a reputation of considerable weight.

. Form for Administration.-The specific medicine.

Dose.—Add from ten to twenty drops to four ounces of water, and give a teaspoonful every one or two hours. In some severe cases I have used the doses every hour, with good effect.

### STILLINGIA.

Stillingia sylvatica is a remedy that spends its therapeutic force, so far as the respiratory organs are concerned, largely on the larynx. It has been a favorite remedy with Eclectics from the earlier times for chronic coughs, and the class of coughs to which it seems applicable is that in which there is an irritation about the upper portion of the respiratory tract, with strumous complication. The value of stillingia in scrofula renders it a most desirable remedy in such cases.

Scudder asserts that the bronchi are influenced by it as well as the larynx and pharynx, and recommeds it in chronic bronchitis.

It should be thought of favorably in chronic coughs in strumous patients which affect principally the upper portion of the respiratory tract.

Form for Administration.—The specific medicine. Dose.—From one to ten drops.

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## TARTAR EMETIC.

Tartar emetic fills one place better than any other remedy in the materia medica. This is manifested by its influence on the bronchioles when there is a catarrhal inflammation present of subacute character. The condition is familiarly known as "capillary bronchitis" and is characterized by pronounced subcrepitant ronchi, difficult, wheezy respiration, suffocative, rattling cough, etc. In children the indication may be *felt*, by placing the hand over the chest—a fine, rattling respiration, communicating itself to the sense of touch.

Catarrh of the bronchioles is a disease most apt to affect the debilitated and feeble—children and old people, though it may be found at any period of life. It is usually accompanied by prostration. The cough is attended by sensation of faintness and followed by clammy perspiration, the sputum is raised with difficulty, the cough persisting until this is accomplished; and the blood is poorly oxygenized, as evidenced by cyanotic appearance of the countenance. Of course these are the extreme symptoms, many persons being similarly affected and being about attending to their avocations.

But the indications for tartar emetic are simple and plain. Given, a case where the subcrepitant ronchi are marked, and tartar emetic is almost sure to relieve, unless the case has been of long standing, and here we should alternate calcarea carb. with it, to tone up the bronchial mucous membrane.

Form for Administration.—The 2x or 3x trituration. I usually use the 2x for adults, and the 3x for children. Dose.—Two grains, repeated every two hours.

### TRILLIUM PENDULUM.

Beth root will meet the demand quite often as a lung remedy. It is applicable to chronic bronchitis attended by profuse expectoration, and to the early stage of phthisis where pulmonary hemorrhages are alarming, as it possesses hæmostatic properties and is especially valuable in pulmonary hemorrhage.

Form for Administration.—A saturated tincture of the fresh root.

Dose .- From five to fifteen drops.

## VERBASCUM THAPSUS.

This is a valuable remedy for irritation of the upper portion of the respiratory mucous membrane, exerting its influence upon the laryngeal and tracheal surfaces principally, though it is of value where the bronchi are involved. It is excellent for dry, hoarse, night coughs.

I have found this a superior remedy for breaking up long standing colds, and consider it very reliable in some such cases.

Form for Administration.—I have usually employed it in the form of a decoction, though the specific medicine may prove as reliable. The decoction should be from the recent leaves; packages found at the druggists are frequently old and worthless.

Lose.—A tablespoonful of the decoction every hour, cr from five to ten drops of the specific medicine.

## VERATRUM VIRIDE.

Veratrum is a popular remedy with a large share of the profession in the treatment of pneumonia. Its sedative properties are of great value in the treatment of all inflammatory affections, when the remedy is not contraindicated, and pneumonia is preeminently the proper place for it, as it probably possesses an affinity for the area of distribution of the bronchial arteries.

However, I have already assumed that we possess better remedies for this condition, though undoubtedly it is the best agent employed by the allopathic school for

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the first stage of such disease. As epidemic influences play quite an important part in some pneumonia seasons, it may be that veratrum will sometimes be found the most acceptable remedy, though it is only as an epidemic agent that I would consider it as first choice.

In the use of veratrum it is to be recollected that it is a remedy that may produce gastric irritation, and that care should be exercised not to push it in too large doses nor prolong its use over too great a length of time, especially if the patient complains of nausea, or the tip of the tongue becomes red and pointed.

Form for Administration.—The specific medicine.

Dose.—Add from fifteen to twenty drops to four ounces of water, and order a teaspoonful every hour.

## ASAFETIDA

Few of our practitioners realize the valuable influence which this remedy exercises over stubborn, deep seated, bronchial coughs. My attention was first directed to it by Dr. Stetson, of Oakland, but I find, upon reference to old school authorities, that it is recognized by them, though seldom put in use, according to my observation of their methods.

I have often employed the remedy in coughs which refused to yield to other drugs, with flattering success. The coughs in which it has done good service for me have been dry, or at least those attended by little secretion, but I find it recommended in humid, asthmatic coughs —asthmatic bronchitis—in some old school works, as Ringer and Shoemaker.

Form for Administration.-On account of the objectionable odor it is best to prescribe the remedy in the form of gelatine-coated pills.

Dose.—Two or three grains, every three or four hours. The remedy may need to be continued for several weeks.

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## ACETATE OF POTASSIUM.

Acetate of potassium is a valuable remedy in chronic disease where the structure of the kidneys is not impaired and where it is essential to remove worn out material from the system by way of this exit. It doubtless increases the amount of solid material secreted, and where increase of retrograde metamorphosis is an important element of treatment, as in case of scrofulous inflammation, it serves a most valuable purpose.

In chronic malaria, where secretion has been long arrested, it acts beneficially in removing certain morbid material from the system upon which the perpetuation of the disease depends. In chronic ague, it is often an effective remedy after antiperiodics have failed, and in persistent remittent fever it acts well in connection with other appropriate remedies, or alone, in bringing about a cure.

Where the urinary apparatus itself is involved it is not the proper remedy, as here we want nothing that will tend to destruction of tissue—a characteristic property of all potassium salts.

Form for Administration.—A solution of the salt in water—well diluted.

Dose.—From five to ten grains every three or four hours.

## ACHILLEA MILLEFOLIUM.

Yarrow acts on the urinary tract to constring the capillaries, and will be found a valuable remedy in hæmaturia. It also relives irritation of the urinary tract, and may be found of service in the early stage of Bright's disease, and in strangury and suppression of urine. It is not as prompt as some other remedies of this class, but may be  $\frac{27}{27}$ 

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remembered with profit by those who are so situated as to avail themselves of a decoction of the fresh herb, which grows almost everywhere, in proper season.

Form for Administration.—The specific medicine. Dose.—From the fraction of a drop to five drops.

## AGRIMONIA EUPATORIA.

Agrimony specifically influences the kidneys, and is valuable in painful congestion of these organs, probably exerting its effects on the capillaries of the parts. With full, aching pain in the kidneys, when the morbid condition is actually seated here, it is very serviceable. Professor Scudder asserts that the strongest indication for agrimonia is a colicky pain pointing in the lumbar region. This sometimes extends to the lower portion of the liver. Professor Goss asserts that it is used with success in cystitis, nephritis and irritable bladder.

Form for Administration.—The specific medicine. Dose.—From one to twenty drops.

### ALTHEA OFFICINALIS.

This remedy is soothing to the urinary mucous membrane, not on account of its mucilaginous properties, but because of a specific quality by which it selects the the part. It is not as useful as many other medicines and will not be called into use very often by the experienced practitioner.

## APIS MELLIFICA.

The poison of the honey bee possesses valuable therapeutic properties, and some of these are directed to the urinary tract. In irritation of the bladder and urethra with constant, teasing tenesmus, it is a very positive remedy, giving speedy relief in many cases.

It is also valuable when there is suppression or retention of urine, its action extending to the kidneys and relieving irritation there. Its action on the kidneys has been made avail of in dropsical conditions depending on disturbance of normal renal action. In post scarlatinal dropsy, due to renal engorgement, it may be especially commended. In such cases, however, the dose must be material, and an infusion, or full doses of the tincture, must be employed.

In vesical irritation minute doses act best, and the 3x dilution will be found preferable to the crude drug. Of this, half a drachm added to half a glass of water, and a teaspoonful given every hour or two, will afford the best satisfaction.

Form for Administration.—The specific medicine will be found reliable as a crude medicine from which to prepare the dilution, as well as for other purposes.

### ANTIPYRIN.

I will offer the following extract from an old medical journal for what it is worth:---

"Professor Panas has communicated to the Academy of Medicine two cases of diabetes, complicated with cataract, in which he employed antipyrin with success; and from these cases and others of Dr. Germain See's and Dr Robbin's it is clear that this drug has an antiglycogenetic action at once efficacious and prompt, and that it will succeed where other drugs fail. It is effective even when a certain amount of feculents are allowed as food. The dose should be three grammes per day. The drug should not be continued constantly. It should be given for a week or ten days and then a period of repose should follow, while the usual regimen should be instituted. This diet, which is so fatiguing to these patients, is one of the reasons for giving antipyrin, as it allows the patient to take ordinary food during the time he is taking the drug, and thus gives him a rest from the regimen. In short: an alternation of the usual regimen with antipyrin is now the accepted best treatment for diabetes."

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#### APOCYNUM CANNABINUM.

This is a favorite remedy in certain affections of the kidneys with many Eclectic practitioners. It relieves congestion of the reval capillaries, and is valuable to overcome this condition in advanced cases of tubular nephritis. Professor George G. Gere recommends it in such cases in an article contributed to the seventh volume of the *California Medical Journal*. He suggests that: "Perhaps the most valuable of all deobstruents used in the second stage is apocynum cannabinum."

Anasar.a, due to defective renal action, when this is from a congested condition of the renal capillaries may usually be cured by the use of apocynum. It should be given in small doses and its action kept up by frequent repetition, in order to derive the most satisfactory results. Professors Scudder and Goss, and homeopathic authors, as Hale and Hughes—who have profited by Eclectic methods—commend it in dropsy, and these commendations are warranted by the experience of a large number of practitioners. In some instances, without doubt, this agent has been confounded with the apocynum androsæmifolium, a plant so nearly resembling it as to confuse an inexperienced person, and a spurious product has resulted, devoid the renal properties of apocynum cannabinum.

Form for Administration.—The specific medicine. Where the root can be obtained in its fresh state a decoction made from it cannot be excelled.

Dose.—From the fraction of a drop to ten drops of the specific medicine. The dose of the decoction will vary from ten drops to a drachm.

## ARCTIUM LAPPA.

This remedy possesses some reputation in dysuria and in dropsical conditions resulting from renal obstruction. Professor Scudder suggests that it acts best in the cure of those cases of urinary disease that have become chronic—where the removal of worn out tissue is requisite—where a remedy influencing the formative force in the renewal of tissue is necessary.

The best preparation is that prepared from the fresh seeds, after they have matured. This is represented by the specific medicine.

Form for Administration.—The specific medicine. Dose.—From the fraction of a drop to ten drops.

## AURI ET SODII CHLORIDUM.

Bartholow remarks of this as a remedy in the treatment of albuminuria, as follows:---

"Chloride of gold and sodium have long been known to have a special direction to the genito-urinary apparatus.

The ovarium and uterine organs in the female, the testes and vesiculæ seminales in the male, are stimulated by it, and the kidneys, by means of which it is eliminated, and in which it tends to accumulate, are decidedly influenced by it in function and structure. In common with some other agent of the class to which the gold belongs—for example corrosive sublimate—the chloride acts upon the connective tissue, and checks its over-production or its hyperplasia. It would be quite impossible in this note to go over the evidence on these points, and hence I must ask you to assent to these statements. They have been accepted as true of gold from the days of the alchemists and introchemists, as any one may ascertain from that curious collection of mediæval medical learning, the "Anatomy of Melancholy."

"It has happened, strangely enough, that Hahnemann and his followers have profited by this knowledge, and have used gold preparations—especially *aurumpotabile* in the treatment of renal diseases with success.

"Chloride of gold and sodium is indicated in the sub-

acute and chronic cases, especially in the latter. The earlier it is given the better, if structural changes are to be prevented or arrested. The good effects to be expected from it will depend necessarily on the extent of the damage already inflicted on the kidneys. The usual dose is one-twentieth of a grain, given twice a day, but this may be much increased if necessary. At the outset one-tenth of a grain may be given; in a week the dose should be lowered to one-fifteenth, and after a month the regular dose of one-twentieth should be steadily pursued, with occasional intermissions. Indigestion, gastralgia, colic pains, nausea or diarrhœa, are occasionally caused by it: and, if so, the quantity administered must be reduced. It is usually borne without any discomfort; but, after prolonged administration, salivation, weakness, emaciation, trembling, and other nervous phenomena, may possibly occur."

This remedy should be given in alternation with nitroglycerine, the two being administered at different hours during the day. Bartholow asserts that the good effects of the treatment should be observed within two weeks from the time of beginning its use, and if by that time they are not appreciable the remedy should be discontinued.

### BAROSMA CRENATA.

Buchu is a favorite remedy with a large number of practitioners, on account of its soothing effect on the vesico-renal mucous membrane. It is useful in chronic inflammation of this part characterized by profuse mucous, or muco-purulent discharge.

Its internal use may sometimes be supplemented with the injection of an infusion of the leaves into the bladder in chronic cystitis with good results.

Form for Administration.—A decoction of the recent leaves.

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Dose.—A tablespoonful four or five times daily in chronic cases, every two hours where the affection is acute.

### BELLADONNA.

Belladonna specifically influences the capillary circulation of the kidneys, and is a valuable remedy in the congestive or early stage of all affections of this part. In the nephritis accompanying scarlatina, in the early stage of tubular nephritis, and in all other cases where engorgement of the renal capillaries threatens structural mischief at a later day, belladonna is one of the most useful remedies in the materia medica.

Combined with apocynum cannabium it acts well in some forms of dropsy, the renal functions being improved through the joint action, so that œdematous conditions are promptly removed.

Belladonna acts well in some cases of vesical irritation, and alternated with cantharis it is a favorite remedy with many practitioners in dysuria and tenesmus. It is also useful in nocturnal incontinence of urine in children, though I think its value here has been overestimated.

Form for Administration.—The specific medicine.

Dose.—Add from five to ten drops to four ounces of water and give a teaspoonful every four hours.

## BENZOIC ACID.

Benzoic acid is valuable in chronic cystitis with fermentation of the urine and deposit of phosphates. It reduces the alkalinity of the urine and consequent irritability of the bladder. In its exit from the system it acts as a gentle stimulant to the bladder and urethra and as a corrective of septic states of their secretions.

In enuresis of children attended by alkalinity of the urine, benzoic acid is curative; also in incontinence of old persons, where the alkalinity is marked, it answers a good purpose, though in such incontinence where the urine does not manifest the chemical peculiarity referred to nux vomica will usually be found preferable.

Dysuria may often be relieved by the use of this remedy. That attending rheumatic conditions is believed to be most adapted, though any case attended by strong odor or marked alkalinity may be benefited by it.

*Dose.*—From one-twentieth of a grain to ten grains. The dose for the correction of alkalinity of urine should be the maximum one, for adults.

## BENZOATE OF AMMONIUM.

This remedy augments renal action in appropriate doses, and is a valuable agent in post scarlatinal dropsy to remove the accumulation by way of the kidneys. It is indicated by scanty, dark red urine, with strong, pungent odor and thick sediment.

In gouty conditions, as well as in chronic rheumatism depending on perverted renal action, benzoate of ammonia may be found of service, though in rheumatism, the benzoate of potassium is the preferable agent.

Form for Administration.—The 1x trituration for adults, the 2x for children.

Dose.-From one to three grains.

## BENZOATE OF LITHIUM.

Benzoate of lithium corrects the tendency to the deposite of uric acid, converting the product into hippuric acid which is readily soluble and which is bland and unirritating to the urinary mucous membrane. It is therefore valuable where the uric acid diathesis is marked and irritability of the bladder is the result.

### BENZOATE OF SODIUM.

According to the report of Dr. A. S. Partzersky of Moscow this drug acts almost as a specific in uræmic poisoning. Out of ten cases treated, seven of which suffered from parenchymatous and three from interstitial nephritis, nine recovered. The headache, dilatation of pupils, albuminuria, and even convulsions, are soon controlled by it.

It should be remembered in the treatment of the albuminuria of pregnancy.

Dose.—From ten to twenty grains, every three or four hours.

## BERBERIS VULGARIS.

This remedy may be commended for the relief of burning, soreness, and other discomfort in the urinary passages. It is especially valuable in the treatment (palliative) of calculus, where it possibly exerts an influence in the prevention of calculous formation.

Form for Administration.-The tincture supplied by a homeopathic pharmacy.

Dose.—Add ten drops to half a glass (four ounces) of water and order a teaspoonful every two hours.

## BETA VULGARIS.

The common beet root is a valuable agent in chronic vesical irritation. I have known it to cure a long standing case of this kind, after the most approved remedies had been tried and after several physicians had failed to benefit. A decoction is made and the juice administered in tablespoonful doses, four or five times a day. I have no knowledge of the effects of any other form but would advise experimentation with a tincture, made by covering the fresh root, sliced, with alcohol. Of this the dose might be ten drops, every two or three hours.

## BROMIDE OF ARSENIC.

This remedy is extolled in some quarters for the cure of diabetes. "Solution of bromide of arsenic is to be given in doses of one drop in a glassful of water. This

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dose is gradually increased to three drops three times a day, always in the same amount of water. The urine is to be constantly examined. When the amount of sugar is decreased, as usually happens in about fourteen days, then decrease the arsenic to one-drop dose again.

"This can be kept up for years. Extreme attention need not be paid to the diet, but ordinary care as regards acids, starchy and sweet food, should be taken. The greatest enemy of the diabetic is bad air—the air of chambers. Fresh air is most essential."—Medical Record.

### CAFFEINE.

Caffeine may be employed with success in the treatment of dropsy with feeble cardiac impulse aitended by deficiency of renal action in nephritis, especially chronic Bright's disease, where it diminishes the amount of albumin in the urine, and in uræmic coma, though here there are better remedies.

Probably the most positive use for this remedy will be in the treatment of dropsy from cardiac affections, where its combined cardiac and renal effects operate to bring about a cure.

Dose.—The citrate of caffeine may be given in doses ranging from one to five grains, every four hours.

## CANNABIS INDICA.

This remedy soothes irritation of the mucous membrane of the kidneys, ureters, bladder and urethra. It is valuable in vesical tenesmus, and in the urethral irritation of gonorrhœa.

Form for Administration.-The specific medicine.

Dose.—From one to ten drops.

#### CANTHARIS.

Spanish fly exerts its influence on the base of the bladder and on the reproductive apparatus, stimulating the sexual functions, producing erotic excitement, and in minute doses, relieving vesical irritation.

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It is valuable in cystitis, relieving the teasing and tenesmus accompanying that condition, also in enuresis of women occurring during the day while up and around, the condition being a partial paralysis of the sphincter vesicæ, and analogous to that indicating the need of nux vomica.

This is not a remedy that will be often demanded, though a prime favorite with the older order of homeopathists; but modern therapeutics abound with a better class of remedies adapted to this sphere. However, we cannot know too much of remedies, nor too many remedies for a given purpose; for when one fails another is always acceptable, and all are prone to sometimes disappoint us.

Form for Administration .- The specific medicine.

Dose.—Add ten drops to four ounces of water and give a teaspoonful every hour.

### CAUSTICUM.

"The late Mr. Freeman has put on record some cases where convalescence from typhoid fever was retarded by the passing of large quantities of urine loaded with lithic acid and lithates. The excessive tissue waste was relieved by causticum, and recovery went rapidly on. In a similar case occurring in my own practice, where after parturition this state of the urine was associated with debility, low spirits, anorexia, copious sour perspiration, and persistent aching of the mammæ, speedy change for the better ensued upon the administration of this remedy. It should be thought of for that rare form of disease, azoturia."—HUGHES.

Form for Administration. -- The 2x or 3x dilution, as prepared at a homeopathic pharmacy.

### CHIMAPHILLA.

Pipsissewa improves the recuperative powers of the urinary tract and is useful where chronic disease here has been followed by debility. It also relieves irritation and is useful in chronic cystitis, and relaxation of the kidneys attended by polyuria.

Professor Goss writes very enthusiastically of this agent as a remedy for the relief of dropsy, where there is no obstruction to the circulation. He asserts that the dose used is usually too small to give the remedy a fair chance to develop its full power. Hale recommends chimaphilla in dysuria with mucous sediment in the urine.

Form for Administration.—The specific medicine, when the fresh plant is not obtainable. The decoction of the recent plant is certain to give the best satisfaction.

Dose.—From five to twenty drops. The decoction may be given in teaspoonful doses.

## CHLORAL HYDRATE.

The following remarkable statement as to the virtues of chloral hydrate in diabetes is from a reprint in an old number of the *New England Medical Journal*. I have never tested the truth of the statements made there, but offer them for what they are worth. The writer remarks:

"I saw an article in the January, 1883, number of the Medical Gazette, New York, with the above caption [Chloral Hydrate in Albuminuria], by Thomas Wilson, M. R. C. S., England, reciting two very interesting cases. The first one, a delicate woman, did not seem to regain her strength after her last confinement. Dropsy set in; both legs very œdematous; breathing very short and difficult; the lips cyanosed; the pulse extremely weak; urine albuminous; etc. He noticed that after taking chloral her urine was lighter colored and less albuminous. A continuation of the chloral treatment resulted in the complete disappearance of the albumin and ultimate recovery of the patient. He says: 'No one, I think, has yet drawn the attention of the profession to the almost mar-

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velous effect of chloral in causing albumin to disappear from the urine.' He offers as an excuse for bringing the matter before the profession 'facts so strong, and treatment so striking.'

"I, for one, was very much gratified in reading the article from such an eminent pen, for it explained to me a case in my own practice, which had been up to that time a mystery. The case was as follows: In 1881, I was called to see a robust and heretofore apparently healthy Irishman, who presented every symptom of acute Bright's disease, including general anasarca, etc. I found the urine scanty and very albuminous. I treated the case with hot fomentations, diaphoretics, digitalis, cream of tartar, etc., etc., according to the best authorities on the subject. Notwithstanding all treatment, medicine seemed to be of no avail, and the case went from bad to worse, until one evening I called and found him in convulsions. His friends told me that he had been so all day. He knew nobody, and could not swallow; in fact, he would be in a comatose state between the convulsions. The priest had been called, the 'extreme unction' had been performed, and the patient given up to die.

"Counsel was called, and it was decided that the case could not last five hours longer. Counsel left, but I stayed, for I had made up my mind that I would help my patient to die easy; so I injected per bowel 30 grains of hydrate of chloral, and left. In the morning I called, expecting to find the patient dead. Imagine my surprise upon entering the room to see my patient open his eyes, and hear him say, 'Good morning Doctor!' Had he risen up and hit me with a club, I could not have been more surprised.

"His friends told me that he had rested well all night, and had voided his arine freely that morning. I then, according to 'Kid's Law of Therapeutics,' put him on digitalis and nux, *alternately*, which kept up a good flow of urine. At night I called again, and found a little muscular twitching. I gave him another injection of twenty grains hydrate of chloral, and left, with instructions that, if the convulsions returned, to send for me immediately. I called in the morning and found my patient improving. Thus he continued to improve and soon was up and about the house, and to-day he can do as much work as any man in town.

"Now, as I had no authority on the subject, I dared not say it was the chloral. In fact, I attributed it to some freak of nature, and reasoned thus: That intervention of nature, or freak of disease, that I did not understand, had caused him to void an unusual amount of urine less albuminous, and I must keep up the flow, which I did with nux and digitalis, using my chloral at night, for I could not forget that marvelous change had come over my patient after using the chloral.

"I had an inward feeling that, perhaps, my chloral was the cause, but I was too timid to report it, for fear that some of my learned brethren would rise up and say: 'Well, young fellow, that treatment is old; you will find it in the practice of Lazarus Riverius, 1672', and therefore expose my ignorance of the literature of the subject, so I kept still. But the case has been from that day (until I saw the case above mentioned) a puzzle to me. I feel grateful to Dr. Wilson for the article in question, and have written this at this late day at the solicitation of my friends, to add one more to the list of the 'Curative Effects of Hydrate of Chloral in Albuminuria.'"

#### CLEMATIS.

Clematis erecta influences the urinary tract, relieving irritation and serving a good purpose in some cases of dysuria and retention of urine. It is not a remedy that will be found generally applicable to such cases but will come into use in the management of vesical irritation in nervous, susceptible women suffering from ovarian disease.

Form for Administration.—The tincture from a homeopathic pharmacy.

Dose.—Add ten drops to four ounces of water and give a teaspoonful every hour.

## COCCUS CACTI.

Cochineal specifically influences the entire urinary tract, from the kidneys to the urinary outlet. In small doses it is applicable to the relief of renal colic, profuse discharge of clear, limpid urine, from relaxation of the renal capillaries, also vesical tenesmus, as well as retention of urine.

The homeopaths recommend this remedy highly in spasmodic cough, especially whooping cough.

Form for Administration.—The tincture prepared at a homeopathic pharmacy.

Dose.—Add ten or fifteen drops to four ounces of water and give a teaspoonful every two hours.

## COLLINSONIA.

Collinsonia relieves certain bladder affections due to fullness of the pelvic bloodvessels. Sharp pain and aching in the bladder accompanying hemorrhoids are usually relieved by this remedy. It has been recommended in cystitis, but I think it will be of little use here, though where the mucous membrane of the bladder is congested it may relieve this by its strengthening influence on the pelvic veins and circulation generally.

Tenesmus attending hemorrhoids is usually relieved by collinsonia. Whatever vesical symptoms it relieves, the effects may be ascribed largely, if not entirely, to the effects exerted upon the pelvic veins and capillaries.
Form for Administration.—The green plant tincture. Dose.—From the fraction of a drop to five drops.

#### DIGITALIS.

Digitalis directly influences the kidneys, and is of service in relieving the tension of the renal capillaries in chronic inflammation, as in Bright's disease. In granular degeneration of the kidneys it is of service, increasing the quantity of urine passed and lessening the amount of solids voided.

It is of service in cardiac dropsy, through its influence on the kidneys, and in albuminuria of scarlatina it is often the only remedy needed to relieve the œdema and bring the difficulty to a favorable termination.

Form for Administration.—The specific medicine. Dose.—From the fraction of a drop to ten drops.

### DIURETIN

This is double salicylate of theobromine and sodium. In acute nephritis it more than doubles the amount of urine voided, and in circulatory lesions attended by ædema it rapidly removes the accumulation of serum. However, it is not so generally reliable in dropsical affections, as convallaria, digitalis, and some other diuretics.

Dose.-Twenty grains, every four hours.

## DULCAMARA.

Bittersweet seems to possess a general affinity for the skin and mucous membrane, and is successfully employed in catarrh of various organs when aggravated by damp weather. It is thus applicable to vesical catarrh, and will sometimes prove very efficacious.

It may be employed even when there is considerable mucous discharge with the urine, though the use of a proper cleansing wash for the bladder will materially assist its action in such cases. This may consist of a weak

solution of chlorate or permanganate of potassium, or a decoction of epigea repens, or some other healing agent. Form for Administration.—The specific medicine. Dose.—From the fraction of a drop to ten drops.

### ELATERIUM.

This remedy is highly recommended by Professor Scudder in the treatment of chronic cystitis and nephritis. It was first recommended by Professor King for this purpose. The drug should be administered in doses of half a drachm of the tincture three times a day, until it produces purging, and afterward in five-drop doses until the disease disappears.

Professor Scudder asserts (Specific Medication) that it exerts a curative influence in chronic nephritis and cystitis in much smaller doses.

My experience in this use of the remedy has been rather unsatisfactory.

# EPIGÆA REPENS.

The trailing arbutus specifically influences the urinary apparatus, and was a great favorite with many of our older Eclectic practitioners in vesical irritation. It is curative of dysuria, strangury, and vesical tenesmus.

In vesical irritation attended with uric acid deposits, it is especially valuable, correcting the irritating character of the urine and restoring the diseased mucous membrane. Even where the urine is found to contain a bloody mucopurulent sediment, the use of this remedy will often restore the patient to health.

Form for Administration,-The specific medicine.

Dose.—From five to ten drops, repeated every two or three hours.

### EQUISETUM HYEMALE.

The scouring rush is a remedy of more than ordinary virtue in the treatment of cystic irritation. It is valuable 28

in dysuria with urgent tenesmus, in incontinence of urine from cystic irritation, and in noctural incontinence of children.

Form for Administration.—An infusion of the green stalks made with hot water. A stronger preparation may be made by boiling the plant in water. If this is to be kept for future use it may be preserved by adding a sufficient quantity of alcohol. The specific medicine is also a valuable form for prescribing.

Dose.—A tablespoonful of the infusion; from five to ten drops of the specific medicine.

## ERECTHITES HIERACIFOLIUS.

The oil of fireweed is useful in controlling passive hemorrhage from the kidneys in the early stage of Bright's disease and other renal affections. It resembles the oil of erigeron in its effects very much.

Dose.—From five to ten drops.

# ERIGERON CANADENSE.

This remedy is valuable in relaxed states of the renal capillaries to arrest profuse secretion of urine, and will be found efficacious in diabetes insipidus. A decoction of the whole fresh plant is the best form for use in this condition. In passive hemorrhage from the kidneys it is one of our best agents, the oil being preferable here.

Dose.—Of the decoction, one or two wineglassfuls every hour; of the oil, ten drops, in a tablespoonful of simple syrup, every one or two hours, as required.

# ERYNGIUM AQUATICUM.

Water eryngo specifically influences the urinary apparataus, especially the base of the bladder and urethra. It is useful in tenesmus, of dull, aching character, and acts best when combined with gelsemium, in such conditions. Its action on the urethra is of service in the painful urination attending gonorrhœa.

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It has also proven very effective in the treatment of renal colic attending the passage of calculi, though doubtless a combination with more positive relaxants will very much augment its efficacy. Here such remedies as gelsemium and jaborandi will be indicated.

A writer in Hale's New Remedies recommends eryngium for the cure of the habit of renal calculi formation. He cites several cases of protracted starding which were promptly cured by the use of from six to ten drops of the tincture three or four times a day.

Form for Administration.—The specific medicine. Dose.—From one to ten drops.

### EUCALYPTUS.

The Australian blue gum has been recommended by Dr. Woodbury, of Boston, for the cure of vascular tumors of the urethra, through its internal administration.

Eucalyptus influences the entire urinary tract, and has proven curative in desquamative nephritis, pyelonephritis, and chronic vesical catarrh attended by mucopurulent deposits in the urine. It must be given in small doses, frequently repeated, and its use persevered in, to accomplish good results here. In vesical catarrh, a decoction of the fresh leaves used as a wash for the bladder is a valuable adjuvant.

Form for Administration.—A saturated tincture of the fresh leaves in alcohol, or the specific medicine.

Dose.—From one to ten drops.

## EUPATORIUM PURPUREUM.

Queen of the meadow is a useful remedy in painful affections of the urinary organs and dropsy depending on lack of renal activity. It has a use in irritable bladder, diabetes insipidus, incontinence of urine, and in calculous affections.

It has also been successfully employed in nocturnal in-

continence of children, though it is not as reliable as rhus aromatica and some other remedies, for this condition.

Form for Administration.—The specific medicine. In dysuria, an infusion of the fresh plant in hot water is a valuable form.

Dose. —Of the specific medicine, from one to ten drops; of the infusion, from a teaspoonful to a tablespoonful.

# FABIANA IMBRICATA.

Pichi is the common name of this agent, recently introduced by Parke Davis & Co. Its influence on the bladder is a prompt and satisfactory one in many cases of irritation.

It relieves dysuria, tenesmus and cystitis, and has been extolled as a remedy to dissolve stone in the bladder; though I think we should accept the last recommendation with a grain of allowance. However, it may be true that the resin in this remedy "dissolves the mucus which binds together the particles of the stone and thus assists in its disintegration."

Pichi has been used with success in the treatment of nocturnal incontinence, and its positive affinity for the bladder should encourage a fair trial for it where accredited remedies fail.

It has been recommended in renal congestion, where structural changes have not taken place, and in uric acid formation. Here it has been advised to administer it in combination with an alkali, as the uric acid is better held in solution. Another advantage in combining it with an alkali is, that its resinous principle is precipitated upon the addition of water, unless this combination be effected.

Form for Administration.—The fluid extract prepared by Parke, Davis & Co.

Dose .- From five to twenty drops.

### FUCHSIN.

This is a derivative of analine which has been successfully used in the treatment of some cases of chronic kidney disease attended with albuminuria. It is used in doses varying from one-half of a grain to four grains three or four times a day. It should be given in combination with some simple vegetable remedy as a vehicle.

# FUCUS VESICULOSUS.

Sea weed influences the kidneys in medicinal doses, and also relievs irritable bladder and chronic cystitis. It is a valuable remedy in acute desquamative nephritis, to lessen the congestion of the renal capallaries and relieve consequent irritation.

Form for Administration.—The specific medicine. Dose.—From five to twenty drops.

# GALIUM APARINE.

Cleavers, couch grass, etc., are common names applied to this remedy, which grows abundantly in many parts of the United States. It is a valuable remedy for irritation of the early stage of every form of inflammation occuring here.

Hale, who occupies considerable space in his New Remedies to apologize for recommending an infusion of this agent, coincides with what Eclectic authors had long taught, and commends it in dysuria and suppression of urine. He considers it adapted to the dysuria of young persons arising from cold, and the vesical irritation arising in women suffering from uterine disease. He also recommends it in suppression of urine, in strangury arising from rheumatic fever, and in irritable bladder from prostatic irritation in old men.

Form for Administration.—The decoction of the fresh plant is preferable to other forms if it can be had. Otherwise, the specific medicine.

*Dose.*—The dose of the decoction will vary from a tablespoonful to a wineglassful. Of the specific medicine, from five to twenty drops.

## GALLIC ACID.

This remedy is one of the most effective we have in diabetes insipidus. It seems to promptly contract the relaxed renal capillaries and arrest the polyuria. I have seldom been disappointed when I have prescribed it in such cases, even when several other accredited remedies have failed.

Form for Administration.—The glycerole of gallic acid. Dose.—From ten to thirty drops, repeated three or four times daily.

## GAULTHERIA PROCUMBENS.

Wintergreen possesses marked properties fitting it for affections of the urinary apparatus. It relieves renal as well as vesical and urethral irritation, and is useful in the early stages of all inflammatory conditions of the kidneys. It has arrested tubal nephritis, when casts and blood corpuscles were discernable in the urine.

Form for Administration.—A decoction of the fresh plant or a solution of the oil in alcohol—the essence.

Dose.—Of the decoction, a wineglassful; of the essence from the fraction of a drop to ten drops.

## GELSEMIUM.

Gelsemium exercises a marked control over irritation of the bladder, and is useful in vesical tenesmus, ischuria and dsyuria from spasmodic stricture of the urethra. In the retention of urine attending acute inflammatory conditions it is especially valuable, assuaging the febrile symptoms and consequent nervous irritability and spasmodic action of the bladder and urethra.

Combined with eryngium, it constitutes a valuable

remedy in chronic vesical catarrh, assisting in relieving the teasing and other unpleasant symptoms attending.

Form for Administration.—The specific medicine. Dose.—From the fraction of a drop to ten drops.

## HAMAMELIS.

The witch hazel will sometimes be found of service in the treatment of renal difficulties attended by much relaxation of the renal bloodvessels.

It is useful in hæmaturia, where there is absence of inflammatory action, and in polyuria arising from relaxation of the renal capillaries.

Vesical irritability and tenesmus attending varicocele demand the exhibition of hamamelis, the distilled extract being administered internally and applied to the enlarged scrotal veins.

Form for Administration.-The specific medicine or a good distilled extract.

Dose.—From five to twenty drops, repeated every three or four hours.

# HELONIAS.

Helonias dioica manifests an influence over the recuperative processes of the kidneys, and is sometimes valuable in diabetes and Bright's disease. Goss testifies to its favorable action in diabetes, but is not prepossessed with its virtues in albuminuria.

Dr. S. A. Jones asserts that it renders alkaline urine acid.

Form for Administration.—The specific medicine. Dose.—From the fraction of a drop to ten drops.

### HYDRANGEA.

This remedy has been lauded for the asserted property of dissolving stone in the bladder. However, it has later been admitted that it does not possess the power to dissolve calculi that have been formed, but claimed that it prevents the formation of calculi though its effects on the kidneys. This is more like it.

Where the calculous habit seems to be engrafted on a patient, hydrangea may be thought of as a possible remedy for its correction, and it will, probably, at the same time, relieve the irritation of the urinary tract that the calculous deposits already accumulated may have occasioned.

Hydrangea possesses soothing properties for the urinary tract and relieves vesical and urethral irritation.

This remedy also relieves bronchial irritation.

Form for Administration.—The specific medicine or a saturated tincture of the fresh root in alcohol.

Dose.—From five to twenty drops.

# HYDRASTIS.

In chronic cystitis attended by considerable catarrh of the mucous membrane, hydrastis is a valuable remedy. It not only acts very beneficially through the general circulation, through its affinity for mucous surfaces, but it is also valuable on account of its topical effect, derived by the use of injections into the bladder.

Form for Administration.-Lloyd's hydrastis.

Dose.-From the fraction of a drop to five drops.

#### JABORANDI.

Jaborandi is sometimes useful in diabetes insipidus, combined with ergot, to arrest the excessive discharge of water. It is also useful in the albuminuria of pregnancy, used in doses sufficiently large to stimulate sweating, which should be kept up profusely until time for the effect to become beneficial has elapsed.

Jaborandi has been employed in some quarters in the advanced stages of Bright's disease to produce a vicarious action of the skin and relieve the system of the effects of retained urinary elements through the sudiparous glands. Such treatment must however be temporary in result.

Form for Administration.—The specific medicine.

Dose.—To produce free diaphoresis, ten drops repeated every one or two hours. Larger doses, if they are to be repeated for any great length of time should be used with caution and watchfulness. From the fraction of a drop to five drops may be employed in the treatment of diabetes.

# JAMBOL.

Syzygium jambolanum comes to us recommended for the cure of diabetes mellitus. As this is a disease having its origin in disturbance of the glycogenic function of the liver, it might be more proper to class this remedy with those effecting the digestive organs, but as the kidneys finally suffer from the effects, diabetes is usually classified as a disease of the urinary organs.

