

NATIONAL LIBRARY OF MEDICINE



NLM 00139175 5





166

NEW SCHOOL REMEDIES,

AND

THEIR APPLICATION TO THE CURE OF DISEASES,

INCLUDING THOSE OF

WOMEN, CHILDREN AND SURGERY:

DESIGNED FOR

PHYSICIANS, SURGEONS, STUDENTS OF MEDICINE,
AND FAMILIES.

BY

W. PAINE, A. M., M. D.,

Professor of the Principles and Practice of Medicine and Pathology in the Philadelphia University of Medicine and Surgery; Ex-Professor of Surgery and Diseases of Women and Children in the American Medical College; Member of the Royal College of Physicians and Surgeons; Honorary Member of the Academy of Medicine; Author of a large work on the Practice of Medicine; one on Surgery; one on Obstetrics and Diseases of Women and Children; one on Materia Medica and New Remedies; a Review of Homœopathy and Old Physic; Editor of the University Medical and Surgical Journal, Medical Independent, &c.

RERUM PRIMORDIA PANDAM.
Lucretia 1: 55.

Surgeon General's Office
LIBRARY
562776
Washington, D.C.

PHILADELPHIA:

CLAXTON, REMSEN & HAFFELFINGER,

624, 626 & 628 MARKET STREET.

1874.

WBJ

P147n

1874

Film No. 5181, no. 2

Entered, according to Act of Congress, in the year 1868, by

WILLIAM PAINE,

in the Clerk's Office of the District Court of the United States, for the Eastern
District of Pennsylvania.

PREFACE.

IN presenting a treatise on New School Remedies, and their application to the cure of medical and surgical diseases, I do it with a full appreciation of the importance of the work. The remedies, and many of the principles of practice, are new to the profession; hence, I have prepared all the work in a most careful manner. I am sure, that if the principles of practice and the remedies are correctly applied, a much larger number of cases of all diseases will be cured than by any other system; and further, many that are now considered incurable, will be successfully treated.

The work not only contains a full statement of the NEW SCHOOL remedies, and its system of practice of medicine, surgery, and diseases of women and children, but also the systems of the Old School, Homœopaths, and Hydropaths, with a full glossary explaining all the technical terms used, a formulary describing the compounds, and how administered, as well as a brief view of anatomy and physiology—all written in so plain a manner, that every man, woman and child, as well as the profession, can understand it. Although we do not claim perfection, we are sure that it is far in advance of anything ever before offered to the profession or public.

W. PAINE,

232 N. Ninth St., Philada., Pa.

DISEASES OF THE SKIN.

EXPLANATION OF PLATE.

DIVISION I.

Fig. 1. The upper part of this cluster of figures is intended to represent the uninflamed follicle; the lower, the commencement and progress of inflammation, and its termination in the formation of matter. 2. The enlarged and indurated tubercles, (*A. indurata*), with matter formed in their centre, which occur in bad constitutions. 3. Inflamed and suppurated follicles, forming sycosis on the beard. 4. The appearance of spots on the porrigo, in which no fluid secretion or scab has been formed. 5. The partially denuded scalp of long-established cases of the latter, where scabs have been allowed to accumulate, and where great irritation prevails; the remaining hairs insulated by pustules.

DIVISION II.

Fig. 20. The two inferior spots representing the first appearance of the spots of lepra, before the first scale separates. The superior large, round, and scaly; the disease in a spreading state. 21. Psoriasis. 22. An enlarged representation of the morbid and discolored cuticle, forming ichthyosis. The numberless fissures caused by the cracking of this hard, dry substance, and dividing it into thousands of pieces, are well represented.

DIVISION III.

Fig. 11. Porrigo Favosa. 12. *P. Larvalis*, both from cases of considerable standing. 13. The pimples of infants, some of them surrounded by considerable inflammation; their representation in clusters connected by patches of inflamed skin, (*S. intertinctus*, &c.) has been omitted. 14 and 15. The pimples of adults, termed lichen; the first

of these, as it sometimes occurs on the arms and other parts covered by the finer kind of hair, each hair occupying the centre of a pimple; the second, as it appears, on other parts. 16. The pimples of prurigo, the tops of some of them scratched off, leaving a peculiar, little, black, bloody scab on their apices. 17. Two of the common forms of urticaria. 18. The vesicles of impetigo in an advanced and partly flaccid state. 19. The carbuncular furuncle.

DIVISION IV.

Fig. 23. The inferior portion, exhibiting an enlarged view of the vesicles of impetigo. The superior, the disease in an advanced stage, with the scab partially covering it. 24. The vesicles and enlarged pustules of the itch. 25. The appearance of the skin in eczema mercuriale. 26. The tubercle of erythema nodosum.

DIVISION V.

Fig. 6. Petechiæ, or purpura simplex. 7. The enlarged spots of purpura hemorrhagica. 8. Different stages or degrees of the ecthymatous eruption. 9. The conical scabs of rupia. The similarity of character between the two latter, is rendered very distinct. 10. Pompholyx. The superior vesicle is discolored by the admixture of blood from the vessels of the surface.

All skin diseases are either produced by inflammation of the derma, resulting from inflammation caused by poisonous secretions from a vitiated blood, or external injury, or by parasites either transmitted from other persons, animals or things, or hatched out by microscopic insects depositing their eggs, or spores beneath the cuticle. These diseases may be cured by destroying the insect with Mecca oil, permanganate of potassa, washing, and by removing the inflammation by cold packs, rest, etc. In all cases the catarrh vapor, to purify the blood, the anti-periodic pills, and blood, liver and stomach tonic, should be freely used.

DOMESTIC PRACTICE

OF

MEDICINE.

IN endeavoring to lay down some of the principles which form a basis to the Domestic System of Medicine, it would be presumption, in me, to attempt to do more here than give an outline of what we consider to be the true principles which govern the great American movement for reforming the medical profession. Before entering upon a discussion of these principles, however, I cannot refrain from stating what I conceive to be true relative to the present condition of the healing art.

1st. That a large majority of cases treated by all classes of physicians, are cured by nature and not by medicine.

2d. That in many cases nature removes the disease in spite of medicine.

3d. That many fatal cases would have recovered, were it not for medical interference.

4th. That the Empirical practice of treating cases by mercury, blisters, antimony, blood-letting, &c., is so far from saving life as to be absolutely a prolific source of disease and death.

5th. That the homœopathic practice of saturating the system with small doses of arsenic, mercury, dog-button, antimony, lachesis, &c., although the effects are not as immediate as when taken in large doses, yet in their tendency to derange the blood, and lay the foundation for scrofula, consumption, dropsy, disease of the stomach, liver, and uterus, with other diseases of a fatal character, makes this practice equally disastrous to health and life.

6th. That, although hydropathy is frequently a valuable auxiliary in the treatment of disease, yet, when unskilfully and untimely applied, it becomes an additional cause of sickness and death.

7th. That the entire catalogue of patent medicines are productive of an immense amount of disease, suffering and death.

8th. That advertising physicians, such as Analytic, Uriscopian, cancer doctors, &c., together with the entire herd of nostrum venders, are only so many professional knaves, who defraud the people of their money, their health, and their lives.

9th. That although the regular System has for its object and aim the correction of the abuses of the profession, as well as the determinate purpose to prevent the administration of medicines fraught with evil tendencies to life or health, yet from ignorance, or other cause, the medicines may be improperly administered, and thereby lessen the chances of recovery.

In making these statements, I do not wish to be understood to deny the power of medicine over disease when properly administered, neither would I say that Sectarian, Homœopathy, &c., are never employed with benefit to the afflicted. But as practised by a large majority of that class of physicians, who are ignorant of the true nature of disease, as well as the correct principles of cure, they are infinitely more injurious than beneficial.

This class of practitioners, to shield their ignorance, attack, in the most vehement manner, every improvement in the profession which in the least conflicts with their narrow and illiberal views. It is this class of the profession who have contributed so largely to the persecution of every attempted improvement in the practice, and unfortunately they have always been sufficiently numerous to control, in a great measure, its destiny. Thus while every other branch of physical science has made gigantic strides, the progress of medical science has been comparatively slow. While Geology has explored the earth from centre to circumference, and reads, from every tablet, the mighty creative power of Him who has thus wonderfully constructed it; while Astronomy not only encircles this solar system, but gazes beyond, upon millions of suns and adamantine spheres that wheel unshaken through the immensity of space;

while Chemistry has analyzed and explained nearly every animal, vegetable, and mineral substance; while Zoology and Botany give unmistakable evidence of uninterrupted progress; while, by the endless variety of labor-saving machinery, the improved method of printing, the transmission of thought with lightning speed to earth's extreme, the iron horse which breakfasts in the valley of the Mississippi, dines upon the rocky Alleghanies, and sups on the borders of the Atlantic, with other innumerable inventions, show that the arts, in progress and improvement, keep pace with the march of time; while the powerful engines of Christian fidelity have burst the bonds of Catholicism, and unfurled the banner of religious liberty, which, for more than three centuries, has floated high in the pure breeze of Christian freedom; while also the improvement in the moral condition of mankind is seen in the glorious works of reformation, which are so zealously carried on; while such extensive progress has been made to the perfection of art and every other department of science, it will be seen by reference to fact, that every attempt to improve the healing art, has met such bitter opposition; that, comparatively, its progress has been slow, and it is far from occupying that advanced position in the ranks of science which its importance demands.

Harvey, who discovered the circulation of the blood, was called the circulator, in derision. He was deprived of the right to practise his profession in his own country; was threatened with banishment, and finally was compelled to leave his native land, to escape the obloquy that was heaped upon him, and died without realizing the benefit of his labors.

In 1522, Ambrose Pare first introduced the ligature, and tied the artery, instead of plunging the limb into boiling tar, as was practised by his cotemporaries. He was denounced, with the most reckless violence, for daring to suspend the life of a man upon a mere thread. In 1638, the Countess of Cinchon, wife of the ex-king of Peru, was laboring under a fever, from which she was unable to obtain relief. The Governor of Loxa, having learned from the natives the curative powers of the Cinchona, advised her to employ it. After much hesitation, she resolved to try it, and was by its use restored to health. Ten years afterwards, a Jesuit of Rome endeavored to introduce the Peru-

vian Bark into Europe; but his efforts were unsuccessful. The profession proclaimed at once that it was a Papish remedy, and proceeded from Quacks, who created all manner of disease. Protestant England called it a Papish remedy, saying that it proceeded from the father of all Papists, the Devil. It was not, until in spite of all opposition, its utility was demonstrated, that physicians availed themselves of its curative powers.

Lady Mary Wortley Montague, while in Turkey, observing the wonderful effect of inoculation for small-pox, to mitigate the severity of that much dreaded disease, determined to introduce the practice into her native country. But no sooner did she make known her purpose, than the medical faculty arose at once and predicted the most disastrous consequences. The clergy descended from the pulpit on thus seeking to take events from the hand of Providence. In order to satisfy the profession and the people of the great utility of inoculation, she resolved to experiment upon her own daughter, and government appointed four of the best medical men to observe its progress. Lady Montague states, that they not only manifested the greatest incredulity as to its success, but also such an unwillingness to have it succeed, that she was absolutely afraid to leave her daughter in their hands, lest she should suffer from their interference.

In 1790, Dr. Jenner, of Gloucester, remarked that the disease known in the western part of England as cow-pox, communicated to those who milked the cows, precluded those who became thus affected from being infected with small-pox. This strange fact suggested to him the idea of inoculating children with virus directly from the udder of the cow, which he accordingly did, and in the course of four or five days he saw pustules developed at all points where the skin had been punctured, similar to those of cow-pox; when the pustule broke, the pus dried, forming a thin scale or crust, which, falling off, left a cicatrice. There was little or no fever, the children continuing to eat and play as usual. After repeated experiments of this kind, Dr. Jenner became satisfied of its being a preventive of small-pox, as not a single child thus inoculated was attacked with it. But how was the discovery received by the illiberal and dogmatical portion of the profession? With ridicule and contempt, like every other proposed improvement. Jenner was

persecuted, oppressed, and driven from his country; even religion and the Bible were made engines of attack against him and his invention. Errhman, of Frankfort, attempted to prove from Scripture that vaccination was the anti-Christ. At that time small-pox was the scourge of the human family, and, but for the discovery of Jenner, would have remained such until the present time.

In 1315, Mondini dissected two human bodies, and shortly after published his *Epitome of Anatomy*, illustrated with woodcuts. At this time, and for a long time afterward, it was customary to demonstrate anatomy upon the hog and other animals. The act of Mondini was considered heresy. The persecution of Mondini, together with the prejudice existing upon the subject at the time, prevented any other dissection of a human subject for more than a century; and Mondini, in his experiments, dared not open the head for fear of committing a mortal sin. It was not until the commencement of the sixteenth century that dissections for anatomical purposes were made, and then they were performed by the authority of the Pope, and not at the instigation of the medical profession.

The natives of Brazil first taught the medicinal qualities of ipecac.; but, owing to the opposition with which it was met by the medical profession, it was more than a quarter of a century before its virtues were appreciated. A Mexican soldier, more than half a century ago, demonstrated the styptic properties of the Matico, and its entire control over the bleeding vessels of the body; but such is the tendency to oppose every new remedy that, as yet, it is never employed by the mass of the profession. Dr. Samuel Thomson discovered and proved the valuable medical properties of Lobelia; but on modestly making known his discovery to the profession, it was not only denounced, but he was persecuted and imprisoned. At this time we find medical men using it in disguise, and at the same time denouncing its discoverer. In 1823, an association of scientific medical men, from different parts of the country, met in New York city, and made preparation for organizing a reform medical college; when, by the indomitable energy of Dr. Beach, the first reform medical college in the world was organized.

The object of this organization was to break the shackles of

Hunkerism; to open the science of medicine to all bold and thorough investigators; to enlarge and improve the *maseria medica*; to investigate more fully and clearly the nature and character of disease peculiar to the country and climate, and to place the entire profession upon a more liberal and scientific basis. But no sooner was the object and aim of this institution announced, than a majority of the profession commenced an attack upon it, denouncing, violently, all who were identified with this philanthropic movement. Dr. Beach, its founder, although a man of learning, and a graduate of one of the first allopathic colleges in the country, was assailed with terms of insolence and reproach, and all those who had the courage to participate in the work shared the same fate. To all who are in any considerable degree acquainted with the history of medicine, it is obvious that this conservatism, which has long been a characteristic of the profession, has had a most disastrous influence upon its progress.

The conservative, always ready to apologize and explain the reasons for his ungenerous course, with all complacency affirms that to talk of improvement is but a dream; that the fathers of the profession have left us their knowledge as a choice legacy, which we should keep in grateful remembrance; that the profession has already attained a position which entitles it to the highest respect.

Yet the positive uncertainty of medicines is manifested in a striking degree, as we trace the history of particular remedies, recommended by those who are revered as almost divine authority by the conservative. What differences of opinion—what an array of alleged facts directly at variance with each other—what opposite results of like experience—what ups and downs, glorifications and degradation, confidence and despair—arose in treating the same disease with the same remedies. To be satisfied upon this point we need only refer to the history of one or two prominent diseases, viz: pneumonia and syphilis. Mercury, antimony and blood-letting have been regarded as specifics in these diseases by many authors, while others of equal pedantry and learning have rejected them as useless and injurious. Such has been the uncertainty of practical medicine, that even the conservative portion of the profession, if they become

in the least enlightened, omit the heroic and adopt the expectant or tentative mode of practice. The foregoing facts disclose a lamentable state of things, but not a state to be despaired of; much less is it one to be concealed. It is our duty as guardians of the lives and health of our fellow-beings, to unmask, not only the virtues, but the faults of the profession. The course of our subject will now lead us to attempt to disclose in what the defects of those systems of practice mainly consist; the cause of these, and the means which seem best calculated to remove them. Also the principles which govern the Young American Physic. In order to fully understand why the old system of practice is not more successful in removing disease, it will be necessary to enter more fully into its principles of cure and therapeutic resources. For the investigation of these, it will be necessary to enter somewhat into the history of medicine. Pliny states that, if there exist any nation in which at any epoch of its history physicians were not found, there is none in which traces of medicine were not visible. It is probable that medicine has existed, either as an art or science, from the earliest period; and that the practice of medicine had its existence in the natural tendency of the soul to resist death, together with benevolent impulses towards the sufferings of others.

The earliest and most authentic account we have of the practice of medicine, is that given of Centaur Chiron, a prince of Thessaly, who went out in the expedition against Troy. From all accounts we have of his practice, it was exceedingly empirical, and consisted in the external application of a few remedies to wounds, &c., together with incantations and ceremonies to affect the imagination. Chiron transmitted his profession, according to custom, to his son *Æsculapius*, and *Æsculapius* to his two sons, *Machaon* and *Podalirius*.

Fifty years after the destruction of Troy, a temple was erected at *Titanus*, a city of the *Peloponnesus*, in honor of *Æsculapius*, who was worshipped as a god. The worship of this god very soon spread throughout Greece and passed into Asia, Africa, and Italy. Multitudes of temples were consecrated to him, among which those at *Epidaurus* in the *Peloponnesus*, at *Pergamos* in Asia, on the island of *Cos*, and at *Cyrene*, a city

of Libya, were particularly famous. In the temple at Epidaurus there was a statue of colossal size representing the god of medicine, under the figure of an old man, seated on a throne, holding in one hand a sceptre, and resting the other on the head of a large serpent; a dog, the emblem of vigilance, rested at his feet. The statue was of gold and ivory, and was the workmanship of Grasymedus. Socrates, it is said, in his last discourse with his friends, requested them to offer for him a cock, as a sacrifice to *Æsculapius*; whence we infer that this bird was sacred to the god of medicine.

The priests attached to this worship were named *Asclepiades*, or descendants of *Æsculapius*. They regarded all the knowledge, relative to disease and medicine, as sacred, their laws forbidding it to be revealed to the non-elect, lest their god should be angry; strangers were not admitted to this knowledge until they had been subjected to certain ceremonies called the tests of initiation.

These temples were erected in the midst of the most delightful scenery; no pains were spared to furnish them with the most agreeable and healthful diversions; they breathed a pure air, were subjected to a wholesome regimen, and every possible means was used to affect the mind and imagination agreeably; thus exercising a healthful and happy influence upon the constitution. Fasting and prayer were strictly enjoined upon the patients, also abstinence and sacrifices, before they were admitted to receive the response of the oracle. Those who were benefited went to their homes blessing the author of their recovery, and those who were not benefited redoubled their efforts to propitiate the god in their favor. Besides these means, remedies were used, not unlike those now in vogue, consisting in bleeding, purgatives, vomiting, friction, mineral water, &c.

There existed in the country, about Epidaurus, serpents of a yellowish brown color, whose bite was not poisonous, and which were easily tamed.

These were employed by these priest-doctors to more effectually impress the minds of their patients with wonder and astonishment at their supposed power, which, from all accounts, had the desired effect. Aurelius Victor relates, that during the year 350 of the foundation of Rome, that city was scourged by a terrible

pestilence; the Senate sent six deputies to consult the oracle at Epidaurus.

On arriving at the temple, suddenly an enormous serpent issued from beneath the pedestal. The sight of it filled every mind with veneration more than with terror. He moved tranquilly through the crowd and entered the vase of the Romans in the chamber of Ogulnius, the chief of the ambassadors. The serpent was sacredly borne away, and when the ambassador was approaching the city of Romulus it sprang into the waves and swam to an island in the Tiber, where a temple was immediately erected to Æsculapius, and the pestilence ceased.

It can hardly be doubted that the priest-doctors of these temples were endowed with strong natural powers of mind; that they understood the influence of mind over matter; and that a strong belief in their ability to cure, contributed in a very considerable degree to their success. The teachings in these temples were confined to the family of Æsculapius for some eight or nine hundred years. After a time they became more general, assuming more of the character of the medical colleges of the present day. Their means of teaching was confined mostly to tablets hung upon the walls and columns of the temples, showing the name of the patient, the disease, and the manner in which it was treated. One of these tablets, found on the island in the Tiber, the site of the ancient Æsculapian temple, bears the following inscription in Greek characters:—Lately a certain Caius, who was blind, came to consult the oracle. The god required that he approach the sacred altar to perform certain adorations; at once he passed from the right to the left, and having rested his fingers on the altar, he raised his hands and applied them to his eyes, whereupon he recovered his sight immediately in the sight of all the people, who rejoiced to see such marvels performed in the reign of our august Antoninus. Upon the same tablet is the account of one Julin, who had pleurisy, and the gods ordered that the ashes of the altar be put into wine and applied to his side, which being done, he was immediately cured. Another man, Valerius Aper, was blind, and the gods ordered an ointment of the blood of a white cock and honey to be applied to his eyes, which was done, and his sight restored. The only principle which guides these

priest-doctors in the administration of medicine for the cure of disease, was, that remedies, which have once cured, will cure again under similar circumstances.

The practice of medicine, in the temples, was continued until about the commencement of the Christian era. Pythagoras, who was born in the year 500, B. C., at Samos, one of the most flourishing islands in the *Ægean* sea, having one day heard a lecture on the immortality of the soul by Pherecydes, was so charmed that he renounced every other occupation to devote himself to philosophy. He travelled among the most enlightened nations, obtaining extensive knowledge in every art and science cultivated at that early period, and that of medicine among others. It was Pythagoras who first introduced the practice of visiting patients in their own houses; he also rejected all theories in medicine, and contended that experience was the only safe guide to a successful medical practice. Hippocrates, who was born on the isle of Cos, 460 B. C., was one of the first reformers in medicine we have any account of. He was one of the direct descendants of *Æsculapius*, and received his education at Cos, which contained a temple dedicated to *Æsculapius*, and a medical school; thus his advantages for acquiring a medical education were very favorable. He was not satisfied, however, with this instruction, and extended his researches into the principal Greek cities of Europe and Asia, taking a survey of the art of medicine as it then existed, which was in a state sadly deficient and imperfect; the ideas of disease, and principles of cure, being of an exceedingly vague and uncertain character. He consequently commenced a series of experimental investigations into nearly every department of medicine.

He opened an earnest warfare upon the superstitious ceremonies of the *Æsculapian* priests, and advocated the custom, introduced by Pythagoras, of visiting patients at their own houses. He also classified and arranged diseases and remedies in a much more systematic manner than had hitherto existed, and introduced a variety of new remedies, which proved exceedingly valuable in the treatment of disease. His system of Therapeutics was, however, similar to his predecessor; depending in his choice of remedies upon those which experimental observ-

ation had proved beneficial in removing disease. To show the reader how slightly the treatment of disease, twenty-two centuries ago, differed from that of a class of practitioners at the present time, I will here introduce the treatment for pleurisy, given by Hippocrates, as translated by Renouard.

“It is necessary to examine, in the following manner, the peripneumonic and pleuritic affections; if the fever is acute; if there is pain in one or both sides of the chest; if the patient suffers during expiration; if he coughs, and the expectoration is rusty or livid, or thin and frothy, or of a blood-red—if, in fine, it differs at all from that which is natural, the following course must be pursued: the pain extending above and towards the clavicle, or towards the vein and the arm, the internal vein of the arm on that side should be opened. The quantity of blood drawn should be proportional to the constitution of the body, the season of the year, the age and color of the patient; and if the pain is acute, the bleeding should be boldly pushed to syncope; afterward an injection is to be administered.

“If the pain occupies the inferior region of the chest, and is very great, you should prescribe for pleuritics a mild purgation; but the patient must taste nothing else whilst the medicine is operating. After the purgation they should have an oxymel.* The purgation should not be administered until the fourth day; during the first three days injections should be employed; but if they are not sufficient, the purge should be given, as above said. He must be watched until the fever ceases, and the seventh day is attained; after that, if he appears out of danger, he may take a little barley-water, sweetened with honey. If the convalescence progresses and the respiration is good, the tisane † may be given twice a day, and be gradually increased in quantity and strength; but if the convalescence is slow the drink must be lessened, and a small quantity of weak tisane, for nourishment, once a day. It should be given when the patient is in the best condition, as may be known by the appearance of the urine.

“To those who approach the close of the disease, it is not necessary to give the tisane before you see the coction manifested in the urine or expectoration; nevertheless, if, when purged, the

* Decoction of barley.

† Oxymel, honey and vinegar syrup.

patient has abundant evacuations, it is necessary to give the tisane, but in less quantities and weaker, otherwise the emptiness of the vessels would allow him neither to sleep, nor to digest, nor to await the crisis. With this exception, the crude humors should be liquefied, and whatever has been the obstacle should be ejected: then nothing prevents alimentation. The expectoration is perfectly concocted when it appears like pus: the urine, also, when it has a red sediment like brick-dust.

“As to the pain in the side, nothing contra-indicates the use of fomentations and wax-plasters. The legs and arms should be rubbed with warm oil and then anointed with fat. The hypochondria should be covered as high as the breast with a flax-seed poultice. When the peripneumonia has reached its height, nothing can be accomplished without purgation: it is bad if the patient has dyspnoea, or if the urine be thin and acid, or there be sweats around the neck and head. These sweats indicate danger in proportion to the violence of the disease, which is known by the suffocation and rattling, which increases and produces death, unless there supervene an abundant flow of viscid urine, or of concocted sputa. Whichever of these two phenomena supervenes, it indicates resolution.

“An eclegma is prescribed for peripneumonia, with galbanum and grains of pine seed, in Attic-honey. Other expectorants are employed, such as worm-wood (*Artemisia abrotanum*, Lin.), and pepper in oxymel; purgatives—boil black hellebore (*Helleborus orientalis*, Lin.), and give it as a drink to pleuritics at the commencement and while the pain is felt. A useful remedy in affections of the liver, and in pains proceeding from the diaphragm, is a drink of opoponax (*Pastinaca opoponax*, Lin.), boiled in oxymel and strained. In general, a remedy that is to act on the stools, or urine, should be given in wine and in honey if to act on the stools alone, it should be given in a much large quantity of diluted oxymel.”

It will be seen, by comparing the treatment of Hippocrates with that of Dr. Eberle, given in another part of this work, that there is no essential difference. The bleeding and purgative plan is still adhered to.

At the death of Hippocrates, which occurred when he was about one hundred years of age, his two sons, Thassalius and

Draco, together with his son-in-law Polybius, cultivated the art of medicine, and transmitted the knowledge of their father by teaching in a public manner his doctrines. Hippocrates and his sons were the first authors of any note upon the subject of medicine.

The foundation of the Alexandrian Library, about the year 320 B. C., had a happy effect upon some departments of medicine, as Anatomy, Physiology, &c.

But from the statement of Galen, who had examined all the contents of this library relative to medicine, it appears that the only knowledge it evinced of therapeutics was merely experimental. The Alexandrian Library is said to have contained about 600,000 volumes or rolls, which were equal to about 200,000 modern bound volumes. This library contained all the valuable information of those times in every department of science and art. It was burnt by Caliph Omar, A. D., 640, who gave as his reasons that, if the books agreed with the Koran, they were of no use, and if they disagreed they contained heresy, and should be burnt. Thus far in the history of medicine, the only therapeutic axiom was this: When a treatment was successful in one case, it was always employed in analogous cases without inquiry whether it acted upon one principle or another; although Hippocrates and his disciples suggested some diseases were cured by their opposites, and others by similars; while again diseases have been cured by remedies which appear to be neither similar nor contrary to the nature of the disease.

It is not my purpose to enter in any considerable degree into the consideration of the theories which prevailed in those ancient times relative to disease, yet I can hardly present to the reader any thing like an idea of the comparative condition of medicine, without noticing in a brief manner some of the more prominent notions relating to it. The Asclepiades, of the isle of Cos, regarded disease as a series of phenomena, resulting from the efforts of nature to remove the cause of the disease. They regarded nature as competent to accomplish her purpose in many instances, but in others medical interference become necessary. They also regarded disease as having critical days and a certain duration. Pythagoras states that the number of days which bring about the cure or death of a patient, regulates the crisis of fevers. In

remarking upon the observation of these critical periods and daily phenomena of disease, he says that a physician who neglects nothing that may contribute to the patient's health, must observe carefully what passes each day.

Among those days of even numbers the most important are the fourteenth, the twenty-eighth, and the forty-second. Whoever carefully observes the phenomena of disease, as described by these ancient authorities, will see an aphorism of Prof. J. J. Jones verified: That all diseases are more or less periodic. Following the doctrine of crisis is that of the four elements, Heat, Cold, Dryness and Moisture; and the four cardinal humors, blood, bile, atra-bile, and phlegm.

Empedocles was the first to introduce this doctrine of the elements. He says the human body is composed of blood, phlegm, and two sorts of bile—yellow and black; and that their condition determines the state of health; that perfect health consists in a due proportion of each; that disease is caused by an excess of any one of these, or if any one lacks its due proportion, or is evacuated without being properly mixed—for when it is thus evacuated, they claim that not only the region where the admixture took place must be affected, but the organ, through which it passed off, must suffer and become diseased. Another theory of those times was, that all disease was caused by cold, which they explained as follows:—Colds cause the condensation of the tissues and veins of the head; if the cold strikes them when they are heated, they contract, and the humors contained in them are expelled. All the tissues are obliged to pour out their fluids when they contract.