Dr. E. M. Hale contributed an article to the American Homeopathist bearing on this subject, in 1885, which is here given:—

"Several months ago there appeared in the London Lancet a notice of the use of syzygium in the treatment of glycosuria. The seeds are the officinal portion. It is an East Indian plant, and is used in diabetes by the native physicians, who give the pulverized seeds in twenty or thirty-grain doses. Their use gives rise to no unpleasant symtoms, gastric, intestinal, or urinal, but they have an undoubted power to lessen the sugar in the urine.

"Dr. Hughes, of London, in the *Homeopathic World*, reports one case which improved under drop doses of the 20th dilution.

"I have lately had an opportunity of observing its effects in two cases of glycosuria, and the results are worthy of record.

"Case 1.-Mr. C. C. C, a very wealthy and intelligent gentleman of Chicago, several years ago-four or fivefound that he was suffering from glycosuria. He was at the time traveling in Europe, and was treated by the most eminent physicians of London, Paris and Vienna. The amount of sugar fluctuated from 12 to 20 per cent., never less than 12. No medicine or diet was able to reduce it below that quantity. The specific gravity was always high, 1.036. Quantity usually 10 to 12 pints. He had lived on skimmed milk and gluten bread for a year at a time. Had taken every known remedy in all schools. I put him on bromide of arsenic, and again on lycopus virginicus, but with no change. A few weeks ago one of his medical friends showed him the London Lancet, in which was a mention of syzygium. He immediately telegraphed to New York and London, and after three weeks succeeded in procuring the seeds. From these he had a decoction made, according to the following formula:---

"R Pulverized seeds of syzygium, one ounce; hot water, one pint. When sufficiently infused, add glycerine, one ounce, which prevents fermentation. Dose: one teaspoonful three or four times daily.

"Mr. C. took this preparation ten days, sometimes taking a tablespoonful. No pathogenetic effects were observed. As to its curative effects, I can but describe them by giving, verbatim, a characteristic letter from the patient himself:—

"Dear Dr. Hale: No sugar! Sp. gravity very high, 1.026, but no sugar. That is the most remarkable medicine in the world, for that purpose. Proclaim it to the world. From 12 to 15 per cent. of sugar, never under skim milk reducing the amount below 7 per cent., it has come after ten days use of syzygium to no sugar. Only highly concentrated, 7 per cent. of urea, bat that does not matter. It will take out the sugar. I have kept records for two years, and never before without finding large quantities of sugar.

"A daily record and monthly analysis (I have made for two years): Quantity reduced at once from eight to nine pints in 24 hours, to less than four. It will show that result within 40 hours, yes, within 30.

Yours sincerely, C. C. C.

"Case II.—Mrs. C., aged 70. Sugar was first observed in the urine two or three years ago, but probably had been present before, as she had been failing in strength and became emaciated before that date. Had been under the care of a physician who gave her acids (phosphoric, nitric), in large doses with some improvement. Before giving syzygium the urine showed ten per cent. sugar; specific gravity, 1.036; quantity, 4 quarts. Prescribed 5 grs. of a trituration made by mixing equal parts of the seeds and sugar of milk. Analysis showed after a week's use of the drug, sugar, 9 per cent.; specific gravity, 1.042; quantity,  $3\frac{1}{2}$  quarts (56 ounces).

"This showing was not satisfactory, and the medicine was prescribed in the form of a decoction, prepared as follows: One ounce of the pulverized seeds was infused in one pint of hot water. To this was added one ounce of glycerine to prevent fermentation. Of this she was ordered to take a teaspoonful four times a day. In a week the urine was found to have the specific gravity of 1.0365; sugar, 6.66 per cent.; average daily quantity, 64 ounces (4 quarts).

"Although the sugar had notably decreased, the amount of urine had not, but had apparently increased. I say apparently, for the patient thought she had drank more water than usual, and the water was from, the 'Silurian' spring, at Waukesha, which is decidedly diuretic.

"She was ordered to take two teaspoonfuls four times a day of the same decoction. In fourteen days the urine was again examined, and showed a specific gravity of 1.032; sugar, 5.25 per cent.; quantity averaged 40 ounces daily."

Another report, a portion of which I will reproduce, was written by S. N. Brayton, M. D., and published in the *Investigator*, in 1887:—

"Hearing of this remedy for diabetes mellitus, I obtained some of it, and commenced its use in five-grain doses, three times a day, on a patient who had been suffering from the disease for a little over five years. During that time he had taken ergot, thuja, codeia, bromide of arsenic, nitrate of uranium, ledum, plumbum, and countless other remedies, at the same time following out the ordinarily prescribed diet for diabetic patients; but with the only result of keeping the disease in check to a small degree. The gradual tendency was downward, and when hope had almost been abandoned and the languor which accompanies this difficulty in the later stages became almost unbearable, he resorted to about two ounces of whisky once each day, which seemed to benefit in every way more than anything used before.

"He commenced using the syzygium jambolanum on the 4th day of January, 1887. In forty-eight hours he began to experience beneficial results. The intense thirst and weariness subsided, in a measure, and the urine diminished in quantity. After using about an ounce of the remedy he noticed that his strength and spirits began to return as in former days. The cramps in the limbs, the severe attacks of lumbago, the thirst, bleeding of the gums and pharynx, the night sweats, which were profuse, subsided.

In fact, all the unpleasant sensations and symptoms ceased, and, like the Arabs, folded their tents and silently stole away. The quantity of urine, which had averaged about one-hundred and forty ounces each day of

twenty-four hours, diminished to about sixty ounces, and from being obliged to pass his urine three or four times during the night, he was enabled to pass the whole night without being disturbed. The quantity of sugar had diminished to a very marked degree; although the specific gravity did not decline from 1.035 until after about three months. It is now about 1.024, with hardly ever any traces of sugar.

"Although this case is of long standing, it has been held in check by diet and almost constant medical treatment; therefore the kidneys have not suffered materially, and a cure has been effected."

I have used this remedy with varying success, though I can report two cases of diabetes cured with it. Many cases are of so long standing that it is impossible to cure them with any remedy. To derive the greatest success with jambol it should be begun early in the course of the disease and persevered in for many months. The latter proposition is impressed upon some patients with difficulty, and they are liable to disappear before the full measure of benefit has been derived.

## JUNIPERUS COMMUNIS.

This remedy, the common juniper, possesses an affinity for the urinary tract which proves of service in deficient urinary secretion, where there is excess of urates. Goss recommends a tincture of the oil of juniper in strangury and to stimulate the kidneys in dropsy. It is not a powerful remedy, nor one likely to be demanded often.

## LACTATE OF STRONTIUM.

This is a new remedy prominently mentioned by French therapeutists for its influence in affections of the digestive and assimilative organs, and kidneys. M. See has employed the lactate of strontium in Bright's disease, where it acts very favorably, probably largely through its influence on the organs of digestion. M. Constantin Paul, in a published account of twelve cases of Bright's disease treated with this drug, concludes as follows:—

"Strontium is not toxic; it is not diuretic; it diminishes the albumin well and rapidly in epithelial and parenchymatous nephritis, but it does not suppress it entirely; if the administration of the drug is stopped too soon the albumin increases at once. The diminution of the albuminuria is followed by a very notable amelioration of other symptoms and the patient exhibits much improvement. The presence of fever, even intense, does not prevent the action of lactate of strontium in parenchymatous nephritis.'

"Dr. Constantin Paul testifies to the fact that the lactate is well borne even in daily doses of from 120 to 160 grains. Although in no sense a diuretic it brings about an immediate diminution in the amount of albumin excreted, and leads to a corresponding improvement in the collateral symptoms and general condition of the patient. When the exhibition of strontium is suspended, the albumin reappears in the urine, in some cases, and disappears on the resumption of the treatment.

"These observations have been confirmed by others, which show clearly enough that lactate of strontium is indicated in the parenchymatous nephritis of gouty and rheumatic subjects, as well as in puerperal and post-puerperal albuminuria. There is, moreover, every reason to believe that its influence on the renal function may be turned to good account in the treatment of glomerular (scarlatinal) nephritis."

Dose.—From ten to twenty grains every three or four hours.

## LYCOPODIUM.

Lycopodium is useful in spasmodic retention of urine in children, and in catarrh of the bladder in adults, attended by frequent and painful urination, with sediment of mucus and blood.

It is especially adapted to the correction of the lithic acid habit, and has long maintained a high reputation among the homeopathists for urinary difficulties attended by the deposit of "red sand in the urine." Attending this there is sometimes pain during micturition, either in the kidneys, along the ureters, or in the bladder. This condition is often complicated with dyspepsia, if not productive of it, and the urinary symptoms and dyspepsia will both be likely to yield to the one remedy.

Form for Administration.-The specific medicine.

Dose.—Add from five to ten drops to four ounces of water and give a teaspoonful every two hours.

#### LYCOPUS VIRGINICUS.

This remedy is curative of diabetes mellitus, and a prompt and reliable agent for many of the cases of this kind, if its use be begun early in the course of the disease. It is also of value in hæmaturia, and should be thought of in that form occurring early in the onset of Bright's disease.

Form for Administration.-The specific medicine.

Dose.—From the fraction of a drop to ten drops. Where the fresh plant can be obtained an infusion made with hot water serves the best purpose. It should be given in tablespoonful doses.

## MAGNESIUM PHOSPHATE.

The following, clinical notes suggest the usefulness of this remedy in vesical irritation:—

"Case I; had suffered from an attack of gonorrhœa for one year before consulting him. There was at this time no discharge and no evidence of stricture. The only symptom was excessive and imperative urging to urinate when standing at work or walking, and accompanied by a constrictive pain at the neck of the bladder, extending along the urethra to the glans. The act of urination was painful, followed by relief which was of short duration, when the urging returned and the symptoms were repeated as before. Several remedies were tried without benefit. Finally, reasoning that the symptoms might be caused by spasm of the bladder, magnesia phosphorica, 6x was given, and effected complete and permanent relief within a few days.

"Case II was similar to Case I; relief in this instance was also prompt and lasting.

"Case III was that of an attorney who had suffered for a week from a constant urging to urinate, with pain at the neck of the bladder, worse when standing or walking, but after complete rest for an hour or two, relief from pain for a short time after the urine was passed. The urine seemed normal in all these cases with the exception of a faint show of phosphates in Case I. Two doses of magnesium phosphorica cured Case III.

"Dr. F. J. Dickey has cured several cases with these symptoms following operation on the rectum in females where the urethra had been dilated with sounds, and in one or two cases in which the rectum alone had been the seat of operation. The guiding symptoms had been 'excessive and imperative urging to pass small quantities of urine with constrictive pain at the neck of the bladder, extending along the urethra, worse from standing or walking, relief after urinating."

# MITCHELLA REPENS.

This remedy may be found useful in dysuria and other bladder affections complicating uterine irritation in female diseases following parturition. It is adapted to the troubles of the parturient female, and vesical disturbance arising from this condition would suggest its use.

Form for Administration.—The specific medicine. Dose—From five to ten drops.

## NITRIC ACID.

"Dr. F. Herle, of Rochester, New York, proposes the injection, per rectum, of dilute nitric acid, in the treatment of Bright's disease and albuminuria, in doses ranging from half a scruple to a drachm in eight ounces of water. He claims to have had success with this novel treatment, and states that the quantity of albumin commences to decrease from the very first injection. He recommends an injection daily for two or three weeks."— *Medical World*.

# NITRO-GLYCERINE.

"Dr. Burginsky formulates the following conclusions from a series of investigations which he made concerning the treatment, especially of parenchymatous nephritis: 1. Nitro-glycerine in small doses reduces the amount of albumin in the urine. 2. It increases the total amount of the urine secreted and this effect is observed for some time after the administration of the drug has been discontinued. 3. The amount of the albumin is still further reduced when the drug is given in gradually increasing doses. 4. Nitro-glycerine appears to have no influence upon the specific gravity of the urine, nor upon the weight of the individual. 5. The only unpleasant effect of the drug, when given in Bright's disease, is a slight and transitory headache, observed sometimes in the commencement of the treatment."—Medical Record.

# NUX VOMICA.

Nux has a valuable application to the treatment of incontinence of urine in old persons arising from relaxation of the vescial sphincter. I think that it is one of the best remedies we have in this trouble where paralytic tenden-29

cies are at the foundation of the difficulty, though incontinence in old persons is very likely to yield to it where paralytic symptoms are not manifest.

The dose in such cases must be material, varying from one drop of the specific medicine to one-fourth grain of the solid extract. It should be repeated three or four times a day. The effect is usually permanent when it has been established.

# OXYDENDRON ARBOREUM.

This remedy has accomplished some very pretty cures of anasarca, doubtless through its action, in a measure, on the kidneys. It seems to tone the relaxed capillaries of the blood vessels generally, while it augments the removal of the effused fluids from the tissues.

Form for Administration.—The solid extract prepared by Lloyd Brothers.

Dose.-From three to six grains every two or three hours during the day.

## OXYGEN.

Oxygen has proven a valuable remedy in post scarlatinal nephritis. It is positive as any remedy we possess if its use be properly made. It should be inhaled, in the form of a gas, and the oxygen water should be given by mouth at the same time. The inhalations may be practiced every two hours or oftener, if demanded by the urgency of the case.

The oxygen may be stored in a rubber bag, to be withdrawn at time of need, and being renewed from time to time may be kept constantly at hand, for ready application. Oxygen water is a grateful drink in such cases usually, as it diminishes thirst, nausea and fever. Rapid and satisfactory convalescence commonly follows this treatment.

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### PHOSPHORIC ACID.

This remedy acts on products destined to reach the kidneys at a later period, rather than on the kidneys themselves. In diabetes mellitus, it corrects the disturbance of the urinary organs, in some cases.

In a quite common form of polyuria, that arising from nervous causes, as mental disturbance, it is one of the best remedies we possess, and should commend itself in the treatment of the frequent flushings of the urinary apparatus that occur in broken down, nervous, hyperæsthetic individuals liable to such occurrences upon trivial annoyance.

It is also valuable, as numerous writers have attested, in the correction of phosphatic deposits in the urine.

Dose.—From one to ten drops of the dilute phosphoric acid.

## PLANTAGO MAJOR.

This remedy is often a successful one in the treatment of nocturnal enuresis among children. It is applicable to cases of relaxation of the sphincter vesicæ, where the urinary discharge is profuse and colorless.

## POPULUS TREMULOIDES.

Populus exerts a powerful influence over the plastic or recuperative forces of the kidneys, and is a valuable remedy in granular degeneration of these organs. Populin, an active principle from the populus, is a favorite form for administration here. It also acts well in chronic vesical irritation attended by severe tenesmus. Tenesmus is a prominent indication for its use, especially if occurring after, instead of during, micturition.

Form for Administration.—The specific medicine. The populin may be given in the first decimal trituration.

Dose .- Add ten drops to four ounces of water and give

frequently, every hour or so, in vesical irritation. The dose of the trituration of populin may be a grain or two every four hours.

## POLYGONUM.

Professor Goss commends polygonum in retention of urine from want of expulsive power in the bladder. He asserts that this remedy gives tone to the bladder in such cases, and that it will relieve the retention in a few hours. He recommends half an ounce of the infusion of the fresh plant at a dose, repeating every hour or two.

## POLYTRICHUM JUNIPERINUM.

Hair-cap moss is a diuretic of old, established reputation. It increases the amount of urine secreted and imparts to it a bland influence acceptable in calculous formations and the irritation consequent on their presence. This influence is believed to lessen the liability to calculous deposits.

It also acts favorably in the treatment of dropsical accumulation, especially in cardiac dropsy, through its influence on the kidneys.

Form for Administration.—An infusion of the fresh plant' in hot water, when the plant can be obtained. The specific medicine is the most reliable preparation in the market.

Dose.—From five to ten drops.

# RHUS AROMATICA.

This remedy acts on the entire length of the urinary apparatus. It acts promptly in many cases of diabetes insipidus, and numerous cases of diabetes mellitus have been reported cured with it.

In nocturnal enuresis it is one of the best remedies we possess, and will seldom fail to cure unless the case is thoroughly intractable. It is valuable in the incontinence of adults, as well as of children. The dribbling of old men attending relaxation of the sphincter vesicæ and prostatic difficulties will suggest it.

In hemorrhages, both from the bladder and uterus, it is a prompt and reliable remedy.

I have employed it with the best of satisfaction in vesical irritation in women suffering from sexual troubles, as well as in other cases not so complicated. It is the most trustworthy remedy of this kind we possess.

Form for Administration.—The specific medicine. Dose.—From one to ten drops.

# SABAL SERRULATA.

Saw palmetto is a valuable remedy in relaxation of the urinary organs, and will be found an excellent tonic when there is exhaustion of the nervous system attended by diuresis.

In vesical tenesmus the result of prostatic irritation, it is a prompt remedy in the majority of cases; it is thus a valuable agent in the treatment of vesical difficulties occurring in old men. It is also applicable to vesical irritation attending uterine disease.

Form for Administration.—The specific medicine. Dose.—From five to twenty drops.

# SANTALI OLEUM.

Oil of sandal wood is valuable in pyelitis, and other inflammatory conditions of the urinary tract. Its principal use, however, is in the treatment of gonorrhœa, in which it is highly esteemed by many practitioners of the old school.

Form for Administration.—This oil is often adulterated, and a reliable brand should be selected; Parke, Davis & Co. supply an article which has given me satisfaction, and I can recommend it.

Dose.—From three to ten drops.

## SANTONIN.

Santonin specifically influences the urinary tract, relieving irritation, and is useful in acute nephritis, nocturnal enuresis, dysuria, strangury, vesical tenesmus and chronic vesical catarrh.

Form for Administration.—The 2x trituration. Dose.—From two to three grains.

# SARSAPARILLA.

Sarsaparilla acts on the bladder to relieve irritation of chonic character. It relieves the teasing and tenesmus of chronic cystitis, and is applicable to the treatment of vesical catarrh, as a constitutional remedy. Here its use should be associated with properly adapted local applications, for washing out the viscus.

### SCOPARIUS SUMMITATES.

Broom tops afford a very effective principle in the treatment of various forms of dropsy, when there is lack of vigorous renal action.

The best form for use is a decoction, which should be drank freely at frequent intervals. Much depends upon the use of a recent article.

#### SECALE CORNUTUM.

Ergot is of use in relaxation of the sphincter vesicæ, to assist in controlling dribbling of urine and nocturnal incontinence.

Also in hæmaturia attending various organic diseases of the kidneys, as well as in diabetes insipidus, where it often acts promptly to control the diuresis.

Something is claimed for it in paralysis of the bladder, though there are doubtless better remedies here. A continuous sensation as if the organ were imperfectly relieved of its contents is a homeopathic indication for its use in such cases. Form for Administration.--L'oyd's, or Parke, Davis & Co.'s normal liquid.

Dose.—From five to twenty drops, repeated as often as the case may require.

## SENECIO.

Life root exerts considerable influence upon the plastic power of the kidneys, and is useful in diseases tending to break down the renal structure. In granular degeneration of the kidneys, and other forms of albuminuria, it has been used with success. In vesical irritation it sometimes affords satisfaction, though it does not compare with rhus aromatica and some other remedies here.

Form for Administration.—The specific medicine. Dose.—From the fraction of a drop to ten drops.

## SENNA.

"Senna is known in old school therapeutics as a tolerably active purgative, influencing mainly the small intestine, and causing a good deal of colic in its operation. Its chief value for us, however, resides in the changes it induces in the urine, in which Martins ascertained that it always causes an increase in the amount of urea, chloride of sodium, earthy phosphates and urates, so that the secretion is increased. Dr. Drysdale has told us how to turn this action of the drug to good account, by recording a case of oxaluria with excess of urea (the specific gravity of the urine being 1.035), the stools also being diarrhœaic, in which tincture of senna, four drops twice a day, brought about rapid amendment."—Hughes.

Form for Administration.—The tincture referred to here was that of the homeopathic pharmacies.

## SILICA.

This remedy promises to prove effective in the treatment of organic affections of the kidneys. Dr. Battye of Edinburgh employed it successfully in cases attended with

sugar and albumin in the urine, as well as in the treatment of cancer, in which it relieved the pain, and also caused the diminution of fibroid tumors of the pelvis.

This remedy has long been in use by the homeopathists for affections of the bones, suppuration, etc., but Dr. Battye belongs to the old school, and uses one-grain doses of the powdered, crude silica.

### SILPHIUM.

This remedy, in addition to valuable properties as a pulmonary medicine, has been used successfully in the treatment of vesical catarrh. As with other remedies for this complaint, however, the bladder should be frequently cleansed with proper washes, that the therapeutic effect may not be interfered with by fermentative action.

Form for Administration.—The tincture from a homeopathic pharmacy.

#### STAPHISAGRIA.

Delphinium staphisagria exerts an influence upon the bladder, prostate gland and urethra, which is sometimes of service in the teasing urinary difficulties of old men, subject to vesical or prostatic irritation. In such cases, where incontinence of urine is an annoying factor, and where frequent urging is present, it will often prove a most efficient remedy in our practice.

Form for Administration.—The specific medicine. Dose.—From the fraction of a drop to ten drops.

#### THUJA OCCIDENTALIS.

Arbor vitæ has long been a favorite remedy with the homeopathists as an agent for the treatment of gonorrhœa. That it possesses rare virtues here I am inclined, from my own experience, to doubt. But in some urinary difficulties, it promises better results, and I think the late Professor Howe should be credited with having first called attention to this use of the remedy. He recommended it in incontinence of urine, both in adults and in children. The dribbling of urine common in old men, is doubtless the result of prostatic enlargement, and is an application of the remedy long ago recommended by Dr. Richard Hughes, of London; but the use of the drug for the relief of the incontinence of children is of Eclectic origin:

The following article written for the August number, 1892, of the *Eclectic Medical Journal*, by P. F. Price, M. D., illustrates the application of this remedy so well that I will reproduce it entire:—

"My attention has been called to several articles by Prof. A. J. Howe, on the therapeutical value of thuja. I concluded to try it in the treatment of conditions named by the Professor, and on trial achieved good results.

"During the summer of 1891 a man came to my office, and told me about his boy of twelve years, who was in the habit of 'wetting the bed' every night. No difference how often he would get up during the night the result was the same. The father stated that his boy had been affected in this way all his life, more or less, and nothing that had been done for him in the way of medicine had done any good. After stating fully the boy's condition, he wanted to know if I could do anything for him in the way of relief, and I answered in the affirmative.

"I prescribed: R Apis mellifica gtt.x, nux vom. gtt.v, aqua ziv, M.

A teaspoonful every three hours. Also prescribed gr.v, of sulphur, every other night, at bedtime, with a warmbath, and rubbed with a rough towel, the foot of the bed to be raised about six inches higher than the head.

"This treatment was continued for about two months with considerable improvement, but it did not entirely overcome the incontinence of urine, though the boy's health otherwise greatly improved. After seeing that the condition could not be controlled by this treatment I prescribed: & Belladonna gtt. x, aqua ziv., M. A teaspoonful four times a day. This was continued four weeks, with some improvement, but no cure. Meanwhile I was reading up the matter, and my attention was called to an article on thuja. I requested my druggist to order it for me. In a short time it came. I then prescribed thuja, in five drop doses, at bedtime. After about two weeks, the father came into the office, and said: 'My boy is better; dont wet the bed more than two or three times in a week. But, he is so nervous. Will the medicine cause it?' I evaded a positive answer, and ordered three-drop doses every other night for two weeks longer. At the expiration of this time he reported that his boy was cured; did not pass any urine in bed, nor did he have to get up during the night.

"The trouble has never returned, so far as I know.

"Case II.—A man, aged 65, called on me several different times for treatment for, as he called it, 'dribbling urine.' During the night he would be compelled to void his urine as often as half a dozen different times, and during the day would 'dribble in his breeches,' as he stated, so that he was ashamed to go away from home, for he was always wet. I interrogated him in regard to his trouble, and diagnosed an enlarged prostate, with great irritation.

"I prescribed belladonna for a time, with no improvement, then gave nux, with the same result. I then gave pulsatilla, which made some improvement, but not enough to satisfy the old man. I then gave him an ounce vial of thuja, told him to take five drops at bedtime, and ten grains of sulphate of magnesium, every other night. In three weeks I saw him again. He said he was feeling much better. He could sleep all night without being disturbed to void his urine. He says he cannot do without 'them green drops for his dribbling,' to keep his breeches dry."

# TRILLIUM PENDULUM.

Trillium pendulum relieves the relaxation attending the profuse diuresis present in diabetes mellitus and insipidus. It has been lauded as a cure for diabetes by some, but it is likely that it will not control glycosuria, though it may lessen the amount of fluid passed in that complaint. It has not an extensive use with modern Eclectics in this disease, and as there are probably better remedies it is not likely to become popular.

### TRITICUM REPENS.

Couch-grass is useful in cystitis and dysuria. Where the bladder is chronically irritable this remedy will sometimes serve a valuable purpose.

Form for Administration.—The infusion of the fresh plant is the preferable form; where this cannot be obtained, the specific medicine.

## TURNERA APHRODISIACA.

This remedy, better known as damiana, is a tonic in relaxed states of the urinary organ's attended by the deposition of oxalates and phosphates in the urine. It has enjoyed a wide reputation in the treatment of impotency, and has probably been over lauded, though its properties are undoubtedly valuable in some cases of this kind.

# URTICA URENS.

This is a remedy that will be but seldom used, though it may be of service in certain cases of irritation of the bladder and urethra Those who place considerable stress on the law of "similars" would advocate its use in strangury attended by stinging sensation in the urethra, resembling that of the nettle when applied to the skin.

## UVA URSI.

This remedy is valuable in general relaxation of the urinary tract indicated by dragging in the loins and a feeling of insecurity about the bladder and perinæum. It tones up the fibers of the renal and vesical mucous membrane, and imparts invigoration to the whole system.

In chronic irritation of the bladder it is a valuable remedy, relieving the pain and tenesmus and lessening the catarrhal products, though these ought to be washed out with proper douches in order that the remedy may have full opportunity to exert its beneficial effect.

Form for Administration.—A decoction of the fresh plant is preferable.

Dose.—A tablespoonful, repeated every two or three hours.

## VERBASCUM THAPSUS.

The so-called "oil" of mullein has acquired considerable of a reputation within the past few years, in the treatment of incontinence of urme and other vesical difficulties. It is not an oil, but an extract obtained by filling bottles with the flowers and suspending them in the sun for a few days. The resulting fluid, which separates, is the "oil" of mullein.

Besides its action in nocturnal enuresis, which is to be commended for this purpose, it seems to correct the irritating properties of the urine, when these are the cause of vesical irritation, and with this follows relief of permanent character. It is thus useful in the painful micturition of chronic cystitis with alkaline urine, in lithæmia where micturition is painful, and in vesical calculus.

Dose.—From one to ten drops.

### VESICARIA COMMUNIS.

This remedy, known in Germany as "Gemine Blasen Kraut," has been found of signal service in the treatment of urinary difficulties. It is useful in chronic inflammatory states of the urinary mucous membrane, seeming to influence the plastic power of this part and restore it to health, when chronically inflamed and its structure threatened.

It relieves irritation in the kidneys, ureters, bladder and urethra. Its influence on the urethra renders it a valuable remedy in gonorrhœa, in both male and female.

Vesicaria is curative in vesical catarrh, chronic vesical irritation, cystitis, etc. Its action on the kidneys seems no less positive. The following report of a case of traumatic albuminuria illustrates its power as a remedy. It is from the pen of Professor E. R. Waterhouse, M. D., and was published in the *Homeopathic News*:—

"On May 10th, 1891, a case came into my hands with the following history: I. A. M., age, 28 years, occupation, making up passenger trains in Union Depot yard (St. Louis).

"In November last, while switching in some coaches, he was standing in front of the engine, which had three coaches behind it. As he attempted to get off to open a switch he fell. His body being too large to allow the footboard to pass over him, he was rolled in front of the 'iron horse,' for thirty or forty feet, or until the engine could be brought to a stand. He was unable to stand upon his feet, and was taken to the hospital, where he was told that he would probably die. He was one mass of bruises, no bones being broken. He gradually improved until he was able to make an occasional trip to his home. About February 1st, he made complaint that his feet and lower limbs were swollen. This caused an examination of his urine to be made, which was found to contain a very large amount of albumin.

"After being examined by several physicians he was sent home, the hospital physicians telling him they could do no more for him, and that he was bound to die within sixty days. I was called to see him and found him in bed, with a temperature of 101. Upon examination of the urine I found large quantities of albumin. Into a test tube containing urine I would put a little nitric acid, when the albumin would coagulate to such extent that in half an hour the contents would seem nearly solid. He complained of "all gone" feelings, so characteristic of such diseases.

"I believed the congestion upon which the presence of the albumin depended could be removed, and his condition at least be improved. I began the treatment by reducing his temperature with the proper sedative, after which I gave vesicaria tincture, in doses of gtt. xv. Improvement began at once, the quantity of albumin grew less day by day until about May 28th, when it had entirely disappeared.

"He resumed his work about June 1st, weighing about 180 pounds. I should have stated that on May 1st his weight was 165 pounds, and at this writing he weighs 192 pounds. He has no aches nor pains, and says he never felt better in his life. I have examined his urine several times this month, but not a trace of albumin is to be found."

Form for Administration.—The tincture from the fresh plant; the tincture of the dried specimen is worthless. The Luyties Company, of St. Louis, Missouri, furnish this product, in good form.

Dose.-From five to twenty drops.

# THE SEXUAL ORGANS.

### ÆSCULUS HIPPOCASTANUM.

This remedy is adapted to the relief of chronic congestive conditions of the uterus, especially to chronic cervicitis and endocervicitis. Hale recommends it here when the condition is characterized by throbbing in the abdominal and pelvic cavities, but I do not think this symptom necessary to justify its selection, if this form of inflammation exist; if the inflammation be present and not due to traumatic causes, and even if it is in some cases, æsculus hippocastanum will answer a good purpose. It will be prescribing very close to the mark to select it at any rate.

Form for administration and dose may be as directed for hemorrhoids.

# AGNUS CASTUS.

This remedy selectively influences the sexual organs through the circulation. It seems to possess the power, in tolerably large doses, of repressing the sexual propensities, and may occasionally be found useful in erotomania. It is recorded in history that it was used by Athenian women during religious ceremonies to repress carnal desire, as well as by mediæval monks, for the same purpose.

In minute doses it is a reputed remedy for impotence, and is employed by the homeopaths on the principle of "similia." I think we will find more positive remedies for this purpose, though this might be tried as a *dernier ressort*.

Hughes suggests this remedy in sexual melancholy, and Dioscorides asserted that it promotes menstruation and the secretion of milk.

Form for Administration.—The tincture from a homeopathic pharmacy. Dose.—As a remedy for erotomania, from five to fifteen drops. In impotency, the dose should be smaller. Those who report success with it in this affection used the 6x dilution.

## ALETRIS FARINOSA.

The aletris has long been a favorite remedy with Eclectics, on account of its affinity for the reproductive apparatus of the female. It improves the functional power of the uterus, as well, probably, as influencing a change in its nutrition when the structures have become debilitated by disease, and has been found very positive in preventing abortion, thus classing with mitchella, viburnum prunifolium and certain other remedies.

In thin, anæmic women, where menstruation is tardy and scanty, it is a very positive remedy, improving the regularity and quantity of the discharge, while accompanying ailments are usually banished. It is a valuable aid to digestion, and this property will commend it for the treatment of delicate, dyspeptic, illy nourished cases, in which uterine disorders are prominent features. Relaxation of the uterine supports may be benefited with this remedy also, the sensation of bearing down attending many cases of debility of the female sexual system yielding to the remedy in appropriate doses.

Sterility, as well as habitual abortion, will suggest this remedy. Where the fault is due to lack of functional power on the part of the uterus, this remedy ranks with the best of its class.

It is also adapted to certain unpleasant conditions attending pregnancy. In the morning sickness common to so many cases it will often prove an effective remedy, and in the pelvic discomfort so frequently experienced it may prove more reliable than pulsatilla, cimicifuga, caulophyllum, or sepia.

#### THE SEXUAL ORGANS.

Form for Administration.—The specific medicine. Dose.—From the fraction of a drop to ten drops.

# ALUMINA.

Of this remedy, Dr. Richard Hughes, in his Manual of Pharmacodynamics, remarks: "Alumina seems to affect chiefly the sexual system and the mucous membranes. Teste says, 'I have often derived the greatest advantages from the use of this drug in the case of aged females, against diseases which had been apparently seated in the sexual system, but whose primary symptoms had disappeared with the complete cessation of the menstrual periods.' It has cured in his hands chronic gonorrhœa and leucorrhœa, chronic post-gonorrhœal induration of the testicles and raised, itching spots in the vulva and vagina. In the mucous membranes, the characteristic feature indicating alumina seems to be dryness with more or less irritation. All the affections to which alumina is suitable are of a chronic character, and occur in old people, or in dry and thin subjects."

Form for Administration.—The 6x or 10x dilution, as obtained from a homeopathic pharmacy.

### AMPELOPSIS.

This has been suggested as a remedy for agalactia.

## AMYL NITRITE.

The nitrite of amyl is a reliable remedy for the relief of after-pains. A writer in the Journal of Obstetrics, observes: "I am satisfied that in many cases a nice warm meal is better than medicine in these cases. Still, I have had several cases in which the pains were exhaustingly severe, and in which I was glad to turn to nitrite of amyl. This potent drug is a very efficient controller of afterpains, and, used cautiously, I see no reason to apprehend harm from it. A neat way to use it is to saturate a small 30 piece of tissue paper with five or six drops, stuff this into a two-drachm vial, and request the patient to draw the cork and inhale the odor when she feels the pain coming on. It acts with magical celerity."

This remedy is also valuable in relaxing rigid os during labor, and may be employed in the same manner.

## APIS.

Apis mellifica relieves the puffy irritation attended with itching occasionally affecting the genitals. Hughes recommends it in inflammation of the labia.

#### APOCYNUM.

Apocynum cannabinum exerts an influence on the uterus and has restored the menses in some cases of amenorrhœa. It may found of value in menorrhagia, as it is reported to have cured severe cases of the kind, by Dr. Marsden.

### ASAFŒTIDA.

This remedy exerts an influence on the mammary glands, and is a galactagogue of considerable power. It may be thought of in cases where there is want of lacteal secretion and it is desirable to augment the supply.

Form for Administration.—The 3x dilution. Dose.—From one to three drops.

#### AURUM.

This remedy influences the testes, and has been effective in the treatment of sarcocele, and in atrophy of the testes following epididymitis. Inducation of the uterus and ovaries has also been benefited by this drug, and it should have a place in the treatment of such affections.

It is also valuable in disturbances of the sexual appetite, as erotomania, irritability of the sexual organs, impotency from premature ejaculation, nocturnal emissions, etc. It should be recollected as a remedy likely to act

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favorably in chronic sexual diseases of either sex when the structure of the parts seems involved in the difficulty—when there is more than a temporary functional disturbance.

Form for Administration.—The 3x trituration of the chloride of gold and sodium.

Dose—From one to three grains.

# AVENA SATIVA.

This is a favorite remedy for nocturnal emissions, when the affection is purely a nervous one and requires a remedy to augment the innervation of the sexual apparatus. It is the most prompt and efficient remedy in the materia medica for this condition, I believe. Where much prostatic irritation exists it may be well to alternate it with such remedies as sabal serrulata, staphisagria, or oil of sandal-wood.

The spermatorrhoea that follows exhausting fevers and other debilitating diseases will usually yield promptly to this remedy, if sexual abuse has not been a partial factor in the causation. Even then it will materially assist in a cure, by strengthening the nervous energies of the affected parts and steadying tendency to explosions of sexual erethism.

I do not think that it specifically influences irritation of the prostatic urethra, and am of the opinion that in emissons due almost entirely to this cause it will not prove as successful as in those cases where enervation or nervous erethism are prime factors, but it will do for a trial remedy in every case where clear discrimination seems difficult, and will succeed the majority of times. I often combine it with gelsemium, as I think this assists in relieving spasmodic action at the base of the bladder. Form for Administration.—Keith's concentrated tinc-
ture. A saturated tincture of the green plant, while the kernel is in the milk, is nearly as reliable.

Dose.—From five to fifteen drops.

## BAROSMA.

Buchu resembles thuja somewhat in its action on the prostate gland, though this is not so powerful nor positive as that of thuja. It might be thought of as a possible remedy here, though it is not likely to supersede remedies like thuja, saw palmetto and some others.

# BORAX.

Borax exerts an undoubted influence on the uterus. In small and repeated doses, continued two or three months it is a very certain abortifacient, its influence on the functions of the uterus being thus unmistakeably manifested.

It is a very positive emmenagogue, and may be used with success where a remedy of this kind is required. It is also recommended in sterility, where conception seems to be prevented by leucorrhœal discharges.

In olden time this remedy was "regarded as an agent exercising a specific influence over the uterus; promoting menstruation, alleviating the pain which sometimes attends the process, facilitating parturition, diminishing the pain of accouchment, and favoring the expulsion of the placenta and lochia." It is also a remedy of repute in the ra lical cure of membraneous dysmenorrhoea.

Form for Administration.—The powdered, crude salt, or the 3x trituration.

Dose.—One grain of the crude salt; from two to three grains of the trituration.

### BROMIDE OF POTASSIUM.

This remedy influences the nervous supply of the reproductive organs, and will sometimes be found of service to quiet the irritation of the vesiculæ seminales and ejaculatory ducts, in the treatment of spermatorrhœa in persons of plethoric habit and vigorous sexual capacity. It is especially useful when taken at bedtime, and will often prove efficacious in carrying the patient through the night without emissions. A full dose should be given at bedtime when it is used for this purpose.

Hughes (Manual of Pharmacodynamics) refers to the action of this agent in ovarian cysts, and asserts that several well authenticated cures have been accomplished with it. "A case of this kind is recorded in the *Edinburgh Medical Journal* for 1868, in which, after a single tapping, the continuous use of the bromide in doses of five, ten and fifteen grains, effected a complete cure. In the twenty-seventh volume of the *British Journal of Homeopathy* Dr. Black records an equally satisfactory case where grain doses sufficed for the cure; and in the twenty-eighth volume you may read one of my own. There is much encouragement here for future trials."

## BRYONIA.

Bryonia is highly recommended by Hughes, for inflammation of the mammary gland. He remarks: "Whenever, from the first coming in of the milk, from catching cold while nursing, or from abrupt weaning. the breasts become tender, knotty and painful, bryonia will almost certainly resolve the inflammation and prevent the formation of an abscess."

These suggestions might have been of service before the time of phytolacca, but I am sure that bryonia bears no comparison with this drug in mammary inflammation. However, we can never possess too many remedies for a single purpose, if we use them judiciously, for the best tried one may fail and the least reliable one succeed occasionally.

Form for Administration.—The 3x dilution of the specific medicine. Dose.—Five or ten drops should be added to four ounces of water and of this a teaspoonful should be given every hour.

## CALCAREA OSTREARUM.

The powdered oyster shell is a valuable remedy in all relaxed states of the mucous membranes. I have found it the most reliable internal remedy I have ever used in uterine and vaginal catarrh. Wherever this is due to relaxation of the mucous membrane and not to irritation from laceration of the cervix or other local disturbance, I prescribe calcarea carb. with pretty certain expectation of success.

Of course there are special conditions which may render this a more particularly applicable remedy; I believe that strumous subjects respond to it more readily than others and such ones are the most liable to contract this kind of relaxation of mucous membrane; but it is not best to be too discriminating here, for the remedies that are positive in any case are few, and this can do no harm to say the least of it, if tried in all.

Form for Administration.—The 3x trituration.

Dose.—From two to three grains, repeated four or five times daily.

## CALCIUM PHOSPHATE.

In certain forms of mal-nutrition attending the establishment of the menses following child-birth (puerperal anæmia), as from rapid child-bearing or prolonged suckling, and in debility occasioned from excessive menstruation and profuse leucorrhœal discharge in strumous subjects, I think this a very useful remedy. I consider it especially called for if there be a chronic irritation of the tonsils and fauces attending such cases.

The action of this remedy is slow, but it often gives good returns after it has been taken two or three months. Very intractable cases yield to it when its use is persisted in, provided it be properly adapted. Form for Administration.—The crude salt may be used, or the 3x trituration. I prefer the trituration, from my own experience.

Dose.—One or two grains of the crude salt, two or three of the trituration.

# CANNABIS.

Cannabis sativa will sometimes be useful in the treatment of the advanced stage of gonorrhœa, its specific influence rendering it of service to relieve the subacute inflammation remaining after the active inflammation has been reduced with the more pronounced sedatives.

Cannabis Indica is a valuable remedy in neuralgic and spasmodic dysmenorrhœa. Hale (New Remedies) writes very enthusiastically of this remedy here, asserting that it has cured cases formerly treated by specialists for years unsuccessfully with electricity and other reputable measures. Women subject to neuralgia are the best adapted to its action. It should be given in large enough doses to impress the system, and its use should be begun several days before the time of menstruation, that its effect may be well established before time for the pain to begin.

It also relieves after-pains, and is valuable in metrorrhagia, menorrhagia, and hæmorrhage occurring during pregnancy. Hale calls attention to its reputed action as a partus accelerator, and asserts that a limited experience with it in his hands, bears out the recommendation.

It may be profitably investigated as a remedy for impotency, spermatorrhœa, and some other affections of the male organs.

Form for Administration.—The specific medicine. Dose.—From three to ten drops.

### CARBO.

Vegetable charcoal has been recommended as a remedy for pruritus pudendi. In some of the persistent cases occasionally encountered it might be well to recollect this, as a trial could do no harm at the most.

Animal charcoal may be found of service in the treatment of inducation of the mammary glands, and in the correction of certain offensive discharges, as putrid lochia. It has also been recommended by good authority for "stinking feet," as well as for offensive body exhalations. I must confess that my own faith in such a use of the remedy is not overwhelming.

Form for Administration.—The 3x trituration of both the vegetable and the animal charcoal.

Dose-Two or three grains.

# CAULOPHYLLUM.

Blue cohosh exerts a pronounced effect upon the reproductive organs of women. It is a positive remedy in dysmenorrhœa when properly adapted, is a partus accelerator, and is useful to fortify the pregnant uterus against a predisposition to premature casting off of its contents. It also acts well to prepare the parturient woman for the successful accomplishment of labor.

Caulophyllum undoubtedly influences the uterus principally, in its action on the reproductive organs of women, and it acts promptly in controlling spurious labor pains; and where there is an uncertainty in the diagnosis of such cases it will assist materially in deciding this by bringing on proper and successful labor if that is what the pains suggest, or in relieving them if parturition be not impending. After labor has begun, if the pains are tardy and inefficient, caulophyllum ranks with cimicifuga and pulsatilla in its capacity of regulating them and rendering them efficient. It does not bring on the rigid and forceful pains of ergot here, but augments a normal condition and relaxes, instead of constricting the os uteri, thus favoring the ready and safe delivery of the child. It is a valuable remedy in rheumatism of the uterus, and will aid very much in the relief of persistent pain in the organ when this is not due to inflammatory action outside of a rheumatic complication. It may be thought of with advantage in chorea arising from suppression of the menses, not only to relieve the reflex action but to promote the molimen as well.

This will also be found a useful remedy in orchialgia, in patients of rheumatic diathesis. With its proper administration, and support to the testicle or rest in the recumbent position, good results are almost sure to follow.

Form for Administration.—The specific medicine. I think highly also of a trituration of caulophyllin (the active principle) in cases demanding this remedy, usually using the 2x or 3x, in two or three-grain doses. Lloyd's "leontin" is another excellent form for the action of this remedy, and is highly written and spoken of by those who have used it.

#### CHAMOMILLA.

This is a feeble remedy, so far as its action on the sexual organs is concerned, and will not be used very often by those well acquainted with the more potent remedies furnished by our materia medica. It may sometimes be made use of with advantage in the treatment of spasmodic dysmenorrhœa, spurious labor pains and after-pains.

Its best use will be in the correction of peculiar mental developments accompanying affections of the female reproductive organs, as irritability, irascibility and peevishness, occurring erratically and cropping out suddenly.

Form for Administration.—The specific medicine. An infusion of the green plant cannot be excelled when this is obtainable.

Dose.—Of the specific medicine, from the fraction of a drop to five drops; of the infusion, a teaspoonful or more.

## CHELIDONIUM.

Chelidonium has been used successfully for the radical cure of hydrocele. Dr. R. K. Gosh, of Calcutta, India, reports (*Hahnemannian Monthly*) a large percentage of cases treated by him with it radically cured. Out of twenty cases treated fifteen at least were permanently relieved, through the specific action of this drug on the parts involved.

Dr. S. Lilienthal also recommended it for the same purpose in an article published in the *Medical Advance*.

Form for Administration.—The specific medicine. This may be diluted in water so that from the tenth to the twentieth of a drop may be administered in a teaspoonful, repeated every two or three hours.

### CHIMAPHILLA.

This remedy has cured chronic prostatic irritation, and should form one of the list of the few remedies applicable to diseases of this part. In chronic prostatitis associated with vesical catarrh it may be found to excel saw palmetto.

It is also asserted to act curatively in tumors of the mammary gland, though I have no knowledge of its use in this direction.

Form for Administration.—The specific medicine or the infusion of the fresh plant.

Dose.—Of the specific medicine, from the fraction of a drop to ten drops; of the infusion, from a teaspoonful to a tablespoonful.

### CHLOROFORM.

Chloroform is one of the most positive relaxants of the cervical tissues in rigidity of the os that exist. The most stubborn cases will yield to it if the remedy be pushed to profound anæsthesia, though so free a use of the remedy will not generally be required, a few inhala-

tions during the throes, the remedy being withdrawn during the intermissions, ordinarily accomplishing the work.

# CIMICIFUGA.

This remedy is applicable to almost all painful affections of the uterus. It is useful in spurious labor pains, and will often be useful to decide a point of diagnosis between true and false labor, the pains in genuine labor becoming steady and effective, while spurious pains are banished, under its influence. I like the decoction of the recent root in such cases.

It is also valuable in rheumatism of the uterus, as well as in dysmenorrhœa. Here it combines well with pulsatilla, though it is capable of doing good service alone.

Cimicifuga also acts well in amenorrhœa, especially that form known as "absentio mensium." In chorea in young females attended by amenorrhœa, it is a valuable adjunct to proper faradic treatment. In uterine catarrh due to flabbiness of the walls of the viscus cimicifuga acts almost as well as ustilago.

As already suggested, cimicifuga is a valuable parturifacient, much preferable to ergot and as prompt and efficacious as any of the oxytocics at our command. I used tablespoonful doses of a strong decoction of the recent root here with very satisfactory results, in a country practice where other drugs of the kind were sometimes difficult to obtain at short notice, until I learned to value it very highly on account of its prompt and reliable action. It will regulate irregular and inefficient pains and stimulate feeble contraction without endangering the mother or child, as is the case with ergot except under favorable conditions.

When sterility is due to improper functional activity of the uterus a continued course of cimicifuga sometimes acts very beneficially, though I do not regard it with as much favor as I do mitchella in this respect. Its prolonged use also doubtless mitigates the painfulness of labor when given for a few weeks beforehand, in a great measure, in many instances.

Mammary pains attending the process of gestation are amenable to the action of this remedy in many cases. By relieving irritation of the uterus it doubtless relieves the reflex disturbance in the mammary gland. Possibly it may selectively influence that part, but not very likely.

Ovarian irritation, as aching pain (ovarialgia), neuralgia, etc., may suggest this agent, especially if the patient be known to belong to a rheumatic habit. In fact, such is its predilection for the female generative organs that it may be employed with good results in almost all cases of curable disease of these parts.

In certain cases of sexual trouble in the male sex it is also a valuable remedy. Aching in the *bas fond*, presumably in the prostate gland, will readily yield to it, as well as orchialgia. Spermatorrhœa is sometimes benefited with cimicifuga, especially if a tonic to the reproductive organs generally, is required. At least it assists more specific remedies, as avena, salix nigra, etc.

Form for Administration.—The specific medicine is the most reliable preparation that can be found in the market. It is a convenient form for dispensing, a few drops in four ounces of vehicle being amply potent for all purposes that it is adapted to. In acute troubles, as muscular rheumatism, spurious pains, to stimulate the contractions during labor, etc., I prefer a decoction of the recent root.

Dose.—Of the specific medicine, the fraction of a drop. I usually combine it with a vehicle, in the proportion of half a drachm of the specific medicine to four ounces of the vehicle, the dose of the combination being a teaspoonful. The decoction may be administered in doses of a

tablespoonful, repeated every two, three, or four hours, as required by the urgency of the symptoms. In spurious labor, and to prompt tardy labor pains the dose may be repeated every half-hour. Excessively large doses cause a full, dull headache, which, however, passes off in a few hours, if the agent be discontinued.

## CINNAMON.

Cinnamon specifically influences the uterus, controlling hemorrhage, and stimulating contraction of its muscular fibers. It is a valuable remedy in uterine hemorrhage combined with hamamelis, though it does good service alone.

As this agent in small and repeated doses is capable of producing abortion, its powerful influence on the nutritive functions of the uterus is undisputable, and it is possible that more study and experimentation may permit us to possess a fuller knowledge of its virtues as a uterine remedy.

Form for Administration.—The specific medicine. Dose.—From five to twenty drops.

## CLEMATIS.

This remedy influences the sexual organs, and is sometimes useful in the treatment of gleet, incipient stricture, and other conditions of the urethra resulting from gonorrhœa. It also influences the testes and ovaries, and relieves the chronic orchitis that results from gonorrhœa, also induration of the ovaries. It will repay study as a remedy influencing the sexual apparatus in either sex.

Form for Administration.—The tincture from a homeopathic pharmacy.

Dose.—Add from ten to fifteen drops to half a glass of water and give a teaspoonful every two or three hours.

# COCCULUS INDICUS.

Cocculus Indicus is a remedy of repute among homeopathic practitioners for menstrual colic and dysmenorrhœa of nervous origin. From a limited experience with it I believe that it should be one of the remedies of Eclectics, especially in cases where our tried remedies fail.

Form for Administration.—The 3x dilution, obtainable at a homeopathic pharmacy.

Dose.—Add half a drachm to four ounces of water and give a teaspoonful every fifteen minutes or half-hour, in urgent cases.

## COLLINSONIA.

Collinsonia exerts curative powers in prolapsus uteri, dysmenorrhœa, varicocele, pruritus ani, amenorrhœa, menorrhagia, vicarious menstruation and threatened abortion. It is probably that class of cases that depend upon hemorrhoidal engorgement which are most benefited by it.

## COLOCYNTH.

This remedy is sometimes useful in orchialgia, and in ovarian neuralgia. It is not as reliable as some remedies in these diseases, but will sometimes act promptly after other remedies have failed. Where the complication of neuralgia about the hip-joint is present we may look for the best results.

## CONIUM.

The female breasts, the ovaries and the testes are the parts of the sexual system influenced by conium. Indurations of the mammary gland, even when these amount to scirrhus, are bettered by the internal use of conium. To derive benefit in cancer, the remedy must be given early in the development of the affection. I usually combine it with hydrastis.

In scanty menstruation due to ovarian torpor, and in sterility due to the same cause, it is an important rem-

edy. In lack of virility due to passive engorgement of the testes, and in feeble but erethitic conditions of the male genitals it is also serviceable.

Form for Administration.-The specific medicine.

Dose.—Add ten or twenty drops to four ounces of vehicle and give a teaspoonful four times a day.

# DULCAMARA.

Dulcamara is sometimes serviceable in excitable conditions of the sexual organs, with tendency to nymphomania or satyriasis. It relieves itching cf the pudendi, and stitching pains in the vagina also. It will seldom be used in the treatment of the sexual apparatus, but may be thought of profitably in some cases of spermatorrhœa, impotency, or other perverted state of the sexual organs. It is applicable to both sexes.

# ECHINACEA.

Echinacea is a valuable remedy in acute inflammation of the male and female urethra, and in inflammation of the vulva and vagina in the female, both internally and locally. In the first stage of gonorrhœa, as well as in the catarrhal stage it is one of the best, if not the best we possess. It lessens the pain and inflammation, and is valuable to relieve the profuse catarrhal discharge that follows later.

It should be injected into the urethra in the male, and into the vagina in the female, and retained as long as possible, in order to derive the local benefits. It should also be administered internally at the same time, as its influence over such forms of inflammation is excellent.

In vulvitis, where there is considerable inflammation of erythematous or erysipelatous character, and in the vulvitis of strumous character that often afflicts young children, echinacea is a splendid remedy, both locally and internally.

Echinacea is also the best remedy we have in mammary pain, unless it be that of acute inflammation, where phytolacca probably excels it. In the pain of mammary cancer it has no equal, the severe lancinating pain subsiding within a few hours after its use has been begun and remaining quiescent until its use has been discontinued a few hours, or days. In chronic inflammation of the mammary gland the result of badly treated puerperal mastitis, where the part has become reddened and congested, echinacea, assisted by proper support, the remedy being used locally and internally, is the best reliance we have.

I have had no experience with this remedy in uterine cancer, but would suggest its use to relieve the pain attending this affection, since it seems so well adapted to the pain of cancer in other portions of the body.

Form for Administration.-The specific medicine.

• Dose.—From ten to twenty drops, repeated every three or four hours. Locally, its strength may vary from a ten to a twenty-five-per-cent. dilution.

#### ERECTHITES.

This remedy applies to uterine hemorrhage, profuse menstruation and gonorrhœal orchitis. It should be studied especially with reference to its action in menorrhagia, in which it is likely to prove a superior remedy. It resembles the action of erigeron canadense very much in this affection and may be combined with it advantageously in most cases. The oil of erecthites acts most promptly when the genuine article is employed.

### ERIGERON.

Erigeron canadense is one of our most reliable remedies for uterine hemorrhage. Of course we must know enough about uterine hemorrhage to realize that a partially detached ovum or placenta retained in the uterus

will cause the flow in spite of the action of the best remedies that can be used, and that the reasonable treatment here is the prompt removal of the offending cause or the appropriate use of tampons. But when there is a reasonable opportunity for the employment of this remedy it will hardly fail to act beneficially.

Erigeron is also useful in the catarrhal stage of gonorrhœa to arrest the flux. It compares with copabia in its influence in this respect.

Form for Administration.—The oil of erigeron. It may be combined with simple syrup, which will disguise some of its unpleasant taste. One part of the oil to six of syrup will allow the regulation dose—ten drops—to be taken in a teaspoonful of the mixture.

## GELSEMIUM.

Gelsemium is a uterine remedy of considerable virtue in some instances. It relieves spasmodic dysmenorrhœa, and spasmodic stricture in either sex. It is also of service in spasmodic or false labor pains, and as it relaxes rigidity of the os uteri it may often be found of service to the obstetrician. It is not as positive a relaxant of the cervix as chloroform, and many prefer lobelia to it here, but it is a useful remedy in conditions demanding such an agent, and it is more acceptable to the stomach than the latter remedy, while it has a wider application to the various conditions of dystocia.

Form for Administration.—The specific medicine. Dose.—From the fraction of a drop to ten drops.

### GOSSYPIUM.

This remedy specifically influences the circulation of the uterus, and is a valuable agent to control the reflexes manifested by some hysterical subjects from uterine irritation. It improves the tone of the sexual organs when there is sexual lassitude in the female, and this suggests it as a remedy for impotency.

It is a remedy of considerable worth in the treatment of scanty menstruation and amenorrhœa, and has been indorsed by several good authorities as a remedy for dysmenorrhœa and menorrhagia. It promotes labor, when tedious from uterine inertia, resembling in this respect cimicifuga and ustilago.

Form for Administration.—The specific medicine. Dose.—From the fraction of a drop to ten drops.

## GRAPHIIES.

This is one of Scudder's specifics for "impairment of the sexual function (loss without power), irregular and painful menstruation and leucorrhœa."

Hughes asserts that "beyond the cutaneous region, the best established action of graphites is on the ovaries and testes." The same author refers to its application to disturbances of the menstrual period near the climacteric, remarking that graphites is to the climacteric period what pulsatilla is to the establishment of the molimina in youth.

The same author refers to the favorable action of this remedy in hydrocele, asserting that it has more than once proved curative here, as well also as in ovarian cysts.

Form for Administration.—The 6x dilution, obtainable at a homeopathic pharmacy.

Dose.—From five to ten drops, repeated four or five times a day.

#### HAMAMELIS.

Hamamelis is a valuable remedy in congestions of the ovaries and testes due to venous fullness. It relieves many cases of ovarian pain due to this cause, dull, aching sensation in the part being the indication for its use. It is a favorite remedy with many of our practitioners for

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the treatment of varicocele, and it will permanently benefit many cases not too chronic. However, it is not to be compared in efficiency with a radical operation.

In phlegmasia dolens, after the early inflammation has subsided, and even in the early part of the disease, it is a very good remedy to administer. Hale regards it as the "aconite of the venous system" and considers it the proper remedy in all forms of phlebitis.

Scudder has recommended hamamelis in prolapsus, and it may do good service where the cause is venous fullness of the uterine tissues, or fullness of any of the pelvic veins.

Form for Administration.—A good distilled extract. Dose.—From ten drops to half a drachm.

## HEDEOMA.

Pennyroyal is an old domestic remedy for menstrual difficulties and suppression of the lochia. Rafinesque refers to these properties in his works, Goss and other Eclectic writers recognize it as a remedy here, and late homeopathic authors follow in the same train. The best effects are derived from a decoction of the fresh plant, though dilutions of the oil, or the tincture from the recent plant may be used with satisfaction. The oil of pennyroyal has been used for the purpose of criminal abortion and is a dangerous agent, in large doses.

## HELONIAS.

Unicorn root is a remedy of repute among the practitioners of our school and has long been esteemed for its specific influence on the female reproductive organs.

It tones the uterine mucous membrane in relaxation of that part, and may thus become an effective remedy in uterine catarrh. Through the same influence it promotes proper functional activity here and fortifies the part against abortion when the uterus seems so predisposed. Goss asserts that helonias is superior to aletris here. After miscarriage has been threatened, it acts well to avert the catastrophe, either alone or combined with viburnum.

Scudder refers in commendatory terms to the application of helonias to the relief of the mental symptoms (depression and despondency) that attend many cases of uterine disturbance.

Helonias is applicable to the treatment of chlorotic anæmia when this is due to lack of activity of the female sexual system. It here seems to act as a stimulant to digestion and appropriation, as well as to balance disturbances of the nervous system arising from the chlorotic condition.

This remedy also improves the energy of the reproductive organs in sexual lassitude in either sex, and is applicable to the treatment of spermatorrhœa, through its invigorating influence upon the male generative organs, though it is not as positive as some other remedies mentioned in this department.

Some physicians of my acquaintance recommend helonias highly for the nausea and vomiting of pregnancy.

Form for Administration.—The specific medicine. Dose.—From the fraction of a drop to ten drops.

## HYDRASTIS.

Golden seal has acquired a new reputation as a remedy for the uterus within the past few years, owing to experiments which have proven its remarkable effects on the circulation in this part.

In uterine hæmorrhage, where this is due to relaxation of the bloodvessels, hydrastis proves to be a very reliable remedy. This I have proven numerous times.

If we possess any constitutional remedy capable of arresting and blasting uterine fibroids in their incipiency, I

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believe this will be found the one. In uterine hyperplasia due to the effects of childbirth it also acts very successfully, often, as a prominent writer has remarked, averting the necessity of trachelorrhaphy where the cervix has been lacerated.

The action of hydrastis in cancer of the breast suggests. a specific affinity of this remedy for that part. In the early stage of this disease hydrastis alternated with conum constitutes a valuable plan of treatment. These two remedies with echinacea to relieve the pain, promise considerable benefit, though I am in doubt as to their power to cure.

Form for Administration.—Lloyd's hydrastis. Dose.—From the fraction of a drop to five drops.

## HYDROCOTYL ASIATICA.

This plant seems to exert a specific influence upon the uterine cervix, thus allying itself with æsculus hippocastanum. In granular ulceration of the neck attending old cases of laceration, and in pruritus of the vagina arising from excoriating discharges from the same condition it may be found of service, where the patient is not willing to submit to the proper treatment—trachelorrhaphy.

Form for Administration.—The 3x dilution, obtainable at a homeopathic pharmacy.

Dose.—Three to five drops three or four times a day.

## IODIDE OF BARYTA.

Iodide of baryta may sometimes be found valuable in the treatment of ovarian inducation, and inducation of the testes and prostate.

Form for Administration.-The 3x trituration.

Dose.—Two or three grains three or four times a day. IODINE.

Of this remedy in affections of the sexual organs, Hughes remarks (Manual of Pharmacodynamics): "The specific influence of iodine upon the glands of the generative system would suggest its frequent employment in morbid states of these glands, especially when occurring in scrofulous and tuberculous subjects. In such patients prostatitis in the male, and amenorrhœa, galactorrhœa and leucorrhœa in the female subject have been cured by it. I speak with more diffidence when I suggest that to such an influence is due the dispersion of mammary, ovarian and uterine tumors, which has sometimes been accomplished by iodine.

"It is worth noting, however, that the tumors that have—in Dr. Ashwell's words—'melted down' under the action of iodine, appear invariably, to have originated in the cervix, viz., in the glandular and secreting portion of the organ. In inflammation and induration of this part, moreover, iodine is a remedy of tried value. Here, probably, what has been said about strumous glands holds good; and the ovary seems to bear to iodine just the same relation as the thyroid."

## JABORANDI.

The following was written for the Medical Register by Dr. Jerome Hardcastle several years ago :---

"Having for many years noted the fact that parturition does not progress favorably till diaphoresis occurs, I have for some months past induced this condition, in the early stage of labor, by giving fluid extract of jaborandi (green —the brown has proved worthless in my hands).

"My plan is, when called to a case, to order a warm brick applied to the feet—which are always cold—and then give one-third of a teaspoonful of fluid extract of jaborandi in half a wineglassful of water, and repeat the dose every half-hour until perspiration occurs. It is very seldom that more than two doses are required.

"The first effect of this medicine on the patient is soothing; she becomes more quiet, and bears her pains with

resignation. Upon being questioned the patient often states that her pains do not hurt her as they did. On examination, after diaphoresis occurs, the os will be found dilating rapidly; the soft parts to be in a favorable condition; and in a short time the labor will be satisfactorily terminated. Since using this remedy, I have had no occasion to use ether, chloroform or the forceps."

The os uteri dilates readily and rapidly under the influence of jaborandi, as I have proven in practice myself, and it seems to further assist labor by relaxing all the soft parts of the parturient canal.

# LILIUM TIGRINUM.

The tiger lily is a comparatively new acquisition to the list of uterine remedies. It is sometimes of service in irritation of the uterus with congestion, and has proven successful in the treatment of dysmenorrhœa of congestive character. It has been recommeded in prolapsus to relieve the bearing down sensation, but I am of the opinion that it bears no comparison with sepia for this trouble.

Lilium is slow about bringing about its effects, but if persevered in it is a very reliable remedy in ovarian neuralgia of long standing. Burning, darting pains in the part indicate it.

In the nausea of pregnancy I have found it useful, as well as in nausea from uterine irritation.

Tardy getting up after labor with prolonged lochia and weight in the pelvis should suggest lilium. Here we have few remedies which afford more satisfaction. I sometimes combine or alternate it with ustilago.

Form for Administration.—The ticture from a homeopathic pharmacy.

Dose.-From the fraction of a drop to five drops.

### LOBELIA.

This is one of the old time remedies used to produce relaxation of the os when rigidity of that part was a cause of dystocia. It was used to relax the os and perinæum, as well as to stimulate tardy action of the uterus in tedious labor. In this use of the remedy it should be given in sufficiently large doses to induce nausea and this condition should be maintained for a short time, the remedy to be afterward continued in smaller quantities.

I have never made much use of lobelia for this purpose, for I believe we possess better remedies in chloroform, gelsemium and jaborandi.

## MANGIFERA INDICA.

Mango bark is a remedy that acts very positively on the uterus, to control hemorrhage and catarrhal discharges. It was formerly a favorite with Professor Howe as a remedy for uterine hemorrhage.

Form for Administraticn.—The fluid extract of Parke, Davis & Co.

Dose.—From ten drops to half a fluidrachm.

#### MILLEFOLIUM.

Achillea millefolium or common yarrow is a valuable remedy in uterine hemorrhage. It is best administered in decoction of the fresh herb to be drank freely. It has served me a valuable purpose several times when other remedies of better repute could not conveniently be obtained.

# MITCHELLA.

Partridgeberry possesses valuable properties to recommend it to this department. It is the best remedy extant to fortify the uterus against the abortion habit when this has become established, and it is furthermore very useful where sterility depends upon lack of energy in the uterine mucous membrane. Where the deciduous membranes and enveloped ovum are cast off during the first few days after conception, mitchella will serve to fortify the uterus against such occurrence. Mitchella is also one of the best partus preparators we possess, its continued use during the last few months of pregnancy usually providing for a safe and easy delivery. There is usually absence of false pains, rigid os, hourglass contraction, and other unpleasant accompaniments of dystocia, after this remedy has been used several weeks prior to labor.

Form for Administration.—The best preparation is a decoction of the fresh herb. Whenever this can be obtained I would advise its use. A decoction can be made and enough alcohol added to preserve it and the remedy thus kept for use for a long time. In the absence of the decoction the specific medicine is the best form for use.

Dose.—A tablespoonful of the decoction, repeated three or four times a day. The specific medicine may be used in ten or fifteen-drop doses.

### MYRICA.

Bayberry will have but a limited use in this department. It acts well in restoring arrested lochia, in uterine hemorrhage, and in leucorrhœa, or is asserted to by some of our old authors; I have had no experience with it in such cases.

# NITRO-GLYCERINE.

Nitro-glycerine is sometimes a good remedy in neuralgic dysmenorrhœa, and is a great favorite with homeopathic practitioners in the treatment of menstrual headaches and the flushings of the climacteric period.

Form for Administration.—The 3x dilution. Dose.—From the fraction of a drop to a drop.

## NUPHAR LUTEA.

This remedy may be investigated with profit in the treatment of spermatorrhœa and impotency. A tincture may be obtained at a homeopathic pharmacy, of which the dose will be the fraction of a drop.

## NUX VOMICA.

This remedy is one of the most positive agents we possess in the treatment of impotency. It improves the power of erection and invigorates the sexual appetite.

The dose should be large enough to produce a pronounced effect upon the nervous energies of the part, —as large as the fourth of a grain of the solid extract—and should be repeated every three or four hours during the day.

## OXALATE OF CERIUM.

The *Medical Record* remarks as follows: "Dr. M. L. Chambers does not remember a failure with the oxalate of cerium in dysmenorrhœa occuring in fleshy and robust women with scanty menses, where they have the pain before or just at the beginning of the flow, where it is spasmodic or colicky in character, with a feeling of tenesmus, and relief follows the establishment of a free flow. But to insure success he believes it must be selected with reference to these symptoms. It is given in powders of six grains each, one every hour until the pain is relieved. When the preparation is a pure one he has never seen any bad effects from its administration. Sometimes it contains small quantities of arsenic, which in certain cases has caused some irritation of the stomach."

## PETROSELINUM.

The seeds of parsley contain an oily product termed apiol, which is a remedy of considerable repute in neuralgic dysmenorrhœa. The parsley, either in infusion or tincture of the fresh plant is serviceable in urethral irritation, notably in the treatment of gonorrhœa. The dose of apiol is ten or fifteen drops, repeated every hour or two in severe cases of neuralgic uterine colic.

#### PHOSPHIDE OF ZINC.

Phosphide of zinc has been suggested as a remedy for impotency.

### PHORADENDRON.

The mistletoe is an oxytocic of considerable power, resembling ergot somewhat in its action. It is not superior if equal to other agents of this class, as ustilago, caulophyllum, cimicifuga, quinia, etc., and will probably not become very popular as a remedy.

## PHYTOLACCA.

Phytolacca is *the* remedy in acute mastitis, and the remedy to avert this catastrophe during the early days of the lying-in period, if administered in conjunction with proper management in other respects. It relieves the pain, softens the hardened gland and promotes the flow of milk, thus abating engorgement of the ducts.

In orchitis, it is a reliable remedy, both internally and locally, though here it is well to combine it with pulsatilla.

Form for Administration.—The specific medicine or a saturated tincture of the fresh root.

Dose.—Add from half a drachm to a drachm of the specific medicine or tincture to four ounces of water, and give a teaspoonful of the mixture every hour. Usually it is well to add from five to ten drops of specific aconite to this mixture where there is any febrile action to be met, and this is almost certain to be the case in mastitis or orchitis.

# PIPER METHYSTICUM.

This is a remedy pretty well known for its reputation in the treatment of gonorrhœa. While it is a good remedy I think it has been overestimated here. It may be found of service in the treatment of impotency, as it evidently possesses aphrodisiac powers. It also possesses some reputation as a remedy for orchitis, though it can hardly be expected to rank with pulsatilla in this respect.

Dr Eliza A. Gillett contributed the following on this remedy to the *California Medical Journal* (September number), in 1884, worthy of reprint here:—

"Nearly three years ago, Dr. Hillyer gave me a vial of the mother tincture, asking me to try it in tedious labor. The medicine was entirely new to me, nor could I find, on my return home, any notice of it in my copy of King's American Dispensatory or any other work in my library; however, I put it in my medicine case.

"Sometime afterward I was called to attend a case of primipara. The patient was a nervous woman, extremely sensitive. The membranes had ruptured thirty-six hours before the pains began. I was called in the morning, the patient having had some pains—enough to keep her from sleeping—the previous night, which greatly increased in severity about five A. M. I found the head presenting, the parts hot and exceedingly tender, and the os sufficiently dilated to admit the finger. The pains were excruciating, the patient declaring that they did no good, which was really the case.

"During the next four hours I gave successively pulsatilla, gelsemium and caulophyllin, with little or no change, or benefit. On inquiry I learned that the lady had been a great sufferer from dysmenorrhœa and also from neuralgia, between her periods. Taken altogether, the symptoms of my patient began to be strongly suggestive of convulsions, and I concluded it best to put her under the influence of an anæsthetic.

"While her husband was gone for chloroform I thought of the piper methysticum and prepared some in water, so that a teaspoonful would contain a drop of the medicine, and gave two teaspoonfuls. Ten minutes after, I repeated the dose, almost immediately after which my patient said, "That helps me; somehow I feel different." I continued to give the remedy every fifteen minutes for the next two hours. The chloroform was not used, the patient declaring she did not need it now; neither did she. Three hours after the first dose of this remedy was given a living child was born, weighing ten pounds. The mother made a good recovery.

"I have used it in several cases since then with gratifying results. I have also been prescribing it in dysmenorrhœa, and find it best adapted to the neuralgic or spasmodic type. I believe that it will prove to be a valuable addition to the materia medica of the accoucheur and gynæcologist."

Form for Administration.—The specific medicine. Dose.—From the fraction of a drop to ten drops.

## PODOPHYLLIN.

Several years ago Professor Younkin reported this remedy as a specific for the treatment of gonorrhœal epididymitis, in the *American Medical Journal*. His plan of using it was to combine it with bitartrate of potassium as follows:—

> B Podophyllin, gr. ii. Potass. bitartrate, z ii.

M., Ft. chart. No. xii, Sig. Take a powder every two hours until thorough action upon the bowels results.

The pain usually ceases after two or three doses, and the inflammation subsides upon the occurrence of catharsis. The use of chloral, bromide of potassium and gelsemium, in combination, is commended to promote rest until the curative action of the podophyllin is obtained.

## POLYGONUM.

Hydropiperoides acts somewhat like pulsatilla upon the generative organs of women. It is valuable in both amenorrhœa and dysmenorrhœa. In amenorrhœa it is a very successful remedy.

Form for Administration.—A saturated tincture of the fresh plant. In the absence of this, the specific medicine.

Dose.—Of the tincture, from half a teaspoonful to a. teaspoonful; of the specific medicine, from ten to thirty drops. The dose should be repeated three or four times a day.

## PLATINA.

This remedy is recommended by homeopathic authorities for inducation of the ovaries, and for sterility arising from ovarian irritation. It allays undue sexual excitement in the female, and might prove a useful remedy in nymphomania. In boys subject to masturbation it also acts well to relieve irritation of the sexual organs and quiet desire to yield to the habit.

Form for Administration.—The specific medicine. Dose.—Two or three grains.

#### POPULUS.

This remedy may be found of service in the treatment of affections of the prostate gland and uterus. In vesical troubles seeming to depend on these conditions it may afford prompt relief. In stubborn cases of prostatic enlargement and uterine congestion I would suggest an investigation of populus tremuloides.

# PULSATILLA NIGRICANS.

The German pulsatilla is well known to all modern Eclectic medical practitioners for its action in dysmenorrhœa, amenorrhœa, irregular and inefficient labor pains and other diseases of the female reproductive organs.

It is emphatically the most important of any single remedy for the sexual sphere of woman that our materia medica possesses. While it relieves many local affections of the uterus and ovaries it also acts as a corrective of disturbance of the brain from reflex action, and is therefore valuable in many conditions not essentially painful or injurious except as the mental condition of the patient is concerned. "Fear of impending danger" is the condition indicating it here.

In dysmenorrhœa, it combines well with cimicifuga, though it acts well here alone. It is well, in giving it in this affection, to continue its use during the interim which intervenes between the periods, for a month or two.

It is one of the most positive remedies we possess for suppression of the menses from cold; here it is well to combine it with aconite. Where the suppression has gone on for several weeks it may be given alone or combined with leontin or cimicifuga.

Form for Administration.—The specific medicine. Dose.—From the fraction of a drop to five drops.

# PULSATILLA NUTTALLIANA.

The anemone nemorosa, as this remedy is called by some botanists (American pulsatilla), possesses properties similar to the German pulsatilla, and may be used in identical cases. It is asserted by some practitioners to be more active than its German relative, especially in its influence on the veins, being highly extolled in some quarters as a remedy for varicocele, and for the venous inflammation characterizing phlegmasia dolens.

Hale (New Remedies) asserts that the pulsatilla nuttalliana is a much more powerful remedy that the German pulsatilla, and that less quantity is required to effect the organism profoundly, but that the quality of action is the same. It is to be thought of as a remedy in leucorrhœa, both vaginal and uterine, ovaritis, dysmenorrhœa, amenorrhœa, etc.

Form for Administration.—The tincture from a homeopathic pharmacy.

Dose.—From the fraction of a drop to five drops.

## QUINIA SULPHAS.

Quinia is a decided oxytocic, and may be relied upon to bring labor on promptly when it is impending and the pains are irregular and ineffective. I think, however, that it might be well to reserve this remedy for malarious sections, since we possess so many other usually reliable agents which do not produce the unpleasant cerebral effects peculiar to it.

There sometimes occur cases in which periodicity is a complication of labor—or dystocia—and periodical efforts of nature only amount to a false alarm which regularly passes off from day to day. Full doses of quinine will now settle the matter, either interrupting the attacks or bringing on regular labor.

## RHODODENDRON.

The rhododendron chrysanthemum (Siberian rose) is adapted to the treatment of chronic affections of the testes and ovaries. In chronic orchitis it is a valuable remedy, seeming to exert a specific influence upon the part, encouraging its recuperative—plastic—power. In hydrocele also it will perform a cure without the aid of local measures, in some instances.

Form for Administration.—The tincture from a homeopathic pharmacy.

Dose.—From the hundredth to the tenth of a drop.

### RHUS AROMATICA.

This remedy is a positive agent in arresting certain cases of uterine hemorrhage. I have used it in many cases of profuse menstruation with satisfactory effect.

Dr. W. T. Williamson, Fort Branch, Indiana, contributed

an article to the California Medical Journal in 1884, in which he described a number of cases of uterine hemorrhage treated successfully with it.

One case was that of a delicate, anæmic woman, aged forty-four, who was passing through the menopause, and who was subject to profuse and protracted hemorrhage at each menstrual period. Another was a girl eleven years of age who flooded profusely at time of menstruation. Still another was a woman aged forty-two, who was flooding so profusely that she was colorless, and who fainted every time she was raised from a recumbent position. This case had been given up to die by the regular attending physician. All three recovered promptly on rhus aromatica.

This is but corroborative of the testimony of Dr. McClanahan, who introduced it to the profession.

Form for Administration.—The specific medicine. Dose.—From ten to twenty drops.

## RHUS TOXICODENDRON.

This remedy is valuable in inflammation of the vulva of erysipelatous or erythematous character. It is the most positive agent we possess for that form of irritation not uncommon to little girls in whom there is a taint of struma.