Fluxions are also caused by the tissues becoming heated, which rarefies them, enlarges their pores; the humors they contain are attenuated, so that it flows easily when compressed. This theory of fluxions is regarded as being anterior to Hippocrates. For a long time after Hippocrates, we have no writings from which we can learn any progress in the practical resources of the profession. From all we can gather, it would seem that little, if any, progress was made in the principles or practice of medicine for many centuries. Herophilus is mentioned by some as a reformer in medicine, and as having introduced quite a large number of medicines; but what they were, history fails

to tell us. Dioscorides states that the medicines used by him had the power to dissolve stone in the bladder; to consume the spleen; to prevent conception in females; of making children black-eyed, &c.; also, that they would prevent the various manifestations of mental emotions and passions. The *modus operandi* of medicines, as explained by the ancients, was that they acted upon the system according to the degree of heat or cold, dryness or moisture, of the system. A principle not very dissimilar to that advocated by the modern Samuel Thomson, which was that heat was life, and cold was death; and that medicines acted beneficially or otherwise, according to the degree of heat they contained.

Ætius, who lived at the commencement of the sixth century, and was the first physician of eminence who embraced the Christian religion, dispensed with most of the ceremonies, magic and incantations, that originated in the Æsculapian school; but instituted others almost equally superstitious. In his directions to use certain medicines, he recommended that the following words be repeated in a low voice: May the God of Abraham, the God of Isaac, the God of Jacob, deign to bestow upon this medicine the necessary virtues, &c. In extracting a foreign substance from any part of the system, he recommends, in connection with proper means used, the following words: As Jesus Christ caused Lazarus to come forth from the sepulchre, as Jonah came out of the whale's belly, come thou out. In his practice he made free use of the cautery, and introduced a number of new ointments. He also claimed to have introduced to the *materia medica* several new remedies, but did not tell us what they were. His principles of practice were the same as his predecessors.

Rhazes, an Arabian physician, although a strict imitator of the Greek practice, offered one or two suggestions worthy of remembrance. Among other considerations, he says: "study carefully the antecedents of the man to whose care you propose to confide all you hold most dear in the world—that is to say, your life and health, and the life and health of your wife and children. If the man is dissipating his time in frivolous pleasures; if he cultivates with too much zeal the arts that are foreign to the profession, such as music and poetry; still more if he

is addicted to debauchery, refrain from committing into his hands a trust so precious."

Hally-Abas, Avicenna, and Albucasis, were also Arabian physicians of some note, and lived in the eleventh and twelfth centuries. They added to the resources of the Greeks several articles of some value, such as cassia, senna, and manna. They also added several ointments and syrups to the pharmacy. In the principles of treating diseases, however, they made but little, if any, advancement.

On examining the progress in the principles and practice of medicine, from its commencement to the close of the seventeenth century, we find that the principal improvements were made by the descendants of *Æsculapius*, Hippocrates and Galen; that the Arabians, Turks, and Jews, did little, if any thing, more than teach it as it had been taught by Hippocrates. Even after the discovery of the art of printing by Guttenberg and others, in 1424, physicians appeared to be entirely satisfied in translating the writings of ancient authors, and in commenting upon what, it would appear, they thought a fixed science.

In the year 1700, John Fernel, who wrote quite extensively upon the *materia medica*, re-examined the therapeutic axiom of Hippocrates, that all diseases are cured by contraries. He stated that every disease must be cured by contraries; for, says he, "a remedy is that which can drive out a disease, and that which drives acts violently. That which uses violence is in opposition, therefore the remedy is always opposed to the disease, and no healing can take place except in virtue of the law of contraries. We call contraries not only those things which are endowed with opposite elementary qualities, heat and cold, dry and wet, but also things which differ among themselves in any way, as to quantity, number, quality, &c. Thus the hard and the soft, the dense and the diffuse, the great and the small, that which is in excess and that which is deficient; the high and the low, the pure and the impure, are all examples of contraries. These are the views of Fernel relative to the therapeutic action of medicine, although he carried them further than Hippocrates and Galen, and entirely rejected their experimental knowledge of therapeutics, and claims, the law of contraries to be impossible.

Paracelsus, a native of Einsiedeln, a village of Switzerland, lived in the latter part of the sixteenth century, and although a man of neither integrity of purpose, nor stability of character, obtained almost universal sway over the medical profession. He claimed to have made great discoveries in therapeutics and pathology. He stated that the human body, like the great world of which it is an image, is composed of four elements, fire, air, earth and water. The fire in man is the soul; the earth is represented by the dry parts; the water by the liquids; the air by the vacuum. These four elements cause disease. But if we leave this high analysis to get at the more immediate elements, the body of man is composed of mercury, the liquor of sulphur and salt. And now we see how this is demonstrated by alchemy. There are, in the first place, in the body liquids; these are the mercury; then the solids, which may be burnt; the portion which burns is sulphur, while the residue or the ashes is salt. It can hardly be imagined how a man can embody, in so few words, such an amount of ignorance, and, what is still more wonderful, is, that a system, thus founded in the grossest ignorance, should exert such an influence on the medical profession. The additional element of mercury, which he added to the four elements of the ancients, enabled him to found a new system of therapeutics, and in a measure to introduce new principles of cure. Mercury, he tells us, being in close relation to ordinary quicksilver, produces, by its volatility, many affections of the ligaments, as tremblings, &c. If it becomes excessive, or if it be joined to acrimony, mania, phrenzy and madness occur. On the contrary, if the mercury is chilled, it causes trembling of the hands and feet, lethargy, erosions of the mouth, &c. Sulphur causes various kinds of fevers, jaundice, &c. Salt causes gravel, gout, sciatica, and, when it becomes dissolved, it causes diarrhoea; if it coagulates, constipation; if it volatilizes too soon, it causes ulcers, itch, erysipelas, cancers, herpes, &c. For the purpose of removing all these diseases, he introduced into the system antimony, gold, mercury, copper, and some other metals. He discarded many of the remedies of Hippocrates as being ineffectual and unable to control the elements of the body, and pretended the principle upon which mercury removed disease from the body was a profound secret, peculiar to himself. It

was a combination of these metals which composed what he called his *elixir vitæ*, or universal remedy for all diseases. One attempt which he made to explain the *modus operandi* of his medicines, will suffice to show his entire ignorance upon the subject. It was as follows:—"As antimony purges gold only, and consumes all other metals, it is the proper agent to purge the human body, and no other; for in regard to perfection and forces, man has a great similitude to gold; whence it follows, that antimony brings man and gold to a supreme degree of perfection and purity, while it destroys, consumes and exempts every thing else. The nature of antimony is a purgative, though it does not produce evacuation of fæces and other excrements; but, above all other remedies, which act insensibly, it drives out that which renders man impure, and having purged the cause of disease, brings him to a supreme degree of health." It will readily be perceived from the above quotation, that in the administration of medicine, he was guided for less by correct principles than his predecessors in the profession. Paracelsus was the first physician who used mercury and the other violent mineral poisons. Andrew Libanius, a physician, chemist and director of the gymnasium at Cobourg, and cotemporary of Paracelsus, informs us that the latter cured very few of his patients; that he killed a great many, and that many others were horribly tortured by the use of his medicaments. As ignorant and unskillful as was Paracelsus, he was the founder of the present system of Medicine; and the very remedies of which he composed his quack *elixir*, are still insisted upon as being the almost universal panacea for bodily ills. It is true that men, eminent in the profession, have labored for a more rational system of practice; have minutely investigated the cause and nature of disease, and have very materially improved the condition of pathology. But notwithstanding all this, it must be acknowledged that their therapeutic resources are essentially the same as those of Hippocrates and Paracelsus. By referring to the compendium of Dr. Eberle's Practice, in another part of this work, we can learn what the resources of the Old School portion of the profession are. To be sure, every article is not there enumerated which has been recommended by that branch of the profession; but, he being a late author, and having enjoyed the confidence of the profes-

sion as such for nearly a quarter of a century, it is probable he as fairly represents his party in medicine as any author I could select. According to all their authors, bleeding, blistering, mercury, antimony, &c., are their principal therapeutic resources. With these are they successful in accomplishing the only purpose for which medicine is cultivated?—that of healing disease. The first of these resources, in order, is bleeding. Is bleeding of service in the treatment of disease? Is it productive of more good than evil? These are questions which should be solved before venturing upon so active a measure in changing the normal condition of the human organism.

To assist us in the solution of this question, we may first inquire, what are the purposes of the blood? what part does it perform in the economy of human life. Scripture tells us that the blood is the life of the flesh. Physiology tells us that the blood is the histogenic material, out of which all the organs of the body are formed, and by which they maintain their normal integrity. Pathology, still further, informs us that a large majority of all disease that afflicts the human family is dependent upon, or is caused by, a deficiency in the whole, or in certain constituents of the blood. Physiological pathology informs us that the blood is a medium through which all the disintegrated or waste portions of the old tissue are removed from the body; that it watches diligently over every tissue, and carefully supplies every deficiency. Still the question is, does it remove disease? What are the facts? The following remarks of Dr. Samuel Dickson, formerly an officer of the British staff, now of London, will show some facts upon the utility of blood-letting in the treatment of disease. "A medical officer of one of her majesty's regiments, serving in India, couched a woman for cataract. The next day the eye having become inflamed, according to received practice, he bled the patient; but scarcely had he bound up her arm, when she fell, as if she had been shot, and lay, to all appearance, dead; with the greatest difficulty he succeeded in recovering her from this state; but it was not till four long hours had passed that he felt he could safely leave her with attendants; for during the greater part of that time, when he ceased to chafe her temples, or otherwise call up the attention of the brain, by the application of stimulants to the nose, mouth,

&c., she relapsed into a death-like swoon. More than once he was obliged to inflate her lungs to keep her from dying. But in this case, gentlemen, blood-letting did not cure the inflammation; for the next day the eye was more painful and inflamed than ever, and the poor woman, after all the blood she had lost, — and who will say that she was not bled? — did not recover her sight. It is now many years since that case came under my sight, and it made an impression on my mind I shall never forget. Had the woman died, would not every one have said that the gentleman who bled her had killed her? and very justly, too."

"Religion, Freedom, Vengeance, what you will,
A word's enough to raise mankind, to *kill* —
Some *party*-phrase by *cunning* caught, and spread,
That GUILT may reign, and WOLVES, and worms be fed."

"The first resource of the surgeon is the lancet — the first thing he thinks of when called to an accident, is, how he can most quickly open the flood-gates of the heart, to pour out the stream of an *already enfeebled* existence. Does a man fall from his horse, or a height, is he not instantly bled? has he been stunned by a blow, is not the lancet in requisition? Nay, has an individual fainted from over-exertion or exhaustion, is it not a case of *fits* — and what so proper as venesection? You cannot have forgotten the fate of Malibran — the inimitable Malibran; she who so often, by her varied and admirable performances, moved you to tears and smiles, by turns. She was playing her part upon the stage; she entered into it with the whole of her soul, riveting the audience to the spot by the very intensity of her acting. Just as she had taxed the powers of her too delicate frame to the utmost, she fainted and fell; fell from very weakness. Instantly a medical man leapt upon the stage, — to administer a cordial? No, to bleed her! to bleed a weak, worn, and exhausted woman! and the result? She never rallied from that unfortunate hour. But, gentlemen, Malibran was not the only intellectual person of the thousands and tens of thousands who have prematurely perished by the lancet. Byron and Scott, those master-spirits of their age — those great men, who, like Ariosto and Shakspeare, not only excited the admiration of cotemporary millions, but whose genius must continue, for gen-

erations yet unborn, to delight the land that produced them — they, too, fell victims to the lancet — they, too, were destroyed by the hands, which, however friendly and well-intentioned, most undoubtedly dealt them their death-blow. Is not this a subject for deep reflection? To the cases of these great men we shall recur in the course of this lecture; but, for the present, we must turn to other matters — to events that have just passed before our eyes. The affair of Newport, in Wales, is still the topic of the hour. You must therefore remember it to its minutest detail — the attack of the rioters upon the town; the gallant and successful stand made by Capt. Gray and his little detachment of the 35th regiment — the prisoners captured and the investigation which took place afterwards. In the course of that examination a prisoner, who was under examination, *fainted*. What was done with him? he was carried out of court and immediately *bled*. On his return an extraordinary change had come over his countenance; from being a man of robust appearance, he had become so wan and haggard, so altered in every lineament, the spectators could scarcely recognize him as the same prisoner. Yet, strange to say, not one of the many journals that reported this case, spoke a word in condemnation of the uncalled-for measure which brought the man to such a state; so much has *custom* blunted the sense of the public to this, the most dangerous of all medical appliances.

Gentlemen, a coroner's inquest was held on a person who died suddenly. Mr. —, surgeon, stated that he was called upon to attend deceased, and found him *at the point of death*. He attempted to bleed him, but ineffectually, and in less than a minute from witness' arrival, deceased expired. Witness not being able to give any opinion as to the cause of death from the symptoms that then exhibited themselves, he afterwards, with the assistance of Dr. Ridge, 37 Cavendish Square, made a post-mortem examination, and found that a large tumour, attached to a large vessel of the heart, containing blood, had bursted, and that was the cause of his death. So that, while the man was actually dying of inanition from internal bleeding, the surgeon, utterly ignorant, according to his own confession, of the nature of the disease, proceeded to open a vein. How happens it that the lancet should be so invariably the first resort of *IGNORANCE*.

“In every case of *stun* or *faint*, the employment of this instrument must be a superadded injury; in all, there is a positive enfeeblement of the whole frame, evidenced by the cold surface and weak but imperceptible pulse; there is an exhaustion, which loss of blood, so far from relieving, too often converts into a state of utter prostration. True, men recover when treated in this manner—but these are not *cures*, they are *escapes*. How few the diseases which loss of blood may not of itself produce! if it cannot cause the eruptions of small-pox, nor the glandular swellings of plague, it has given rise to disorders more immediately fatal than either. What think you of cholera asphyxia—Asiatic cholera? Gentlemen, the symptoms of that disease are the symptoms of a person bleeding slowly away from life. The vomiting, the cramps, the sighing, the long gasp for breath, the leaden and livid countenance which the painter gives to the dying in his battle-pieces; these are equally the symptoms of cholera and loss of blood. Among the numerous diseases which it can produce, Darwin says, ‘a paroxysm of *gout* is liable to recur on bleeding.’ John Hunter mentions ‘lock-jaw and dropsy’ among its injurious effects—Travers, ‘blindness and palsy’—Marshall Hall, ‘mania’—Blundell, ‘dysentery’—Broussais, ‘fever and convulsions.’ ‘When an animal loses a considerable quantity of blood,’ says John Hunter, ‘the heart increases in its frequency of strokes, as also in its *violence*.’ Yet these are the indications for which professors tell you to bleed. You must bleed in every inflammation, they tell you. Yet is not inflammation the daily effect of the loss of blood? Magendie mentions pneumonia as having been produced by it, completely confirming the evidence of Dr. Hume upon that point. He further tells us, that he has witnessed among its effects the entire trains of what people are pleased to call *inflammatory* phenomena; and mark, he says, the extraordinary fact, that this inflammation will have been produced by the very agent that is daily used to combat it! What a long dream of false security have mankind been dreaming! they have laid themselves down on the laps of their Mentors,—they have slept a long sleep; while these, like the fabled vampire of the poets, taking advantage of a dark night of barbarism and ignorance, have thought it no sin to rob them of their life’s blood during

the profoundness of their slumber! Gentlemen, the long shiver of the severest ague, the burning fever, the severest lock-jaws, the vomiting, cramps, and asphyxia of cholera, the spasm of asthma and epilepsy, the pains of rheumatism, the palpitating and tumultuous heart, the most settled melancholy and madness, dysentery, consumption, every species of palsy, the faint that becomes death, these — all these — have I traced to the loss of blood!