In such cases the itching and irritation following micturition are very annoying, and the practitioner may be importuned for something which will more than temporarily relieve. Here we may often use rhus tox. with eminent satisfaction.

Form for Administration.-The specific medicine.

Dose.—Add ten drops to four ounces of water and give a teaspoonful every two hours.

# SABAL SERRULATA.

Saw palmetto exerts a marked influence upon the reproductive organs of both male and female subjects. It promotes the functional activity of the testes, ovaries, uterus and prostate gland, being especially adapted to irritation of the last named organ.

In waning sexual power in the male, and in sexual lassitude in the female, saw palmetto is reliable. In cystic irritation from prostatic or uterine disease it is prompt and effectual, and in chronic hypertrophy of the prostate or uterus it is the most positive remedy we possess.

Its action on the female breasts is remarkable, causing pronounced enlargement of these organs in young females, thus demonstrating its marked influence over the reproductive organs even to their accessories. Its continued use where the breasts are small and poorly developed, will repay the trouble and expense of a prolonged trial.

Saw palmetto is emphatically the remedy for old men suffering from urinary complication due to chronic disease of the prostate gland. It is the leading one of an important trio here, of which the others are sandal-wood oil and thuja.

I am of the opinion, an opinion formed from recent observation, that this will prove the most positive remedy we have to clear up the results of inflammatory action about the fallopian tubes. It is also a remedy well adapted to the purposes of a general tonic to the reproductive organs of women, its invigorating influence becoming manifest in a short time in many cases where such a remedy seems demanded.

In a case which came into my hands a few months ago I witnessed such remarkable effects that I deem it worthy of mention: A lady of thirty-five or thereabouts consulted me for a severe dragging pain in the left iliac region, which had been present about eighteen months.

She had taken cold during menstruation and had suffered from a severe attack of inflammation in the pelvic region which had kept her in bed under the care of a physician for six weeks. At the time of the attack she was strong and healthy, her weight being about one-hundred and forty pounds. During the attack she suffered intense pain for weeks, and her convalescence was marked by hectic, night sweats and emaciation, from which she had never recovered. She weighed about one-hundred and ten pounds at this time, suffered constantly with pain in the left ovarian region, but her sufferings were very much intensified at her menstrual periods. At that time there was considerable mucopurulent discharge preceding and following the menstrual flow.

Upon careful examination I found the left ovary and tube too sensitive to permit the least pressure, and the parts somewhat dragged to that side as though there had been contraction of the ligament from plastic deposits.

I informed the patient that I did not think anything but a radical operation—removal of the left ovary and tube—would promise very much toward a permanent cure, and that all other treatment could only at the best be palliative. She then told me that she had already consulted six physicians of prominence and reputation who had rendered the same opinion, and that she was now resolved to submit to an operation, as she preferred death to the sufferings that she must undergo if the future was to be like the past. However, she desired to visit her mother, who resided in Oregon, and when she returned she would apply to me for the operation. In the meantime could I give her something to render her sufferings more bearable? I responded by prescribing saw palmetto, ten drops of the fluid extract, in water, four times daily.

Two or three months afterward she returned to the office, but so changed that I hardly recognized her. She had grown strong and rugged, weighed nearly one-hundred and forty pounds, and walked with a firm, elastic step. She said: "Well, Doctor, I am back, but not for an operation. I am well. And what do you think cured me? *Saw Palmetto!* I took it as you directed, and now I sing its praises and yours. It is the most wonderful remedy that I ever saw. I had tried remedies from doctors of all schools, and some of the most eminent ones I could find, but you were the first one who did me any good." She was evidently well, suffered no pain nor inconvenience at time of menstruation, was free from the old dragging pain, and was comfortable in every way and well nourished.

I have been using it rather extensively since that time in order to test its properties more thoroughly as a remedy for diseases of women, and predict a widespread reputation for it in this respect. It is no longer a remedy for the male sex alone—for prostatic troubles—but promises to act fully as positively upon the analogue of the prostate in women—the uterus—as well as upon its appendages. Form for Administration.—The fluid extract of Parke, Davis & Co.

Dose.—From ten to twenty drops, repeated three or four times a day.

## SALIX NIGRA.

This is a remarkable remedy in its special province, viz., its power to sedate undue virility of the sexual organs. It therefore becomes a remedy of much importance where excessive sexual desire is to be moderated.

It acts equally well in both sexes, and though not often needed by female patients it sometimes proves very acceptable, while in the opposite sex, especially in spermatorrhœa with irritability it is an important aid.

But, to condense the qualification of this remedy to a few words, it may be remarked that its special use will be found to be that of a sexual sedative in satyriasis and nymphomania, where sexual excitement is more carnal than emotional—where sexual desire is not a matter of the mind, but of undue excitement about the sexual organs unstimulated by the fancy. It is applicable to the treatment of married men whose wives are delicate and unable to satisfy their unnatural sexual cravings without injury, and to young persons who are annoyed by lascivious dreams and other libidinous suggestions.

Form for Administration.—A saturated tincture of the catkins, or the fluid extract prepared by Parke, Davis & Co.

Dose.—From ten to twenty drops, three or four times a day.

## SANGUINARIA.

Bloodroot exerts a profound influence over the uterus, and in small doses repeated three or four times daily for a few weeks it will usually produce abortion. Its use for pulmonary difficulties among pregnant women will therefore obviously be a matter to be regarded with caution, as an abortion caused by it is liable to be attended by dangerous hemorrhage.

Sanguinaria is one of the most reliable emmenagogues we possess, and will restore the menses usually within a short time, if administered promptly and properly. It should be given in full doses three times a day, beginning two weeks before the time the menses should appear and continuing up to the proper time. If the flow does not come on the remedy may be omitted until the fortnight preceding the next expected discharge when the remedy should be repeated as before. Fullness of the cerebral circulation has been suggested as a special indication for its use in this condition.

It has been suggested as a remedy for dysmenorrhœa and threatened abortion. Its dose in the latter case should obviously be minute, as in material doses it will produce miscarriage. This use has been suggested on the strength of the theory of *similia similibus curantur* and is more likely to be a homeopathic whim than a fruitful therapeutic suggestion. However, the fact of the specific affinity of the drug for the uterine mucous membrane admits of the possibility of opposite effects, depending upon posology.

Form for Administration.-The specific medicine.

Dose.—From the one-hundredth of a drop to ten drops depending on the effect expected.

## SANTALUM ALBUM.

The oil of sandal-wood should not be forgotten in the treatment of the vesical irritability arising from prostatic irritation in old men. It will often prove serviceable in conjunction with thuja in relieving such cases. Where there is much catarrhal discharge from the bladder it is especially the remedy.

Form for Administration.—Parke, Davis & Co. furnish a reliable oil of sandal-wood. It is often sophisticated, and care must be taken to obtain a good article when depending upon it.

Dose.—From three to ten drops.

## SAPONARIA.

Soapwort influences the uterine mucous membrane, and is a useful remedy in amenorrhœa. It should be used with caution as it is capable of producing abortion.

Form for Administration.—A saturated tincture of the fresh root. As this is not included in the list of specific medicines the next best resort is the tincture furnished by a reliable homeopathic pharmacy.

Dose.— $\mathbf{F}$  om fille to eight drops.

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### SENECIO.

Life-root is one of the old Eclectic remedies for affections peculiar to the female organism. It exerts a specific influence upon the reproductive organs of both sexes, though it is more pronouncedly a remedy for women. It relieves irritation of the uterus and ovaries, and improves their plastic power, thus being adapted to affections of these parts of chronic nature, as amenorrhœa, dysmenorrhœa, menorrhæjia, sterility, etc. It acts slowly, and must be persevered in if satisfaction follows its use.

Many cases of nervous disorder attributable to female complaints may be benefited by senecio. In chlorosis it is an exceptionably valuable remedy in restoring the menses and controlling the nervous phenomena attending.

In the male it relieves aching and weight in the testicles and spermatic cord, and improves the sexual power when this is waning.

Form for Administration.—The specific medicine. Dose.—From one to ten drops.

### SEPIA.

The secretion of the cuttle-fish is a very positive remedy in a certain class of affections of the female reproductive organs.

In dyspareunia, or painful coition, it is the most positive remedy we possess to remove the hypersensitiveness of the female sexual apparatus. In bearing down sensations in the vagina it is also a very positive remedy. I do not think that it will restore the prolapsed uterus to its normal position as has been asserted by some homeopathic writers, but it certainly relieves the feeling of discomfort entailed by a prolapsed uterus, in many instances, and thus becomes a boon to women afflicted with dragging sensations in the vaginal region.
For stitching pains in the vagina it is also specific, provided these are the effect of neurosis, and not from local ulceration or cause not amenable to the selective effect of internal drugs. Even in inflammatory affections of the vagina it is a good remedy to alternate with echinacea and other pronounced capillary sedatives. I often find it useful after an operation on the cervix, to relieve dragging sensations and stitching pains in the part on first getting up. It seems to favor early departure of the unpleasant effects of traumatism in these cases.

It is also the only positive remedy for the troublesome itching of the vagina that precedes or attends the menstrual period in certain women. It not only relieves here but cures in a few months, if resorted to at each period.

Acrid vaginal and uterine discharges afford an excellent field for the action of this remedy. In uterine leucorrhœa of this character, as well as the discharge that attends the late stage of gonorrhœa in women, it is reliable to modify the acrid character, if not to arrest the secretion altogether.

Sepia is also valuable in dysmenorrhœa, where the loss of blood is scanty and attended by severe headaches. It is one of the most positive agents known in headaches attending menstruation.

The virtues of sepia are not well enough known among Eclectic physicians. It is among the very best agents in our materia medica for female affections, and should receive a careful and thorough study by every one of our practitioners—a study of its effects by clinical experience rather than by reference to text-books.

Form for Administration.—The 5x trituration. (For full information relative to triturations consult the pages of Principles.)

Dose.—From two to three grains.

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### SILPHIUM GUMNIFERUM.

This remedy will sometimes be found serviceable in the treatment of gonorrhœa and gleet.

## SPONGIA.

This remedy exerts more or less influence upon the ovaries and testes. In chronic orchitis, epididymitis, ovaritis and salpingitis, it figures as a remedy worthy of consideration.

# STANNUM.

This remedy resembles sepia in its power to banish the uncomfortable bearing down sensations in the perinæum attending certain congestive conditions of the uterus. It is almost as positive as sepia here, though it lacks the wide application of that drug to other derangements of the female sexual apparatus.

Form for Administration.—The 6x trituration, obtainable at any reliable homeopathic pharmacy.

Dose.—Two or three grains every three hours.

### STAPHISAGRIA.

Delphinium staphisagria specifically influences the male sexual apparatus, relieving irritability of the testes, prostatic urethra, prostatic ducts and vesiculæ seminales. It is useful in prostatorrhœa and some cases of spermatorrhœa; as a remedy for the last named complaint, however, it is not very reliable.

Form for Administration.—The specific medicine. Dose.—From the fraction of a drop to five drops.

### TANACETUM.

It is hardly worth the while to mention tansy here, as there are so many other remedies of superior quality in the same field; however, for the sake of completeness it may be well to refer to it. Tansy is a well known remedy in domestic practice for the relief of dysmenorrhœa and amenorrhœa, and the oil is frequently resorted to for the purpose of producing abortion—a very dangerous practice however, as convulsions, gastritis and death not unfrequently result.

This about suggests the line of action of the drug, but it is not as satisfactory a remedy for menstrual difficulties as many others fully as accessible, and it will never be very popular.

# THUJA.

Thuja acts on the prostate gland and urethra, and has been extolled by some homeopathic authors as a remedy for gonorrhœa, but I am not prepossessed with it in this direction.

Professor Howe thought highly of it in senile prostatitis, and his recommendation of it has been indorsed by several practitioners in our school within late years. It relieves urinary obstruction and tenesmus resulting from this condition, as well as improving the function of the sphincter vesicæ, thus arresting dribbling of urine and other uncomfortable accompaniments.

#### TRILLIUM.

Trillium pendulum exerts a constringing influence upon the capillaries of the mucous membranes especially that of the uterus, and enjoys a high reputation in some quarters as a remedy for uterine hemorrhage.

Passive hemorrhage is the special field for it, and here we will find it a very satisfactory remedy in menorrhagia, and metrorrhagia.

It is also valuable in leucorrhœa, especially uterine catarrh, and where too much organic change in the endometrium has not taken place it will be found very reliable.

It has been suggested as a remedy for varicocele, but there is not much testimony in favor of this use of the remedy. As it acts as a promoter of tone in vascular walls, however, further inquiry in this direction might develop valuable qualities.

Form for Administration.—A saturated tincture of the recent root. Trillin, an active principle of the beth-root, is employed by some, in preference.

Dose.—Of the tincture, from one to ten drops. Of trillin, from two to five grains.

# TURNERA.

This remedy is better known as damiana. It has borne the reputation of being an invigorator of the sexual appetite, and a reliable remedy for this purpose. I have used it with good results in some cases of the kind.

It acts equally well in both sexes, restoring the power of erection to the male in impotency, invigorating the female sexual organs, increasing desire and promoting enjoyment of the sexual act.

Outside of this property the remedy has little effect, and we will do well to reserve it for this use.

Form for Administration.—The specific medicine. Dose.—From ten to twenty drops.

# URTICA URENS.

Stinging-nettle possesses galactagogue properties, and may be employed to promote the secretion of milk where this is deficient in nursing women. In this property the drug resembles asafœtida, jaborandi and some other remedies.

Form for Administration.—The specific medicine. Dose.—From ten to thirty drops.

# USTILAGO MAIDIS.

Corn-smut is an oxytocic of pronounced quality, and is a favorite remedy with many of our practitioners in feeble and ineffective labor, where something to stimulate uterine contraction is the desideratum. Ustilago is as prompt as ergot, but is safer in that it does not cause such powerful tonic contractions.

It is also valuable in flabby uterus where subinvolution is a cause of metrorrhagia, menorrhagia, uterine catarrh, etc. It cures many reflex symptoms depending on this condition when properly administered.

In cases of prolonged lochial discharge ustilago is one of our most reliable remedies to arrest the flow and impart tonicity to the relaxed uterine walls.

Form for Administration.—The specific medicine. Dose—From ten to thirty drops.

## VESICARIA.

This remedy exerts a soothing influence upon the prostate gland and is a valuable adjunct to sabal serrulata, thuja and other remedies adapted to the relief of prostatic irritation. It also acts favorably in the treatment of the irritation attending and following gonorrhœa, in both male and female.

Form for Administration.—The imported, German tincture. Luyties, of St. Louis, furnish a reliable article.

Dose.—From five to twenty drops.

# VIBURNUM OPULUS.

The high cranberry is a remedy for the pains of false labor, dysmenorrhœa, and abortion.

It fortifies the female organism against the tendency to abortion that some women are subject to, and prepares it for the ordeal of labor, so that there is less liability to severe suffering, hour-glass contraction on expulsion of the placenta and favors a more ready delivery.

In dysmenorrhœa it is a valuable remedy, and may be employed with satisfaction in these cases, alone or combined with caulophyllin, cimicifuga, mitchella, or viburnum prunifolium. It also acts well in quieting the uter-

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ine irritation that is demonstrated in the reflex symptoms of hysteria. In either spasmodic or neuralgic dysmenorrhœa it is equally efficacious, and can be relied upon with as much certainty as any remedy in the materia medica.

Form for Administration.-The specific medicine.

Dose.—From the fraction of a drop to twenty drops.

# VINCA MINOR.

This remedy is recommended by Hughes for passive uterine hemorrhage. Whether it excels or even equals other remedies of this class remains to be determined.

Form for Administration.—The tincture from a homeopathic pharmacy.

Dose.—From the fraction of a drop to a drop.

# XANTHOXYLUM.

Prickly-ash is one of Hale's favorite remedies for the treatment of dysmenorrhœa. He uses equal parts of the bark and berries for a tincture, of which ten drops of the 1x dilution is a dose, to be repeated three times daily. He asserts that it is only applicable to neuralgic dysmenorrhœa. A preparation of the berries will be found preferable to one made from the bark. I would suggest a trial of the specific medicine, prepared from the berries.

It is extolled for ovarian irritation in some quarters and also for the spasmodic contraction of the cervix that gives rise to some cases of dysmenorrhœa. It is eminently a remedy for spasm, and has been known since early times as "cramp bark," on account of this antispasmodic property.

Viburnum prunifolium is almost identical in property with the viburnum opulus, and will not require separate notice.

Form for Administration.—The specific medicine. Dose.—From five to twenty drops.

### ACONITE.

It is not necessary to discuss the manner in which this remedy influences the muscles, whether through the specific action on the nervous system or through an affinity for the muscles themselves; suffice it to remark that it figures as a prominent and useful remedy in all spasmodic and painful conditions where the muscles are principally involved.

Aconite is a valuable remedy in muscular rheumatism. It acts beneficially when administered singly, but is usually preferred by our practitioners as an auxiliary to some more pronounced agent of this class. It combines, with its muscular influence, the properties of an arterial sedative, and as an agent of this character is almost always useful in rheumatism, it is a valuable addition to any other treatment. Aconite and macrotys (cimicifuga) form a favorite combination with Scudder for muscular pain, and when this is rheumat.c in character it is a valuable one.

Even in chronic rheumatism aconite assists materially in assuaging many of the unpleasant symptoms, relieving the acuteness of the suffering, quieting muscular spasm, and promoting rest. It is not a remedy to be relied upon to cure muscular pain, usually, but may be considered a valuable adjuvant to other remedies, and a useful palliative in almost all cases.

Form for Administration.---The specific medicine. Dose.-From the hundredth to the tenth of a drop.

# ANTIFEBRIN.

This agent is one of the most reliable we possess for the relief of severe muscular spasm. Intense pain arising from this cause will usually yield promptly to five or

ten-grain doses, one or two being sufficient to arrest the difficulty for the time. It is a very reliable palliative for rheumatism, when its initiatory stage is ushered in by intensely sharp pain that demands immediate relief. Here antifebrin should supercede morphia, whenever the stomach will retain medicine. Antikamina, an analagous agent, may be used instead, and is probably less objectionable. Five or ten grain doses may be used.

## APOCYNUM ANDROSÆMIFOLIUM.

Dogsbane has been used successfully in the treatment of rheumatism since the earliest times. In fact, it was a favorite remedy among the aborigines for that complaint before America was discovered by Europeans.

Goss and Hale both refer to this property of the remedy, though neither are very enthusiastic as to its virtues. It is not likely to prove very reliable as an every-day remedy, but may prove of service in some chronic cases complicated with derangement of the chylopoietic viscera. It was a remedy of great repute among the Indians for syphilis, and probably the muscular pains of syphilitics will be good cases in which to test its virtues. However, it will hardly be likely to excel berberis aquifolium in this condition.

Muscular pain arising from hepatic derangement, wandering from the left hypochondrium to the left scapula, involving the subscapularis muscle, would suggest a trial of its action.

Form for Administration.—A saturated tincture of the fresh root.

Dose.—From five to twenty drops.

## ARCTIUM LAPPA.

Burdock acts upon muscular and fibrous tissue to relieve rheumatism. It acts best in chronic articular rheumatism where there has been no permanent struct-

ural change about the joints from previous inflammatory action. The best part of this plant for such purposes is the seeds. These should be separated from the burs as soon as ripe, bruised, and covered with alcohol. In fourteen days the tincture is fit for use. The specific medicine is prepared from the seeds.

I have known some stubborn cases of chronic rheumatism cured with this remedy.

Dose.—From five to twenty drops.

# ARNICA.

The place for arnica in affections of the muscles is in the treatment of the painful condition of these organs following sprains. Wherever a muscle has been subjected to over-strain from any cause it is the appropriate remedy, and probably as reliable a one as we have, though not always effective. In debility of the heart muscle the result of over-exertion or excitement, it is the appropriate remedy. Dull, aching pains in the region of the heart, when caused by disturbances of this character, call for arnica. Pain and soreness of the muscles of the shoulders or other parts of the body, due to injuries or strains should suggest it.

Scudder prescribes it (Specific Medication) in lame back accompanied with feeling of debility and soreness in the lumbar region.

Hughes highly lauds the action of arnica upon the muscular tissues. He refers to its action in myalgia, and recommends it highly here. Among other special uses he refers to pleurodynia resulting from over-exertion as a place for its exhibition.

Form for Administration.—The specific medicine. Dose.—From the hundredth to the tenth of a drop.

#### ASCLEPIAS SYRIACA.

This agent has been highly extolled in some quarters for the treatment of rheumatism. Some have asserted that it rivals cimicifuga. I know nothing about the remedy from experience with it in such cases, but would suggest a trial of it in obstinate muscular pain.

Form for Administration.—A saturated tincture of the fresh plant.

Dose.—From the fraction of a drop to twenty drops.

# AVENA SATIVA.

Avena sativa is capable of giving tone to the cardiac muscle, and will occasionally be found very useful in debilitated conditions of the organ following acute disease. The most valuable use I have known of it in such cases has been to prevent relapse in cadiac rheumatism. Here it serves a good purpose, fortifying the heart muscle and improving its energy.

Form for Administration.—Keith's concentrated tincture. Dose.—From ten to twenty drops.

# BENZOATE OF AMMONIUM.

This remedy, in common with other benzoates, possesses the property of clearing up the urine when this excretion is highly colored, scanty, deposits a thick red sediment and emits a peculiarly putrid odor. It is especially in such conditions as this that the remedy is indicated in gouty and rheumatic affections. In many such cases it cures not only the renal difficulty but also the muscular pain.

Benzoate of potassium is sometimes more efficacious.

Form for Administration.-The 1x trituration.

Dose.—From two to three grains.

# BERBERIS AQUIFOLIUM.

This remedy sometimes succeeds marvelously as a cure for chronic muscular pain. In chronic rheumatism which has refused to yield to all other remedies it should be tried. A valuable adjuvant is the iodide of potassium, itself a useful remedy in chronic rheumatism.

In the treatment of muscular pains attending the secondary and tertiary stages of syphilis, a few weeks of berberis will often banish this cause of suffering. Being a valuable tonic and stimulant to digestion here it is the best agent that can be employed. It does not act quickly, and must be persevered in for a month or two in order that its value may be fairly estimated in any case of this kind.

In the severe muscular pains attending certain cases of spinal disease, with partial loss of use of the muscles, it acts efficaciously, excelling many other remedies.

Form for Administration.—The specific medicine.

Dose.—This should be large—from ten to twenty drops, repeated four or five times a day.

# BROMIDE OF LITHIUM.

Bartholow has declared that bromide of lithium is almost a specific for muscular rheumatism.

Goss refers to it favorably as a remedy for severe rheumatic pain.

### BRYONIA.

Bryonia is adapted to painful conditions of the thoracic muscles. It has been highly extolled by homeopathic writers as a remedy for rheumatism generally, but its best place is in the treatment of thoracic pain accompanying bronchitis or pneumonia. In chronic pleurodynia it is of little use.

. I have found this agent of service in the treatment of infants suffering from thoracic pain, as evidenced by

grunting expiration and catching inspiration, the little patient evidently suffering then. Such cases sometimes prove very troublesome until bryonia is brought into requisition.

Form for Administration.-The specific medicine.

Dose.—From the hundredth to the tenth of a drop, repeated frequently.

# CACTUS.

This remedy relieves spasmodic action of the heart muscle and is of service in cardiac pain attended with a sensation as if there were a firm band constricting the organ. Pain in the cardiac region, of constrictive character, should suggest a trial of it as a remedy. The cactus grandiflorus, cereus bonplandii and cereus speciosissimus possess similar properties in this respect.

Form for Administration.—The specific medicine. Dose.—From the fraction of a drop to five drops.

# CASCARA SAGRADA.

Considerable ado was made over this remedy as an agent for the successful treatment of rheumatism a few years ago, but it seems to have been weighed in the balance later and found wanting. At least I think it has failed to fulfill the expectations that the first reports of its action in this direction warranted, as it is seldom mentioned in this connection at present. I have never been able to derive any decided benefit from it in the treatment of rheumatism, though I have tried it several times in cases offering favorable opportunities for a response in the affirmative. Possibly I have not happened to test it in the proper cases, however.

In 1888, Dr. A. T. Goodwin (N. Y. Medical Journal) reported remarkable success in his own case and several others with the agent under consideration. In his own case he took cascara as a laxative while suffering from se-

vere rheumatic pains in the shoulder, and recovered entirely from pain within two days. From this time he employed the remedy extensively in both hospital and private practice with flattering success. This is worthy of remembrance at least.

He used from ten to fifteen drops of the fluid extract three or four times daily.

# CAULOPHYLLUM.

Blue cohosh is one of the standard remedies among Eclectics for muscular pain. This use dates back as far as aboriginal times in the Alantic States, the Indians valuing it highly as a remedy for rheumatism and other muscular affections, according to Rafinesque's "Medical Flora," published in 1828.

Caulophyllum is adapted to spasmodic affections of the muscles as well as to painful conditions of these organs, being especially applicable to spasmodic action of the muscular walls of the uterus, as in certain forms of dysmenorrhœa, hour-glass contraction, spurious labor pains etc. In spasmodic cramps of the adominal viscera it is no less reliable. Many cases of painful dyspepsia are amenable to the influence of caulophyllum, the symptom being due to a rheumatoid condition of the muscular walls of the stomach. I have cured dyspepsia of painful character with this agent repeatedly, when ordinary remedies failed. The symptoms here would indicate muscular complication, as the pain would be aggravated immediately upon eating, and be crampy in character. Colicky pains in the intestines may depend upon the same cause, and yield promptly to this remedy. In fact, all the thoracic and abdominal viscera as well as the organs in the pelvis come under these observations. I have relieved severe rectal pain with caulophyllin. Where a pregnant woman has been subject to rheumatism caulophyllum is

a valuable remedy to administer throughout gestation, as rheumatism of the uterus is very liable to be a complication, not only of pregnancy but of parturition, unless guarded against by the proper means. In this instance it may be caulophyllum or cimicifuga.

Homeopathic writers place much stress upon the action of this remedy in rheumatism of the small joints, as those of the feet and hands. They assert that it is "homeopathic" to rheumatism of these parts, as it will cause pain here rather than in other places; but as many remedies act specifically and decidedly upon parts in disease which they fail to affect in health, appreciably, it is not impossible that the remedy may influence other parts more powerfully in disease than the small joints.

Caulophyllum is a splendid remedy for muscular rheumatism. This remark applies especially to the chronic stage of the affection, when the muscles are particularly the seat of the trouble. I have known long standing stubborn cases of chronic pleurodynia cured with small doses of the 3x trituration of caulophyllum in a few weeks, the patient taking two or three grains three or four times a day. In acute muscular rheumatism it acts well, but not as promptly as macrotys.

Form for Administration.—I have had the most pleasing results from the use of the 3x trituration of caulophyllin, Keith's being my preference. Caulophyllum is a remedy that leaves an unpleasant sensation in the throat after being swallowed, unless the dose be very small. Leontin, a special preparation of Lloyd Brothers, does not possess this objectionable property, and has been highly extolled as a substitute.

Dose.—Of the specific medicine, from the fraction of a drop to a drop; of the trituration of caulophyllin, from two to three grains; of the leontin from five to ten drops.

### CIMICIFUGA.

This agent is variously known as actea racemosa, macrotys racemosa and cimicifuga racemosa. It is one of the oldest Eclectic antirheumatics, and has always sustained its reputation, though many have entered the field during its time.

This is another aboriginal remedy for rheumatism, and is described in Rafinesque's "Medical Flora," under the name, "botrophis serpentaria," though it had been formerly named by different botanists, as actea, cimicifuga and macrotys.

Cimicifuga is Scudder's specific for muscular pain, his favorite combination being this agent with aconite. It proves very efficacious in acute phases of this affection, whatever the disease it may occur in may be called. It is a remedy for a condition—muscular pain of rheumatoid character. Muscular pain may be one of the first symptoms of cardiac disease, especially cardiac rheumatism, and cimicifuga is the most positive remedy we possess to banish it promptly, if given early, in full doses of a decoction of the recently dried root. Similarly, it relieves pleurodynia, mediastinal pain, gastralgia, enteralgia, vesical pain and tenesmus, orbital and aural pain—when this is rheumatoid—as well as pain in the voluntary muscles.

In articular rheumatism it is of little account, and here must be superseded by jaborandi, the salicylates, and rhus tox.—though I have not much confidence in the last named remedy here.

On the Pacific Coast I have been rather disappointed in cimicifuga as a remedy for muscular pain. It certainly is not as effective here as in the interior country of the Middle and Western states, probably on account of the damp atmosphere. How it succeeds in the interior of Cal forn'a I have never ascertained.

However, it will always be found a reliable remedy for muscular pain in acute affections, and will continue to be a standard one, unless the pain be of spinal origin.

Form for Administration.—The specific medicine is a reliable preparation, though I prefer a decoction of the recently dried root for all purposes; this may be sweetened to suit the taste. But this will not always be obtainable and the specific medicine represents the recent plant properties reliably.

Dose.—The dose of the decoction will vary from a tablespoonful to a wineglassful; over-doses cause fullness and pain in the head, but these soon pass off without bad result. The dose of the specific medicine may vary, from the one-hundredth to the tenth of a drop.

## CODLIVER-OIL.

Oleum morrhuæ is a valuable remedy in rheumatism attended by mal-nutrition. In chronic rheumatism where there is anæmia and lack of nutrition it many times proves valuable, though the muscles do not derive as much benefit as the fibrous tissues.

In musculo-fibrous rheumatism arising in persons living in poverty, in crowded dwellings insufficiently lighted and ventilated, or in those of scrofulous constitution or inherited proclivity to rheumatism, this agent is often a most valuable adjuvant to other remedies, if it will not succeed alone.

In fibrous rheumatism, this arising from long residence in damp locality, the disease being confined to the joints, cod-oil may be prescribed successfully.

To derive benefit the remedy must be persevered in for a long time, as at first it may aggravate the trouble; however, as the nutritive effects begin to appear its beneficial action will follow.

### COLCHICUM.

Colchicum is a remedy of ancient repute for the treatment of muscular pain. It is a remedy of positive action in many cases, but possesses the one objectionable quality of being very debilitating, through its action on the heart and bowels.

Though not as generally applicable to rheumatism as to gout, colchicum acts promptly in the treatment of tearing, muscular pain, either acute or chronic. It combines well with cimicifuga in such cases, the combination not impairing the action of either remedy.

Shoemaker asserts that colchicum is only applicable to the treatment of chronic rheumatism, and is worthless in the acute stage. This is contrary to my experience, and it was a remedy in almost constant use with me during the first ten years of practice. My principle objection to it is its liability to produce prostration and feeble heart action when continued too long in full doses; and minute doses fail to act promptly, though the doses employed should be less than enough to produce catharsis, as this action seems to interfere with its full antirheumatic effect.

Form for Administration.—The English wine of colchicum seed.

Dose.—From five to ten drops, every three or four hours.

## GELSEMIUM.

The specific influence of gelsemium upon the muscles is a feature of its general effects. As a remedy to relax muscular spasm it is of the greatest service in many instances, especially when the spasmodic action is attended with severe pain. It here becomes a pain reliever of importance.

In all cases of muscular pain gelsemium may be prescribed with advantage where the condition is attended

with spasmodic action. In rheumatism it therefore becomes a valuable agent when spasmodic contraction is a prominent feature, as it is many times.

It is specially useful in the muscular pains that attend a ute catarrhal diseases, as follicular tonsillitis, pharyngitis, bronchitis, etc. It combines with the proper sedative very appropriately here, contributing not only its action on the muscles but its well known sedative influence as well.

Form for Administration.—The specific medicine. Dose.—From the fraction of a drop to ten drops.

# GUAIACUM.

Guaiac is sometimes useful in chronic rheumatism, though it seems to me that its value has been over-estimated. As it exerts a specific influence upon the throat it may prove especially serviceable in rheumatism of the throat, a condition met at times. As a remedy in chronic rheumatism it should be combined with other remedies of this character, as cimicifuga, colchicum, caulophyllum, salicylate of sodium, etc.

Form for Administration.—A tincture of the gum. Dose.—From ten to thirty drops.

### GUALTHERIA.

Wintergreen has become a prominent remedy for muscular affections within late years. The best salicylic acid is prepared from wintergreen, and the oil of wintergreen has been highly extolled as a remedy for articular rheumatism.

From my own experience with this remedy I am inclined to consider it far inferior to some of our indigenous antirheumatics, as cimicifuga, caulophyllum, etc., but am still willing to ascribe to it some power in this direction. It may do for a trial remedy after more accredited ones have failed. Its recommendation comes

from quarters where little is known of the value of our old Eclectic materia medica, viz., old-school sources.

Form for Administration.—The essence of wintergreen. Dose.—From one to fifteen drops.

## HYDRASTIS.

This is a very positive remedy for soreness and tenderness of the muscles. Pain and soreness of the muscles on motion or pressure, but absence of pain when these organs are at rest, is the indication for it.

Long standing cases of this kind are not uncommon, and are oftenest the result of uterine disease, though rectal or prostatic affections may give rise to them. Pectoral tenderness is a very common accompaniment of uterine laceration, these muscles being tender on pressure, and painful on motion.

In all such cases hydrastis is a valuable remedy, promising more than any other medicine for permanent relief, though the proper treatment here should include a radical removal of the exciting cause, when this is possible.

The myalgic pains accompanying anæmia the result of losses of blood from uterine hemorrhage, bleeding hemorrhoids, etc., are benefited by proper doses of hydrastis, when the remedy is persistently used.

Headaches of myalgic character are not uncommon, and here hydrastis is as reliable as in other cases mentioned—when the muscles of the scalp are involved in the reflexes that originate myalgia.

Form for Administration.—The specific medicine. Dose.—From the fraction of a drop to a drop.

## HYDRIODIC ACID.

The syrup of hydriodic acid is the form usually employed. "In rheumatism," writes Dr. J. V. Shoemaker, the syrup may substitute the alkalies and may cut acute

attacks short sooner than the ordinary drugs that are usually prescribed. It is certainly a useful article in chronic muscu'ar rheumatism. It has done good service in my hands in sciatica. It may be administered in acute rheumatic attacks without reference to the fever, and in moderate doses, say a teaspoonful or two every two hours. Of course it will not act promptly and effectually in all cases, for rheumatism is notoriously fickle as related to curative agents."

# IRIS.

Iris cures muscular pains, but is not applicable to all forms of this kind of trouble. In muscular pain due to reflexes from gastro-duodenal and pancreatic difficulties we will find it most applicable, the remedy here serving to banish gastralgia, colic, and pectoral pains arising from this cause, as well as subscapular distress.

I think many cases of so-called rheumatism may be traced to gastric debility, especially pectoral pain, and here we may try iris with considerable confidence. As the gastric or pancreatic debility yields to the remedy the "rheumatic aches" subside.

Form for Administration.—The specific medicine. Dose.—From the fraction of a drop to five drops.

## JABORANDI.

I think that we possess one of the most positive remedies for muscular pain in jaborandi that the materia medica contains. It is especially adapted to acute forms of muscular pain, though it sometimes acts admirably in chronic cases.

One of the most positive indications for the administration of jaborandi in muscular pain is that of *puffiness* of the surrounding tissues. In inflammatory rheumatism where the parts involved are swollen and painful, whether reddened or not, jaborandi is *the* remedy of all others.

In severe muscular spasm, where the suffering is intense, a full dose of this remedy will often relieve promptly; if it fail, a repetition of the dose within an hour will alleviate materially and prepare the way for the use of the remedy in smaller doses. If two or three drachms now be added to four ounces of water and a teaspoonful of the mixture be given every hour, a few hours will suffice to relieve the difficulty, even if it be a severe attack of muscular rheumatism.

In subacute attacks of rheumatism, where there are some pain and considerable swelling about the joints, rendering them sore and stiff, jaborandi, in the small doses mentioned, will banish the difficulty in a few days, even if it has been standing for months.

I have employed jaborandi in lumbago of severe character after cimicifuga has failed to relieve, with complete satisfaction. In all forms of chronic rheumatism, except where there has been structural change, it should be tried as a *dernier ressort*, at least.

Severe abdominal pain, pleurodynia, rheumatism of the heart—in fact muscular pain of any character—will yield more promptly to jaborandi than to any other remedy, unless it be antipyrin, antifebrin, phenacetin, or some other of the preparations that are objectionable on account of their debilitating influence, and it is much safer, though it may also be overdone as to size of dose, and should be used with judgment.

Form for Administration.—The specific medicine, every time.

Dose.—This has already been discussed. Twenty drops may be considered a full dose.

### KALMIA.

Kalmia latifolia exerts an influence upon the muscles, and is sometimes serviceable in the treatment of aching pains in the face when these are muscular in their place

of origin. Some writers extol this remedy highly in the treatment of muscular rheumatism, especially where there is a tendency to frequent shifting of the pain. In cardiac rheumatism it may be found of service, especially in the early stage of this complaint.

Form for Administration.—The specific medicine. Dose.—From the fraction of a drop to five drops.

# MANACA.

This remedy has been highly lauded as a specific for rheumatism, in some quarters, within the past few years. It seems adapted to both acute and chronic forms of the complaint, and merits a fair trial in stubborn cases.

From my experience I am inclined to regard it as inferior to jaborandi, cimicifuga, caulophyllum and phenacetin, though I can attest a marked action in rheumatic conditions from it. It is worthy to be ranked as a remedy markedly affecting the muscular system as an antimyalgic, but not as one of our best by any means. Dr. George P. Bissell contributed the following on this subject to the California Eclectic Medical Society in 1885:— "Iyasmuch as I cannot be with you I have determined to contribute a short dissertation on the Use of Manaca in Muscular Rheumatism. My experience with this drug has been solely in the form of the fluid extract, and is mostly personal testing, confirmed by observation of its effects on others.

"Given, a case of rheumatism with soft skin and absence of feverish symptoms, affecting more especially the muscles, including their tendons, perhaps occasionally affecting the joints, the pain being dull and heavy, but continuous, manaca  $_{3j}$  to  $_{3ij}$ , water  $_{3iv}$ , teaspoonful three times a day, will give quicker relief than any remedy I know of.

"I can find no positive symptoms of its action save

that the pain gradually fades out, and that the parts affected gradually assume their natural suppleness and strength.

"There is no tonic feeling as with macrotys. Neither can I see that it acts on the digestion or any part of the system except that affected by pain. It is true that I have taken it only in the dose indicated. It is the first med cine that ever gave me relief, and I highly value it. The indication which guides me to its use is simply where I find none special for anything else. Or, to give positive statement, where the pain is continuous.

"I am 59 years old; have been afflicted with muscular rheumatism since my fourth year, within my own distinct memory. My life has been one of great muscular exertion; but I find the remedy to have the identical effect on those who have led lives of comparative idlences."

Form for Administration.-Parke, Davis & Co.s' fluid extract.

Dose.—From two to five drops.

# PAULLINIA SORBILIS.

Guarana acts promptly im some cases of chronic rheumatism, affording relief in a few days. It is best adapted to chronic muscular rheumatism, as lumbago; here it has proven promptly curative. Even in acute muscular rheumatism it may be used with confidence, though we do not require a remedy for this condition so much as for the stubborn, protracted cases.

Form for Administration.—The specific medicine. Dose.—From five to fifteen drops.

# PHENACETIN.

This remedy is one of our most positive antirheumatics. It relieves muscular spasm and muscular pain promptly, and is adapted to the treatment of either acute or chronic muscular rheumatism.

Its prompt action on muscular structure commends it for the relief of the muscular pains attending influenza, tonsillitis, ague, and other febrile and inflammatory attacks. Here it will be found a prompt reliever of the muscular pain, while its effect as an antipyretic is serviceable.

Phenacetin is less objectionable on account of depressing effects than the other coal-tar products, antipyrin and antifebrin, though it sometimes produces profuse perspiration which is accompanied by debility, and its use should be guarded with proper caution.

I usually combine it with arseniate of quinia 3x, as follows:—

Be Phenacetin, gr. iij.

Arseniate of quinia, 3x (trituration), gr. ij.

M. Ft. capsule No. 1. Duplicate No. 60. S.—Take one every three hours.

The tonic serves to counteract the debilitating effects of the phenacetin and correct any malarial influence that the case may be complicated with, while the dose is so small as to avoid all unpleasant or objectionable drug influence.

## PHYTOLACCA.

Phytolacca exerts a positive influence upon the muscles, relieving muscular pain, in some cases, promptly. It was a favorite remedy in rheumatism with our old Eclectics, and it is not to be despised for this purpose, though I think that we have better ones.

For the muscular pains attending acute tonsillitis and pharyngitis it is promptly curative, while it also relieves the inflammation of the mucous membrane.

It is also of value in the treatment of pectoral pains, when these are confined to the pectoral muscles-not

shifting. The value of phytolacca in mammitis and sore nipples attending the puerperal state has already been referred to.

In chronic rheumatism phytolacca should be awarded a fair trial, as it will sometimes excel more highly accredited remedies. It is always worthy a trial in stubborn cases. Syphilitic muscular pains will demand phytolacca after berberis aquifolium has failed. The former remedy, however, is worthy of first notice.

Form for Administration.—The specific medicine. Dose.—From the fraction of a drop to five drops.

# POTASSIUM, BICHROMATE OF.

Minute doses of bichromate of potassium sometimes act promptly in relieving muscular pain. Mucoenteritis, especially that occurring during the winter months and attended by severe cramping pains of rheumatoid character, finds its best remedy here, especially as regards the muscular pain attending.

In chronic rheumatism where there is little inflammatory action, where there is rather a want of reactive power on the part of the circulatory system, it sometimes acts admirably in effecting cures.

In syphilitic rheumatism, however, lies its best field of action as a curative agent. It here rivals berberis, phytolacca and iodide of potassium.

Form for Administration.-The 3x trituration.

Dose.—From one to three grains, repeated every three or four hours during the day.

## POTASSIUM, HYPOPHOSPHITE OF.

This remedy is a valuable agent in myalgia. The disease may be in the form of chronic rheumatism, pleurodynia, lameness and soreness of the muscles generally, cramps of the muscles—in fact, all conditions attended by pain and tenderness of muscular tissue may be suc-

cessfully medicated with hypophosphite of potassium. In chronic coughs attended by thoracic pain it will often be found the remedy to alleviate the pain and improve the tone of the muscles of the chest. Potassium, it will be remembered, is a muscle tissue salt.

### POTASSIUM, IODIDE OF.

Though often used to the extent of injury to the patient by a certain class of physicians, this salt is not to be despised in affections of the muscles, when employed judiciously. I can indorse the following remarks by Ringer, as to the application of this drug to muscular affections:

"Iodide of potassium sometimes benefits chronic rheumatism, chronic rheumatic arthritis, and chronic gout, especially the two former affections. It should, however, be borne in mind that the pains of secondary syphilis, frequently resembling in all respects those of so-called chronic rheumatism, are frequently confounded with, and included among, the manifold affections termed chronic rheumatism. Some of the so-called cases of rheumatism relieved by the iodide of potassium are probably cases of syphilis.

"The pains relieved by iodide of potassium are mainly those marked by nocturnal increase of suffering, a symptom which may be accepted as a strong indication for the employment of this medicine—an indication holding true, whether the pains are referable to rheumatism or some other source. Syphilitic pains, it is well known, are generally worse at night, and so are the pains of many cases of chronic rheumatism; now, the iodide generally benefits these rheumatic cases."

# POTASSIUM, SULPHATE OF.

This remedy is applicable to the treatment of wandering, shifting, muscular pains, and acts best in attenuations according to the plan of Schuessler. In long-stand-34 ing muscular rheumatism attended by debility and soreness of the muscles, this remedy may sometimes be used with magical effect.

Form for Administration.—The 3x trituration.

Dose.—Add five grains to half a glass (four ounces) of water and order a teaspoonful every two or three hours.

### PTELEA.

Wafer-ash possesses properties fitting it for the treatment of painful affections of the muscles. It is especially adapted to those cases arising in malarious regions complicated with debility of the gastric functions. In chronic rheumatism of this character it should be given a fair trial.

Form for Administration.—The specific medicine. Dose.—From twenty drops to a fluidrachm.

### QUINIA SULPHAS.

The action of quinia in muscular pain, when this occurs periodically, is prompt and positive. In any case of muscular pain which manifests a marked periodicity, the time of attack should be anticipated by three three-grain doses of quinine, administered two hours apart, so that the last dose be given an hour before the onset; this will usually arrest the difficulty, or at least render the attack so light that a repetition of the remedy the following day will complete the cure.

However, in such a case as this it is well—though not usually absolutely necessary—to combine the antiperiodic, quinine, with some other accredited antimyalgic, as cimicifuga, jaborandi, salicylic acid, etc. But in every case of myalgia of periodic character it is almost absolutely necessary to employ the antiperiodic properties of quinine, whatever other remedy may be made use of.

# RHODODENDRON.

This drug is recommended by homeopathic authorities in rheumatic prosopalgia (face-ache). It seems to pos-

sess an affinity for the muscles of the face especially. It has also been successfully used in ophthalmic practice in painful conditions of the eyeball, the muscles probably being the seat of pain. It may prove a satisfactory remedy in rheumatic ophthalmia, and other myalgiæ of the eye.

Rhododendron has also been employed in muscular pains of other parts of the body, as of the cervical and thoracic muscles and those of the extremities. It is asserted to be best adapted to myalgia occurring during warm weather.

Form for Administration.—The tincture from a homeopathic pharmacy.

Dose.—From the fraction of a drop to a drop.

## RHUS TOX.

There is considerable doubt as to the affinity of rhus tox. for muscular structure. Hughes suggests that its "action is mainly upon fibrous tissues—tendons, fasciæ, sheaths of nerves, etc.—and perhaps the muscles."

It has seemed to me that rhus is very much overestimated as a remedy for rheumatism. I have failed to derive much benefit from it, though I have administered it many times in what seemed appropriate cases. Possibly this is because we possess so many other remedies superior to it in this place. In rheumatism attended by the element of restlessness, where this is a nervous feature, the remedy might find a place, but it would be for the nervous element of the case rather than for the muscular pain.

SALICYLIC ACID; SALICYLATE OF SODIUM.

Salicylic acid is not the favorite for muscular pain that it was several years ago. It has failed to fulfill all the expectations of its admirers, and is liable to produce gastric irritation unless administered with considerable caution. The salicylate of sodium has superseded it, to

considerable extent, being less irritating to the stomach, and fully as potent as a reliever of muscular pain.

In the treatment of acute muscular pain I think the salicylic acid and salicylate of sodium inferior to jaborandi and phenacetin, but in chronic cases they are important remedies—worthy of remembrance. In rheumatic ophthalmia they are valuable remedies, seeming to possess an affinity for the eye, and to exert positive curative effects in myalgia located there.

Form for Administration.—The salicylic acid prepared from wintergreen is best.

Dose.—From three to five grains, either of the acid or salicylate of sodium.

### SALOPHEN.

The following is abstracted from a recent number of the Medical Tribune:—

"From recent reports it appears that the new organic compound, acetyl-para-amidosalol, or salophen, is to take a very high place in therapeutics, not only in acute rheumatoid maladies but in those in which a principal object of treatment is to secure an undisturbed and continuous intestinal antisepsis without risk of injury to the patient.

"The New York Medical Journal contains an article on salophen, written by William H. Flint, M. D., of the Presbyterian Hospital, which foreshadows some of the excellent effects which may now be expected from this extraordinary new remedy.

"Dr. Flint says that during his summer hospital-service, he caused salophen to be administered in all cases of rheumatism, and that he was so well pleased with its action that he desires to make known to his *confreres* the advantages of salophen treatment, hoping that their results may be as happy as his own.

"The author presents detailed reports of six cases of acute rheumatism treated with salophen in 15-grain doses

given dry upon the tongue and swallowed with cool water every three hours and with sodium bicarbonate, in 10grain doses, administered in the same way thrice daily.

"Dr. Flint's conclusions concerning the results obtained, are stated by him as follows: 'From the above given histories it will be seen that in all the cases except the last, the pains were quite relieved, the redness dispelled, and the temperature reduced to the normal point on the second or third day of treatment. In the one exceptional case, the patient may have exaggerated the intensity of her pain to prolong her stay at the hospital; but no objective symptom persisted after the seventh day of treatment. It is probable that speedier results may be attained safely by the use of larger doses or of the same dose at shorter intervals. In none of these cases was the heart's action at all weakened, nor was the digestion impaired by the remedy. The urine was unaffected by the treatment. In conclusion, we possess in salophen a remedy equally as potent as the other salicylates to control the symptoms of acute rheumatic arthritis, but devoid of the tendency to weaken the heart's action, to disturb the stomach, and to produce albuminuria and smoky urine.""

# SANGUINARIA.

This remedy is recommended in acute rheumatism, where the pains are throbbing, burning, and occur spasmodically. It may answer for the relief of certain cases, but cannot be as positive as some other remedies mentioned in this work, or its merits in this direction would be more widely known. However, these qualities of the drug may be borne in mind for emergencies.

Form for Administration.-The specific medicine.

Dose.—From the fraction of a drop to five drops, repeated three or four times a day.

#### STICTA.

This is a favorite remedy with many practitioners for muscular pain. Scudder recommends it when the pain extends from the shoulders to the occiput, involving the trapezius principally. This symptom will frequently be present in influenza and other catarrhal fevers, where sticta is also a valuable remedy on account of its influence over tracheal irritation.

In muscular rheumatism affecting the muscles of locomotion and prehension it is often a very useful remedy, rivalling macrotys and caulophyllum.

Form for Administration.—The specific medicine. Dose.—From the tenth of a drop to a drop.

#### SULPHUR.

Sulphur possesses a considerable reputation in some quarters as a remedy for chronic rheumatism. Hughes commends it highly in his Manual of Pharmacodynamics, and Ringer, of the old school, refers approvingly to its use locally for the relief of rheumatic pain.

Medical journals contained numerous reports, a few years ago, of the successful use of dry sulphur locally, in the treatment of sciatica. The manner of application consisted in wrapping the affected extremity in dry sulphur with the aid of proper bandages. Relief was reported to be almost magical in promptness.

E. R. Waterhouse, M. D., in an old number of the *California Medical Journal*, wrote: "It is a remedy of importance in the treatment of chronic rheumatism, either mercurial or otherwise. In these cases of rheumatism where sulphur is curative, we will find the pain is tensive or I may say tearing, and constant; it may be of scrofulous or syphilitic origin. Many middle-aged ladies complain of cramping about the calf of the leg and about the feet; it is the most troublesome after going to bed, and

they are obliged to resort to all manner of applications before the trouble is relieved. Here I would administer the first decimal trituration in doses of what would lie upon a ten-cent piece, four times a day."

### VAPOR BATH.

We probably have no more prompt, positive and grateful reliever of acute muscular pain than the vapor bath. The heat promptly relaxes muscular spasm and banishes the pain of muscular tension, a few minutes sufficing to accomplish what might require hours for some accredited remedies to achieve. In all cases of acute muscular spasm and pain this resource is a commendable ally to internal agents, never doing harm and nearly always rendering assistance.

The spirit vapor bath of the Dispensatory answers a good purpose, but I prefer the cabinet bath when it can be had, as a more effective heating can be administered by it, and I think the effectiveness of this plan depends largely upon the amount of heat applied to the surface of the body.

In chronic rheumatism this application of heat is a remarkable aid to other remedial measures, antirheumatics seeming to exert a more pronounced effect after the circulation has been improved under a vapor bath administered every day or two for a few days.

Vesical spasm of rheumatoid character—and this is not a rare complaint—will yield more promptly to this plan of treatment than to any other. This remark applies to a similar condition of any other internal organ.

# VERATRUM.

Veratrum viride sometimes acts remarkably well in the treatment of muscular affections. In rheumatism it is not so admirable a remedy as jaborandi and some other

antirheumatics, yet it seems adapted to a certain class of cases. I have seen it clear up a badly treated case of inflammatory rheumatism, after the patient had been about but partially convalescent with a badly swollen knee, in a few days. It acts somewhat like jaborandi, promoting secretion, lowering temperature and relieving vascular tension.

Form for Administration.-The specific medicine.

Dose.—Add twenty drops to half a glass of water and give a teaspoonful every hour or two.

# THE SKIN.

#### ACETATE OF POTASSIUM.

Acetate of potassium is sometimes a valuable remedy in skin affections. Chronic eruptions, where removal of waste is desirable, is the proper place for it.

It has been used with success in chronic eczema in connection with berberis, juglans cinerea, solanum dulcamara, and other specific skin remedies, with the effect of hastening their action. It might be considered a doubtful proposition, that this remedy possesses any specific influence upon the skin more than upon other tissues, but its use in such cases has proven, undisputably, its effiacy.

In an article on the Treatment of Eczema, read before the Eclectic Medical Society of California in 1889, by Dr. A. W. Bixby, acetate of potassium is recommended as one of the principal remedies for internal administration. The American Dispensatory refers to it also, as a remedy for obstinate cutaneous affections. I can indorse these recommendations from my own experience.

Form for Administration.—A solution of half an ounce of the acetate to half a pint of water.

Dose.—A teaspoonful three or four times daily.

# ACETIC ACID.

Though not a remedy for internal administration in skin affections acetic acid is not to be forgotten in the treatment of ringworm. In that stubborn form known as tinea versicolor, there is no more prompt and efficient remedy to destroy the parasite than this agent locally applied. It should be touched to the affected spots once a day with a camel-hair pencil, sufficient being applied to penetrate the part deeply. It is applicable to the treatment of ringworm upon any part of the body except the

#### THE SKIN.

scalp. The smarting caused by it is severe, but it quickly subsides.

Form for Use.-The glacial acetic acid.

### ACONITE.

In skin affections attended by febrile symptoms, aconite is a reliable agent to assist the action of more specific remedies. In the exanthemata it is almost always indispensible, and in erythema and erysipelas it is almost always a useful agent to assist in allaying pain and burning, and in controlling the inflammatory element attending.

In erysipelas, it combines or alternates advantageously with apis, rhus tox., or echinacea, improving the influence of these agents, aiding in reducing the vascular excitement and controlling the progress of the disease. In erythema it also acts promptly in alleviating the unpleasantness of the affection in similar combinations.

Form for Administration.---The specific medicine.

Dose.—Add from five to ten drops to four ounces of water and give a teaspoonful every hour.

# AGARICUS MUSCARIS.

Agaric relieves that state of relaxation of the skin accompanied with profuse perspiration in the night sweats of debilitating diseases, or in profuse and exhausting perspiration occurring during the day. The form used is the alkaloid—muscarine. The dose of this is five drops of the one-per-cent solution, repeated every three or four hours.

## ALNUS SERRULATA.

This is a valuable and reliable remedy in such skin affections as eczema, crusta lactea, and other eruptions where a constitutional cause lies behind the malady, as scrofula or syphilis. It possesses a specific affinity for the skin, and appears to influence the nutrition of this part. It should be recollected in all stubborn cutaneous

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affections as a probable means of relief, its persistent use usually affording satisfaction.

Form for Administration.—The specific medicine. Dose.—From five to fifteen drops.

### APIS.

Apis mellifica is a favorite with many practitioners in the treatment of skin affections attended with itching or pain of stinging character. In affections of subcutaneous parts accompanied by puffiness with stinging pain, it is a remedy to be remembered.

Hughes recommends apis in erysipelatous inflammation of the skin and subcutaneous tissues, especially when of traumatic origin He asserts that it stands midway, as a remedy, between belladonna and rhus in its relation to affections of the skin. Scudder and Goss indorse this action in their works.

Form for Administration.—The specific medicine. Dose.—From the fraction of a drop to two drops.

## ARCTIUM LAPPA.

Burdock exerts a specific influence on the skin, and can be relied upon for the relief of eruptions depending upon depraved nutrition of the part. Among the diseases cured by it are crusta lactea, chronic cutaneous erysipelas and psoriasis.

The best form of this remedy is a saturated tincture of the recently ripened seeds. I have seen this act promptly in the cure of tetter, eczema, and other cutaneous eruptions. Some skin specialists rely upon it in the treatment of psoriasis.

Form for Administration.—A saturated tincture of seeds not more than a year old; if more recent the better. If the seeds can be obtained and tinctured as soon as ripe the best tincture will result.

Dosc. — From ten to twenty drops.
#### ARSENIC.

Arsenic is a skin remedy of very positive merit. It is valuable in most chronic eruptions where the nutrition of the skin is at fault. It seems to exert a common influence over the skin and its reflections, the mucous membranes, selecting particularly the mucous membrane of the alimentary canal. I have used it with flattering success in eruptions which were alternated with intestinal irritation, the eruption receding to be followed by diarrhœa, and reappearing when the diarrhœa ceased.

Arsenic is adapted to scaly and vesicular affections of the skin especially, not being of much use in pustular eruptions. It acts well in many cases of eczema of chronic nature, though its use must be continued for a long time in most instances, to produce curative results. It is most reliable where the disease is scattered, appears slowly, and does not manifest a disposition to rapidly spread over large portions of the body. In the latter class of cases we will derive more benefit promptly form some of the vogetable skin remedies, as berberis aquifolium or burdock, or from the sulphide of calcium.

Psoriasis is also much benefited by arsenic, lepra being especially a form of this disease where the drug has proven successful as a remedy. Pemphigus will usually yield to a protracted course of arsenic, though it is likely to recur a few months after the remedy is suspended.

Among the profession generally it is the custom to administer arsenic without much discrimination in all kinds of cutaneous affections, and this is usually satisfactory, though of course such practice must meet with many failures. In chronic skin affections, however, it promises as much as any other single remedy, probably.

Form for Administration.—Fowler's solution of arsenic. Dosc.—From the fraction of a drop to ten drops.

#### ATROPIA.

Atropine is a remedy for the night sweats of phthisis or other debilitated condition. It is always worthy a trial in obstinate cases of this kind, though we probably possess other remedies more reliable as a rule. However, in some cases the best accredited remedies fail where others succeed, when the reason cannot be accounted for.

Form for Administration.—The 2x trituration. Dose.—From one-half grain to one grain.

## BERBERIS AQUIFOLIUM.

Berberis aquifolium is a comparatively new remedy, but it has proven one of the most reliable we have in chronic skin affections. In eczema, psoriasis, and scrofulous and syphilitic affections of the skin, of various forms, we have no more reliable remedy than this.

In the eruptions of secondary syphilis the continued use of berberis aquifolium for a few months will usually remove all traces of the eruption, and if any remain they will be triffing compared to the condition where the remedy has not been employed. In chronic changes in the skin, of long standing, especially in syphilitic cases, the use of iodide of potassium in conjunction with the berberis is a commendable measure, the iodide being continued for a month or six weeks to then be discontinued, while the berberis is used uninterruptedly.

As the effect of berberis is always to invigorate the skin it is a useful agent to administer in any cutaneous affection of chronic character, in connection with the remedy which may seem more pronouncedly indicated. The effect of the specific remedy is thus enhanced, since the functional activity of the skin generally is improved by the berberis, while it also augments digestion and assimilation, thus improving all the functions of the body. In acne, berberis will accomplish desirable results in many cases if continued for a long time uninterruptedly, say a year.

There can hardly be imagined an abnormal condition of the skin where this remedy may not be administered with advantage, if it be borne in mind that its effects are brought about slowly, and that structural changes require months for their accomplishment.

Form for Administration.—The fluid extract prepared by Parke, Davis & Co.

*Dose.*—This must be large, comparatively speaking; from ten to thirty drops.

# BETA-NAPHTHOL.

This agent is an admirable remedy for parasitic affections of the skin of vegetable origin. In the form of an ointment locally applied, it is one of the most reliable agents we possess for tinea tonsurans, mentagra, and other parasitic skin diseases. It is also a valuable hair tonic.

Form for Administration.—An ointment composed of half a drachm of the drug to an ounce of lanolin. It should be applied freely and well rubbed in, each night at bedtime, for months. If ten drops of the oil of bergamot be added the mixture will constitute an elegant pomade for the hair and scalp.

## BROMIDE OF POTASSIUM.

This remedy manifests an affinity for the skin by producing eruptions when administered in large doses for some time. It has been recommended by some writers for acne and other pustular eruptions, and rashes. It has not been used much, probably because there are more reliable remedies. The dose should be small, say three grains of the 2x or 3x trituration.

## CALENDULA.

The value of this remedy in superficial skin affections is not sufficiently realized. Even in inflammatory indu-

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rations of the skin of long standing, as for instance stubborn cases of acne, calendula will cure when other remedies fail. It acts well in such cases both from internal and local use, and these actions should be combined.

Form for Administration.—Lloyd's or the tincture from a homeopathic pharmacy. For local use the active agent should be diluted with two or three parts of water.

Dose.—From the fraction of a drop to ten drops.

## CARBOLIC ACID.

This remedy highly diluted has been used with successful results internally, for the treatment of psoriasis. It is a well-known topical agent in cutaneous affections attended by excoriation and itching. In the form of an ointment or lotion it comes into frequent use for minor affections of the skin, as patches of herpes on children, and for pruritus of different portions of the body, as itching of the anus, pudenda, etc.

The remedy should be diluted to the 2x or 3x dilution for internal administration. Of this the dose should be from the fraction of a drop to a drop. For external application, from ten to thirty drops to the ounce of lanolin for an unguent, or of glycerine and water for a lotion.

## CHLORIDE OF POTASSIUM.

This remedy will be found reliable in skin diseases where it is desirable to arrest the exudation of plastic material, or to cause its absorption before suppuration. In boils, carbuncles, pimples, the eruption of small pox, eczema, erysipelas, chilblains, etc., it will be applicable on these lines.

## Form for Administration.-The 3x trituration.

Dose.—Add five grains to four ounces of water and give a teaspoonful every two hours.

#### CHRYSAROBIN.

As with some other remedies mentioned in this department, chrysarobin lacks specific affinity for the skin through systemic action, but as a local agent it is of great service, especially in parasitic disease.

It acts well in tinea tonsurans and other vegetable parasitic skin diseases, penetrating and destroying the growth rapidly. It also acts well as a local application in acne and psoriasis, though care should be exercised in using it about the face, as it is liable to provoke active inflammation of the conjunctiva.

Chronic eczema, rosacea and lupus vulgaris have been cured with this agent.

From ten to twenty grains of chrysarobin should be thorougholy incorporated in an ounce of lanolin for an unguent when it is to be locally applied. It has been used internally but with doubtful utility, in the treatment of psoriasis. Unless used in minute doses—1x or 2x trituration—it is liable to provoke active catharsis.

### CLEMATIS.

Clematis erecta is adapted to the treatment of chronic cutaneous affections attending scrofulous or syphilitic states of the system. The homeopathists indorse it in the treatment of diseases involving the skin in patients who have been subjected to mercurial treatment and are suffering from its effects in connection with the cutaneous trouble, or in whom the skin disease is likely to have been caused by mercury.

Foul eruptions of the head and general surface, eczema, the ulcers and excrescences of secondary syphilis, as well as other eruptions of vesicular and pustular kind have been cured with this agent. In ophthalmic practice it may be found of service where the edges of the eyelids are sore and swollen, with the irritation apparently ex-

tending to the meibomian glands. Young, scrofulous subjects often present us with such a condition.

Form for Administration.—The tincture from a homeopathic pharmacy.

Dose.—From five to fifteen drops, repeated three or four times a day.

# Comocladia Dentata.

This is the "guao" of the West Indies. It resembles the action of rhus tox. on the skin somewhat, and has been reputed as a remedy for leprosy.

#### CORYDALIS.

Turkey-corn possesses an affinity for the skin, and is a favorite with many of our school in the treatment of this organ. Its best effects are found in skin diseases arising from scrofulous or syphilitic conditions of the system, without so much regard to the particular character of the eruption.

## ECHINACEA.

Echinacea is a remedy of rare virtue when superficial irritation of acute and painful character is met. Burning of the surface with redness is a good indication for its use. In some very severe cases of this kind I have met with gratifying success from the continued local and internal use of the remedy.

In chafing and other forms of erythema, echinacea is one of the most reliable remedies we possess, not only for temporary relief of the burning and itching, but for permanent cure. The internal use of the agent seems to relieve the system at large, or else the skin itself, of the irritable element which predisposes to the condition.

Form for Use.—A twenty-five per cent. dilution of the specific medicine or a saturated tincture in water. Cloths can be saturated with this and applied to the affected surface, or if this be impracticable, the part may be fre-

quently bathed with the preparation. Internally, a teaspoonful may be given every hour or two.

## FLUORIDE OF CALCIUM.

This is one of the tissue remedies adapted to cracking of the skin, as chaps, fissures, etc. It is often of service in chapped hands, fissures of the anus, cracks about the lips and other fissured conditions of the skin.

For directions as to manner of use see Inorganic Proxmate Principles.

# GRAPHITES.

Referring to one of Hahnemann's works Hughes remarks, in his Manual of Pharmacodynamics: "In his preface, Hahnemann tells us that a German physician, Weinhold, when traveling in Italy, found black-lead used by the workmen in a mirror manufactory as an external application for herpes. He himself adopted the practice, giving the substance internally also; and its use in cutaneous disease, long obsolete in the old school, flourishes among homeopathists to this day." The same writer adds: "Dr. Hale has reported a remarkable case of eczema impetiginodes, of twenty years' standing, cured by it in the dilutions from the fifth to the thirtieth; and Bahr, who praises it highly in chronic eczema, also gives three cases of that troublesome disease, mentagra, in which it proved radically curative. I mention these as easily accessible illustrations of its efficacy; but if you hunt through homeopathic literature you will find numerous testimonies and narrations to the same effect. Dr. Bayes commends it in 'psoriasis palmaris,' which is, of course, a chronic eczema; and suggests that the frequent occurrence of this complaint in domestic servants may have something to do with the black-lead used by them for fire-grates.

"It is not easy to define the precise place of graphites

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in skin disease. The presence of rhagades generally suggests it to me. Dr. Guernsey says that its characteristic symptom here is the exudation of a thin, sticky, glutinous, transparent fluid from raw places or sores. It probably exerts, like arsenic, a general influence upon the nutrition of the skin, which may lead to varying effects, pathogenetic and curative, according to the subjects of its influence.

"Graphites is also very useful in unhealthy states of the appendages and prolongations of the skin. Dr. Guernsey commends it for falling off of the hair and abnormal growth of the nails. He also speaks well of it in tinnitus aurium, with deafness which is improved by external noise; such an affection is probably due to a morbid state of the meatus or membrana tympani. Dr. Cooper uses it successfully in blepharitis ciliaris, where inflammatory symptoms are absent; also in stillicidium lachrymarum, from obstruction of the nasal duct. Dr. Bayes ranks it with aurum in crusts about the nostrils in scrofulous children. Dr. Marston has left on record a cure of fissure of the anus by it."

Form for Administration.—From the fifth to the tenth decimal dilution.

Dose.—From five to ten drops, three or four times daily.

# HYDRASTIS.

Hydrastis does not figure prominently as a skin remedy, but it seems adapted to certain epithelial and other superficial cutaneous affections manifesting malignancy. In lupus, in epithelioma, and in rhagades, as well as in chronic eruptions depending upon gastric irritation, it may often serve an important office. In using it in ulcerations of the character described, its internal administration should be coupled with topical application.

## HYDROCOTYL ASIATICA.

This remedy possesses quite a reputation for the cure of leprosy. It also is extolled for various other skin affections, such as lupus exedens and eczema impetignodes. As this remedy exerts a specific influence upon the cervix uteri, it is adapted to the treatment of acne in the female depending upon disease of this part. It has been praised as a remedy for elephantiasis.

Form for Administration.—The tincture from a homeopathic pharmacy should be carried to the 3x dilution.

Dose.—From three to five drops.

#### ICHTHYOL.

Ichthyol has acquired a wide reputation within the last few years as a remedy for obstinate skin disease. It is applied locally. It acts best in psoriasis and other obstinate eczemas. Palmar psoriasis, a stubborn condition in many instances, is promptly benefited in a large majority of cases. Other forms of skin disease of squamous character may demand it.

Form for Administration.—From a ten to a twenty per cent. ointment, lanolin, vaseline, or other excipient being employed.

## IODIDE OF ARSENIC.

In obstinate eruptions of the skin this is often a superior remedy, on account of its specific action on this part. Both arsenic and iodine influence the nutrition of the skin, and this combination seems to be superior to either remedy used singly, in certain cases.

Iodide of arsenic is applicable to dry, scaly, burning, and itching eruptions. Among these may be named lepra, furfuraceous pityriasis, impetigo, psoriasis, etc. The complication of scrofulous glandular enlargement would emphasize the applicability of the remedy.

#### IODIDE OF POTASSIUM.

In old, stubborn, syphilitic, or scrofulous eruptions of the skin, iodide of potassium assists materially in the start in breaking down the deposits and allowing vegetable skin remedies to complete a cure. It should be given in liberal doses for a short time—a month, perhaps—and then be discontinued and followed by vegetable dermic agents.

#### IODIDE OF SULPHUR.

This remedy is valuable in the treatment of acne when suppurative action is a common symptom. It may be applied locally as well as administered internally. Hale recommeds it in barber's itch.

Form for Administration.—From the third to the tenth decimal trituration.

Dose.—From two to three grains.

The ointment should be made of the strength of two or three grains of the iodide to an ounce of lanolin. It should be rubbed in two or three times a day.

# IRIS VERSICOLOR.

Hale attributes specific skin properties to this drug. He asserts that it is especially applicable to cases of skin eruption in which there is gastro-intestinal irritation with pronounced acidity—vomiting and purging of greenish material of acid character.

Its principal use has been in the treatment of psoriasis and pustular affections of the scalp and face, especially in children.

Form for Administration.—The specific medicine.

Dose.—From the hundredth of a drop to the tenth of a drop.

### JABORANDI.

The action of jaborandi in producing profuse perspiration is well known. Sometimes this action is useful in

establishing an artificial crisis early in the onset of continued fevers, where it may be aided by the action of a vapor bath. Another action of jaborandi is its influence in arresting profuse perspiration due to relaxation of the cutaneous vessels. Here the dose must be very small, only a few drops of the specific medicine being used in four ounces of water, a teaspoonful of the mixture being given every three or four hours. The dynamical influence here is what is required, and care must be observed that the dose be not so large as to cause the drug-effect instead.

# JUGLANS CINEREA.

Juglans possesses decided properties adapting it to the treatment of skin diseases. I have had excellent success with this remedy in the treatment of chronic eruptions of various kinds, and regard it as one of our most positive skin remedies.

Professor Goss refers to it very enthusiastically in his work on materia medica, commending it in eczema, lichen, ecthyma, pemphigus, impetigo, herpes circinatus, rupia, acne, prurigo, molluscum, and almost all other chronic skin affections. I am of the opinion that it will cure any skin disease except syhilides, scrofulides and parasitic diseases. In parasitic cutaneous affections the local application of the juice of the juglans nigra is often very effective in destroying the growth.

Form for Administration.—A saturated tincture of the fresh bark of the root of the juglans cinerea. In the absence of this the specific medicine.

Dose.—From the fraction of a drop to ten drops.

# LACTIC ACID.

Concentrated lactic acid is an effectual remedy for local application in cutaneous affections demanding a solvent of the epidermis. As a local remedy in obstinate cases

of tinea versicolor it is only rivalled by acetic acid, as it penetrates rapidly and effectually, while it does not attack the true skin.

Tylotic formations may be dissolved by the persistent use of this agent so that they may easily be scraped off; and though they may form again, repeated applications and removal will finally accomplish a cure. Chloasma hepaticum or liver spots may also be removed by the use of concentrated lactic acid. Should the first application not succeed it may be repeated until the epidermis and underlying pigment peel off, without danger of leaving a scar behind. This may be followed by the application of mild zinc ointment or some other simple dressing. Ephilides are to be treated in the same manner.

Tylosis or thickening of the epidermis of the palms of soles not only yield to this treatment but warts and other horny excrescences of epithelial formation may be removed by the continuous application of lactic acid. The agent should be applied with a camel-hair pencil.

### LYCOPODIUM.

Hughes observes (Manual of Pharmacodynamics): "Lycopodium is very good for the intertrigo of children and for dry porrigo capitis. It is said to be curative in that scourge of Poland, the plica polonica; and also in pruritus ani."

### NITRIC ACID.

Nitric acid, administered internally, exerts an influence over the muco-cutaneous outlets of the body, and is adapted to anal fissure, condylomata, sores about the mouth, etc. It resembles thuja in its action on the skin, somewhat, seeming to specifically correct perversions of the epidermis about the genitalia, and even upon the general cutaneous surface. It should be thought of as an internal remedy in the treatment of warts after thuja, magnesium sulphate and arsenic have failed.

Ringer extols nitric acid highly as a local remedy for the removal of venereal warts. He remarks (Handbook of Therapeutics): "Small syphilitic warts and condylomata, kept constantly moist with a wash of diluted nitric acid—a drachm or two of the dilute acid to a pint of water, is sufficient—are thus surely and painlessly dispersed." I have verified this observation in several instances.

Nitric acid, internally, is in repute among homeopathic practitioners as a remedy for pruritus of the vulva and anus. This obstinate condition sometimes demands the trial of several remedies before the proper one can be found, and nitric acid offering possible relief it should not be forgotten in the rotation of remedies for such cases.

Form for Administration.—From the 1x to the 3x dilution.

Dose.-Two or three drops, three or four times daily.

## PETROLEUM.

Hughes recommends this remedy internally in the 3x dilution to check foul-smelling perspiration from the axillæ and feet; also to modify that unhealthiness of the skin which predisposes it to fester and ulcerate upon slight causes. Kerosene is an effective remedy applied locally for the destruction of tinea tonsurans.

### PHOSPHORIC ACID.

Phosphoric acid asserts its influence over that condition of the hair follicles attended by falling off of the hair in many different diseases. After typhoid fever and other prostrating diseases this is a common symptom, and phosphoric acid will check it if administered in time. It also encourages early return of the growth. Form for Administration.—The dilute phosphoric acid. Dose.—From five to ten drops three or four times a day.

#### PHYTOLACCA.

This remedy is adapted to the treatment of cutaneous affections resembling those of secondary syphilis, if not the identical ones. It is applicable to squamous eruptions, psoriasis, pityriasis, lupus, etc.

Goss refers to phytolacca in very favorable terms as a medicine for secondary syphilis, asserting that it is also valuable in cutaneous diseases arising from scrofulous taint. In old and obstinate ulcers its internal use seems to improve the reparative power of the skin and hasten healing. It resembles berberis aquifolium much in this respect.

Form for Administration.—The specific medicine. Dose.—From two to ten drops.

#### PICROTOXINE.

This agent is a superior one for the relief of profuse sweating. As to its virtues I will quote from an article contributed several years ago to the *California Medical Journal*, by Professor John Fearn, M. D.:—

"I have been using this remedy for years, and my success in relieving colliquative sweating has been very gratifying. I can only call to mind one case where the relief was only partial, and that was a very unpromising one from the beginning, and the remedy was not fairly tried. I give a much less dose than is generally prescribed, using the 3x trituration. I give several two-grain powders of this preparation in the evening, say one at five o'clock, one at seven and one at nine. My way has been to medicate like this four nights in succession. It is usually prompt, acts pleasantly, leaves no bad symptoms in its train, and I do not generally find a necessity to continue the remedy longer.

"I call to mind a case of inflammatory rheumatism I treated about three years ago. It was a bad case; realizing that much of the poison must be eliminated through the skin, I favored free perspiration, using mild means therefor. Patient began to sweat profusely, and kept this up for days. With the sweating, improvement commenced in every direction; when, so far as the disease was concerned he began to convalesce, the sweating continued unabated, I began to think it was time to use mild means to check it, for the man seemed literally melting away. I prescribed in this case:—

> B Picrotoxine, 3x trit., gr.xv. Aqua, ad to şii.

Sig. 3j every two hours in the evening.

"The relief was prompt. I have since then used it several times in solution in the same way with success.

"To conclude, I find this plan of using the active principle of cocculus indicus to be very satisfactory. My experience is, that it cures; it cures safely, it cures pleasantly, it cures quickly."

A tincture of cocculus indicus is a valuable local application for the destruction of lice. The hair should be cut short and the remedy applied, care being observed to avoid its contact with recent abrasions for fear of absorption and subsequent poisonous effect.

#### RANUNCULUS.

This remedy specifically influences the skin, acting curatively in herpes and eczema. Shingles affords a place for its action, and here it has proven very successful.