“ Lord Byron called medicine the **DESTRUCTIVE** art of healing. How truly it proved to be so in his own case, you shall see when I give you the details of his last illness: — ‘Of all his prejudices,’ says Mr. Moore, ‘he declared the strongest was that against bleeding. His mother had obtained from him a promise never to consent to be bled; and, whatever arguments might be produced, his aversion, he said, was stronger than reason. Besides, is it not, he asked, asserted by Dr. Reid, that less slaughter is effected by the lance than by the lancet — that minute instrument of mighty mischief?’ On Mr. Millingen observing that this remark related to the treatment of the nervous, but not of inflammatory complaints, he rejoined, in an angry tone, ‘Who is nervous if I am not? and do not those other words of his (Dr. Reid’s) apply to my case, where he says that drawing blood from a nervous patient, is like loosening the cords of a musical instrument — whose tones already fail for want of sufficient tension! Even before this illness, you yourself knew how weak and irritable I had become; and bleeding, by increasing this state, will inevitably kill me. Do with me what else you like, but bleed me you shall *not*. I have had several inflammatory fevers in my life, and at an age when robust and plethoric; *yet I got through them without bleeding*. This time, also, will I take my chance.’ After much reasoning and repeated entreaties, Mr. Millingen succeeded in obtaining from him a promise, that should he feel his fever increase at night, he would allow Dr. Bruno to bleed him. On revisiting the patient early next morning, Mr. Millingen learned from him that, having passed on the whole, as he thought, a better night, he had not thought it necessary to ask Dr. Bruno to bleed him. What followed I shall, in justice to Mr. Millingen, give in his own words: ‘I thought it my duty now to put aside all consideration of his feelings,

and to declare, solemnly, to him how deeply I lamented to see him trifle thus with his life, and show so little resolution. His pertinacious refusal had already, I said, caused much precious time to be lost; but few hours of hope now remained; and, unless he submitted immediately to be bled, we could not answer for the consequences. It was true he cared not for life, but who could assure him that, unless he changed his resolution, the uncontrolled disease might operate such disorganization in his system as utterly and forever deprive him of reason! I had now hit at last on the sensible chord; and partly annoyed by our importunities, partly persuaded, he cast at us both the fiercest glance of vexation, and throwing out his arm said, in the angriest tone, 'There you are, I see, a d—d set of butchers, take away as much blood as you like, but have done with it!' We seized the moment (adds Mr. Millingen), and drew about twenty ounces. On coagulation, it presented a strong buffy coat, yet the relief obtained did not correspond to the hopes we had formed, and during the night the fever became stronger than *it had been hitherto*, the restlessness and agitation increased, and the patient spoke several times in an incoherent manner. Surely this was sufficient to convince the most school-bound of the worse than inoperative nature of the measure. Far from it. On the following morning, the 17th of April, the bleeding was repeated twice, and it was thought right also to apply blisters to the soles of his feet! Well might Mr. Moore exclaim, 'It is painful to dwell on such details.' For our present purpose it is sufficient to state, that although the rheumatic symptoms had been completely removed, it was at the expense of the patient's life. His death took place upon the 19th, that is, three days after he was first bled.

"M. Capeman, in 1845, gives the statistics of the bleeding and non-bleeding practice in apoplexy. 'In 1836, when I first repudiated the lancet in this disease, the statistics were all on one side, the only cases of the non-bleeding side of the argument being my own.' The following is from Mr. Capeman's table:

Number bled.....	120 Cured.....	51 Died.....	78
Number not bled.....	26 Cured.....	18 Died.....	8

Showing that, in the cases where bleeding was practised, nearly

two out of three died; whereas, in the cases treated without blood-letting, more than two out of three recovered! What is the worth of general assertions in the face of such evidence?

“In the army hospitals I had an opportunity of studying disease both at home and abroad. There I saw the fine tall soldier bled, for relief of a symptom, to fainting; and what is fainting? A loss of every organic perception—a death-like state, only differing from death in the possibility of a recall. Prolong it to permanency and it is death. Primary symptoms were, of course, got over by such measures; but once having entered the hospital walls, I found that soldier become familiar to me; seldom did his pale countenance recover its former healthy character. He became the victim of consumption, dropsy, or dysentery. His constitution was broken by the first depletory measures to which he had been subjected.”

In connection with these cases, reported by Dr. Dickson, we might mention that of our own Washington, who, after escaping the perils of war with its engines of death, fell a victim to the lancet. He was attacked with quinsy—bled to an enormous extent, three times within a few days, and died with all the characteristic symptoms of fatal hemorrhage.

Andral recently reported one hundred cases of pneumonia treated by blood-letting; one hundred treated by antimony and mercury, and one hundred by diet and rest. Of the cases treated by blood-letting, 27 died; of those treated by antimony and mercury, 21 died; by diet and rest, 7 died.

To the candid and impartial observer of facts, the general fatality accompanying this practice is conclusive on this point. Within my own experience I could enumerate hundreds who, while in the bloom of health, upon some trifling ailment have submitted themselves to be bled, and thus offered up their lives upon the altar of this murderous practice. These are a few among the many facts which lead us to condemn the use of the lancet. Another therapeutic agent in the old materia medica which we reject, is mercury with all its preparations; for ample experience has shown, that the allopathic axiom, that medicines which will produce one train of morbid phenomena, will remove an already existing disease, is not successful in combating disease; but, on the contrary, has greatly enlarged

the bills of mortality, and increased the amount of human suffering. It is not true that two diseases will not manifest themselves in the human organism at the same time, as common observation will show. It is true that while patients are laboring under the specific influence of mercury, they, at the same time, suffer from the ravages of other morbid influences equally disastrous to the life and health of the patient. Nothing is more common than to see patients die of idiopathic fevers, syphilis, small-pox, phthisis, pneumonia, pleurisy, inflammation of the brain, stomach, bowels, &c., while under the specific influences of mercury. Statistics show that a much larger portion die, when thus treated, than when left to the unaided efforts of nature. This fact was fully appreciated by Lord Byron after recovering from a very severe attack of fever. He stated that after a week of half delirium, burning skin, hot headache, horrible sensations, and no sleep, by the blessing of barley-water, and refusing to see his physician, he recovered.

Lord Byron was not the only one who realized the inefficiency of the allopathic method of treating disease. A large majority of the most intelligent people have felt, for the last two-thirds of a century, the importance of an entire revolution in our therapeutic resources. The following are the preparations of mercury most in use :

The blue-pill, which is a preparation of quicksilver, rose-leaves and honey.

Bichloride of mercury, or corrosive sublimate.

Chloride of mercury, or Calomel.

Ammonio-chloride of mercury, or White Precipitate.

Red Oxide of mercury, or Red Precipitate.

Bicyanide of mercury.

Sub-sulphate of Peroxide of mercury.

Nitrates of mercury.

Iodide of mercury.

The symptoms of large doses of Bichloride of mercury, as described by Taylor in his *Medical Jurisprudence*, page 87, are nausea, with vomiting of long stringy masses of white mucus, mixed with blood, followed by profuse purging.

The pulse is small, frequent, and irregular, being scarcely perceptible as the disease advances. The tongue is white and

shriveled, the skin is cold and clammy, the respiration difficult, and death is commonly preceded by fainting, convulsions, and insensibility. The mouth is swollen and the urine is suppressed. The symptoms produced by corrosive sublimate, in the first instance, resemble cholera. The quantity necessary to destroy life, according to Taylor, is from three to five grains.

Chloride of mercury, or calomel, is poisonous in doses similar to corrosive sublimate. A case is reported in the *Medical Gazette* (18 vol., p. 484), in which a boy, aged fourteen, was killed by one dose of six grains of calomel.

It is stated, by Mr. Taylor, that no salivation was produced in this case. Pereira mentions a case of a lady who was killed by a dose of twenty grains of calomel. Sobernheim states that a girl, aged eleven, took eight grains of calomel in twenty-four hours, for croup, and died in eight days from inflammation and ulceration of the mouth and fauces.

Dr. Taylor mentions a case, which occurred at Lesser, where fifteen grains of calomel produced similar effects, and the patient died in eight days. Dr. Christian mentions a case in which two grains of calomel destroyed life by the severe salivation induced, as well as by the ulceration of the throat. Taylor, in his *Medical Jurisprudence*, page 80, mentions a case, where two-thirds of a grain of calomel was given to a boy, aged eight years, producing violent salivation and necrosis of the bones.

In another instance, a little girl, aged five, took daily, for three days, three grains of mercury and chalk-powder. Her mouth was severely affected; sloughing ensued, and she died in eight days. In a third case, a boy, aged eleven years, took three doses of this powder — one of six grains on the 14th, a similar dose on the 17th, and four grains on the 20th, making altogether sixteen grains. The most profuse salivation ensued, sloughing commenced in both cheeks and rapidly extended through them. The boy died in four days. Previously to the exhibition of the mercury he had recovered from an attack of fever. In a fourth case, three grains of blue pill, given twice a day, for three days, making eighteen grains, were ordered for a girl, aged nineteen, who complained of a slight pain in her abdomen. Severe salivation supervened, the teeth separated, and she died in twelve days. Dr. Craigie says the great objection to the employment

of any preparation of quicksilver in the cure of renal disease, consists in the fact, that the use of the mineral is known to render the urine albuminous, to increase the inflammatory state of the system, and to induce the disease, the effects of which, it is expected, to remove. Another evil is that, in persons laboring under symptoms of granular kidney, a very small quantity of mercury induces salivation, and renders the mouth tender and most painful. (*Practice of Physic*, ii., 1148.)

Prof. Z. Freeman reports a case, in the August number of the *Eclectic Medical Journal*, 1854, p. 345, of a girl who took calomel and jalap for a cathartic. It was followed by severe salivation, gangrene and necrosis of the jaw bone. He states, that himself and Dr. Newton took from the jaw four pieces of bone, each over an inch in length and three-fourths of an inch in thickness, including a number of teeth. The jaw was ankylosed and the mercurial bone fœtor was very offensive in this case. He mentions another case which came before him while he was lecturing in Memphis, in which the jaw was necrosed, and the features horribly mutilated, as the effects of mercury. I knew a case of a lady, treated by a homœopathic physician for remittent fever, who took corrosive sublimate, as admitted by the physician, one grain a day, for three days, producing violent salivation and ulceration of the mouth, with a strong tendency to gangrene, followed by persistent vomiting, prostration, and death in the course of five or six weeks. Upon making a post-mortem examination, the mucous membrane of the stomach, and upper portion of the bowels, were found entirely disorganized by the effects of the mercury.

Dr. Norris, surgeon in the Pennsylvania Hospital, stated, in a recent clinic, that he had not prescribed mercury in cases of syphilis for the last twenty years, and that patients did much better than before. Dr. Dick, of Calcutta, states, in a letter to Dr. Sanders, that chronic liver attacks frequently follow the long continued use of mercury. Dr. Nichols, surgeon in the British army in India, states that most of the soldiers, who were treated for venereal disease with mercury, were exceedingly liable to inflammation of the liver. Dr. M. Dessuelles, that from his experience in the treatment of one thousand three hundred and twelve cases of primitive and secondary syphilis without mer-

cury, that the average duration of the disease was only thirty-two days, while those treated with mercury were not only subject to a much longer period of the disease, but a far less number recovered. Prof. J. G. Jones stated, in his lectures, that he had not used a grain of mercury for twenty years. And it is well known that he treated every variety of disease with almost uniform success.

Dr. Pulte, in his *Homœopathic Domestic Physician*, states that mercury causes the following diseases and symptoms. Hence he recommends it to cure the same, upon the principle described by Shakspeare.

“Tut, man! one fire burns out, another's burning;

One pain is lessened by another's anguish:

Turn *giddy* and be helped by *backward turning*;

One desperate grief cures with another's languish;

Take thou some new infection to thine eye,

And the rank poison of the old will die.”

Swelling and inflammation of the glands; inflammatory fevers, with disposition to perspire profusely; rheumatic, or catarrhal headache; scrofulous rheumatic ophthalmia; syphilitic ophthalmia; rheumatic prosopalgia and tooth-ache; dysentery; mucous or bilious diarrhœa; influenza.

Symptoms:—Enlargement, inflammation, and ulceration of the glands, with pulsative and shooting pains.

Copious and colliquative sweats.

Vertigo, principally on getting up.

Itching, tickling and burning in the eyes.

Tearing, stinging and drawing pains in the ears.

Bloatedness and swelling of the face.

Tearing, stinging, or pulsative pains in the carious teeth.

Putrid smell from the mouth.

Stinging pains in the throat and tonsils, principally when swallowing.

Acid and mucous taste; dislike to all food.

Violent empty eructations; excessive tenderness of the stomach and precordial region.

Loose and dysenteric evacuations.

Frequent, copious emissions of urine, like diabetes.

Catarrh, with febrile shivering.

Difficulty of respiration, with attacks of suffocation at night.
 Obstructions and inflammatory swellings of the glands of the neck.

Sharp pains in the shoulders and arms.

Sharp and piercing pains in the hip-joints.

We have given some of the reasons why we reject the use of mercury and all its preparations in the treatment of disease. We urge the same objections against the medicinal use of copper, antimony, arsenic, lead, zinc, tin, in short, against all minerals not found as a component part of the organic structure of the human body. And if our limits would permit, we could produce an array of facts, proving, beyond a reasonable doubt, that the use of all these mineral substances is absolutely disastrous to health and life. The mineral substances, which are constituents of the human organism, and can be used with benefit in the treatment of disease, are the following: *

Lime, or its base, calcium, is combined with the carbonic or phosphoric acid, in the bones and teeth.

Magnesia, in the sebaceous matter of the skin.

Alumina, in the enamel of the teeth.

And iron in the black pigment of the various parts, and in the blood.