Form for Administration.—The tincture from a homeopathic pharmacy.

Dose.—Add from ten to twenty drops to four ounces of water and give a teaspoonful every two or four hours.

# RHUS TOX.

Rhas tox. specifically influences the skin, and is adapted to the successful treatment of irritable or inflammatory herpes, eczema and pemphigus. In facial cutaneous affections of this character it is especially valuable, and also in facial erysipelas. I think we have no other remedy which will act as promptly as this where such eruptions are found upon the face.

Facial erysipelas involving the tissues about the eyes, attended by puffiness of the eyelids yields promptly to rhus tox. In some cases of this kind the alternation of minute doses of belladonna with the rhus improves its action. Aconite combines well with rhus also in facial erysipelas, but the prompt action of rhus alone testifies to its specific influence.

Form for Administration.—The specific medicine.

Dose.—Add from ten to fifteen drops to four ounces of water and give a teaspoonful every two hours, in acute cases; every four in chronic ones.

## RUMEX CRISPUS.

Rumex is adapted to the treatment of certain skin affections. It is the testimony of those who have used it most extensively that rumex is best adapted to that class of eruptions which depend upon a strumous condition of the system.

In skin eruptions attended by much itching it has been extolled by homeopathic authors because an observer in that school noticed intolerable itching to follow its use in some cases. Dr. Searle, during the War of the Rebellion, found it curative of the contagious prurigo or "army itch," which was quite prevalent, after several other remedies failed to relieve. He used a few drops of the 1x dilution at a dose, repeating several times daily. *Form for Administration.*— The specific medicine. *Dose.*—From the tenth to the fifth of a drop.

#### THE SEIN.

#### SAMBUCUS CANADENSIS.

This remedy has been employed successfully in small doses to modify excessive sweating.

### SEPIA.

Sepia is applicable to some cases of skin disease. Pruritus may be taken as an indication for it in cutaneous eruptions, especially if located about the anus or genitalia. Scaly eruptions, with much itching, occurring on the scalp or other hairy part might suggest its use.

Form for Administration.—From the tenth to the third decimal trituration.

Dose.—From two to three grains.

#### SOLANUM DULCAMARA.

This agent specifically influences the skin, disturbing its functions when administered in large doses and continued for several days.

It is adapted to the treatment of eruptions characterized by intense itching, of transient character; of moist eruptions attended by itching; of pimples and ulcers around the mouth and inside the lips; of eruptions upon the labia majora and male genitals attended by much itching; of itching eruptions upon the surface generally, consisting of red spots followed by vesicles; nettlerash; pemphigus; warts; crusta lactea.

Form for Administration.—The specific medicine. Dose.—From the fraction of a drop to five drops.

## SULPHATE OF MAGNESIUM.

The specific influence of this remedy upon the skin is manifested by its action in the removal of warts when administered internally. It acts here somewhat like thuja and arsenicum, the growth imperceptibly disappearing upon the administration of the remedy continued for two or three weeks. The dose may vary from the tenth of a grain to the half of a grain.

#### SULPHIDE OF CALCIUM.

This remedy exerts an excellent effect in the treatment of numerous affections of the skin. In acne, it is one of the most positive remedies we possess, especially if there be suppuration of the pimples. In eczema, it often acts promptly and effectively in relieving the difficulty, the eruption rapidly disappearing under its influence.

In styes and furuncles it is a useful remedy, hastening suppuration and lessening the tendency to reappearance of the trouble. In other words it tends to banish the stye and ooi! habit, so that when one gets well the trouble is ended, instead of the liability of a return of the pests remaining. However, I think that it does not equal rhus tox., in its qualities as a prophylactic against styes.

Form for Administration.—Half or one-fourth-grain pellets.

Dose.—One before each meal and one at bedtime.

### SULPHUR.

Sulphur possesses an affinity for the skin, and is an old and widely used remedy in the profession and among the people for cutaneous affections. But recent years the combinations of this agent with other substances have been more extensively employed.

One of the best agents for clearing the complexion and healing obstinate eruptions is a tincture of sulphur.prepared by macerating an ounce of sublimed sulphur in a pint of alcohol. After a week the preparation may be filtered and applied with a surgeon's sponge or a soft cloth.

Another superior form for the application of the remedy to the skin, on account of its efficacy, is the ointment introduced by myself to the profession several years ago, and known as "Webster's Compound Sulphur Ointment." The formula for this is as follows:— Lanolin, lb. j. Oil of tar, z j. Sp. m. veratrum vir., z j. Sublimed sulphur, q. s. M., Ft. unguent.

This combination is the most effective remedy for scabies or itch that I have ever seen used. It should be applied three nights in succession, after which it should be omitted for three nights; then a thorough bath should be followed by the repetition of the application for three nights more, and so on until the application has been made three consecutive nights three times with three-day intermissions. By this time the disease will be thoroughly cured. It is excellent for eczema and psoriasis.

### THUJA. ·

Thuja occidentalis is a remedy specifically influencing the epithelial layer of the skin, and a useful one to correct the tendency to the formation of warts and other epithelial changes. That it is a positive remedy for warts administered internally in every instance however must not be supposed; it will probably fail more times than it will succeed, but it is sufficiently positive to warrant a trial in every case, as it cannot do harm in the doses recommended and is innocuous in large ones.

In venereal warts especially this remedy is commendable, both for its internal administration and local use. Such vegetations are usually difficult of permanent removal, there being a strong tendency for their return after excision with knife or scissors unless the treatment be coupled with the administration of some appropriate remedy. Thuja or nitric acid (dilute) constitute valuable local applications here, and thuja is an excellent internal agent to administer at the same time.

Form for Administration.—The specific medicine or the tincture from a homeopathic pharmacy.

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Dose.—Add from ten to twenty drops to half a glass of water and give a teaspoonful every three or four hours.

# TINCTURE MURIATE OF IRON.

This preparation is applicable to the treatment of cases in which the skin festers easily and becomes inflamed from slight causes, the affected spot becoming reddened and tumefied. This condition is seen in children in the fall or spring of the year as well as in some grown people in the Eastern States, due supposably to change of diet or other cause which disturbs the proper elaboration of the blood. In such cases this preparation will give prompt satisfaction in a short time.

The recommendation of this form of iron for erysipelas, when the skin is principally involved, is a further suggestion of its action upon that part.

The dose may vary from five to ten drops, care being taken to prevent it from contact with the teeth.

## URTICA DIOICA.

In superficial burns, not involving the true skin deeply, the internal use of urtica is extolled by some homeopathic practitioners. It is also employed in nettle-rash instead of apis, by some. The homeopathic greed for a similimum is very nearly satisfied in the resemblance between the stinging and itching caused by contact of the skin with this remedy and nettle-rash, and all true disciples of Hahnemann will avail themselves of it. And it is probably a remedy worthy of notice here, on account of a specific affinity for the skin which it possesses.

Urtica is a specific in some forms of eczema. It should be given in one or two drop doses internally and should be applied locally in diluted form, the specific medicine being perferable.

## USTILAGO MAIDIS.

The skin and its appendages-the hair, nails and teeth-are profoundly affected by corn smut. The nutri-

tion of the skin is evidently influenced, and the province of the remedy will lie in the direction of the treatment of chronic affections in which the reparative force is at fault.

It has been found curative in urticaria, where large, pale welts were a prominent symptom; other skin affections have yielded to its action, though it has been but little used. In premature decay of the teeth in children, where the decay begins at the roots, it has been used with seeming benefit.

In alopecia, and in dry scalp diseases, it has been found useful. It evidently possesses an affinity for the scalp, as it causes falling of the hair when continued in large doses for considerable time.

Form for Administration.—The specific medicine.

Dose.—This must yet be established by clinical experience. I would suggest from one to five drops, three or four times daily.

## VINCA MINOR.

This remedy is said to be a specific in crusta lactea and other moist eruptions. It has not been tested by any of our school to my knowledge, but I would suggest its trial in stubborn cases.

Form for Administration.—The tincture from a homeopathic pharmacy.

Dose.—From the fraction of a drop to five drops.

#### VIOLA TRICOLOR.

This remedy is highly prized in some quarters for moist eruptions on the face and scalp in children. A friend who has given it considerable trial is very enthusiastic as to its specific properties in this direction. I have used it but little, but am satisfied that the properties claimed for it exist in eminent degree.

Form for Administration.—A tincture from a homeopathic pharmacy.

Dose.—Add five or ten drops to four ounces of water and give a teaspoonful three or four times a day.

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## THE EYE.

## BY KENT O. FOLTZ, M. D.

#### ABRUS-JEQUIRITY.

Jequirity, in powder or infusion, when introduced into the eye, produces a purulent inflammation, covering the mucous membrane with a grayish exudation which remains for several days. Swelling of the lids occurs, and copious secretion and increased haziness of the cornea are the immediate results of its use. During the inflammatory stage the use of iced cloths, or ice-water, will allay the pain in a measure.

Jequirity is used in trachoma, especially old cases, with pannus. The effect of the drug after the acute inflammation has subsided is to clear the cornea and destroy the granulations of the palpebral conjunctiva.

The drug has been used in so-called scrofulous pannus, in ulcers and abscesses of the cornea, with good results.

In dacryo-cystitis, phlegmonous inflammation of the tear passages, recent trachoma with velvety surfaces and slight secretion, or sloughing of the cornea, the drug is contraindicated. I have seen two cases where the cornea sloughed off from its use. It should only be used as a last resort, and then with care.

Form for Application.—An infusion of the powdered seed. The infusion is made by powdering the hulled seeds and tr:turating with cold water. The supernatant fluid is used, and is ready after six hours maceration. The infusion should not be filtered or shaken. The powdered seeds soon lose their activity.

## ACIDUM ARSENIOSUM-ARSENIOUS ACID.

In the dry form of eczema, liquor potassii arsenitis will be found useful. In neuralgia of the supra-orbital nerves it is one of the best remedies in use. In all cases 36 of eye trouble, scrofulous in character, there is no better drug than Fowler's solution.

In syphilitic affections of the eye, especially those of a chronic character, the liquor arsenii et hydrargyri iodidi or arsenii iodidum will be the most useful form of arsenic to use.

In irritability of the sympathetic nervous system arsenic is contraindicated. In the early stages of eczema, the drug should not be used.

Form for Use.—Fowler's or Donovan's solution, as already suggested.

Dose.—From a sixth to a fourth of a drop of Fowler's solution; the hundredth of a drop of Donovan's.

## ACIDUM BORICUM-BORIC ACID.

In conjunctival diseases, where the mucous membrane of the lids is velvety and thickened, with profuse watery discharge, the powder dusted freely over the membrane will soon give marked beneficial results. Its use in this form should not however be continued too long, as it will produce a dry, harsh condition of the mucous membrane that will be very annoying. In indolent ulcers of the cornea, the dusting of boric acid in the eye has effected a cure many times when other treatment has failed. In phlyctenular conjunctivitis this method of using the drug will also prove satisfactory. In trachoma, the following is said to be a good combination: R Acidum boricum, zi, acid tannicum zi, M., apply to the granulated surface.

A wash of from zi to zy, to a pint of water, is useful as a bath after cataract operations, in washing the eyes of the newborn, and in conjunctivities of any kind where there is an excessive amount of secretion. In xerosis, a collyrium of boric acid has given relief and effected a cure.

In immature cataract, Kalish reports improvement in six cases from the use of glycerine and a solution of boric acid in rose water (one-per-cent.), equal parts. Two drops of this mixture should be dropped in the eye with manipulation of the eye-ball through the lids. A saturated solution of boric acid is said to abort styes, but I have not found it satisfactory.

A favorite prescription of mine in all conjunctival diseases is: R Lloyd's ergot gtt.  $xv-f_3ss.$ , sol. boric acid (6 gr. to  $f_{\overline{3}}i$ ), q. s.,  $f_{\overline{3}}ss.$ , Sig. Two drops in the eye every two or three hours. This collyrium is used in all forms of conjunctivitis, either alone or in connection with other topical measures.

In the form of an impalpable powder, boric acid is one of the most useful drugs in the list. In blepharitis ciliaris, used in the form of an ointment, it is especially beneficial. The best base is vaseline, and I usually use the following: R Acidum boricum gr. v to x, vaseline, 3ii, M., ft. unguent. Sig. Apply once or twice a day, getting some of the ointment into the eye.

### ACIDUM CARBOLICUM-PHENOL.

An ointment consisting of acid. carbolic. gr. xii, to vaseline <sub>3</sub>ii, has been used in trachoma, the application being made at night. In ulcers occurring during an attack of traumatic keratitis, cauterization with pure carbolic acid is sometimes beneficial; but in my own experience nitrate of silver has been more satisfactory. A two-per-cent. solution of carbolic acid has been used in cphthalmia neonatorum, but the wash of boric acid is safer.

In evisceration of the eye-ball, the application of pure acid to the exposed surface seems to be beneficial in relieving pain and stopping hemorrhage. In blepharitis ciliaris, after the removal of the crusts, if the raw surfaces are painted with a ten-per-cent. solution of the acid they will heal more rapidly. Alt uses the pure acid for cauterizing the exposed sclero-corneal surfaces after pterygia

#### THE EYE.

operations. I have seen several cases show the characteristic poisonous symptoms from the use of carbolic acid, and have not used it for some time.

# ACIDUM GALLICUM.

In trachoma, the use of gallic acid is sometimes attended with good results. It is indicated when the granulations are soft and pasty in character. In old, purulent conjunctivitis, it will sometimes give good results when other remedies fail.

Form for Use.—Insufflation of the following powder: R Acid. gallic. zi, acid. tannic. ziii, M. To be used once or twice a day.

## ACIDUM PHOSPHORICUM DILUTUM.

Dilute phosphoric acid is one of the most useful of drugs in diseases of the eye where the deeper structures are affected. In all atonic conditions of the eye there is no more generally useful remedy. In nervous affections of the lids and ocular muscles, or atony of the ocular muscles, it is indicated. In amblyopia, either tobacco or alcoholic, this is the drug. In diseases of the optic nerve, phosphorus is indicated. I have had two cases of disseminated choroiditis that improved under the use of phosphoric acid. In keratitis, with an atonic condition of the system, this is the indicated remedy.

Dose.—Gtt. i. I sometimes combine the acid with sp. m. nux, especially in amblyopia. The prescription then reads, R Sp. m. nux gtt.vi—x, acid. phosphor. dil. f<sub>3</sub>ss., elixir simpl. q. s., f<sub>3</sub>iv. Sig. Teaspoonful every three hours.

# ACIDUM SALICYLICUM.

Salicylic acid made from oil of wintergreen is the only form that should be used. As an application in diphtheritic conjunctivitis it is useful in destroying the membrane. A four-per-cent. solution in glycerine is the best form

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to use. I have used it in eczema of the lids, in the scaly and exudative forms, with good results. I have also used it in blepharitis, but did not get as good effects as from boric acid or yellow oxide of mercury.

## ACIDUM TANNICUM.

Tannic acid is, with some, the only drug in the ophthalmic materia medica. In purulent conjunctivitis where there is slight swelling and but little discharge, a collyrium of gr.ii—x, to water fai, will prove useful. In ophthalmia neonatorum, a glycerite of tannin is used, especially if there is a granulated condition of the conjunctiva. The preparation should be the strength of one to ten. A powder that is useful for dusting in the eye in trachoma is composed as follows: R Acid. boric. ziii, arid. tannic., zi, M. This used twice a day will prove beneficial in recent cases. The use of tannic acid and gallic acid in trachoma has been referred to under the head of gallic acid.

In commencing trachoma, when the conjunctiva is roughened and the granulations are developing, with the cloudy and vascular upper portion of the cornea, the following will prove beneficial: R Acid. tannic. gr.v, glycerine fzi, M., Sig. A couple of drops in the eye twice a day. This will, by its lubricating action, give relief from the gritty feeling.

### ACONITUM.

The only satisfactory preparation of aconite is the specific medicine. This drug is indicated in all inflammatory diseases of the eye, acute in character. Its use internally in eye diseases is as satisfactory as in any other class of cases.

Indications.-Hyperæmia and œdema of the conjunctiva, with its accompanying sensations of dryness and burning. Locally, it is valuable in the spasmodic twitching of the lids, relief following two or three applications to the lids, cheek and frontal regions.

Dose.-Gtt. one-tenth to one-third every one or two hours.

Topically, I write the following: R Sp. m. aconite, sp. m. veratrum virid., of each  $f_3ij$ , aqua q. s.,  $f_3iv$ , M. Sig. Moisten a cloth with the solution and apply to the eye. Repeat in an hour or two.

#### ALUMEN.

This drug is used in the various forms of conjunctivitis, especially the catarrhal form. It is used also in trachoma quite extensively by some oculists. Alum was at one time considered the specific in all conjunctival diseases, but lately it has been found that powerful astringents could do so much harm that their use is not often resorted to except in rare cases, and then in weak solutions only. The crystal is not now employed very generally.

Form for Use. —As a collyrium it is seldom used in a strength of more than gr.ij to water fzi.

## AMMONII CHLORIDUM.

In ecchymosis of the lids there is no better remedy than chloride of ammonium. If the application is made early, discoloration will seldom follow.

Form for Use.—Half an ounce, dissolved in water, f<sub>3</sub>viii. This is to be used freely for three or four hours.

#### AMMONII BROMIDUM.

In nervous affections of the lids, as twitching and jerking, also twitching of the ocular muscles, I have found this drug very useful.

Dose.—Ten grains, to be repeated every two or three hours.

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#### THE EYE.

## AMMONII IODIDUM.

In syphilitic diseases of the eye, where there is considerable depression of the system, I have obtained the best results from the use of the iodide of ammonium.

Dose.—I prefer the small dose frequently repeated; two grains every two hours.

# AMYL NITRIS.

In exophthalmic goitre, T. F. Allen reports beneficial results from the inhalation of nitrite of amyl vapor. I have never used the remedy in ophthalmic practice, so have no personal experience with it in this line. From three to five drops are used at a time on blotting paper, patient inhaling the fumes. The inhalations should be stopped as soon as a sense of fullness and warmth becomes marked.

It is contraindicated as a remedy for old people with brittle arteries, or where there is an apoplectic tendency or predisposition to determination of blood to the brain.

## ANTIPYRIN.

I will refer to this remedy, as it has been recommended in certain eye affections, though I am opposed to its use. It has been recommended in nearly all eye diseases associated with pain. A few diseases where it has been recommended may be mentioned: Neuralgia of the lids, episcleritis, sclero-choroiditis, pain after detachment of the retina, after cataract operations complicated with entanglement of the iris. In toxic amblyopia and floating bodies in the vitreous, it has also been recommended. In keratitis, iritis and irido-choroiditis, much is claimed for it. It is used by hypodermic injection, four grains being the dose.

## ARGENTI NITRAS.

In the use of nitrate of silver in ophthalmic practice there has been so much written that it seems as though

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the subject should be exhausted. A very important thing to remember is, that the strength of the solution should be in direct proportion to the severity of the disease. The higher the inflammatory action, the stronger this should be. I have used on several occasions a fiftyper-cent solution without neutralizing, and the applications were made by pouring the solution on the morbid surface, not simply touching it with cotton moistened a little. I have had no bad results from its use and do not expect any.

A solution of one-half per cent. dropped in the eyes of newborn infants constitutes the well-known Crédé's method of preventing ophthalmia neonatorum. In this condition and gonorrhœa ophthalmia I prefer a five-percent. solution.

In the catarrhal stages of trachoma strong solutions even to twenty-five-per-cent—are used, as also the mitigated stick caustic. In corneal ulcers, after scraping the morbid surface, touching the spot with a five-per-cent solution will usually be followed by rapid healing. Ulcus rodens will yield to strong solutions of nitrate of silver when all other remedies fail.

Remember to always reduce the strength of the solution as the severity of the symptoms declines.

#### ARISTOL.

In interstitial keratitis, after the acute symptoms subside, the use of aristol will hasten the clearing of the cornea. In phlyctenular diseases I have had good results follow the use of this drug, both in powder form and as an ointment, but as yet am not prepared to be enthusiastic over it. In blepharitis, I have used the ointment of aristol in one eye and an ointment of boric acid in the other, and could not see any special advantage over the latter preparation. Ulcers of the cornea have healed quickly, in some cases, when aristol was used. It may be em-

#### THE EYE.

ployed after acute inflammation has subsided, and also after suppuration has ceased. The ointment should be one-fifth per cent. of the drug, in vaseline.

## ATROPINÆ SULPHAS.

Different salts of atropine have been recommended but the sulphate holds its own. This drug is one of the indispensable articles for the oculist and consequently has been abused through reckless and indiscriminate use.

In iritis, atropine is indicated from the onset to the close of the disease. It should be used of such strength as to insure full dilatation of the pupil, and sufficiently often to keep up continuous paralysis of the ciliary muscle. In central, perforating ulcers of the cornea, atropine should be used so as to dilate the pupil, thus keeping the iris away from the perforation when it occurs.

In deep, interstitial keratitis, the drug should be used often enough to keep up its characteristic effects. After cataract operations the use of atropine should be continued until all danger of iritis has passed. In intermittent strabismus, atropine is of use by relieving the eye-strain. The amount of the drug should be diminished as parallelism is obtained. Proper correcting lenses should of course be prescribed. I have cured several cases of intermittent strabismus in this manner.

In chorea dependent on eye-strain, I have had splendid success with atropine aided by lenses, when all other treatment failed. The jerking ceased almost as soon as the atropine had produced paralysis of the ciliary muscle.

In ophthalmia neonatorum, at the first indication of haziness of the cornea, atropine should be instilled. This treatment will often prevent serious corneal complications, and will also frequently save the deeper structures of the eye. In phlyctenular keratitis, a solution of atropine is useful until the acute symptoms have disappeared. By its use the photophobia and lachrymation will be cured.

#### THE EYE.

Contraindications.—In aged people the use of atropine is always attended with more or less risk, glaucoma often following its use in such cases. In superficial vascularization of the cornea in keratitis, marginal corneal ulcers, glaucoma, and where there is increased tension of any amount. In phlyctenular keratitis, after the acute symptoms have subsided, the use of atropine is usually detrimental to the eye.

Form for Use.—A collyrium. R Atropinæ sul. gr. ss. to gr. xvi, water, ad. fʒi. I never give a patient a stronger solution than four grains to the ounce of water to take with him; this I have ordered used usually three times a day. The stronger solutions I use myself.

# AURI ET SODII CHLORIDUM.

This drug has given good satisfaction in deep keratitis, the result of hereditary syphilis. I have used it also in keratitis and iritis resulting from acquired syphilis. In scrofulous constitutions, where the bones of the orbit were implicated I have obtained some marked benefit in several cases. It will be found most useful in those individuals who do not bear the iodides well.

Care must be exercised in its administration, as it will sometimes produce so much soreness of the gums as to cause considerable inconvenience.

Dosc.--One-hundredth of a grain, either in solution or in tablet triturate. I usually prescribe it as follows: R Auri et sodii chlor. gr. i, aqua fşi., M. Five drops in water four times a day.

## BRYONIA.

This remedy is indicated in rheumatic iritis where motion of the eye-ball increases the pain. In puffing of the upper eyelid, not œdematous.

Form for Administration .- The specific medicine.

Dose.—From the fifth to the half of a drop every two hours.

### CACTUS.

Cactus has been recommended in exophthalmic goitre on accout of its action on the heart. I have used it in asthenopic visual defects dependent on faulty cardiac action. The drug has not been of much if any benefit when organic disease was present, but has been beneficial in functional disturbances.

Form for Administration .- The specific medicine.

Dose.—From the fifth to the half of a drop every two hours.

# CALCIUM.

LIQUOR CALCIS.—For babies, I have found lime-water the best form in which to administer lime. It is the remedy in all purulent diseases of the ball and lids. In ophthalmia neonatorum I always prescribe it. It is best given in milk. The dose should average from half a fluidrachm to a fluidrachm.

SYRUPUS CALCH LACTOPHOSPHATIS.—The syrup of lactophosphate of lime is especially useful in the treatment of children, and adults of scrofulous diathesis. It is in such cases that blepharitis ciliaris, phlyctenular conjunctivitis, phlyctenular keratitis and muco-purulent conjunctivitis will usually be found. Wherever there is perverted nutrition in connection with eye disease, I have found this a useful drug.

Dose.-From one to two fluidrachms.

CALX SULPHURATA.—In hordeolum, calx sulphurata will usually prevent a crop of these painful pests. In blepharitis ciliaris, where there is a tendency to the formation of pustules it will prove of benefit. In suppurative diseases of the conjunctiva, cornea, or deeper structures of the eye, it is *the* drug. In dacryo-cystitis, I have had good results from the use of this remedy.

Form for Administration. - The form I have found most

useful is the homeopathic preparation, on account of its stability, the U. S. P. compound being very unstable.

Dose.—A grain of the 1x or 2x trituration every three hours.

# CAMPHOR-CHLORAL.

I have found this combination useful in supra-orbital neuralgia. It is prepared by rubbing together equal parts of gum camphor and hydrate of chloral.

# CAUTERY.

In corneal ulcers the actual cautery has given satisfactory results, where the tendency was to perforation of the tissues. In conical cornea it has also been recommended. For this purpose a platinum probe should be used.

The galvano-cautery has been used in follicular conjunctivitis, by either puncturing the follicles or touching them with the needle. In trachoma it has been used in the same manner. Corneal ulcerations have been treated as with the actual cautery.

The thermo-cautery has also been used in trachoma, especially the obstinate and severe types of the disease. Corneal tumors have been successfully removed by this means.

# CHLOROFORMUM PURIFICATUM.

Gutieroez-Ponce has used chloroform in interstitial keratitis with photophobia, by introducing a pledget of cotton, moistened with the drug, into the external auditory canal, thus producing anæsthesia of the gasserian ganglion. This relieved the photophobia.

## CIMICIFUGA.

I have found this remedy beneficial in headaches resulting from eye-strain with a feeling of stiffness in the ocular muscles and bruised sensation of the muscles of the forehead.

#### THE EYE.

Form for Administration.—The specific medicine.

Dose.-From one-third to one-half drop every two hours.

# CINERARIA MARITIMA.

The expressed juice of this plant has been recommended as a pretty sure cure for cataract. I am not able to speak from experience on the subject however.

It is used by instilling one or two drops into the eye, and following with gentle massage.

## COCAINÆ HYDROCHLORAS.

This is an alkaloid prepared from the leaves of the erythroxylon coca. Cocaine produces local anæsthesia of the mucous membranes when topically applied. In the eye, it anæsthetizes the conjunctiva, cornea, and also the deeper structures. It dilates the pupil, diminishes accommodative power, constricts the blood vessels and lessens intra-ocular tension. Anæsthesia is produced in from one to five minutes, and continues about an hour.

The anæsthetic properties of cocaine were first discovered and brought to the notice of the profession by Dr. Carl Koller, now of New York, in 1884. The result of this discovery has revolutionized ophthalmic surgery, and the profession, as well as the laity, owe everlasting gratitude to Dr. Koller.

Cocaine is the faithful ally of the ophthalmic surgeon; by its use foreign bodies imbedded in the cornea can be removed with ease, and without pain to the patient. Pterygium, pinguecula, cauterization of corneal ulcers, operation for strabismus, anterior staphyloma, iridectomy and cataract—all these operations can be performed without the unpleasant results attending general anæsthesia.

Cocaine increases the absorptive powers of the eye for some drugs—atropine, eserine and also homatropine—the full benefit of the drug being obtained sooner by the previous instillation of cocaine. Cocaine seems to produce irregular action of the ciliary muscle, thus inducing false astigmatism.

The continued use of this drug in conjunctival and corneal diseases is positively injurious. In these diseases, though it gives temporary relief from the annoying symptoms, its use is followed by increased inflammatory action. Ulceration of the cornea may follow the continued use of the drug.

Cocaine has no apparent effect, that I can discover, in operations on the lids or the lachrymal sac, unless it is used hypodermically. It will sometimes give good results in those diseases in which there is much photophobia, a couple of instillations being often sufficient. It is a drug that I do not consider safe to give the patient to use, as it may be carried too far. I have had several cases of this kind Opacities of the cornea have been reported as resulting from the use of cocaine, but I have never seen a case that could positively be traced to its use.

Form for Use.—Solutions of from two to four per cent. Sometimes a ten-per-cent. solution is used, but I have found four-per-cent. the most useful for all work.

## CREOLINUM-CREOLIN.

A product of dry distillation from English coal. The process of obtaining it is not as yet known. It is a dark brown, or blackish fluid, of a syrupy consistency and having a tar-like odor. It mixes with water in any proportion, forming an opaque, whitish emulsion.

Creolin is irritant to mucous membranes, and is supposed to be a germicide. It is less toxic than carbolic acid.

The use of creolin in ophthalmic practice will probably not produce any immediate revolution. It has been recommended in catarrhal and phlyctenular conjunctivitis, acute trachoma, ulceration and hypopyon keratitis, ulcers of the cornea, parenchymatous keratitis, especially if vascular. In these diseases it has been used with benefit.

Contraindications.-Chronic conjunctivitis and keratitis with iritic symptoms.

Form for Use.--One part of creolin to five-hundred or a thousand parts of water.

## CUBEBA-CUBEBS.

Heyl employs an ointment to the outer surface of the lids in cases of gonorrhœal ophthalmia. The following is the form of prescription: R Cubeba pow. gr. v-xl, lanolin  $_{3}i$ , M. Apply twice a day until severe symptoms subside, then once a day.

## CUPRI- SULPHAS.

Sulphate of Copper has been the main-stay of the oculist for years, I was going to say ages, and if I did it would not be far out of the way. It is a drug that I have never used in my private practice. I have used it in hospital practice enough to satisfy me that there are other drugs that are safer to handle, and at the same time as efficacious. I had the drug used once in my own eyes and never went back for a second treatment.

In the cases in which I have seen it used and benefit seemed to follow its application it would seem to be indicated in the transition stage from the acute to the chronic form of trachoma, where there was paleness and an indolent condition of the follicles; also in old, chronic cases of trachoma, with the conjunctiva presenting transverse bands of cicatricial tissue, and the granulations in a process of atrophy.

Form for Use.—Crystal of sulphate of copper with a smooth surface. Collyrium: Sulphate of copper gr. v, glycerine f<sup>z</sup><sub>i</sub>, M. Unguent: Sulphate of copper gr. ii, vaseline <sup>z</sup><sub>i</sub>iss., M.
### CUPRUM ALUMINATUM-ALUMINATED COPPER.

This is usually sold in the form of pencils. It is used in a manuer similar to sulphate of copper, and for the same diseases.

## DIGITALIS.

In embolism of the central retinal artery where there is enfeebled heart's action, digitalis has produced in some cases improvement in the condition of the eye, so far as vision was concerned. I have had the best results from jaborandi in these cases, however.

Dose.—Specific medicine digitalis, gtt.  $\frac{1}{3}$  to  $\frac{1}{2}$  every hour.

## DUBOISINÆ HYDROBROMAS VEL SULPHAS-DUBOISIA.

An alkaloid obtained from the leaves of duboisia myoporoides called duboisine, which resembles atropine. It is mydriatic, its effects being produced more quickly than those of atropine. Unpleasant effects are oftener obtained from the use of this drug than from atropine so it is not so frequently used. Epistaxis has been reported as following the instillation of duboisine.

In interstitial keratitis the use of this drug will sometimes be borne better than atropine. In indolent ulcers of the cornea the drug will often stimulate healthy action, thus hastening the healing process.

Form for Use.—Collyrium. Generally a one-per-cent. solution.

### ELECTRICITY.

It is not in the province of a work like this to discuss the merits of the various forms of electricity, apparatus and all the different makes of batteries.

In muscular asthenopia—paresis—occasional good results have followed the use of this treatment. In spasmodic affections of the orbicularis, the faradic current has been beneficial. In stricture of the nasal duct, the

introduction of a metal probe and the application of a moderate current from the negative pole of a galvanic battery has been recommended. In corneal opacities the use of the cathode as the therapeutic pole, unless congestion appears, then the anode, of a galvanic battery has proved of benefit. In retinitis pigmentosa the use of the constant current has been followed by improvement in vision.

Electrolysis has been successfully used in cases of perverted cilia, where the number is not too great.

### EPHEDRIN.

Ephedrin is an alkaloid prepared from ephedra vulgaris helvatica, that has been used a little. The drug is mydriatic, producing dilatation of the pupil in forty to sixty minutes. Accommodation is but slightly affected. There seems to be no disturbance of intra-ocular tension. The pupil returns to normal in about seventy hours.

Form for Use.-Collyrium of six to seven per cent.

### ERGOTA.

Ergot has not, so far as I have seen, been used very extensively in eye disease by oculists generally. In looking over the literature on the subject it is recommended but twice—for arresting severe hemorrhages after enucleation, and ergotin, in congestion of the conjunctiva.

Ergot has been a favorite of mine for six years in conjunctivitis and keratitis, superficial in character. In ophthalmia neonatorum I employ it from the first and continue its use until a cure is affected. In follicular conjunctivitis it will cure oftener than any drug that I have found. In commencing trachoma it will usually be all that is necessary. In phlyctenular diseases it is a satisfactory remedy. In pannus, with much vascularization, it will prove beneficial. I have used this drug in pinguecula, 37 frequently causing their disappearance. In episcleritis or diseases of the deeper structures, the instillation of erget does not seem to be of any benefit.

In hyperæmia of the optic disk, hemorrhages in the vitreous, and where the retinal vessels show a relaxed or congested condition, I have had good results from the administration of ergot in full doses.

Dose.—Lloyd's ergot,  $f_3ss.$ — $f_3i$ . As a collyrium, gtt. xv— $_3ss.$  to water q. s.,  $f_3ss.$ 

### ERYTHROPHLEINE.

An alkaloid obtained from the bark of erythrophlœum guinese; a tree that is native to the coast of Africa.

The alkaloid has anæsthetic properties when applied to mucous membranes, but is so irritating that it has never come into general use. The irritating effects on the conjunctiva and cornea are very severe, and do not subside for several days.

### FERRUM.

Iron, in some of its preparations, is useful only to a limited extent in eye diseases. Where there is visual asthenopia, due to an anæmic condition, the use of iron will often prove beneficial. In keratitis, due to acquired syphilis, the iodide of iron will be a good remedy, if there also exist an anæmic condition of the system.

The indications for the use of iron are, however, always found in the general condition of the patient, and the form for administration will be governed by this.

### FLUORESCIN.

This is a coal-tar product, and is an anhydrid of resorcin phthalein.

This preparation has been used to a limited extent for diagnostic purposes, small breaks in the corneal epithelium being rendered visible by its use. Recent corneal lesions can also be differentiated from old. In recent

lesions the underlying elements are stained a greenish tint, while the epithelium remains uncolored. In old leisons there is no staining. In infiltration of the cornea the stain appears, while in hypopyum keratitis no discoloration occurs.

Form for Use.--One-half-per-cent. solution. One drop in the eye.

## GELSEMIUM.

Pain in the eye and head, especially in the frontal region, associated with ciliary injection, usually yields readily to gelsemium. In tobacco amblyopia this drug has done good work. I have used it in alcoholic amblyopia with better success than any other drug. In choroiditis, where there is an evident lack of muscular energy with a feeling of depression, it is of benefit. In irido-choroiditis, disseminated choroiditis and traumatic detachment of the retina, gelsemium has been used with success. In paralysis of the third nerve, following diptheria, I have had the best success with gelsemium.

Dose.—Specific medicine gelsemium, 'gtt. one-fifth to one-third, every two hours.

### GLYCERINUM.

Glycerine alone is seldom if ever used in ophthalmic practice, but it is used considerably in combination, in various diseases, and both before and after operations.

In trachoma, a solution of tannic acid and glycerine  $(gr. v-f_{3}i)$  dropped in the eye twice a day relieves the gritty feeling, possessing both lubricating and astringent properties. A solution of quinine and glycerin (gr. x-xx) in  $f_{3}i$ ) applied once a day, has also been recommended in trahcoma. Where the granulations are discrete, after the use of the thermo-cautery without opening the follicles, the use of a collyrium of boric acid, salicylic acid, glycerine and water will prove a soothing application.

### GUABANA.

In temporary paralysis of the third nerve, which sometimes follows headache, guarana has given relief.

Dose.-Gtt. vi-xv, every hour.

### HAMAMELIS.

A household remedy used considerably in contusions of the lids. In intra-ocular hemorrhages hamamelis seems to promote absorption. Aqua hamamelidis destillata—distilled hamamelis—is the form used.

Dose.-Gtt. i-x, every hour.

### HOANG-NAN-STRYCHNOS GAULTHERIANA.

This remedy has been suggested in tobacco amblyopia, but has not, so far as I know, been used for this purpose. Dose.—Tincture, gtt. xx—xl; fluid extract, gtt. v—xxx.

### HOMATROPINÆ HYDROBROMAS.

Homatropine is a derivative of atropine. This drug has been recommended as a substitute for atropine in the determination of refractive errors and for purposes of examination. The effect of homatropine passes off in from thirty-six to forty-eight hours. For examinations the drug is preferable to atropine, but in my experience it is not of much use in refactive troubles, especially of children, where there is much spasm of the ciliary muscle. I have tried the drug in many of these cases and almost invariably have had to resort to the use of atropine. In middle aged persons however I have usually found the drug all that could be desired.

Contraindication.-Glaucoma.

Form for Use.—Collyrium: Gr. iv, aqua, fzi. The solution should be fresh.

## HYDRARGYRI CHLORIDUM CORROSIVUM.

Corrosive sublimate has been used and recommended in nearly every disease of the conjunctiva and cornea as

a topical agent, while internally it has been used in many of the morbid affections of the deeper structures.

A solution of corrosive sublimate (1-6000) has been suggested and used in place of Crédé's method in ophthalmia neonatorum. In xerosis, irrigation of the eyeball with a solution of sublimate (1-10000) is recommended. In trachoma, various methods have been used, each of which has its advocates. One method is to use a solution of sublimate (1-500) once a day, using three or four times a day in the interim a solution (1-7000)of the same drug. The use of solutions varying from 1-1000 to 1-7000 for trachoma is very common.

Hegare Korhn advises washing the face and eyelids of the newborn with a solution of corrosive sublimate (1-1000), as a preventative of ophthalmia neonatorum. Solutions of bichloride are used in acute catarrhal and phlyctenular conjuctivitis, keratitis and blennorrhœa of the lachrymal sac. Hourly irrigations with 1-4000 to 1-8000 have given good results in hypopyon keratitis.

Corneal opacities have resulted from the use of sublimate solutions and many operators are not using the drug as much as formerly.

Bathing the face and eyelids and instilling a solution of sublimate in the eye still finds favor with some operators as a preventive of germs infecting the traumatism.

Internally, corrosive sublimate is used in syphilitic affections of the eyes, usually in combination with iodide of potassium. It is also used alone. I prefer the small dose of this powerful drug, as in this way the desired effects can be obtained without the unpleasant results so undesirable, and yet so often seen.

Form for Use.—Collyrium: 1 to 1000 or 8000 parts of water.

Dose.-Gr. 1-100th to 1-60th.

Note.-Topical applications of corrosive sublimate should

not be used when iodide of potassium is being administered internally.

HYDRARGYRI CHLORIDUM MITE.

In superficial opacities of the cornea, I have had some excellent results follow the use of calomel dusted in the eye, the irritation provoking sufficient action to replace the opaque structure with healthy material. In phlyctenular conjunctivitis and keratitis, the insufflation of calomel will frequently produce healthy reaction, so that healing will quickly follow. Calomel may be used in the form of an ointment, but it is not as satisfactory as in the powder.

Care should be exercised in the use of this drug that it be pure, that is, free from corrosive chloride of mercury, and is in the finest possible state of subdivision.

Contrainducations.—When the patient is taking iodide of potassium; when ulcers of the cornea are forming or increasing in extent.

Form for Use.—Dusted in the eye as a powder once in one or two days. As an ointment, gr. v—xx, vaseline, zi.

### HYDRARGYRI CYANIDUM.

Cyanide of mercury has been used by Chibret for cleansing the contents of the globe in panophthalmitis, he claiming that by this method the infection, when the meninges were threatened, was stopped.

Form for Use.-In solution of 1 to 15000.

HYDRARGYRI IODIDUM RUBRUM.

This is a drug that I have used a great deal. It has given results in syphilitic diseases of the eye that I have been unable to obtain from iodide of potassium or any other remedy. In specific iritis I have had cases that yielded to biniodide of mercury when iodide of potassium, pushed to toleration doses, had no effect whatever.

In specific iritis, choroiditis, choroido-retinitis and keratitis, when the effects of mercury are desired and the

danger of ptyalism is to be avoided, I consider this the drug to use. If given in small doses the desired effects can be obtained without danger.

Biniodide of mercury is the mercuric base of "Panas's solution," which is used by many operators for irrigating the eye before operations, instead of bichloride.

In the earlier stages of trachoma, Panas's solution is used for its cleansing and curative effects. It is also used in catarrhal and phylctenular conjunctivitis.

### Dose.-Gr. 1-100th.

Panas's Solution.—Biniodide of mercury 1, absolute alcohol 400, water 20000.

## HYDRARGYRI IODIDUM VIRIDE.

This preparation of mercury in my hands has not proved satisfactory. It is a little like calomel, an uncertain commodity. It is used some in syphilitic diseases of the eye, but is not as satisfactory as the biniodide.

Dose.-Gr. one-fourth to one-tenth.

## HYDRARGYRI OXIDUM FLAVUM.

The yellow oxide of mercury is another drug of the mercury series that is often beneficial. In phlyctenular keratitis of children, the use of this drug is indicated in nearly all cases.

In indolent ulcers and maculæ of the cornea, episcleritis, xerosis and pannus, the use of yellow oxide will give good results. In blepharitis ciliaris I have found it the most useful application, especially in old, chronic cases.

The mercury should always be rubbed with a drop or two of glycerine before incorporating it with the vaseline, or the finished ointment will be anything but smooth.

Form for Use.-Yellow oxide gr. iv-xv, vaseline zi, M.

#### HYDRASTIS.

Constituents.—Berberine, the yellow alkaloid. Hydrastine, the white alkaloid.

The action of the salts of berberine is negative in eye diseases. The salts of the white alkaloid however are useful in catarrhal affections, but have no especial use in diseases of the deeper structures.

The use of hydrastis in conjunctival diseases has been known to the Eclectic profession since the early investigations of Prof. John King, in 1832–33. Since this time the drug has been used more or less extensively, and is looked upon as a valuable remedy.

The form that I usually employ is "Lloyd's Hydrastis," on account of the absence of staining properties. In all forms of conjunctival diseases, and in superficial corneal lesions, hydrastis is indicated. It is especially useful in catarrhal conjunctivitis. In diseases of the deeper structures the use of this drug is of no particular value.

In trachoma, especially old, chronic cases, the use of hydrastis will prove of benefit. In follicular conjunctivitis it is a splendid remedy. In blepharitis ciliaris also, the use of this drug produces marked beneficial effects.

Form for Use.—Collyria: Lloyd's Hydrastis f<sub>3</sub>ss.—i, aqua q. s., f<sub>3</sub>ss. Hydrochlorate of hydrastine solution two-per-cent.

## HYDROGEN PEROXIDUM

This compound has been used in that class of eye diseases in which purulency is the prominent feature. In purulent conjunctivitis the instillation of this drug destroys the pus rapidly. In dacryo-c\_stitis, irrigating the sac with peroxide of hydrogen daily, has been followed by a rapid cure.

The preparation of hydrogen peroxide must be kept in a cool place and tightly corked, otherwise it is soon worthless.

Form for Use.- A ten-per-cent solution.

### HYDRO-THERAPEUTICS.

I have thought best to treat the effects of heat and cold under this head, for the reason that water, in some way, enters into nearly all applications used.

In deep, corneal ulcers, the douche of hot water is frequently serviceable. Simple immersion of the eye in hot water gives relief in many cases. In gonorrhœal ophthalmia, hot water is frequently of benefit. In catarrhal, phlyctenular and granular conjunctivitis, the hot douche often affords relief when other measures fail. In trachoma with pannus, I have seen rapid clearing of the corneal lesion and diminution of the trachomatous condition by the daily use of the hot water douche, the application being kept up for an hour each<sup>•</sup>time.

In keratitis or iritis—idiopathic in character—the use of hot water usually affords relief. Care must be exercised in the use of hot water or hot applications, for fear that œdema, and even chemosis; may result. It is a safe rule to avoid the use of poultices about the eye unless you can take the time to make the applications yourself. The use of compresses, except in rare cases, is a measure that I do not think wise. In conjunctival and superficial corneal diseases the secretions are usually so acrid that they increase the difficulty, and as free exit to the secretions is impossible when compresses are employed, I think their use is contraindicated except on rare occasions.

Cold.—Iced cloths are useful in allaying the pain incident to traumatic iritis, and in penetrating wounds of the eye. In purulent conjunctivitis the use of iced cloths is also beneficial, as their action prevents rapid formation of pus. In using iced cloths the best method is to lay small cloths, the right size to cover the lids and of three or four thicknesses, on a piece of ice; the cloths should be changed every half-minute, or minu<sup>+</sup>e at the outside.

The application should be made for fifteen or twenty minutes at a time, and repeated every hour or two.

In making use of hot or cold applications it is necessary to remember that continuous heat or cold is required, and that either one may do harm if continued too long.

### HYOSCYAMINÆ HYDROBROMAS.

Macbride states that this alkaloid is a powerful mydriatic, and that one instillation does as well as repeated instillations of atropine sulphate, and, instead of requiring from ten days to three weeks to pass off, the effects disappear in five days at the longest.

Form for Use.—One-fortieth to one-twentieth of a grain at an instillation.

## HYOSCYAMINÆ SULPHAS.

The mydriatic power of this alkaloid has been thoroughly tested, and shows that a single instillation will ordinarily produce complete paralysis of accommodation with full dilatation of the pupil.

The accommodative power is regained after twelve days, the pupil regaining its normal size after seventeen days.

Form for Use.—An instillation of one-fortieth to onetwentieth of a grain.

### HYOSCINÆ HYDROBROMAS.

Hydrobromate of hyoscine seems to be an unirritating, rapid and powerful mydriatic, producing paralysis of accommodation quickly; its action being about three times as rapid as atropine. The mydriasis passes off more quickly, but the accommodative power is slower in recovery. There seems to be no effect on tension in chronic glaucoma, though vision is sometimes improved.

Form for Use.—Collyrium of one-half to one per cent. Note.—The alkaloids of hyoscyamus are not generally used in ophthalmic practice, as other mydriatics are cheaper, safer, and usually more reliable.

### IGNATIA.

In hysterical affections of the eye, ignatia is often beneficial. I have found it valuable also in visual asthenopia depending on an atonic condition. In catarrhal conjunctivitis, where there is a sensation as of dust in the eye and nervous twitching of the lids, I have had good results from its use.

' Dose.—From a tenth to a sixth of a drop (s.m.), every two hours.

### IODOFORMUM.

In corneal ulcers, both simple and serpiginous, I have had rapid healing follow the use of iodoform. In blepharitis marginalis, after carefully washing away the secretions, the use of iodoform is beneficial. Gumma of the palpebral conjunctiva will heal more rapidly as a rule when iodoform is used, either as an ointment or in powder form.

In ophthalmia neonatorum, an ointment of iodoform is a useful adjunct, preventing the lids from sticking together besides having an influence on the character of the discharge, it becoming less purulent. Hypopyon keratitis is also influenced by the use of this drug in the shape of an ointment.

After operative procedures on the eye or lids, iodoform is useful as a dressing.

Toxic effects from the use of iodoform are seldom seen in children, but frequently occur in aged people.

Form for Use.—An impalpable powder dusted on the morbid surfaces, or an ointment of five or ten per cent.

### IODOL.

Iodol is formed by the action of iodine upon pyrol, a constituent of mineral oil. The compound contains about ninety per cent. of iodine. It is a grayish-white powder, slightly soluble in water.

Iodol has been used in conjunctival diseases, especially the catarrhal form, and seems to do good work, but possesses no advantage over other drugs of this class.

Form for Use.—The powder, dusted over the eye.

### IPECACUANHA.

In phlyctenular diseases with photophobia, ipecac gives prompt relief in the majority of cases. The photophobia soon disappears, and the other symptoms improve.

. Dose.—From the tenth to the fifth of a drop (s. m.), every hour.

## LANOLINUM.

Lanolin alone is not used in ophthalmic practice, as it is so thick, tenacious and sticky, that it would form an unpleasant excipient. By combining it with vaseline or lard (3 parts lanolin to 1 part vaseline or lard), it makes a desirable base for all eye ointments.

## LIMONIS SUCCUS.

In trachoma, Abàdie and Petresco both use lemon juice. Abàdie cauterizes the entire conjunctival surface once in six hours. Other remedies are used in conjunction.

## MASSAGE.

By the employment of massage, chronic diseases of the conjunctiva and cornea, especially those indolent in character, are benefited by manipulation through the lids. In maculæ of the cornea, this method has as much to do with the disappearance of the opacities as the drug that is introduced. Indolent corneal ulcers are especially benefited by rubbing. In the peculiar "tired feeling" that is often felt after close application of the eyes, rubbing of the forehead, using enough friction to make the skin red, will frequently afford relief.

### MORPHINÆ SULPHAS.

The alkaloids of opium are not now used very much by oculists. The action of morphine on the conjunctiva is not as marked as was supposed. In the peculiar condition frequently found among those that use the eyes in hot, dry and dusty work however I have found the irritation much relieved by the use of morphine.

The internal administration of this drug is too well understood to need any elaboration.

Form for Use.-Collyrium : Gr. ii, to water, f3ss.

# MORRHUÆ OLEUM.

Codliver oil is a valuable aid in all eye diseases dependent upon, or associated with, enfeebled nutrition. In phlyctenular diseases, interstitual keratitis, blepharitis marginalis and chronic ulcers of the cornea, I have employed codliver oil with the best results. I prefer the pure oil, but sometimes have to give the emulsion.

## NAPHTHALINUM.

Naphthalin is another of the products obtained from the distillation of coal tar. Just at present there seems to be a sort of mania for coal tar derivatives, and the patient that escapes experimentation with them is indeed lucky.

This drug occurs in the form of white crystals that can be compressed into cakes. It is insoluble in water.

Naphthalin has been employed in purulent conjunctivitis, and seems to reduce the redness and swelling of the lids. There is no appreciable diminution of the discharge.

Form for Use.—The drug, applied by means of a watery emulsion to the lids.

## NAPHTHOL, ALPHA AND BETA.

These two compounds are formed by the action of sulphuric acid on naphthalin, when the two are heated together for several hours. Hot water is then added to this product and the mixture filtered; to the filtrate is added carbonate of lead, forming lead-napthalin sulphonates. These sulphonates yield the acids, which, when fused with an alkali yield the two naphthols, alpha-naphthol and beta-naphthol.

ALPHA-NAPHTHOL pure, occurs in white crystals and is insoluble in cold, and sparingly soluble in hot water. The drug has an aromatic odor and a slightly pungent taste.

Budin highly recommends alpha-naphthol in purulent conjunctivitis.

Form for Use.—Collyrium, 1—5000.

BETA-NAPHTHOL.—This preparation occurs in colorless scales or in white crystalline powder. It is soluble in seventy-five parts of boiling water and slightly so in cold water.

In acute and chronic trachoma, a five-per-cent solution of beta-naphthol applied once a day has been reported as beneficial. The irritation, which lasts from three to five minutes, may be allayed by bathing the lids and eyes with cold water. In purulent conjunctivitis, a solution (1-2500) has been used with good results.

Contraindication.—In ulceration of the cornea the drug should not be used.

Form for Use.-A collyrium.

### NUX VOMICA.

The specific medicine is the form in which to administer this drug. In atrophy of the optic nerve, I have obtained good results from the use of this remedy. In amblyopia from the use or abuse of alcoholic liquors and tobacco, I have obtained the best results from the use of nux combined with dilute phosphoric acid. In choroiditis, the use of this drug is often followed by improvement in vision.

In nervous affections of the lids and in muscular asthenopia, I think more of nux than any other one remedy in the materia medica. In phycienular keratitis and conjunctivitis, the tonic effects are of benefit in hastening a cure. In cases where eye affections are caused or aggravated by an atonic condition of the system, nux should be used.

Dose.—Gtt. 1-10th to 1-3rd, every three or four hours.

### OUBAINE.

Oubaine is the active principle of a plant found on the eastern coast of Africa. The plant is a member of the family Apocynaceæ. The active principle is a glucoside, and was supposed to possess anæsthetic properties on the ocular conjunctiva, this effect being produced in some animals; but in man it possesses no such power.

## PETROLATUM-PETROLEUM OINTMENT.

There are several preparations of petroleum in the market, the most satisfactory in my experience being vaseline. Vaseline becomes liquid at the temperature of the body and is not sticky. It has never, in my hands, produced any irritation. I have had considerable experience with the other preparations of petroleum, and have several times had results that were not expected.

In catarrhal and purulent affections of the conjunctiva, the application of vaseline to the lids will prevent, in a measure, their sticking together after sleeping. I have found vaseline a good application after the removal of foreign bodies from the cornea as well as for traumatisms of the conjunctiva. In follicular, trachomatous diseases, the application of this ointment under the lids will relieve the sensation of dust or irritation.

### PHOSPHORUS.

This drug has a marked influence on many diseases of the inner structures of the eye. Its influence on the nerv-

ous system being well known, it is surprising that it is not more extensively used in ophthalmic practice. In disseminated choroiditis, it has seemed to not only check the morbid process, but the vision has increased under its use. In retino-choroiditis, I have had a couple of cases that were benefited by its administration. In hyperæmia and inflammation of the retina, rapid benefit generally follows the use of phosphorus.

In amblyopia, the visual acuity is rapidly increased, provided of course that no morbid process is present, but that the amblyopia be reflex or functional. In paralysis of the ocular muscles and insufficiency of the internal recti, phosphorus is one of the best remedies I know.

Dose.-Gr. 1-200th to 1-100th.

## PHYSOSTIGMA-CALABAR BEAN.

Physostigminæ salicylas—salicylate of physostigmine; and the hydrobromate and sulphate of physostigmine are also used. The alkaloid, physostigmine (eserine), is extensively used by oculists, and forms an important adjunct in many diseases. Physostigmine is the most generally used myotic, and for diminishing tension, it is, in my experience, the oftenest indicated drug having this action.

In perforating ulcers of the cornea when at or near the periphery, this drug should be used to prevent prolapse of the iris. In hypopyon ulcers of the cornea when uncomplicated by iritis, the use of physostigmine every three or four hours relieves tension and stimulates healthy action. In indolent, nonvascularized ulceration of the cornea, I do not know of any one drug that has proved as satisfactory as physostigmine.

In episcleritis, physostigmine has given good results. In glaucoma induced by the use of atropine, this remedy will often effect a cure. In glaucoma, the use of physostigmine will often be necessary, especially if an immediate operation can not be performed. In corneal abscess and deep ulcers, especially in those of feeble nutritive powers, this drug acts well.

In the sequelæ of traumatisms when increased tension is found, relief will quickly follow the instillation of this drug. I have had the best results from the instillation of physostigmine in marginal ring ulcers of any drug I have tried. In feeble accommodative power and in paralysis of the muscles of accommodation, I have had some brilliant results from the use of this drug. In convergent strabismus (intermittent), the use of physostigmine will often, through its increasing the power of accommodation, cause parallelism by lessening the strain on the internal recti.

In neuralgia of the eyeball, the drug will frequently afford prompt relief. In traumatisms at the margin of the cornea, this is the proper remedy. In breaking down adhesions, the result of iritis, the alternate use of atropine and physostigmine will, in many cases, give the desired results.

The internal administration of the drug in eye diseases has been rather limited. I have used it in several cases of persistent spasm of the muscle of accommodation and have been well pleased with the effect.

Forms for Use.—As a collyrium, gr. i to ii, aqua fzi; internally, gr. 1-200th to 1-100th.

## PHYTOLACCA RADIX-POKE-ROOT.

In panophthalmitis, good results have followed the administration of phytolacca. In trachoma, the use of this drug has been recommended as a topical agent. Never having used the drug in this way I know nothing of its merits.

Dose.—Specific medicine, gtt.  $\frac{1}{3}$  to 2.

## PILOCARPUS-JABORANDI.

Pilocarpinæ hydrochloras—hydrochlorate of pilocarpine; pilocarpus, the leaflets of pilocarpus pinnatifolius, a native of Brazil, has been used considerably of late in ophthalmic diseases.

Jaborandi, in full doses, produces contraction of the pupil, impairs the accommodative power, and increases the secretion of the mucous glands. Topically, the same results follow. Intraocular tension is diminished.

Internally, the use of jaborandi has given good results in tobacco and alcoholic amblyopia. In rheumatic iritis, I have had splendid results from its administration. In optic neuritis, detachment of the retina, choroiditis, episcleritis, and in atrophy of the optic nerve, the drug has given good results. I have found no remedy that causes such rapid absorption of non-organized vitreous opacities as jaborandi. One writer says of this drug: "It subdues inflammatory condition of the iris and ciliary body which intervene when masses of the cortical substance of the lens remain in the anterior chamber after the operation of extraction of cataract."

I have found the administration of jaborandi useful in cases of spasm of the muscle of accommodation where it was inconvenient to use local measures. In iritis, I always use jaborandi, and find that the disease is of shorter duration by its use. If adhesions have occurred, the use of this drug aids absorption.

Locally, the use of the alkaloid, pilocarpine, has been recommended instead of physostigmine, in glaucoma. In the early stages of phlyctenular conjunctivitis and keratitis, the instillation of a solution of pilocarpine will be found beneficial. After traumatism, with an increase of tension, the local use of pilocarpine will relieve the pain and tension. I am an enthusiast on jaborandi and do not think we know its full virtue, as yet. Forms for Use.-Gtt. iii to x, every two or three hours. Collyrium: Pilocarpine gr. i to ii, to aqua fzi.

Caution.—There are many preparations of jaborandi in the market that are worthless. I have used a number and without results. I now prescribe Lloyd's specific medicine only.

# PISCIDIA ERYTHRINA-JAMAICA DOGWOOD.

This drug I have used in a number of cases of neuralgia of the eyeball—where opium was not well borne—and have found it relieved the pain very materially. In supraorbital neuralgia I have also found it a good remedy in several cases where other drugs failed.

Dose.-Gtt. x to xx of the fluid extract, every two or three hours.

# PLUMBI ACETAS.

This drug has in times past enjoyed considerable reputation in conjunctival diseases, but at present it has fallen into general disuse. Where corneal complications exist, as they frequently do, the danger of infiltration and deposit of lead in the corneal tissues is too great to make acetate of lead a desirable remedy.

Form for Use.-Collyrium of gr. iv, aqua fzi.

### PLUMBI IODIDUM.

A case of dermoid cyst of the orbit has been reported cured by the use of the ointment of iodide of lead. Form for Use.---Unguentum plumbi iodidi.

## PLUMBI SUBACETAS, LIQUOR-GOULARD'S EXTRACT.

This preparation (1-10) has been highly recommended in trachoma. It has also been employed in other conjunctival diseases, but is now not extensively used. It has been placed in the same class as the acetate of lead.

# POTASSA-CAUSTIC POTASH.

In trachoma, one writer advises scarifying and squeezing the lids, then cauterizing the surface with liquor po-

tassa. This looks like heroic treatment, and I would be loth to try it.

# POTASSII BICHROMAS.

Internally, in mild cases of croupous conjunctivitis, the administration of this drug is especially beneficial. In indolent inflammatory action, especially corneal ulcers and where the secretions are of a stringy nature, potassium bichromate is the indicated remedy. In trachoma with a tenacious secretion, it is also a good drug.

Locally.—A saturated solution applied to large granulations of the acute type will prove curative.

Dose.-Gr. 1-200th to 1-100th, every three hours.

## POTASSII BROMIDUM.

Bromide of potassium is frequently employed to relieve headache due to eye-strain. This drug has, from long continued use, produced recurrent corneal ulceration.

Dose.—Gr. x to xv, every two or three hours.

# POTASSII CHLORAS.

Small epithelial growths of the eyelids have been reported cured by the daily application of powdered chlorate of potassium.

# POTASSII IODIDUM.

In specific diseases of the eye, both corneal and of the deeper structures, the administration of the iodide of potassium in doses large enough to get the full effects of the drug, will give rapid relief in the majority of cases. In periostitis of the orbit and paralysis of the ocular muscles dependent on syphilitic conditions, and gumma of the palpebral conjunctiva, iodide of potassium will prove curative. Ophthalmoplegia externa and interna, as well as hemianopsia, have been cured or benefited by the use of this drug.

In syphilitic iritis, I have had several cases that re-

quired doses of from thirty to sixty grains repeated every three hours, before relief was obtained.

Dose.—Gr. v to xx, every three or four hours.

## PULSATILLA.

The cases in which I have found the best results from the administration of pulsatilla have been in visual disturbances, as in flashes of light, transitory dimness of vision, etc., dependent upon a hysterical condition. Our homeopathic friends use the drug in nearly all kinds of eye diseases, but I have been unable so far to obtain any results unless the hysterical phenomena were present. For ulcerative and conjunctival diseases, or diseases of the deeper structures, I have been sorely disappointed, though I may yet find the secret of homeopathic enthusiasm.

Dose.—Gtt. i to ii, every two hours. The specific medicine is the most satisfactory to use.

### QUINIÆ SULPHAS.

The internal administration of quinine is of doubtful benefit in eye diseases unless there is marked periodicity, the disease partaking of the neuralgic character.

Locally, the sulphate of quinine has been used in trachoma and follicular conjunctivitis. I have had good success with the drug in some cases of trachoma, while in others it has failed entirely. The use of the drug has been purely empirical.

Form for Use.—Either in the form of the dry powder or in a solution of glycerine gr. iii to x, to fzi.

### RETINOL.

A liquid hydrocarbon, obtained by dry distillation of colophony. The color is brown or yellowish; action slightly acid from the traces of picric acid present.

Retinol has been extensively used by some in the treat-

ment of simple and gonorrhœal affections of the lids, tear ducts, etc.

Form for Use.—Retinol ziiss, lanolini zi, sodii bicarbonatis gr. ii., M., ft. unguent.

## RESORCINUM-RESORCIN.

The drug resorcin generally found in the market is a synthetical compound.

Resorcin has been used in non-ulcerative blepharitis with good results, the ointment being used. A solution of resorcin has been used in acute and chronic conjunctivitis, also in corneal wounds.

Forms for Use.—Ointment of vaseline, containing three per cent. of resorcin; vaseline containing three per cent. each of resorcin and sulphur; a watery solution containing one or two per cent. resorcin.

## RHUS TOXICODENDRON.

I have obtained good results from rhus in ædema of the lids, when associated with intense redness. Pain in the eyeball aggravated by motion, will almost invariably be relieved by the use of rhus. Neuralgic pains more intense when moving about, will also be benefited by the use of rhus. Rhus has been recommended after cataract operations, for preventing inflammatory action.

Dose.—Specific medicine, gtt. 1-10th to 1-5th, every hour.

## RICINI OLEUM.

As a menstruum for the administration of cocaine, castor oil has given good satisfaction. Atropine may also be used in the same manner. I have used the oil considerably as a lubricant after the removal of foreign bodies from the cornea. The irritation produced by diseases of the mucous follicles may be relieved by the instillation of castor oil. In corneal ulcers also, relief will often follow the use of the oil, and even healing quickly result.

### SANTONINUM.

Santonin has been recommended in color blindness, not congenital, and has been said to benefit the cases materially.

Dose.—Gr. 1-20th to 1-10th every three hours.

### » SEPIA.

In eye diseases the result of reflex uterine disorders, sepia will be found especially useful. Asthenopic symptoms dependent upon uterine disorders, have, in my experience, yielded quickly to this drug.

Dose.—Gr. i of the 3x trituration, four times a day.

## SILICEA.

In caries of the orbit, this remedy of the homeopathists is especially valuable, either alone or alternated with calx sulphurata. I have found this drug especially useful in caries of the orbit, but have also on several occasions found it of service in suppurative diseases of the eyeball. *Dose.*—Gr. i of the 2x or 1x trituration.

# SODII BICARBONAS.

For softening the crusts that form around the lashes and at the edge of the lids in blepharitis marginalis, a solution of bicarbonate of sodium will be found beneficial; repeating the cleansing every three or four hours seems to prevent the rapid formation of pus.

Form for Use.-An eight or ten-per-cent. solution.

## SODII BORAS.

In muco-purulent types of conjunctivitis a solution of borax is of more benefit than astringents. In corneal ulcers, I have been pleasantly surprised at its curative action. For softening the crusts formed in blepharitis marginalis, borax is also useful.

Form for Use.- A solution of gr. v, to aqua fzi.

# SODII CHLORIDUM.

A one-per-cent. solution of this drug has been employed in muco-purulent conjunctivitis. The most general use made of salt however is for neutralizing the effects of nitrate of silver after its application to the mucous membranes.

Form for Use .- Watery solutions.

### SODII SALICYLAS.

This salt of soda should be made with the salicylic acid obtained from the oil of wintergreen.

Salicylate of sodium has been used in detachment of the retina under the supposition that the trouble was of rheumatic origin. I have employed the drug almost entirely in cases of rheumatic iritis, and have been well pleased with the results.

Dose.-Gr. x to xv, every three or four hours.

### SUZOIODOL.

This compound is made from a combination of phenol, iodine and sulphuric acid. This acid combines with various bases to form salts. The sodium salt has been employed in ophthalmic practice with fairly satisfactory results.

In acute purulent conjunctivitis and ophthalmia neonatorum, the solution of this drug has been found useful.

Form for Use.—Collyrium of five per cent., used every two or three hours.

## SPARTEINE SULPHAS.

Sparteine, a volatile liquid alkaloid obtained from sarothamnus scoparius, combined with sulphuric acid, is the form generally employed.

In exophthalmic goitre, the sulphate of sparteine is claimed to relieve all the symptoms.

Dose.—Gr.  $\frac{1}{3}$  to  $\frac{1}{2}$ , every four hours.

### STROPHANTHUS HISPIDUS.

Strophanthus has been used in exophthalmic goitre, the experimenters claiming marked relief from the distressing symptoms.

Dose.—Tincture (five per cent.), gtt. v to x, every two hours.

### STROPHANTHINE.

Strophanthine, the active principle of strophanthus, possesses powerful anæsthetic properties when applied to the cornea, but investigations so far have shown the drug to be so irritating that it does not at present threaten to supplant cocaine.

Form for Use.-A solution of 1-1000.

### STRYCHNIA.

The uses of strychnine in eye diseases are identical with those of nux vomica.

### SULPHUR.

In non-ulcerative blepharitis marginalis, the use of an ointment containing three per cent. each of sulphur and resorcin has been found of benefit.

### TEREBINTHINÆ OLEUM.

Turpentine has been used in certain classes of eye diseases with seemingly good results. In iritic adhesions, the internal administration of this drug has appeared to promote absorption. In rheumatic iritis, choroiditis and sclerotitis, turpentine has effected a cure when other remedies have failed. In corneal opacities, the administration of turpentine has caused the disappearance of the maculæ.

Dose.-Gtt. iii to v, every two hours.

### THUJA.

The action of thuja is on the deeper structures of the eye. It is especially useful in scleritis, episcleritis, sclero-

choroiditis, and in syphilitic iritis with gummata on the iris. In tarsal tumors, the use of thuja both internally and externally have caused their removal. Thuja has been recommended by D. Thomas Long, M. D., of Topeka, Kas., for trachoma. He recommends it highly. I have not used the drug enough to form an opinion of its efficiency, but think it is a remedy that we know, as yet, comparatively little about.

Dose.—Specific medicine, gtt. 1-5th to 1-3rd.

Topically.—Lloyd's non-alcoholic ext. thuja, either full strength or as an ointment with vaseline (gr. v to  $xv-_{3}i$ ).

### TONGA.

Tonga has been recommended in asthenopia, rheumatic iritis and photophobia, when used as a collyrium. Internally it has been reported as dilating the pupils. The drug has not been used enough to give any very certain rule for its use.

Dose.—Gtt. x to xx of the fl. ext. As a collyrium, fl. ext. gtt. xv to  $f_{3}$ ss., aqua q. s.,  $f_{3}$ ss. Two drops in the eye, every three hours.

## VERATRUM VIRIDE.

Veratrum has been recommended in exophthalmic goitre. I always use this drug after cataract operations, and as yet have had no suppuration, and the healing processquickly follows the operation.

Dose .-- Gtt. 1-5th to 1-3rd, every hour.

## ZINCI ACETAS.

Acetate of zinc is sometimes used in simple conjunctivitis, especially when an astringent action is wanted.

Form for Use.-Collyrium : Gr. ss. to i, to fzi.

# ZINCI SULPHAS.

In the chronic forms of conjunctivitis, where an indolent condition exists, the use of sulphate of zinc will be

found especially beneficial. In the acute stages of conjunctival diseases, however, the drug is contraindicated.

Form for Use.—Collyrium: Gr. ii to iv, to fzi; two drops in the eye every three or four hours.

### PYOKTANIN.

There are two forms of this aniline used in ophthalmic work—auramine and methyl-violet (yellow and blue pyoktanin.

There is such a diversity of opinion in regard to the efficacy of pyoktanin as a remedial agent in eye diseases that one is quite bewildered by the writings and experiences of the experimenters. Prof. Stilling has conducted a series of experiments and suggests caution in its use. Some writers decry its use, claiming that it is positively harmful. Other writers claim that the drug is really inert. The results have been so unsatisfactory that I am still inclined to look with suspicion on the products of the coal tar series.

Two ways have been advised for the use of pykotanin: in solution or in the form of a powder, the drug being mixed with talc or other inert substance. As light decomposes the drug, it should be kept in the dark.

Pykotanin has been used in nearly all forms of conjunctival diseases. I have seen it used in the Manhattan Eye and Ear Hospital, sometimes with good results and sometimes with no results.

Form for Use.—In solutions, from 1-1,000 to 1-100; in ointment from 1-50 to 1-10; in powder from 1-1,000 to 1-50.

## SYRUPUS ACIDI HYDRIODICI.

In scrofulous cases and where there is syphilitic disease and the iodides are not well borne, the administration of syrup of hydriodic acid has given good results in my practice. I have found it especially useful in interstitial keratitis, phlyctenular diseases and iritis, when specific. It can be used in all cases where the iodides are indicated, and without the disturbance of the stomach that frequently follows the use of the alkaline salts. The syrup that I prefer is Gardiner's. It has proved stable under adverse circumstance, and I have always found it reliable.

Dose.-Gtt. xv to fzii, every two or three hours.

## EUROPHEN.

This is a comparatively recent addition to the list of drugs which have come into existence since the introduction of iodoform. It is placed in the category of antiseptics, and like all new preparations is lauded highly. I have had no experience with the drug, but will name the conditions in which it has been used with reported success: Keratitis marginalis, trumatic conjunctivitis, conjunctivitis and traumatism of the lids and eye.

Form for Use.-Unguent, of one-half to one per cent.

### BY KENT O. FOLTZ, M. D.

### ACIDUM ARSENIOSUM.

Eczema of the auricle and canal, especially the dry, scaly form, will be relieved by the administration of arsenic, in the form of Fowler's solution. In purulent otitis media, if a syphilitic taint be present, the use of Donovan's solution will be found beneficial.

If there be an atonic condition of the system combined with a scrofulous diathesis, or without this condition, the use of Fowler's solution is indicated in purulent otitis media.

Dose.—Liquor potassii arsenitis (Fowler's solution), gtt. 1-10th to 1-6th, every three hours.

### ACIDUM BORICUM.

Boric acid has been one of the most generally used and abused drugs in the entire list of aural therapeutics. The indiscriminate use of it has proven as unsatisfactory as the same method does in any other class of remedies or diseases.

Boric acid is one of the most useful drugs in ear diseases of any that I have tried. It is used either alone or in combination. In otitis media purulenta, with the mucous membrane of the middle ear pale, I have found the best application to be a combination of boric acid and iodoform. When the pus is thin and acrid and moderately profuse, this acid combined with calendula has given the best results. When the discharge is slight and the mucous membrane presents a turgid appearance, I have had the best success with ergot combined with the acid. When granulations appear on the mucous membrane, or polypoid growths are found, no matter what the character

of the discharge, I employ a combination of boric and salicylic acids until this condition is removed. In some old, chronic cases, that have resisted any and all forms of treatment, the use of boric acid in alcohol has effected a cure. In acute cases I have seen no injurious effects from the use of boric acid alone, and I nearly always use it in such cases.

In diseases of the external ear I have not had that success that some seem to have had with boric acid. It is recommended in papilloma after the removal of the growth by operative means, to use an alcoholic solution of the acid for promoting healing and for preventing return of the growth. In furuncles of the canal, the saturated alcoholic solution of boric acid has been recommended for aborting the pests. In acute, diffuse otitis, a wash of boric acid has been used with reported success, but I have been disappointed in my own practice. Some aurists use a wash of boric acid in the ear before removing impacted cerumen, under the impression that it will prevent the formation of furuncles.

For detecting the presence of minute perforations in the membrana tympani, the use of boric acid in impalpable powder is sometimes resorted to. The canal and drum membrane are thoroughly dried, a little powder blown into the ear, and by the Politzer or Valsalva method, the ear is inflated; if perforations exist the powder will be blown from the canal. A better method, however, in my experience, is to hold a mirror close to the ear and inflate the ear by the Valsalva method, the dimming of the mirror or not showing whether perforation exists.

Contraindications.—Where the use of boric acid is followed by copious serous discharge and intense pain. In acute suppurative otitis media, the result of scarlet fever, the use of the acid is harmful.

Caution .- Never pack the powder in the ear. This pro-

cedure will sooner or later cause trouble that can be avoided by simply throwing a little powder in the ear by means of an insufflator that does not pack a mass of powder at the bottom of the canal. I am careful to only cover the surfaces lightly, and, since adopting this method, I have had no bad results.

The following formulæ suggest some of the successful combinations into which this drug enters :---

R Boric acid, iodoform, aa, q. s.

B S. m. calendula fzi, boric acid zi. M., ft. chart.

R Fl. ext. ergot (Squibb's) fzss., boric acid zi, M., ft. chart.

B Acid salicylic zi, boric acid zvi. M., ft. chart.

# ACIDUM CARBOLICUM.

The range of carbolic acid in aural therapeutics is rapidly lessening. In the earlier days of this branch of medicine it was used in nearly all forms of suppurative disease, but other and pleasanter methods have superseded the use of this unpleasant smelling drug.

A wash of one per cent. carbolic acid has been recommended in purulent otitis media, for the purpose of disinfecting the discharge. The odor of the drug is more unpleasant to many than that of the discharge. Burnett recommends the application of the full strength acid in chronic inflammation of the attic of the tympanum. In external otitis, where the canal is swollen, the use of tampons of cotton soaked in carbolic acid and glycerine (1-10), after thorough cleansing of the canal, seems to possess an anæsthetic effect, and reduces the swelling rapidly. In hyperæmia of the tympanum, without effusion, the application of a fifteen-per-cent. carbol-glycerine will often relieve the pain.

### ACIDUM CHLORACETICUM.

After operative measures for exuberant growths in the middle ear, the use of chloracetic acid for cauterizing the mucous surfaces has been made to a limited extent.

# ACIDUM CHROMICUM.

Chromic acid has been used considerably for destroying granulating tissue and polypi in the middle ear. The method is efficient but I have abandoned it for salicylic acid, which in my hands has proved equally as effective and is not painful. After operative treatment for cholesteatoma of the tympanic cavity, cauterization with chromic acid is recommended.

### ACIDUM HYDRIODICUM.

The only place I have found this preparation useful has been in syphilitic subjects who had suppurative otitis media, and did not bear the iodides well.

Dose.—Gtt. xxx, every three hours.

### ACIDUM HYDROBROMICUM DILUTUM.

In tinnitus aurium the result of cinchonism, hydrobromic acid usually gives prompt relief.

Dose.-Gtt. x to xx, every two hours.

### ACIDUM HYDROCHLORICUM.

In caries of the bony walls of the external auditory canal, the walls of the tympanic cavity or of the ossicles, the application of hydrochloric acid, by decalcifying the bone, will render instrumental removal easier.

Method of Application.—I use a broom splint for all of the liquid corrosive acids. By leaving the splint remain in the acid a few moments, enough of the liquid will be held by the pith to make the application. By wiping the splint with a little cotton the superfluous acid will be removed and only such surfaces receive it as may be desired.