Metallic bases of earth:— Calcium, magnesium, silicium, aluminum.

Phosphorus, sulphur, chlorine, and fluorine.

Metals; iron, manganese, titanium.

Water, found universally, composed of hydrogen and oxygen.

Carbonic acid, found in urine, blood, and sweat.

Carbonates, or salts of carbonic acid and a base.

Carbonate of soda, in serum, bile, mucus, sweat, saliva, tears, artilage, &c.

Carbonate of lime, in cartilage, bone and teeth.

Carbonate of magnesia, in the sebaceous matter of the skin.

Phosphate of soda, in serum, saliva, in sweat, bones, muscles, &c.

Phosphate of lime, in bones, teeth, cartilage, and the sandy conerctions of the pineal gland.

Phosphate of soda and ammonia, in urine and blood; but probably only for the purpose of being excreted or thrown off as unfit to constitute a part of the animal body.

Phosphate of iron, in blood, gastric juice, and urine.

Chlorine and its compounds:—

Hydrochloric acid, in gastric juice and in the fluid of the cæcum.

Chloride of sodium, in blood, brain, bone, muscle, cartilage, pigment, and gastric juice.

Chloride of potassium, in blood, gastric juice, milk and saliva.

Chloride of ammonium, in sweat and gastric juice.

Chloride of calcium, in gastric juice.

Sulphuric acid and its compounds:—

Sulphate of potassa, in urine, gastric juice, and cartilage.

Sulphate of soda, in sweat, bile, and cartilage.

Sulphate of lime, in bile, hair, and cuticle.

Sulpho-cyanide of potassium, in the saliva.

Fluoride of calcium, in the enamel of the teeth.

Silica and oxide of manganese, in the hair.

Alumina, in the enamel of the teeth.

Oxide of iron, in blood, black pigment, lens and hair.

Oxide of titanium, in the capsulæ renales.

The above minerals, and their compounds, being constituents of the animal organism, necessarily play an important part in the great drama of organic life; and disease of any of the tissues may, and frequently does occur, from a deficiency of some of the elements of the parts. The blood may become diseased from a deficiency of iron, sodium, or potassium; in this case a proper administration of these articles may be beneficial. A lack of sulphur and soda in the system may cause a deficiency of bile; in which case a supply of them may restore the liver to its normal condition, and the bile to its natural quantity. Thus while all minerals, which constitute a part of the organic structure, not only become assimilated and assist in restoring the abnormal conditions of the system to a healthy state--all minerals which do not enter into the organization of any of the various tissues, when introduced into the system, act as foreign agents, and prove a constant source of irritation, disease and death. Having hinted at what we conceive to be some of the

facts relative to the past and present condition of Medicine, we now proceed more directly to consider some of the principles which guide the great American movement for the reform of the medical profession.

1st. A determined effort to ascertain more precisely than has been done hitherto the natural cause and events of diseases. Or, in other words, the fatality of disease when left to the unaided efforts of nature.

2nd. A determination to understand more fully the *modus operandi* of medicines, and to ascertain their real curative powers.

3rd. To continue our researches in the vegetable, mineral and animal kingdoms for the purpose of developing resources for the removal of disease.

4th. To introduce into the profession a spirit of liberality and progression; to dispense with all creeds and cliques, and to overcome all party prejudice among the different members of the profession.

5th. That it is the duty of every physician to investigate each system of medicine, and make its valuable resources available for the relief of the sick.

6th. That both science and experience have demonstrated that too much mercury, lead, zinc, arsenic, and the entire catalogue of minerals, incompatible with the organic tissues, is a fruitful source of disease, and dangerous to life.

7th. That blood-letting is one of those dangerous practices, which experience has found to be positively injurious in most cases.

8th. That the pharmaceutical method of compounding a great variety of medicines into syrups, powders, pills, &c., not only prevents the physician from ascertaining their real curative powers, but the action of each is frequently neutralized, and the object defeated for which it was given.

9th. That it is far better to leave the disease to the unaided efforts of nature, than attempt to remove it with medicine, unless its indications are demonstrated by observation and science.

10th. That investigation and research into the nature and cause of disease should be encouraged, and all new facts relative to medical science should receive due attention.

11th. That neither Eclectic, Homœopathy, nor Hydropathy, as an exclusive system of medicine, has arrived at any considerable degree of perfection, as shown by the fact that neither very materially lessens the natural fatality of disease; although, occasionally, each of these may prove successful, as shown by the power of cold water to allay inflammation, which is Hydropathy; by nitrate of silver for aphthæ of the mouth, which is Eclectic; or by rhubarb for diarrhœa, which is Homœopathy. Each of these systems of medication being occasionally applicable in removing disease, they should be understood by the physician, and adopted as indicated.

12th. To discourage, by every honorable means, the baneful practice of constant drugging for all trifling diseases.

13th. To investigate and adopt the physiological and hygienic methods of curing and preventing disease by a proper regulation of the diet, temperature and purity of the air, by bathing, friction, proper clothing, occupation, mental and physical training, &c.

14th. That the practice of physicians, of spending their time in idle conversation, electioneering and otherwise, in pursuits foreign to the profession, disqualifies them for practice; and that, to be a skilful physician, the whole energies of body and mind should be devoted to the profession.

15th. To avoid adopting any set of dogmas in medicine as infallible; bearing in mind, that a constant change of opinion relative to the fundamental practical principles of the art, shows that what men supposed to be true at one time, have been proved to be entirely erroneous at another, and that the only means of advancing medicine to the rank of an exact science, is by the constant rejection of old errors and the reception of new and well-attested truths.

16th. To combine the two extremes of the profession — the ultra-conservative and the fanatical reformer. As conservatives, we would pay due respect to the labors and discoveries of our predecessors in the profession, and adhere with commendable zeal and dignity to those doctrines which long usage, and extensive experience and science have demonstrated to be true. As reformers, we would extend our researches in every direction which promises accession to the already existing stock of medical knowledge,

paying no homage to the aristocracy and learned pedantry of the profession, only so far as it has contributed to the advancement of science. Finally, that we adopt and adhere to the facts of the conservative, and enter into the labors of the reformer, with equal cordiality.

17th. To use every practical means to inform the public upon the subject of medicine in all its departments, that they may understand the true merits of the different systems of medicine, and be prevented from trusting their lives and health in the hands of men ignorant of the principles and practice of the profession.

18th. To cultivate the spirit of true Eclecticism, liberality and progression; and to show the positive necessity that every physician or student of medicine, who would acquit himself with honor and with fidelity to his practice, should not only pass through the ordinary and preliminary course of study, but that his whole time and attention should be devoted to the investigation of all the therapeutic resources of every school of the profession, selecting from each that which science and experience has proved beneficial in the treatment of disease.

It will be seen from the foregoing, that the principles laid down as the basis of the American Medical Reform, cover every department of the science. That they propose to annihilate the boundaries of party limits; to break the shackles which bind the conservative to his dogma; to reinvestigate existing systems of medicine, and study anew all the laws of life and health; to ascertain to what extent health may be promoted and disease prevented. This is the work which has been commenced by American Medical Reformers, and to the completion of which, they will consecrate their future labors. They desire to establish a practice based upon scientific principles and inductive experience. They claim that, as a man is composed of the common elements of matter, that to understand his organism in its physiological, pathological and therapeutical relations, is to understand his material structure and forms, with their various movements and forces, and cause of forces, which necessarily includes an intimate knowledge of the great branches of Physical Science, vegetable, animal, and mineral, with all the laws and forces which control them, as electrical, magnetical, chemi-

cal, dynamical, and physiological or organical. The fallacies of all former doctrines in medicine have, in a great measure, arisen from a want of this important knowledge. The Sectarian, in establishing his system of medication, that all diseases are cured by medicines that alter or change the structure or physiological forces of diseased parts, entirely omitted the chemical, organic and vital dependencies of matter, as the very disease which he intends to remove, by altering the organic tissue, may depend upon deficiency of carbon, nitrogen, hydrogen or oxygen. As these substances alone possess the power of combining and forming the basis of all the elementary tissues, a deficiency of either of these elements may give rise to a series of pathological changes that no allopathic alterative could overcome, the only remedy being to introduce into the diseased organism its original elements.

Suppose the gastric fluid to be imperfect, as it frequently is, owing to a deficiency of oxygen to unite with the chyle and blood, out of which it is formed. Any attempt to re-establish the normal quantity by alteratives would prove as effectual as an attempt to reorganize water, after the oxygen is set free, by adding alteratives. A deficiency of the carbonates may cause a disease of the liver, lungs, cartilage, bones or muscles. It is a fact that carbon, united with soda, constitutes a large portion of bile; that, combined with lime, it forms one of the elements of the teeth, bone, &c.; that it unites with oxygen in the lungs to maintain animal temperature. Let us inquire, of the allopathist, how many doses of mercury, how much alterative influence, from bleeding and blistering, will compensate for this deficiency. It must be borne in mind that the human system is an extensive organic chemical laboratory, in which is manufactured germ-cells, epithelium, mucus, muscle, nerves, brain, gastric juice, saliva, chyme, chyle, blood, lymph, tears, hair, nails, cuticle, cartilage, bone, &c. The object of this extensive manufactory is to furnish material for the constant demand made by the human body, that it may maintain its integrity and perpetuity. This constant demand arises from the fact, that not only all the inorganic, but the organic elements, which come in contact with the human organism, tend to unite with it and form new compounds, structures and forces, thereby disturbing the natural

relations and dependencies of the human organism upon its organic elements, causing disintegration and destruction of the old tissue, which is supplied by these newly-manufactured products. Any excess or deficiency in the supply is disease. And the only philosophical method of curing or removing such abnormal conditions is to supply elementary deficiencies, prevent excesses, and maintain the natural relation of elementary principles to the human organism. What is true of Allopathy is equally true of Homœopathy. Who, after a moment's reflection, would suppose that chlorosis, which every pathologist admits is dependent upon a deficiency of iron in the blood, could be removed by infinitesimal doses of charcoal, oyster-shell, mercury and arsenic. Or who would suppose that the same remedies would remove disease of the bones, caused by a deficiency of lime and carbon in the system. But, what is still more ridiculous and absurd, in this hair-brain theory of Hahnemann and his followers, is, that their remedies, as mercury, arsenic, belladonna, &c., are capable of causing, and consequently of curing, fifty or sixty diseases each. Jahr, in his *Manual of Homœopathy*, vol. i., p. 563, states that sulphur will both cause and cure the feeling of despair of eternal salvation. Lachesis (p. 310, *Jahr's Manual*) produces, and hence should cure absence of religious feeling and fear of approaching death; a small dose of gold, taken internally, produces excessive scruples of conscience, and despair of one's self and others; veratrum produces extraordinary taciturnity, with oaths on the slightest provocation, and raving about religious matters. Aconite (p. 3) produces an irresistible desire to blaspheme and swear, and a sensation as if the mind was separated from the body. Anacardium (p. 33) produces the same swearing symptoms and absence of all moral and religious feelings; (vol. ii., p. 155) a dose of common colocynth (an ingredient in allopathic pills which most people have repeatedly swallowed) produces (says Jahr, p. 189) want of all religious feeling, &c., &c., &c. Lycopodium (club-moss) possesses the same power (p. 319) as sulphur, *i. e.* the feeling of despair of eternal salvation. Pulsatilla causes, and will cure, despair of eternal happiness, with continued prayer and devout aspects (*Jahr*, p. 468).

Thus, while Homœopathy is equally unphilosophical in its

general principles, it has advanced some of the most extravagant notions relative to the action of medicine ever advocated by any sect in the profession since the magic incantations of the followers of Æsculapius. If it were true that these remedies would produce such terrible conditions of body and mind, the effects would be still more disastrous.

In this case, a patient, who was curing himself for itch with sulphur, would be seized with despair of eternal salvation; also, according to Pulte's Homœopathic Domestic Practice, p. 516, he would contract periodical and intermittent head-ache; obstruction of the ears, with humming and redness; inflammation and ulceration of the nose; profuse perspiration day and night; congestion of blood in the head; heat in the face; tooth-ache; sore mouth; dislike for sweets; pain in the abdomen; constipation and piles. We can readily conceive how a person, who was suffering under the influence of the above disease, would be willing to endure many inconveniences to obtain relief, but, that he would exchange it for such a catalogue of ills is quite doubtful; and yet, if the homœopathic doctrine be true, and their notions of the action of remedies correct, such would be the case; and while one morbid condition of the human organism was being corrected, several hundred others would make their appearance. It is frequently claimed, by the disciples of this system, that although the law of *similia similibus curantur* cannot be established by appeal to the philosophy of medicine, still experience teaches it to be true in practice, and they have observed cases to recover while under its influence. This may be true, and yet it may not follow that the medication contributed in the least to the result; as it is now a well-attested fact that, without medical interference, the average mortality of all disease in this country does not exceed seven per cent. Hence, to ascertain the usefulness of any system of medicine, it is necessary not only to observe that some recover, but also how many the profession loses; if above seven per cent., it may be inferred that medication increases the mortality of disease. The limits of this work will not permit me to enter into a full investigation of these different systems of medicine, and show what I conceive to be true relative to all their principles. But in accordance with the principles of American Medicine, while we would reject every

hypothesis not founded upon science, we would gladly adopt whatever Homœopathy, Hydropathy or Allopathy contributes to the real advancement of medicine.

The therapeutic principles which guide us, then, are neither exclusively Homœopathic, Allopathic, Hydropathic, Antipathic, Physiological, nor Hygienic; but, by an intimate knowledge of the laws of life and organic elements of the different tissues, with a correct view of all the causes and influences brought to bear upon the human organism, together with a knowledge of all the physiological and pathological changes connected with disease, we are enabled to adopt such principles of cure as the nature of the case may indicate. In the choice of our remedial agents, we claim equal independence and liberality, selecting from all systems such as science and enlightened experience prove to be beneficial to the afflicted, having formed no definite boundary to our researches; for, as yet, no theory of medicine, as an independent system, has been able to stand the test of scientific analysis and experience. The following remarks of Thomas Jefferson, in a letter to Dr. Worcester, are to this point. He says:—"I have lived, myself, to see the disciples of Boerhaave, Cullen, Stahl, and Brown, succeed each other like the shifting figures of the magic lantern," and the practice predicated thereon, of course as evanescent and as changing as its sister theory; and we, of the present time, have, most of us, witnessed one entire revolution in theory and practice of disease; while we are at this very moment, on the last quarter of the full moon glory of a fast fading system. Where is the practitioner so wedded to the past, so tenacious of early practice, and so uncompromising of change as to risk his reputation or the lives of his patients, on the practice of twenty years ago? It is more than probable that before another half century has passed, the present system of Hydropathy, Homœopathy and Allopathy, like the systems of Hoffman, Boerhaave, Cullen, Stahl, and Brown, will be remembered only as a relic of the past. The well-attested truths of each will, no doubt, be treasured up by the American democratic or Eclectic cultivator of medical science, to contribute to that perfection in medicine, which will enable it to take rank with Chemistry, Geology, or Mathematics. To accomplish this is the object of American Eclecticism.

For further consideration of this subject, the reader is referred to my large work on the American Practice of Physic, now in course of preparation.

ANTIDOTES TO POISONS.

THE term antidote had, formerly, a much wider signification, and was applied to the remedies for diseases occurring from natural causes, as well as to the remedies for the derangement of the functions, arising from the direct introduction into the system of a known and material poison.

The selection of appropriate means to counteract the effects of poisons must be determined by a knowledge of the manner in which each particular poison acts; but as our limits will not permit us to enumerate or specify these, some general rules, only, will be given.

The first indication is to remove the poisonous substance; the second, is to prevent or limit its local effects; the third, to obviate the effects on remote organs, supporting their action by appropriate measures, till the injurious impression has subsided. The first of these is to be accomplished mostly by mechanical means. If the poison has been applied to any external part, as by the bite of a viper or rattle-snake, a cupping-glass, or what will answer as well, a wine-glass, tumbler or cup of any kind, from which a part of the air has been expelled, by holding within it a lighted candle for a second of time, should be applied immediately.

If poison has been taken into the stomach, and is not of a kind to arrest instantly the action of the heart, its removal is to be attempted by the stomach-pump, or by exciting vomiting. The stomach-pump cannot well be used without introducing into the stomach a considerable quantity of water, which, by diluting the poison, lessens its violence, in all cases, except that of oxalic acid. But should a stomach-pump not be at hand, we must attempt to produce vomiting by every means in our power. For this purpose, a tablespoonful of flour of mustard, which is mostly to be found in every house, may be put into a tumbler of warm water, and given to the patient; or twenty grains of Sul-

phate of Zinc (white vitriol), dissolved in a pint of warm water, and the disposition to vomit encouraged by tickling the throat with a feather, and pressing on the pit of the stomach. Neither Ipecac. nor Tartar Emetic should be given, as their action is always preceded by much nausea, during which the absorption of the poison is often facilitated.

When the poison is of a corrosive or irritant nature, instead of losing time in seeking the means of causing vomiting, it is in general advisable to adopt the second rule, and attempt to prevent or limit its local, and thereby its remote, effects. To accomplish this we must ascertain what the poisonous substance was from which the patient is suffering, and must also know how it acts, as upon this depends the success of our treatment. The objects we should have in view are either to dilute, and so weaken it; to supply from an external source the particular principle which the poison would abstract from the coats of the stomach; or, by adding something to it, so change its nature as to render it comparatively or altogether harmless, which last will always be effected if we can succeed in forming an insoluble compound. The first may be done by giving plenty of warm water; and when we know the particular poison, if the warm water can be made the vehicle of an antidote, the second or third object will also be ensured. Suppose Sulphuric Acid (oil of vitriol) has been swallowed; add to the water, chalk, magnesia, soda, saleratus or soap; the acid will form with these substances purgative salts, and will, by their action on the bowels, assist in lessening the inflammation caused by the poison before its being neutralized. So when Sugar of Lead (acetate of lead) is swallowed, by giving Epsom Salts (sulphate of magnesia) we form an insoluble sulphate of lead, which will be discharged by the bowels, operated upon by the magnesia, which has been freed from the sulphuric acid. Corrosive Sublimate (bichloride of mercury) abstracts from the coats of the stomach the albumen which they contain, by which it is converted into proto-chloride, or calomel; now if, by giving white of egg, which is pure albumen, we supply it with the principle which it would otherwise obtain from the coats of the stomach, we shall preserve these entire.

Such means, then, are antidotes properly speaking; for the

means by which the secondary or remote effects are to be combated, deserved rather to be termed counter-poisons. The counter-poisons are of no small value in cases of poisoning by the corrosive or irritant, while they are of the utmost importance in the treatment of the sedative and narcotic poisons. To administer these appropriately, we must know which of the vital organs the poison most speedily affects. When it affects the heart, the symptoms greatly resemble syncope (or fainting), and as such poisons are the most dangerous, agents, which act as rapidly as the poisons, are alone to be trusted to; such agents are to be found among the diffusible stimuli, ammonia, or its carbonate, i. e. smelling-salts, applied to the nostrils, or dissolved in water and taken into the stomach, warm brandy and water, &c. Where it chiefly affects the spinal marrow, there occur spasms and difficulty of breathing; when the brain, there is a partial or complete insensibility (coma), often with, at first, full pulse, flushed face, and laborious breathing, resembling apoplexy. In such a state of affairs, artificial respiration, with the administration of coffee and vinegar, greatly contribute to save the patient.

Antidotes to Vegetable Alkaloids.

In poisoning by opium, salts of morphia, hemlock, aconite, belladonna, strychnine, colchicum, &c., take iodine, gr. iij; iodide of potassium, gr. vj; water, 16 ounces. The stomach having been emptied, the mixture is to be given by glassfulls, still encouraging the vomiting; and to be followed (in the case of narcotics) by strong infusion of coffee. Purified animal charcoal absorbs and renders inert the active principles of many vegetable poisons, given in doses of an ounce or more, diffused in warm water.

Antidotes to Metallic Poisons.

The salts of mercury, copper and lead, are decomposed by the hydrated proto-sulphuret and per-sulphuret of iron, and the compounds produced are comparatively inert. The antidote for poisoning by arsenic is the hydrated sesquioxide of iron. It

may be made by adding carbonate of soda to the muriate of iron. It should be given in the moist state, mixed with water—after being once dried, it loses much of its power.

When given in time, magnesia and chalk is an antidote for the mineral acids and oxalic acid; albumen (white of egg) for corrosive sublimate and verdigris; bark, for tartar emetic; common salt for lunar caustic; sulphate of soda or magnesia for sugar of lead and muriate of baryta; vinegar and oil for the fixed alkalis. These substances act either by neutralizing the corrosive power of the poison, or by forming with it an insoluble compound.

From what has been said upon this subject, the necessity of an acquaintance with it must be sufficiently clear, not only to ensure our doing right, but to prevent us from doing wrong. By administering an ill-timed antidote, we may often hasten the fatal event; as where vinegar is given when opium has been swallowed, before it has been ejected from the stomach; and by throwing tobacco smoke into the bowels of a person apparently drowned, we extinguish the feeble spark of life, which might have sufficed to reanimate him, but for such injudicious interference.

FEVERS.

EPHEMERA.

EPHEMERA is a fever which lasts but one day. Its symptoms are chilliness and anorexia or indifference to food, followed by a hot skin, flushed face, with hard and frequent pulse. In the course of from sixteen to twenty-four hours, these symptoms yield to a gentle perspiration, which lasts one or two hours, leaving no trace of fever save slight debility. It is mostly confined to children, and may be considered the simplest form of fever, requiring only mild treatment.

TREATMENT.

Give a warm bath by immersing the patient in warm water, or by sponging the surface frequently in warm saleratus water. If the head is hot, apply a towel wrung out of cold water, and change often.

If the fever is persistent, add ten drops of the Tinct. of Aconite to ten tablespoonfuls of pure water, and give one teaspoonful every half hour until the fever subsides. If the bowels are confined, give a warm water injection. Warm or cold packs may be resorted to in case of local congestion.

INTERMITTENT FEVER, OR AGUE.

SYMPTOMS.

Febrile paroxysms occurring at regular intervals of longer or shorter duration. But mostly recurring every twenty-four, forty-eight, or seventy-two hours. The twenty-four hour type is the Quotidian, the forty-eight hour the Tertian, and the seventy-two hour the Quartan. The interval between the paroxysms is called the Apyrexia. The period from the commencement of one paroxysm to the end of the next is called the revolution. Either type of this fever may appear in a double form. Thus, Quotidian frequently occurs twice a day, producing double Quotidian. The Tertian and Quartan, when occurring in a double form, produce a double paroxysm every second and third day. The double daily paroxysms have sometimes been ascribed to the double Tertian. And their occurrence at different hours on alternate days, together with the difference in the severity of the paroxysms, have been described by Prof. Jones as diagnostic symptoms of double Tertian. But having frequently observed the Tertian type manifesting itself in double paroxysms every other day, with a perfect immunity from the disease on the Apyrexial day, I am led to infer that the double daily paroxysm, ascribed to the double Tertian, is only one modification of double Quotidian. This fever is generally preceded by languor, pain in the bones, irregular bowels, and alternate changes in the urine, which characterize the type of the approaching disease by occurring at the same regular intervals, and lasting the same length of time. These changes in the urine are from a light limpid to a dark yellow appearance. The tongue becomes covered with a white thin coat, and from one to two hours before the chill, the spleen yields a peculiar elastic resonance,

and becomes considerably increased in size. About this time distinct rigors or chills are felt, passing up the back and down the legs; the teeth chatter, the nails become purple, the skin has the appearance of goose-flesh (*cutis anserina*) with Horripilations. If the chill lasts for any considerable length of time, there will be oppressed breathing, with precordial pressure.

In the course of from fifteen to thirty minutes these symptoms gradually subside, and at first a mild fever succeeds, which continues to increase until the skin becomes dry and hot. The pulse increases in fulness and frequency, beating from 100 to 120 per minute. There is violent throbbing of the carotid artery, severe pain in the head, with dryness of the secretions, producing thirst, and scanty and high-colored urine. There is also much restlessness and uneasiness throughout the entire Pyrexia.

These symptoms, modified in different individuals and localities, last from one to six hours, when they become mild, and terminate in the sweating stage. The skin now becomes covered with a profuse perspiration, the pulse becomes soft and natural, the respiration easy, and the patient feels as if almost restored to a state of health.

TREATMENT.

On the approach of the cold stage, the feet should be placed in warm water, and the patient caused to drink freely of some warm tea. After which he should be placed in bed, with covering of hot flannel, and jugs of hot water to the feet. As soon as the fever appears, the extra covering should be removed, and from one to ten drops of the Tinct. of *Veratrum Viride* should be given every half hour until the fever subsides. Cold packs should be applied to the head, and hot sinapisms to the feet. The body should be frequently sponged in warm broke water, to which may be added a little whiskey.

During the Apyrexia, the following compound may be given for the purpose of interrupting and preventing the return of the paroxysm :

℞ Eupatorin	gr. xx.
Cornine.....	gr. xx.
Citrate of Iron	gr. x.

Mix, divide into six powders, and give one every three hours, or oftener if it is necessary, in order to have them all taken before the return of the paroxysms.

If the paroxysms return, the same treatment may be pursued as at first, during the cold and hot stages.

After which, give the following compound :

℞ Viburine.....	gr. x.
Rhusine	gr. x.
Salicin.....	gr. xxx.

Mix, divide into six powders, and give one every three hours, or oftener as the case may require.

Or,

℞ Bebeerine	gr. xx.
Quinine.....	gr. x.
Phosphate of Iron.....	gr. x.

Mix, divide into six powders, and give as above.

Or,

℞ Quinine.....	gr. xx.
Bitartrate of Potassa.....	gr. xxx.

Mix, divide into six powders, and give one every three hours.

Or,

℞ Chinoidin.....	gr. xx.
Capsicum.....	gr. xx.
Santonine.....	gr. xx.

Make ten pills, and give one every two hours.

Or,

R Syrup of Bone Set..... Oss.
 Chloride of Sodium (Common Salt)..... ℥j.

Mix, dose 1 oz. every hour during the revolution.

ʒj of pulverized Sassafras Bark, taken at intervals of one or two hours during the revolution where the stomach will tolerate it, is generally sufficient to interrupt the paroxysms. Also a strong infusion of Strawberry root, taken freely during the interval, will generally effect a complete intermission.

After the paroxysms have been entirely interrupted, a radical cure should be attempted by giving the patient a mild alterative, such as Euonymine, one or two grains, three or four times a day. If the bowels are costive, and do not yield readily to the Euonymine, add $\frac{1}{8}$ or $\frac{1}{4}$ of a grain of Podophyllin, and give sufficiently often to maintain them in a soluble state.

If the spleen continues permanently enlarged, Diuretics of Marshmallow and Cream of Tartar should be drunk freely.

On the seventh, fourteenth, twenty-first, and twenty-eighth days succeeding the last paroxysm, one of the anti-periodic compounds should be given as at first.

If the patient resides in an ague district, daily baths of warm lye water, together with a free use of Cream of Tartar and Marshmallow, will have a tendency to prevent a recurrence of the disease.

REMITTENT FEVER.

Remittent Fever, like Intermittent, is generally preceded by lassitude and yawning, with soreness and stiffness of the muscles, especially those of the neck and calves of the legs. The tongue is covered with a light yellow coat

The countenance is shrunken, pale, and of a leaden hue. The conjunctiva presents a congested appearance. The urine is thick and of a dark yellow color. The bowels are costive. The liver is congested, and yields flatness on percussion.

There is sense of weight in the Hypochondric and Epigastric regions. Creeping sensations of cold are succeeded by flushes of heat, the taste in the mouth is metallic, the skin is sallow, and sleep is disturbed by alarming dreams. These symptoms increase in intensity, until the attack of the disease is established. As the hot stage becomes developed, much of the pain about the legs and back frequently abates, although it often returns at the next exacerbation. Frequently, there is a sensation of chilliness, lasting from ten minutes to one hour, during which there is excessive thirst, nausea, and vomiting, mostly rejecting the fluids and medicine taken. There is intense fever with much tenderness of the Epigastrium and right Hypochondrium, which becomes painful upon pressure. The countenance is flushed, the eye has a wild expression, with a violent pain in the head, and in some cases delirium. The pulse is frequent, beating during the fever from 120 to 130 per minute. It is sometimes small and irregular, at others full and forcible. The tongue is mostly brown, with a dry streak through the middle. The bowels are costive, but, when acted upon, the discharges are black or yellow. The urine is scanty and muddy. These symptoms usually continue from six to ten hours.

The febrile paroxysm is superseded by a gentle perspiration on the head and shoulders, rarely extending over the entire body. There is now a mitigation of all the paroxysmal symptoms; yet there is by no means a perfect *Apirexia*. The pulse is still quick and irritable, with *Tinnitus Aurium*, lassitude and much debility. This state is called the remission, and lasts from one to three hours,

when the febrile symptoms recur, and gradually increase, until they acquire their former intensity, and do not subside until after a period longer than that occupied by the first paroxysm. In the subsequent exacerbations, the symptoms all become aggravated, except the chill, which generally becomes less marked each succeeding paroxysm. These exacerbations generally occur in a double Quotidian form, although I have frequently observed them, both of single and double Tertian, and Quartan.