## ACIDUM LACTICUM.

Lactic acid has been recommended in caries of the bony walls of the canals and tympanic cavity. The acid has been recommended in suppurative diseases of the middle ear, but the mass of evidence does not prove the remedy to be all that can be desired. There is too much irritation of the external auditory canal following its use in the majority of cases. Where there are dense, close granulations in the tympanic cavity, the use of the acid does not destroy the morbid growth.

Form for Application.—In strengths varying from fifteen per cent. to full strength.

## ACIDUM NITRICUM.

I have employed nitric acid for destroying polypi and large granulations in the tympanic cavity. It may be used in the same class of cases as hydrochloric acid. The method for use is the same as recommended for hydrochloric acid.

## ACIDUM PHOSPHORICUM DILUTUM.

I have had some good results follow the administration of dilute phosphoric acid in deafness the result of an atonic condition of the nervous system. This class of cases will show, by tests, inner ear trouble. If there be any degenerative changes, either in the nerve or the nerve terminals, treatment, so far as now known, is of no avail. If the impairment of hearing is simply functional, however, I have seldom been disappointed in dilute phosphoric acid.

Dose.—Gtt. i, every three hours. I frequently associate nux with the acid in  $\frac{1}{3}$  gtt. doses.

### ACIDUM SALICYLICUM.

The form of salicylic acid that should be used is referred to under this head in the section on eye diseases, and the same results are found in treating ear diseases. In the moist form of eczema of the external auditory canal, I have had good results follow the use of an ointment of salicylic acid, especially in old, chronic cases. This ointment I have found excellent in treating granulations, and polypi also. I employed this ointment in two cases of epithelioma of the auricle, with complete removal of the morbid growth.

In granulations and polypi of the middle ear, I have had good results from the use of the ointment of salicylic acid. Where the discharge has ceased, in suppurative otitis media, without closure of the membrana tympani, the use of the ointment has stimulated healthy action sufficiently to cause complete closure of the membrane.

I have been using for some time past a powder of salicylic acid and boric acid in suppurative cases in which granulations or polypi exist, and with pretty uniform success.

Forms for Use.—Unguent: R Acid. salicylic. gr. xx, vaseline şi. In powder form: R Acid. salicylic. zi, acid. boric. zvi.

In diphtheritic otitis, with exudation in the middle ear and perforated membrane, the use of the powder of salicylic acid, or of a ten-per-cent., alcoholic solution, will be especially beneficial.

## ACIDUM SULPHUROSUM.

Sulphurous acid has been tried in caries of the canal, tympanum, and of the ossicles, for decalcifying the diseased structures in order to make operative measures easier.

# ACIDUM TANNICUM.

Tannic acid, both in the form of the powder and the glycerite, has been employed in suppurative otitis media. I have abandoned the use of tannic acid entirely on account of the tendency to form a hard mass that is difficult

to remove. For destroying polypi, the acid has been recommended (in powder), but I have always been disappointed in the use of it.

Forms for Use.—The powder, by insufflation. Glycerite of tannin: R Tannin i, glycerine iv. M. Make solution by heat.

# ACIDUM TARTARICUM.

Tartaric acid, in combination with a solution of bichloride of mercury, has been advocated in suppurative otitis media. The solution has not found much favor, however.

Form for Use.—Tartaric acid, bichloride of mercury, alcohol and water (3-5-20-1,000).

### ACONITUM.

In acute catarrh of the middle ear, I have found aconite of service in controlling the inflammatory action. The use of this drug will not always prevent suppuration, nor will it produce any wonderful diminution of pain, but in my experience the inflammatory stage was of shorter duration when aconite was used than when it was not.

In mastoid disease, the administration of aconite internally, and the local application of aconite and veratrum, have been serviceable in relieving pain and subduing inflammation.

Indication.—Frequent, small pulse.

Dose.—Specific medicine aconite, gtt. 1-5 to 1-3, every hour.

Locally.—Sp. m. aconite, sp. m. veratrum, aa. f<sub>3</sub>ii to f<sub>3</sub>iv, aqua q. s., f<sub>3</sub>iv.

### ALCOHOL.

Absolute alcohol has been used in the unhealthy granulations found in the tympanic cavity after long continued suppuration. For polypi, the use of alcohol will also be found beneficial. In cholesteatoma of the tympanum it seems to be a specific.
In suppurative otitis media, the use of a saturated solution of boric acid will sometimes prove beneficial. The same solution is also recommended for furuncles. The vapor from an alcoholic solution of menthol (20-per-cent.) forced into and through the Eustachian tube, when stenosis of the tube is present, will be found beneficial.

Care should be exercised in the use of alcohol, as paralysis of the chorda tympani has resulted from its use.

### ALUMEN.

Alum, both in the form of a powder and a solution, has been used in otitis media. The drug never proved satisfactory in my hands, however.

Form for Use.-In solution, gr. iii to x, to water fzi.

# ALUMINII ACE FAS.

In furuncles of the external auditory canal, a solution of acetate of aluminium has been used with reported success, the method being to warm the solution and apply on cotton, allowing it to remain in contact with the inflamed tissue.

Form for Use.---A twenty-five-per-cent., aqueous solution.

### ALUMINII ACETAS TARTRAS.

This double salt is prepared by mixing solutions of basic acetate of aluminium (5-100) and tartaric acid (2-100) and evaporating to dryness.

This preparation has been used in furuncles, especially after they have been opened, for applying to the traumatism. In diffuse inflammation of the external auditory canal, the application of a solution of the salt has been recommended.

Forms for Use.—For furuncles, a twenty-per-cent. aqueous solution. For diffuse inflammation, a five-per-cent. aqueous solution.

### AMMONII BROMIDUM.

I have found bromide of ammonium especially useful in treating tinnitus aurium, the result of cinchonism. In nervous deafness, also, this salt has given good satisfaction in my experience. For relieving pain in aural troubles, however, I have had no results.

Dose.-Gr. v to x, every three hours.

### AMMONII IODIDUM.

In syphilitic disease of the ear, either of the middle or internal ear, when there is a depression of the general system, I have found this one of the most useful drugs in the entire list. I have employed it in cases of suppurative otitis media with success, in a score of cases where syphilitic disease was present.

Dose.-Gr. ii to v every three hours.

### ANTIPYRIN.

This compound has been recommended in the complications affecting the ear after scarlet fever. I know nothing about the efficacy of the drug, as I am not a lover of the coal tar series or of proprietary medicines.

Dose.-Gr. v to xv.

# ARGENTI NITRAS.

Nitrate of silver is used to a limited extent in ear diseases. I have had some good results follow its application, but its usefulness is limited.

After suppuration of the middle ear has ceased and the membrana tympani refused to heal, I have used the solid nitrate of silver, fused on a fine wire, to touch the edge of the perforation. This treatment has often been followed by complete closure of the drum head.

Nitrate of silver has been of service in destroying exuberant granulations in the tympanum, if they are not confluent. In this—not confluent—condition, a solution

should be used and the surface touched by means of cotton on a cotton carrier. The practice of dropping a solution of nitrate of silver in the ear is an unsafe procedure, as, if the facial nerve be exposed, there is danger of paralysis. This complication has occurred in several instances, but I have seen no report of such an accident where the application was made with cotton.

After operations in the canal, when there is a tendency to the growth of redundant tissue, the application of nitrate of silver, either pure or in solution, is advisable.

Forms for Use.-Solutions of five per cent; pure nitrate of silver.

### ARISTOL.

The reports on this drug are varied, some recommending it highly while others pronounce it inert. I have had some good results from the use of aristol and think highly of the drug.

In suppurative otitis media, in both the subacute and chronic forms, I have had good success with aristol in powder. One case of chronic suppurative otitis media of eighteen year's standing, a stubborn case that I had treated for seven years previously, healed promptly under aristol, the discharge ceasing and the drum head healing entire. In acute suppurative otitis media, I have seen no benefit from the use of this drug, healing being no more prompt than with simple cleanliness, either with or without boric acid.

In moist eczema of the external auditory canal, especially where intense itching was present, I have had good success with aristol.

I have had several cases of persistent cough, and one of sneezing, that baffled me for a time, being evidently reflex, but from what was a question that I could not solve. I finally examined the ears and found eczema present, used the aristol and stopped the cough and sneezing.

Aristol has been recommended for epithelioma; I have, however, had no good result from it in this affection of the auricle, having been compelled to return to salicylic acid in the only two cases that I have treated.

I have had no success in treating ear cases with aristol when it was in the form of an ointment.

Method of Application.-Insufflation of the powder.

### ARTOPINÆ SULPHAS.

A warm solution of atropine dropped into the ear has been recommended for earache, diffuse inflammation of the external auditory canal, and for non-suppurative inflammation of the middle ear, for the relief of the pain.

My own experience is that it is the warm water that gives the relief.

Form for Use.—From a two to a four-per-cent. solution.

### AURI ET SODII CHLORIDUM.

In syphilitic persons, especially hereditary, with suppurative otitis media, I have had some brilliant results follow the administration of the chloride of gold and sodium. The drug has been of use only when caries of the bone existed, but here the morbid process seemed to yield readily, and cessation of the destructive breaking down of tissue followed in a short time.

In acquired syphilis, I have not found any beneficial results from the use of this drug.

Form for Use.—The most satisfactory method of giving this salt is in solution, using water as the solvent.

Dose.—Gr. 1-200 to 1-100, every four hours.

### BELLADONNA.

In ear complications arising during or immediately following scarlet fever, the use of belladonna is especially

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indicated, the use of it generally relieving the unpleasant symptoms and preventing sequelæ.

Dose.—Specific medicine, gtt. 1-5 to 1-3, every hour.

### BISMUTHI SUBCARBONAS.

This drug has been used in suppurative otitis media. My experience with it has not been satisfactory, and I have abandoned its use.

Form for Use.-The powder, by insufflation.

### BISMUTHI SUBNITRAS.

The subnitrate of bismuth has been used in a similar manner, and for the same purpose as the subcarbonate. The results are about the same.

### CACTUS GRANDIFLORUS.

In tinnitus aurium dependent on functional heart trouble the use of cactus has, in my hands, given good results. In organic disease of the heart the remedy has not given as good results as glonoin.

Dose.—Specific medicine, gtt.  $\frac{1}{3}$  to  $\frac{1}{2}$ , every two hours.

# CALCIS, LIQUOR.

I have found lime water useful in acute catarrh of the middle ear for preventing the formation of pus. In suppurative otitis media, I use lime water or calx sulphurata in nearly all cases, unless there be a syphilitic taint. Lime water, in my experience, is preferable to use with babies and very young children, where there is an evident lack of lime in the tissues. In scrofulous and rickety children, I prefer administering lime in this form.

In furuncles, the use of lime will often prevent a crop of the boils.

Dose.-F3i to f3iv, in milk, every three hours.

### CALX SULPHURATA.

The homeopathic preparation is the one I prefer. This preparation I use for preventing suppuration in acute otitis media, and also give it after the discharge is established. For furuncles in the external auditory canal, this drug is useful. The calx sulphurata is generally preferable in adults to lime water.

In scrofulous persons the lime seems to be required and the result of its administration will usually be satisfactory.

Dose.—Gr. i, of the 1x or 2x trituration.

### CALENDULA.

The use of calendula in my practice, has been limited to those cases of suppurative otitis media where the discharge is thin and acrid and only moderately profuse. It is used in combination with boric acid, and used by insufflation.

Form for Application.—Specific medicine calendula f<sub>3</sub>i, boric acid zi, M., ft. chart.

### CAMPHORA.

Camphor alone is not used in aural practice, or at least only to a limited extent. It is used occasionally in combination with beta-naphthol or salol in purulent otitis media. Care should be used in the employment of these compounds, that they come in contact only with the morbid surfaces. The applications should be made about three times a week. Cotton on a cotton carrier is the most satisfactory means of application.

Preparation of Naphthol-Camphor.—R Camphora ii, betanaphthol i. Powder and triturate until the powders liquefy; then heat carefully until complete fusion results.

Salol-Camphor.—R Camphora ii, salol i. Preparation the same as for naphthol-camphor, except that heat is not necessary.

# CANTHARIS.

Cantharides is not much used in aural practice by the majority of aurists, but a few use it in certain cases.

In tinnitus aurium, cause unknown, the application of cantharidal plaster or collodion finds favor with some. In acute catarrh of the middle ear it is also used occasionally. I have seen it applied in suppurative otitis media, but cannot say I ever saw any good results follow its use. The place of application is over the mastoid process.

### CARBONEI BISULPHIDUM.

It has been suggested that the vapor of bisulphide of carbon be brought in contact with the external auditory canal for defective secretion in the ear. I do not know whether it has been tried or not, but I should think if strength had anything to do with causing activity of the ceruminous glands, that bisulphide of carbon possessed the requisite power.

#### CHLORAL.

After the removal of polypi, the application of a solution of chloral will often destroy the base of the growth. In acute catarrh of the middle ear, the administration of chloral internally will sometimes relieve the pain. In mastoid disease, the application of chloral-camphor will assuage the pain.

A solution of chloral might be useful in removing granulations in the tympanum, when the discharge is excessively purulent. For this purpose a five-per-cent. solution should be used.

Dose.-Gr. ii to v, every two hours.

Chloral-Camphor-Chloral, camphor, aa. q. s. Triturate until liquid.

### CHLOROFORMUM PURIFICATUM.

In acute catarrh of the middle ear the vapor of chloroform will often relieve the pain, the method employed being to use an insufflator and blow the vapor through the external auditory canal.

When it is difficult to inflate the ear by Politzer's

method, a few drops of chloroform dropped into the nose piece of the inflater, and then proceeding in the usual manner, will generally be found to have the desired effect.

### CIMICIFUGA.

In neuralgic pain in the ear accompanied by a feeling of stiffness of the muscles of the pharynx and fauces, the internal use of cimicifuga will usually give relief. In rheumatic affections, when ear symptoms are aggravated, the use of this drug will also be advantageous.

Dose.—Specific medicine cimicifuga, gtt. 1-4 to 1-2, every two hours.

### COLLINSONIA.

I have used collinsonia in ear diseases where there was an increase of secretion without purulency, and have found it a useful drug. After suppuration has taken place it does not seem to have any action. Collinsonia seems to be the most useful in the early stages of middle ear disease, especially when associated with follicular pharyngitis and hypertrophy of Luschka's tonsils.

Dose.—Specific collinsonia gtt.  $\frac{1}{2}$  to iii, every two hours.

### COLLODIUM.

Collodion has been used for forming an artificial drum head. The method of use seems to be applicable only in those cases where the tympanic membrane is intact, but so relaxed as to refuse to vibrate. The middle ear is to be inflated, then the collodion applied to the drum head. This forms an artificial drum head or covering to the relaxed tissue, and in many cases there will be improved hearing. This application will last for about three weeks.

### COCAINÆ HYDROCHLORAS.

Cocaine in two to ten-per-cent. solutions, used in the ear in conjunction with a moderate electrical current, pro-

duces anæsthesia when the use of the solution alone fails. In operations in the middle ear, a four-per-cent. solution is useful, both as an anæsthetic and on account of lessening the hemorrhage. A five to ten-per-cent. alcoholic solution of cocaine has been recommended for relieving the pain of furuncles in the external auditory canal.

A four-per-cent solution of this drug has been forced through the Eustachian tube into the tympanum for the relief of tinnitus, and with reported good results. This procedure I consider dangerous for two reasons: Cocaine poisoning has resulted from the use of the drug in this way, and I do not consider it safe practice to force fluids into the ear through the Eustachian tube.

### CREOLINUM.

Creolin has been reported useful in suppurative otitis media, on account of its disinfectant properties. The discharge is lessened and unhealthy granulations held in check. For this form of disease creolin is used in solution as a wash.

In eczema of the auditory canal and the auricle, an ointment of creolin has been recommended.

Forms for Use.—For internal administration, a solution of 1-1,000; as an ointment, two per cent.

### CUPRI ACETAS.

In cases of ear disease, either inner or middle, dependent upon or associated with chlorosis, I have had splendid results from the use of acetate of copper. In chlorotic cases, one of the predominating symptoms is tinnitus. Impairment of hearing is, or has been in my practice, usually present, though it may not be noticed by the patient. This condition is due in my experience to faulty nutrition, and copper seems to be the specific for it.

Dose.—Specific medicine cuprum gtt. 1-5 to 1-3, four times a day.

### CUPRI SULPHAS.

For destroying fungus growths (thrush) in the ear, sulphate of copper has been highly indorsed in place of all other germicides. The method of use is, to wash the canal with a solution of the salt.

The use of the pure sulphate of copper has also been recommended for cauterizing purposes after the operation for cholesteotoma of the tympanic cavity.

Form for Use.—A wash; a ten-per-cent. solution.

## ERGOTA.

The use of ergot in ear diseases where suppuration occurs, has in many cases been very satisfactory, the local action being not only astringent, but also promoting healthy action of the diseased surfaces. I have had the best effects from the use of this drug in purulent otitis media, when the discharge was slight and with a turgid appearance of the mucous membrane of the tympanum.

Form for Use.—Combined with boric acid: R Fl. ext. ergot (Squibb's) fzss., boric acid zi. M. Triturate until dry. Use by insufflation.

### EUCALYPTI OLEUM.

When excoriation of the external auditory canal or auricle results from an acrid discharge, in purulent ofitis media, I have found no better remedy than an ointment of oil of eucalyptus. For diffuse inflammation of the external auditory canal, the use of this ointment is also beneficial. In eczema of the external ear I have had good results, especially in the moist form, by the use of eucalyptus ointment.

Form for Use.—R Olei eucalypti gtt. xxx, vaselini zi. M.

### FERRI CHLORIDUM.

Chloride of iron has been employed for destroying granulations in the tympanic cavity, especially when the morbid growths are dense and confluent. The application of chloride of iron is usually less painful than that of nitrate of silver.

Form for Use.—Either in the crystalline form or as a saturated solution.

### FERRUM.

The various preparations of iron administered internally need not be treated under separate headings, as, with the exception of a few, the choice of form will depend upon individual preference.

In tinnitus aurium, or any ear disease dependent upon, associated with, or aggravated by, an anæmic condition of the system, the administration of iron will prove beneficial and curative, in many cases.

Ferrocyanide of iron is a favorite of mine where there is any disturbance of the digestive apparatus. The solution of malate of iron is usually well borne by the patient and possesses the advantage of being miscible with most drugs that are usually given with iron.

Reduced iron is also a remedy that is useful when the preparation is to be administered in pill form. Tincture of chloride of iron is a good preparation to use when an acid is wanted in connection with the iron salt. The citrate of iron and ammonium is one of the elegant pharmaceuticals, and is also a valuable remedy.

When syphilitic disease is a factor, the best preparation of iron is the iodide. This can be given in either pill form or as a syrup. The objection to this preparation of iron is, that it is not a stable compound, and when decomposition has taken place it is so irritating that considerable mischief may result from its administration.

### GELSEMIUM.

In neuralgic pain in the ear, without inflammatory changes in the tympanum, the administration of gelsemium internally will often give prompt relief.

Dose.—Specific medicine gelsemium, gtt. one-third to two, every two hours.

### GLONOIN-NITRO-GLYCERINE.

I have had good results follow the internal administration of glonoin in tinnitus aurium dependent upon faulty heart's action. I have obtained these results only in those cases associated with organic disease of the heart; in functional disorders no effects of a positive nature were obtained. Glonoin has been recommended in tinnitus where faulty heart's action was present, no matter what form, but my experience has been purely negative unless there was disease of the organ itself. This drug has been recommended in the weak heart of old people, with tinnitus aurium. I have never given it a trial in such cases.

The remedy does not seem to prove beneficial in those cases in which there is loss of hearing.

Glonoin has been reported as a useful drug for promoting the absorption of hæmorrhagic extravasation, or recently organized lymph, especially in acute processes in the labyrinth.

The drug should be given until the characteristic headache appears, then discontinued twenty-four hours and begun again. If no improvement be found after two or three weeks' use of the drug, there is not much gained in following it up.

Dose.—Gr. 1-200 to 1-100 of the triturate, every three or four hours.

### GLYCERINUM.

Glycerine alone is not used in aural practice, the rule being to combine it with other drugs, or use it as a vehicle in order that continuous effects may be obtained.

As a prophylactic in furunculosis, a wash of bichloride of mercury, glycerine and water (5-20-30) has been rec-

ommended. Some aurists think that the removal of impacted cerumen is followed by furuncles, and as a preventive measure use a wash of boric acid  $_{3i}$ , glycerine water, aa., 50, in the ear before removing the cerumen.

When the external auditory canal is much swollen in diffuse inflammation, the application, on cotton, of carbolglycerine (1-10) will often give relief from the pain and reduce the swelling.

In acute catarrh of the middle ear, the pain can at times be mitigated by the use of warm carbol-glycerine (1-15) dropped into the canal. In diffuse inflammation of the drum head, without effusion, good results have been obtained from the use of warm carbol-glycerine of fifteen per cent. If effusion has occurred, or there is a purulent discharge, this treatment is of no avail.

In the morbid process in which there is a formation of tenacious masses of pus and epithelium in the fundus and along the canal of the ear, the use of iodine in glycerine (1-10) will be found useful.

# HYDRARGYRI CHLORIDUM.

My experience with corrosive chloride of mercury has been almost entirely with the internal administration. In syphilitic disease with suppurative otitis media or internal ear disease, the internal use of corrosive sublimate has been followed by rapid healing in the majority of cases. The drug does not seem to possess any particular curative power unless specific taint be present.

For diffuse external otitis, with abundant secretion, the use of a solution of corrosive chloride (1-200) has been curative. In suppurative otitis media, a solution of mercuric chloride, 1-4,000, has been recommended. For furuncles, during the attack, a solution, 1-1,000; and as a prophylactic, corrosive sublimate 5, glycerine 20, water, 30—this to be used as a wash. The use of this drug for

furuncles is recommended on account of the supposed germ origin, corrosive sublimate being considered a powerful germicide. Corrosive chloride has also been used in an acid solution, under the supposition that the microbes infecting the ear in suppurative cases had an especial distaste for both or either of the drugs. This solution is as follows: Corrosive chloride gr. ii, tartaric acid gr. xx, water zv. M. Use as a wash in the ear.

After operations for mastoid disease a solution of corrosive sublimate, 1-3,000, is used for irrigating purposes. *Dose.*—For internal administration, gr. 1-200 to 1-100, four times a day.

### HYDRARGYRI IODIDUM RUBRUM.

The use of mercuric iodide is beneficial only in those cases of ear disease in which specific disease is also present. In inner ear and middle ear diseases, when syphilis is present, I have had good results follow its use.

Dose.-Gr. 1-1,000, four times a day.

# HYDRARGYRI OXIDUM FLAVUM.

For furuncles, an ointment made of yellow oxide of mercury and morphine sulphate, used in connection with dry heat, has been reported as curative, especially in the early stages. The ointment of yellow oxide of mercury has been recommended in suppurative otitis media, but in my hands the results have been negative.

I have used the ointment in those cases of suppurative otitis media where the discharge had ceased but the tympanic membrane refused to heal over, with good results. The ointment seemed to produce sufficient irritation to cause healing, even in cases that had been free from discharge for some time.

Forms for Use.—Ointment for furuncles: Two per cent. each of yellow oxide of mercury and morphine. Simple ointment: Yellow oxide of mercury gr. xxx, vaseline ;i. 40

#### HYDRASTIS.

Hydrastis has been used in suppurative otitis media with good results. In those cases where the discharge is not profuse and granulations do not exist, hydrastis is beneficial. In acute cases it seems to produce the best effect, while in chronic cases it will at times cause cessation of the discharge when other remedies fail.

Hydrastis is known to be beneficial in catarrhal affections of the mucous membranes in other parts of the body, but for some reason it has not been used extensively in aural therapeutics, probably on account of the staining properties of the drug. This objection has been removed through the investigations of Prof. J. U. Lloyd, and we now possess a preparation that is all that can be desired. The white alkaloid possesses the medical virtues necessary in treating catarrhal diseases, and this is found in Lloyd's hydrastis.

Form for Use.—Lloyd's hydrastis fşi, water fşii to fşiv. M. Use as a wash.

### HYDROGEN PEROXIDUM.

Peroxide of hydrogen has been extensively used in aural practice in those cases in which suppuration occurs. It possesses the power of destroying pus, thus cleansing the morbid surfaces of unhealthy material. Although this remedy has been lauded to the skies, I have never obtained the brilliant results reported by many aurists. I have tried it both in private and hospital practice, and have been disappointed in it. In cases in which both ears were affected I have used the peroxide in one ear and the dry treatment in the other, and I must say that the ear in which the so-called dry treatment was used was the first to heal. A complete closure of the drum head was also secured oftener when the dry treatment was employed than when peroxide of hydrogen was used.

### IGNATIA.

In those cases in which an atonic condition exists, and there is dullness of hearing or tinnitus dependent upon the general health, I have found ignatia a valuable remedy.

Dose.—Specific medicine ignatia, gtt. 1-5, every three hours.

### IODOFORMUM.

The beneficial effects of iodoform are obtained through the decomposition of the drug, iodine being set free when in contact with moist surfaces. Iodoform has been especially recommended in ear cases of the suppurative class, when it is dependent upon or associated with syphilis.

After healing has commenced and the discharge is slight, the use of this drug is recommended. I have found the best indication for the use of iodoform to be a pale mucous membrane. The drug does not seem to be of any particular use in any but suppurative diseases of the middle ear.

As a dressing after operative measures in the external auditory canal, iodoform has been used either in powder form or the iodoform gauze.

For suppurative otitis media the most satisfactory form in which to use iodoform is in combination with boric acid.

Form for Use.-Iodoform, boric acid, aa. q. s., M. Use by insufflation.

### IODOL.

Iodol was expected to supersede iodoform as an antiseptic, etc. The effects of iodol are similar to those of iodoform, but it is more irritating to traumatic and ulcerative surfaces.

In acute suppurative otitis media, good results have been obtained by the use of iodol dusted over the mucous

surface by insufflation. In purulent inflammation of the attic of the tympanum, a solution of iodol has been used with fair success. Healthy granulations do not form as rapidly under the use of iodol as under other remedies.

In chronic otitis media purulenta, the use of iodol has not been very satisfactory. In fact results tend to show that iodol is inferior to boric acid in ear diseases at least.

Form for Use.—In powder, by insufflation. In solution the following is the most satisfactory: Iodol, alcohol, glycerine (2-15-34). This solution to be used on cotton.

### IODIDUM.

In purulent discharge from the attic of the tympanum, an application of tincture of iodine has been employed with success. Sometimes the tincture has been employed as a wash in this trouble. An excellent application for curing the morbid process which gives rise to tenacious masses of pus and epithelium in the fundus and canal of the ear is iodine and glycerine (1-10).

In hæmatoma auris, after the sac has been emptied, the application of compound tincture of iodine has been recommended.

In non-suppurative otitis media, the vapor of iodine forced into the middle ear by Politzer's method is often followed by improvement. The vapor seems to act directly upon the morbid process and promote healthy action. Camphor is usually added to the tincture of iodine in using this method.

In mastoid disease, the tincture of iodine is often used by painting the skin over the mastoid process, and sometimes with relief to the patient.

### LYCOPODIUM.

Lycopodium has been used for determining the presence of minute perforations in the tympanic membrane,

the method of use being to thoroughly dry the ear, then throw in some lycopodium and, by means of Politzer's method, inflate the ear. If perforations exist, the powder will be blown from the ear in the form of a small cloud.

### MAGNESIA.

Magnesia is used for the same purpose and in a similar manner to lycopodium.

# MALTUM.

In those cases of ear disease in which the general condition of the system is such that it influences the ear trouble, especially if digestive disorders are present, the use of malt will be found beneficial.

### MENTHOL.

Menthol has been used in furunculosis with reported good success. The method of use is to saturate cotton with a twenty-per-cent. solution of menthol in oil and place the cotton on the inflamed tissue, this being left for twenty-four hours and then renewed.

As a stimulating application for the promotion of ceruminous secretion, an ointment containing twenty per cent. of menthol in vaseline has been recommended.

The vapor of a twenty-per-cent., alcoholic solution of menthol has been used by Politzer's method in stenosis of the Eustachian tubes, when the obstruction was the result of a thickened condition of the mucous membrane.

### MORPHINÆ SULPHAS.

Any of the salts of morphine may be used, but the one generally employed is the sulphate.

Morphine is useful in ear diseases mainly as a narcotic in acute catarrh of the middle ear. In this disease it will sometimes produce sufficient relief from pain to enable the patient to get a little rest. An ointment containing two per cent. each of morphine and yellow oxide of mercury, applied to the affected parts in connection with dry heat, has been recommended in furuncles of the external auditory canal.

A two to four-per-cent. solution of morphine and cocaine has been used in acute catarrh of the middle ear. The solution is warmed, and ten or twenty drops dropped into the external auditory canal. It is a question, however, whether the warmth is not really the active agent in giving relief.

Dose.—Gr. 1-8 to 1-3, every three or four hours.

### MORRHUÆ OLEUM.

In persons having ear disease, who are scrofulous or where there is impaired nutrition, the internal administration of codliver-oil will prove especially beneficial.

Dose.—One to four teaspoonfuls every three or four hours.

# NAPHTHOL, BETA.

In chronic purulent otitis media, the use of a solution of beta-naphthol in glycerine and water has been recommended on account of its antiseptic properties, and also its supposed stimulating action on the mucous membrane.

NAPHTHOL-CAMPHOR is also used in the same class of cases as the solution of naphthol.

Form for Use.—Naphthol gr. i, glycerine fşi, water ziii. M. Use as a wash.

Preparation of Naphthol-Camphor.—Naphthol i, camphor ii. Powder. Triturate the powders until they liquefy, then heat until fusion is complete.

### NUX VOMICA.

When ear diseases are present with a debilitated condition of the system, there is no one drug as useful as nux vomica. It has given good results in cases of impaired hearing—inner ear—dependent upon nervous debility.

As a nerve tonic it stands nearly on the same ground as phosphoric acid. In cases of purulent otitis media, where there is a general lack of tone to the entire system, the use of nux will promote more rapid healing than any other one drug.

### Dose.—Gtt. 1-4 to 1-3, every three hours.

### PAPAIN.

In chronic suppurative otitis media, with scanty, illsmelling discharge, good results have been reported from the use of papain. The solution is allowed to remain in the ear for an hour.

Method of Use.--Bicarbonate of soda gr. v, solution of papain (5 per cent.) fzss., M. Sig. Warm, and instill ten or fifteen drops in the ear.

### PETROLATUM.

The form of petrolatum preferred is that known as vaseline. This preparation is not irritating, and I use it always as a base for ointments.

### PHOSPHORUS.

The use of phosphorus in aural diseases is not very extensive. It is valuable in some cases of inner ear disease in which the disturbance is functional. If there is a general neurasthenic condition existing, the internal administration of this drug will often be followed by improvement. Hearing will be benefited and in some cases I have found tinnitus aurium disappear.

Dose.-Gr. 1-100, four times a day.

### PHYTOLACCA.

In hypertrophic non-suppurative otitis media, the internal administration of phytolacca has given good results in my hands; tinnitus has been relieved, and improved hearing has followed. In syphilitic cases also I have had good results from the use of this drug.

Contraindication.—In proliferous catarrh of the middle ear.

Dose.-Gtt. 1 to ii, every three hours.

## PILOCARPUS.

In syphilitic diseases of the inner ear, jaborandi, in connection with specific treatment, has given good results, both in relieving the tinnitus and improving the hearing. In nervous deafness, the use of this drug has been very satisfactory. In the deafness following diphtheria and scarlatina, the use of jaborandi has been beneficial.

Jaborandi has given the best results, in my hands, in treating non-suppurative otitis media of the proliferous type, of any drug that I have tried. The tinnitus in a large percentage of cases entirely disappeared, and improvement in hearing followed in the majority. Ceruminous secretion has been restored to a healthy condition by the use of this drug, even in cases in which there had been no secretion for two or three years.

In chronic labyrinthine disease, the use of jaborandi does not have much effect. In middle ear diseases where there is ankylosis of the ossicles, little, if any, beneficial result can be obtained.

The benefits arising from the administration of jaborandi are produced by the increased secretion in the aural cavities.

The alkaloid pilocarpine has been employed hypodermically in the most of these diseases, but I prefer the oral administration of jaborandi. The dose of the alkaloid by hypodermic, is gr. one-third to one-sixth.

Dose.—Specific medicine jarborandi, gtt. iii to x, every three or four hours.

# PISCIDIA ERYTHRINA.

Jamaica dogwood has been recommended for relieving the pain of acute catarrh of the middle ear. I am not prepared to say that it will not do all that is claimed for

it, but my experience is that it is of little benefit in these cases.

Dose.-Fl. ext., gtt. xx to fzii.

# PLUMBI ACETAS.

Acetate of lead has been used in purulent otitis media; the results, however, were not uniformly satisfactory.

Form for Use.-Gtt. ii to v, of the saturated solution, warmed and dropped into the ear.

# POTASSI IODIDUM.

In chronic hypertrophic otitis media, iodide of potassium has given good results, tinnitus aurium being relieved and hearing improved. In labyrinthine disease following scarlet fever, the use of iodide of potassium will often give good results. This drug will be found the most generally indicated in ear diseases dependent upon or complicated with syphilis. In this condition iodism must be produced in order to derive beneficial results.

Dose.-Gr. iii to xxx, every three hours.

# POTASSII PERMANGANAS.

Permanganate of potassium has been used occasionally in purulent otitis media, both as a disinfectant and as a preventive for the growth of exuberant granulations. Other remedies have, however, supplanted this drug almost entirely.

Form for Use.- A solution of gr. i to iii, to water fzi. Use as a wash.

### PULSATILLA.

In diminution of hearing due to nervous reflex, the administration of pulsatilla will be found beneficial. In these cases there is often an annoying tinnitus that will yield quicker to pulsatilla than to almost any other drug.

Dose.—Specific medicine, gtt.  $\frac{1}{2}$  to ii, every three hours.

### PYOKTANIN.

Violet methyl is one of the new drugs that has been lauded to the skies and also consigned to darkest oblivion. The results of the use of this remedy have been so varied in the hands of different experimenters, and their reports so contradictory, that one is tempted to let it severely alone.

It has been used in nearly all the diseases of the external and middle ear, with a disposition on the part of the majority to let it alone in the future. In otitis media it has apparently given the best results. Our allopathic brethren seem to have a hobby for the coal tar series at present and new compounds are evolved nearly every day which are supposed to possess miraculous curative powers.

Form for Use.—A solution of pyoktanin, 1-1,000, dropped into the ear and allowed to remain ten minutes; then dry the ear thoroughly.

### QUININÆ SULPHAS.

In neuralgic pain in the ear, intermittent in character, the internal administration of quinine is indicated. This is not an uncommon condition, especially in malarious districts.

The long continued use of quinine in large doses will cause deafness that will often be very stubborn in yielding to treatment.

### RESORCINUM.

Resorcin has been used considerably in suppurative otitis media, and with apparently good results. In solution it does not seem to macerate the membrana tympani, as most solutions do. In disease of the attic, a threeper-cent. solution has been successfully used. Resorcin seems to possess the power to cause regeneration of the epithelium.

In combination with boric acid it has been employed

for destroying unhealthy granulations in the tympanic cavity.

Forms for Use.—Solutions of two or three per cent.; in combination with boric acid, 1-20 or 1-10.

### SALOL.

### For the use of this drug see camphora.

# SANGUINARIA.

I have had several physicians report cases of suppurative otitis media cured by the insufflation of powdered sanguinaria when all other treatment had failed. I have never given the remedy a trial, so I know nothing about it from experience.

Form for Use.-The powdered root.

### SILICON.

In suppurative otitis media, when caries of the bone has occurred, I have had good results from the internal administration of silica. The form used is the homeo pathic triturate, 1x.

Dose.-Gr. i, every three hours.

### SODII BICARBONAS.

Bicarbonate of soda has been used, in solution, in inflammation of the attic, with good success. In acute inflammation of the external ear a solution of bicarbonate of sodium, 5–1,000, has been used for relieving the pain and inflammation. This solution is warmed, of course, before putting it into the ear. The use of soda with papain has been referred to under the heading, Papain.

For softening hardened cerumen, bicarbonate of soda is one of the best preparations that can be used.

### SODII BORAS.

For cleansing the canal and middle ear of pus, there is no other drug that will give greater satisfaction than bo-

rate of sodium. I have used it in place of boric acid in washing the ear, and I think it does the work better. For softening ceruminous masses it is also valuable.

### SODII CHLORIDUM.

Chloride of sodium, in solution, has been used in cases of inflammation of the attic. In scarlatinous otitis media, when the discharge has commenced, a solution of this salt will often prove beneficial.

A solution of chloride of sodium has also been employed for irrigating the mastoid after operative measures upon this process.

# Form for Use.-A solution of zi to a pint of water.

# SODII IODIDUM.

This drug is sometimes better borne than iodide of potassium, and will be indicated in those syphilitic cases that require soda as well as iodine. Iodide of sodium is used for the same class of cases as those referred to under the article on iodide of potassium. The form for use is also similar.

Dose.-Gr. v to xx, every three hours.

### STYRONE.

Styrone is a constituent of Peruvian balsam, and possesses antiseptic and deodorant properties. This drug has been recommended in suppurative otitis media. The results, however, are no better than with other remedies.

Form for Use.—Liquid styrone gtt. xx, spts. vini rect. fzi. M. Sig. One or two teaspoonfuls to a tumbler of water. Syringe the ear.

### VERATRUM VIRIDE.

In mastoid disease I have used veratrum in combination with aconite with good results as a local application.

Form for Application.—Specific medicine veratrum, aconite, aa. f<sub>3</sub>ii to f<sub>3</sub>iv, aqua q. s., f<sub>3</sub>iv.

# VERBASCUM.

The so-called oil of mullein has been recommended in acute catarrh of the middle ear, and for the improvement of hearing. I have tried a number of preparations of this oil (?) with uniformly no results.

Form for Use .- The oil, dropped into the ear.

# ZINCI SULPHAS.

On account of its astringent properties, sulphate of zinc has been used to a limited extent in suppurative otitis media. The results, however, have not been successful enough to cause it to be very generally used.

Form for Use.—A solution, containing 1 per cent. sulphate of zinc.



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