TREATMENT.

This fever, if timely treated, yields with much readiness to mild antiperiodic, and alterative remedies. As for instance, in the forming stage, combine thirty or forty grains of Cornine with equal parts of Euonymine divided into six powders, and give one every two or three hours, until a full antiperiodic and alterative impression is produced. This, with rest, and free bathing, will generally arrest the disease.

During the cold stage the patient should be placed in bed, and a hot pack be applied to the bowels, and also to the regions of the liver and spleen. Hot sinapisms should be placed along the spine and the calves of the legs, extending to the ankles and feet. As soon as the fever makes its appearance, the sinapisms should be removed, and the packs changed to tepid ones. The body should be freely sponged in warm lye water, every hour or two, as long as the fever lasts. The head should be packed in towels wrung out of cold water, and from ten to twenty of the Intermittent drops be administered every half hour.

These drops are composed of equal parts of fluid Ext. of Lobelia, Cypripedin and Scutellaria.

If the stomach will not tolerate them, from one to ten drops of the Tinct. Veratrum Viride may be given every fifteen or twenty minutes, until the same effect is produced

After the remission is fully established, the following antiperiodic compound may be given.

R Quinine.....	gr. xx.
Phosphate of Iron	gr. x.
Ferrocyanide of Potassium.....	gr. j.

Mix, divide into six powders, and give one every two hours.

Or,

R Bebeerine.....	gr. xx.
Salicine	gr. xx.
Viburin	gr. xij.

Mix, divide into six powders, and give one every three hours. If the exacerbation comes on before the powders are all taken, give one eighth of a grain of Veratrine with each alternate powder, till the remission becomes distinct. Or give Tinct. of Veratrum in quantity sufficient to subdue the fever. If this antiperiodic should not completely arrest the disease, before repeating it, the bowels should be moved by giving one gr. of Jalapin, one half gr. of Phytolaccin, mixed with thirty grains of sugar, and given in three doses at intervals of one hour. If this should fail to produce Catharsis, give one teaspoonful of the fluid extract of Antibilious physic every half hour, accompanied with warm water injection until the bowels move freely. After which, give one of the above antiperiodic compounds as before. Or if the stomach become irritable,

R Quinine.....	gr. xx.
Cream of Tartar	gr. xxx.
Simple Syrup	ʒij.

Mix, and give one teaspoonful every hour until all is taken. If the stomach still continues irritable, thirty drops of the Tinct. of Gelseminum, and one grain of Morphine, may be added to the above mixture.

When the paroxysms are very severe, and accompanied

by congestion of some of the vital organs, and the natural increased intensity of the next exacerbation would prove disastrous to the patient, a large and full dose of some antiperiodic, in connection with an intermittent, should be administered at once. As for instance,

R Quinine.....	gr. xx.
Scutellarine.....	gr. x.
Cypripedin	gr. x.

Mix, divide into three powders, and give one every hour until all are taken. Or if the approaching exacerbation is near at hand, they may be given at still shorter intervals.

When the paroxysmal form of the fever is removed, little remains to be done, save to repair the local and constitutional injuries produced by the disease. To restore the deranged functions of the liver, one or two grains of Euonymine may be given night and morning.

The tone of the stomach may be restored by adding fifteen grains of Hydrastin to one half pint of Simple Syrup, and one eighth of a pint of gin, of which one or two teaspoonfuls may be given before each meal. If there is a tendency to relapse, or if the disease assumes an intermittent form, as it frequently does, the antiperiodic alterative, and tonic course, should be pursued until the paroxysms are arrested, and the causes removed.

CONGESTIVE OR TYPHUS FEVER.

Much diversity of opinion exists relative to this disease. Some regarding it as a Continued Fever, of a highly contagious character, while others consider it as one of the modifications of malarial fever, belonging to the intermittent family.

The limits of this work not being sufficient to admit of a thorough investigation of this subject, the reader is re-

ferred to Paine's Large Practice, for a more minute description of this disease.

SYMPTOMS.

It is preceded by languor, headache, disturbed sleep, loss of appetite, followed by chilliness, swollen tongue, and great debility. The bowels are costive, the urine scanty and high-colored, the countenance is dingy and heavy, the eyes watery, with congestion of the conjunctiva, which often extends to the nasal fossa and larynx. There is ringing in the ears, with Epistaxis, and sense of fulness in the Epigastrium.

These symptoms continue for two or three days, when the teeth become covered with dark sordes, the pulse becomes compressible, and the countenance is of a flushed appearance.

The debility becomes more marked from the tenth to the twentieth day, and the symptoms are all more aggravated.

There is incoherent talking, and delirium; the tongue becomes dark and dry, with tremor of the hands, and Subsultus Tendinum. The evacuations become involuntary, with retention of the urine, and interrupted breathing. The surface is covered with cold sweat, and the patient expires.

This fever lasts from ten to thirty days. It is frequently confounded with Typhoid Fever, from which, however, it may be distinguished, by the absence of petechiæ, the costive state of the bowels, and swollen condition of the tongue. Also, it usually assumes a more intermittent or remittent type.

Where congestive fever is about to terminate favorably, the symptoms are much milder than those described above, and from the tenth to the twentieth day there is a diminution in the severity.

TREATMENT.

There is generally more local congestion in this than any of the previous forms of fever, with almost a complete suspension of the assimilating functions. To remove the congestion, and restore the assimilating functions, is the prominent indication to be fulfilled. In the early treatment of this disease, hot packs should be applied to all parts of the body involved in the local congestion, except the head, which should be kept cool. For the purpose of restoring the assimilating functions of the stomach, producing intermission, and interrupting the paroxysmal character of the disease, the treatment should consist of those remedies possessing intermittent, antiperiodic, and stimulating powers, such as the following compounds :

No. 1. R Quinine.....	gr. xx.
T. Xanthoxilin	gr. xx.
Capsicum	gr. x.

Mix, divide into six powders, give one every three hours.

Alternate each powder with ten or fifteen intermittent drops.

Or,

No. 2. R Quinine.....	gr. xx.
Capsicum.....	gr. xx.
Veratrin.....	gr. ij.
White Sugar.....	gr. xx.

Mix, and divide into ten powders, and give one every two or three hours.

Or,

No. 3. R Camphor.....	gr. v.
Quinine.....	gr. xx.
Viburine.....	gr. x.
White Sugar.....	gr. xx.

Mix, and divide into twenty powders, and give one every two or three hours.

Or,

No. 4. R Eupatorine.....	gr. xx.
Aluain	gr. xx.
Aconitine	gr. lss.
White Sugar	gr. xx.

Mix, divide into six powders, and give one every two or three hours.

Or,

No. 5. R Scutellarine.....	gr. xx.
Chinoidin	gr. xx.
Oil Capsicum.....	gutt. iij.
White Sugar	gr. xx.

Mix, divide into eight powders, and give one every two or three hours.

To act as an alterative after the fever is broken :

R Euonymine.....	gr. xx.
Podophyllin	gr. ij.
White Sugar	gr. xx.

Mix, divide into ten powders, and give one every three hours.

The bowels should be kept open, during the treatment of this disease, by giving small doses of neutralizing mixture and Euonymine, and the body should be freely sponged with lye water and whiskey. In cases where there is evident derangement of the stomach, with costive state of the bowels, an emetic and cathartic should be given, previous to the administration of the antiperiodic powders. A teaspoonful of common emetic acetic Tinct. in warm ginger tea, may be given every ten or fifteen minutes, until the stomach is thoroughly evacuated. This should be followed by small doses of Podophyllin and neutralizing mixture, until free catharsis is produced. In cases where there are severe paroxysms, and the local congestion is likely to prove disastrous to the patient, the antiperiodic

should be administered first, and the emetic and cathartic should follow.

But, whether the emetic and cathartic, or the powders be given first, if they fail to arrest the paroxysms, there should be a repetition of the antiperiodic powders after two or three days. During the interval, the patient should drink freely of some mucilaginous preparation, as marshmallow, flaxseed, or slippery elm. At the same time, if the skin be dry, from five to ten drops of Tinct. of Veratrum may be given to produce moisture. If, after pursuing the above course of treatment a week or ten days, the fever still proves persistent, the following compound may be given :

R Ferri Ferrocyamide.....	gr. xx.
Quinine	gr. xx.
Piperine	gr. x.
Gelsemin	gr. ij.
White Sugar.....	gr. xxx.

Mix, triturate, divide into ten powders, and give one every two or three hours.

If, during the progress of the disease, there is troublesome Epistaxis, a snuff of Matico leaves may be used, or an infusion of them may be injected into the nostrils. If there is much restlessness and inability to sleep, one-eighth of a grain of Hyosciamin, with Cypripedin and Scutellarin, each one grain, given two or three times a day, will control the symptoms. Where there is tendency to syncope :

R Carbonate of Ammonia.....	gr. v.
Gum Camphor.....	gr. v.
Capsicum	gr. x.
Pulverized Acacia.....	gr. xxx.

Triturate, mix, and give one as often as indicated. During the treatment of this disease, the patient's strength should be maintained by a free use of beef tea, boiled

rice, and such other nutritious food as the stomach will tolerate. During the convalescence, a mild alterative and tonic course should be pursued.

Thus far we have been treating of fevers which are admitted to have their origin in marsh miasm, or are produced by exposure to damp atmosphere contaminated by noxious gases, and decomposing vegetable matter, mostly affecting the spleen, producing Intermittent; or, the spleen and liver, producing Remittent; or, the spleen, liver and nervous system, producing Typhus or Congestive fever. But we now come to the treatment of a disease which is supposed to have its origin in both animal and vegetable miasm. And to confine its morbid influence mostly to the small glands of the bowels, producing more or less extensive ulcerations. This is called

TYPHOID FEVER.

This is a fever which has received quite a number of names. Such as Enteric fever, Continued fever, Bilious fever, Bilious Continued fever, and Nervous fever. But the name by which it is most commonly known is that of Typhoid Fever.

SYMPTOMS.

Few diseases are so remarkably insidious, in their approach, as this fever; its commencement being almost imperceptible. Its incubation generally lasts from three or four days to as many weeks. The patient feels at first slight debility, with a dull and heavy feeling in the head, which continues to increase, terminating in violent frontal headache. By the time the disease becomes fully developed, the limbs are weak, with lameness, and in some cases, rheumatic pains. The bowels are at first slightly constipated; but in the course of a few days, there is a strong tendency to diarrhæa. The pulse is accelerated,

and a creeping chilly sensation is felt, commencing in the back, and passing over the entire body. The chilliness is soon followed by a slight increase of all the symptoms, together with a dry and warm state of the skin. These partial paroxysms, frequently follow each other in rapid succession; but sometimes there is an interval of several hours. The tongue is but slightly coated, and the appetite remains nearly natural until the disease becomes fully developed. Indeed, in a large number of cases which have come under my observation, there is no anorexia during the entire progress of well-marked cases of this disease.

About this time, there may be observed a number of small white vesicles or sudaminæ, at first mostly confined to the abdomen, but afterwards extending over the entire body. These sudaminæ, although frequently appearing in other fevers, are more generally present in this. These vesicles, unless carefully observed, will escape notice, as they are frequently so small as to be scarcely perceptible to the naked eye; being seldom larger than half the head of a pin. To the casual observer, they might easily be mistaken for partial, detached, dermoid scales. But when pricked with the point of a needle, a small quantity of a thin white fluid may be seen to escape. On the fifth day from the appearance of the sudaminæ, another eruption appears which is diagnostic of this disease. It is small, red, or purple spots or eruption, resembling flea-bites.

At first they are very small, so small that without the aid of some magnifying power the larger portion of them cannot be seen. They are at first perceptible just above the ileo-cæcal valve, or about one and one half inches above the crest of the ileum, and extend over all parts of the body; but are mostly confined to small patches of skin corresponding to the ulcerated parts of the bowels. These spots are called *petechiæ*. They are small circumscribed *red spots* when fully developed. They may be

distinguished from most other forms of eruption, by disappearing on pressure, but returning again the moment the pressure is removed. They come and go, appearing and disappearing; but their presence or absence during the active stage of the disease, is a sure index to the state of the bowels. As when the bowel symptoms are aggravated, the petechiæ disappear; but when they become ameliorated, are again visible. This leads me to infer that Typhoid Fever, like Scarletina, is an eruptive disease, and that to maintain the eruption on the surface, is a very important indication to be fulfilled in its treatment. When the disease becomes fully developed, and in some cases, in the forming stage, the bowels yield a marked tympanitic resonance on percussion.

On inspection, a bloated or tympanitic condition of the bowels may be observed, and most marked, beneath the patches of petechiæ.

About this stage of the disease, the nervous symptoms become aggravated, amounting in many cases to delirium, and in others producing great pain in different parts of the body, as the knees, hips, abdomen, side and head. These pains are mostly transitory, or appear in the form of paroxysms. In a few cases the patient inclines to stupor, but generally the opposite is the case, the patient being restless and wakeful. There is a buzzing noise in the head, very much like that caused by full doses of Quinine.

The tongue, by this time, mostly assumes a red appearance, especially upon the tip and edges, and the papillæ become elevated. When it is protruded it may be seen to tremble, and in some cases it is protruded with much difficulty. The pulse increases in frequency, but diminishes in fulness; and in the latter part of the disease it becomes very compressible. The eyes have a watery appearance,

and when the bowels become extensively ulcerated, they have a vacant stare and remain partly open during sleep.

The breathing is laborious, the mouth is half open, and sordes accumulate upon the teeth. The urine, which was somewhat scanty, now becomes nearly suppressed, having a dark red appearance, generally containing a large per cent. of albumen. The bowels continue to bloat, the evacuations are frequent, sometimes watery and frothy, at other times dark and offensive, and mixed with blood; or, the entire discharge may consist of blood amounting to active hemorrhage; being mostly of a dark venous character, although I have seen it of a bright red color, or of the appearance of fresh arterial blood. This symptom, although alarming and dangerous if persistent, is frequently followed by speedy recovery. The skin is not as dry and hot as in many fevers, yet it is frequently pungent, and has a husky feeling. The pulmonary organs generally sympathize with affections of the bowels, and especially is it the case in this disease. Hence we find Crepitant Rhonchus, and frequently a slight cough. If the disease is about to terminate fatally, the symptoms will continue to increase in severity, the patient will become stupid with low muttering delirium, subsultus tendinum, picking at the bed-clothes, coma, and death. Or frequently the ulceration of the bowels may terminate in perforation, followed by a discharge of the contents into the cavity of the abdomen, producing at first much pain, but soon subsiding, the patient becomes covered with a cold clammy sweat, the pulse ceases at the wrist, the bowels evacuate involuntarily, and the patient sinks into the arms of Death.

Or what is more frequently the case, where mischievous medication has been avoided, the symptoms will continue in a somewhat modified form from fourteen to twenty-one days, when they gradually become ameliorated, and the

patient recovers. The average mortality of this disease is only about 10 per cent. or from 15 to 20 per cent. less than it is under Allopathic treatment.

TREATMENT.

In no disease is there more mischief done by an improper course of medicine than in this.

The practice of giving active purgative medicine in the commencement of a fever, with the notion of puking and purging it from the system, has increased the mortality to an alarming extent. For after a drastic purgative, it is almost impossible to cure Typhoid Fever, no matter how prudent your after course may be. First, in the treatment of this disease, the skin should be thoroughly bathed in warm lye water and whiskey. The patient should then be placed in bed, when, if the bowels are costive, they should be moved by warm water injections. If the stomach contains indigestible food, or if there should be a marked indication for an emetic, one-eighth of a grain of Lobelin may be given in a wine-glass of warm ginger tea every ten or fifteen minutes, until the stomach is thoroughly evacuated. After this the patient should drink freely of beef tea and rice gruel. When the stomach becomes settled, or the effect of the emetic has passed off, give from one to five drops of the Tinct. of Aconite in a tablespoonful of water every half hour, until the pulse becomes less frequent and the skin moist. At the same time apply warm lye poultices to the bowels, made by adding one teaspoonful of mustard-seed to ten tablespoonfuls of slippery elm, wet with strong saleratus water. These poultices should be changed as often as three or four times a-day, and continued as long as the bowel symptoms prove troublesome.

When the pulse becomes controlled by the Aconite, the next thing is to interrupt the periodicity of the disease, by giving the following antiperiodic.

R Quinine.....	gr. xx.
Hydrastin.....	gr. xx.
White Sugar.....	gr. xxxx.

Mix, divide into six powders, and give one every three hours until all are taken.

At the same time, give freely of mucilage, such as a cold infusion of pulverized marshmallow, acacia, or flaxseed. Also apply water to the head. If the patient is of a bilious temperament, and full habit, the water should be cold. If of a nervous temperament, with low vitality, the water should be tepid, and mixed with a little whiskey. The feet should be kept warm, and the patient remain quiet in bed. At the same time give a sufficient quantity of Aconite to control the fever, and to maintain the petechiæ upon the surface. If there should be diarrhæa, small doses of equal parts of Erigeron and Rhusine should be given two or three times a-day. If the patient be restless and unable to sleep, from the sixteenth to an eighth of a grain of Morphine may be mixed with one or two grains of Cypripedin, and given at bed-time. If the diarrhæa proves persistent, in addition to the Rhusine and Erigeron, injections should be given two or three times a-day, composed of from four to six ounces of starch-water, half a grain of Morphine, and from five to ten grains of Tannin. If the Aconite fail to maintain the petechiæ upon the surface, one half grain of Macrotin should be given in connection with it. If, after pursuing the above treatment for six or seven days, the disease should not be arrested, the antiperiodic should be repeated by giving the following compound :

R Phosphate of Iron.....	gr. x.
Quinine.....	gr. xx.
Rhusine.....	gr. xx.
White Sugar.....	gr. xxxx.

Triturate, mix, and divide into six powders, and give one every three hours until all are taken.

At the same time, the Aconite and anti-diarrhæa medicines should be given if indicated. If the bowels should become persistently tympanitic, with extensive ulceration, the Tinct. Bryonia should be substituted for the Aconite, and the patient prohibited from assuming the upright posture, as in all such cases there is great danger of perforation. Where there is much debility, a permanent tonic may be given in connection with Chalybeates, such as the following compound :

℞ Iron per Hydrogen.....	gr. xx.
Hydrastin	gr. xx.
White Sugar.....	gr. xxx.

Triturate and mix, divide into ten powders, and give one every two or three hours, during the interval between the antiperiodic medicine.

During the entire course the patient's strength should be maintained by a free use of the Essence of Beef, made by adding one pound of beef to one quart of water and one half pint of vinegar. Boil the beef till the liquid is one half evaporated. Then strain; add one pound of White Sugar and eight ounces of rice flour, boil fifteen minutes, strain again, add one half pint of best Old Whiskey, one tablespoonful of salt, and bottle for use. Give the patient from one half to one wine glass full four or five times a-day. Also Porter or Scotch Ale, toast, or broiled beef may be allowed when the stomach will tolerate it. In the event that the medicine already prescribed fails to maintain the petechiæ upon the surface, the Tinct. of Scrophularia may be given to the amount of twelve drops three or four times a day. If necessary to restore the eruption, hot brandy toddy may be given in connection with the above. If symptoms of softening of the brain appear, from one to five drops of Tinct. Phosphorus may be given two or three times a-day in a large quantity of mucilage. If dangerous hemorrhage from the bowels occur :

℞ Nitrate of Silver..... gr. j.
 Pulverized Acacia..... gr. xxx.

Pulverize, mix, make sixteen pills, and give one every hour until all are taken, or until the hemorrhage is controlled. Or give from ten to fifteen grains of Matico every three or four hours. If an alterative is indicated, small doses of Leptandrin may be given three or four times a day. Where the disease is firmly established, much care must be observed relative to the administration of medicine, never giving any, unless some marked indication demands it; frequently all the medicine necessary is a few drops of Aconite two or three times a-day, with a liberal quantity of mucilaginous drinks, one or two courses of antiperiodics, and a liberal supply of food. Yet where there is a decided indication for treatment, it should be met with promptness. During convalescence, small doses of Hydrastin, in connection with Chalybeates, should be administered.

YELLOW FEVER, OR TYPHUS ICTERODES.

This disease prevails endemically in tropical climates, but only appearing at the North as an epidemic. It is generally supposed to have a compound origin arising from the effects of animal and vegetable miasm.

SYMPTOMS.

The premonitory symptoms very much resemble those of Typhoid Fever, except that they are more rapid in their course. The skin is hot and dry, the face flushed, the respiration hurried, the eyes are red and watery, and there is nausea and vomiting. As the disease advances, these symptoms all become aggravated, and the diagnostic symptoms make their appearance.

The countenance assumes a peculiar cadaverous expression, and is of a bright saffron color. The tongue is soft and swollen, and there is pain in the Epigastrium. During the progress of the disease, the symptoms are variable in different individuals and localities, sometimes running an exceedingly mild course, with little more severity than ordinary Remittent Fever, while in other cases the disease is marked with great prostration. In the first stage the pulse sinks, there is nausea, and vomiting of a dark frothy fluid; the respiration is exceedingly difficult and hurried. There is also low muttering delirium. The alvine evacuations are large and dark, the patient rapidly sinks, and death soon relieves him, unless the disease is arrested by timely treatment.

TREATMENT.

The first thing to be done in the early stage of the disease is to give a stimulating emetic :

R Pulverized Lobelia	gr. x.
“ Bloodroot	gr. xij.
“ Capsicum	gr. xx.

Mix, add one gill of warm water, steep fifteen or twenty minutes, and after giving the patient three or four wine-glasses full of warm ginger tea, give one teaspoonful of the mixture, and repeat until a thorough evacuation of the stomach is produced.

Immediately after the emetic, give a spirit vapor-bath by placing a blanket about the patient and chair, and burning a cup of alcohol beneath it, to produce a copious perspiration: at the same time give the patient freely of weak salt and water to drink. After the sweat, a thorough bathing and rubbing will prepare the patient for bed. The following compound may then be given :

R Quinine	gr. xx.
Chloride of Sodium.....	gr. xxx.
Capsicum	gr. x.

Mix, divide into eight powders, and give one every three hours until all are taken. At the same time, warm poultices should be applied to the abdomen and stomach, and hot sinapisms to the feet and calves of the legs, and a warming plaster along the spine.

When the antiperiodic mixture has been taken, the fever and circulation should be controlled by the use of Aconite, and rest should be induced by giving Cypripedin and Scutellarin, or by small doses of Morphine. The bowels should be moved by the following alterative :

℞ Euonymin	gr. x.
Jalapin	gr. ij.
Xanthoxylin	gr. x.
White Sugar	gr. xxx.

Triturate, mix, divide into six powders, and give one every two or three hours.

If there is much nausea and vomiting, the following compound may be given :

℞ Vinegar	Oss.
Common Salt	ʒj.
Capsicum	gr. xx.

Mix, and give one teaspoonful every ten or fifteen minutes, as the symptoms may indicate. If the disease should not yield to the above treatment, within the course of three or four days, the following antiperiodic should be administered :

℞ Salicine	gr. xxx.
Quinine	gr. xv.
Iron by Hydrogen	gr. xx.
Capsicum	gr. x.

Mix, divide into six powders, and give one every three hours. At the same time give the patient freely of Ess. of Beef as directed under Typhoid Fever. Once or twice a day the patient should be bathed with warm lye water, and allowed to drink of porter or good ale, whenever

the active fever does not contra-indicate. Local congestion or inflammation should be relieved by hot or cold packing, as the case may require. During the convalescence, alterative doses of Podophyllin, with Hydrastin as a tonic, may be given once or twice a day, together with a free and generous diet. If there should be symptoms of a relapse, the antiperiodic remedies should be repeated.

INFLAMMATION.

Inflammation is always located in the capillary vessels. Hence, tissues destitute of these vessels are never capable of taking it on, as the hair, nails, cuticle, and enamel.

Filamentous tissues, on the other hand, as the liver, lungs, and mucous and serous membranes, are very liable to inflammation. The first step towards the inflammatory process is an accumulation of blood, which is congestion. This accumulation may occur either from too slow venous or too rapid arterial circulation. Or it may arise from debility of the capillary vessels, or from all these causes combined. The congestion may disappear by a diminution in the afflux, together with a restoration of the normal functions of the capillaries. Or it may terminate in inflammation by the blood beginning to oscillate in the vessels, adhering at different points until finally it stagnates.

The blood failing to be converted into venous blood, its coagulability is increased so that the globules coalesce and form minute clots. New vessels or canals are formed by globules of blood bursting the vessels and passing into the adjacent parenchyma, reaching another vessel, thus forming new passages through the areolar tissue, which ultimately become capillary tissue. Or the corpuscles may remain in the adjacent parenchyma, producing swelling by effusion. In active congestion, the contractile powers of the vessels are lost by over-distension, the blood stagnates.

the coats of the capillaries become diseased and ruptured, resulting in extravasation or effusion of blood, coagulable lymph, and serous or muco-purulent fluid.

THE SYMPTOMS

Are redness, swelling, pain, and increased heat. The redness is owing to an increased accumulation of blood in the part. The swelling to infiltration, to accumulation of blood and pus, and to œdema of the lymphatics. The pain is produced by the tension, and the pressure made on the nerves of the parts, with the increased sensibility. The heat is caused by oxydation of effete matter and adipose tissue, and retention of natural animal heat.

The termination of inflammation is 1st, resolution; 2d, suppuration; 3d, mortification.

Resolution may be preceded by Metastasis, as in mumps or rheumatism. The symptoms which precede resolution are increased perspiration, diarrhœa, changes in the urine, and hemorrhage. In effusion, we have formation of false membrane, as in croup. Suppuration is the conversion of coagulable lymph into pus. Mortification, Gangrene, or Sphacelus, is the complete death of the part.

TREATMENT.

The first indication to be fulfilled in the treatment of inflammation, is to equalize the circulation, and restore the lost functions of the capillaries.

Veratrum, Aconite, and Gelseminum, with the ligature, will enable us to control the circulation. While Podophyllin, Jalopin, with Bitartrate of Potassa, will relieve the vessels of the plethora, if that should be a cause of the disease.

But as the treatment of inflammation depends in a great measure upon its locality, the remedies will be given under the head of inflammation of the different tissues.

PHRENITIS, OR ENCEPHALITIS, AND MENINGITIS;

(OR INFLAMMATION OF THE BRAIN AND ITS MEMBRANES.)

SYMPTOMS.

A vague uneasiness of the mind, defective appetite, dizziness with vertigo. The pulse is hard and bounding, the eyes have a wild and anxious expression. The patient complains of great debility, and a sense of numbness in one side of the body; the numbness being on the opposite side from the location of the disease, and the patient lies mostly on the back. There is ringing in the ears, which very much increases as the disease advances. In the early stage of the disease, the pupil of the eye is preternaturally contracted; but in the latter stage, the pupil is much dilated, and light becomes intolerable.

As the disease advances, there are convulsive muscular movements, with more or less delirium. The respiration is irregular, the skin hot, there is nausea and vomiting, the bowels are confined, and in most cases there is obstinate costiveness. These symptoms may all become aggravated, terminating in subsultus, picking at the bed-clothes, stupor, coma, suppression of the urine, colliquative sweat, stertorous respiration, and death.

Or the symptoms may all become ameliorated, and the patient recover.

CAUSES.

1. Accidents.
2. Intemperance in eating and drinking.
3. Metastasis of inflammation from other parts.
4. Mental excitement.
5. Exposure to atmospheric vicissitudes.
6. Animal and vegetable misasm.

TREATMENT.

After due attention to the cause of the disease, the bowels should be thoroughly evacuated, by giving the following compound :

R Podophyllin	gr. ij.
Jalapin.....	gr. j.
White Sugar.....	gr. xx.

Mix, divide into eight powders, and give one every hour until they act as a liberal purgative. At the same time apply ligatures to the legs and arms by placing a bandage around them sufficiently tight to prevent the return of the blood by the veins, but allowing it to pass into the limbs through the arteries. Care should be taken not to produce complete syncope ; but the ligatures should be used sufficiently to deplete the brain and thereby relieve the distended capillaries. The ligatures should be tightened or loosened according to the emergency of the case and the indication to be fulfilled. In removing them, much care should be taken to loosen them one at a time, and at sufficient intervals to allow the blood to return to the body by degrees. At the same time cold packs should be applied to the head, and changed sufficiently often to keep them cool. A warm sinapism should be placed along the spine, and the patient caused to take Aconite until a free diaphoresis is produced. The surface should be freely bathed in strong lye water two or three times a day, together with hot foot-baths.

If the disease does not yield to the above treatment, the purgative should be repeated.

After which the following compound should be given :

R Digitalin	gr. j.
Sanguinarin.....	gr. ij.
White Sugar	gr. xx.

Mix, divide into eight powders, and give one every two

or three hours. If there be periodicity connected with the inflammation, give the following compound :

℞ Quinine.....	gr. x.
Phosphate of Iron	gr. xx.
Veratrine.....	gr. j.
White Sugar.....	gr. xx.

Mix, triturate, divide into ten powders, give one every two or three hours as may be indicated. During the treatment, the patient should be kept quiet, and in bed, and recourse should be had to the ligature, when the determination of the blood to the head should indicate it. The diet should be principally fluid, and of easy digestion.

THRUSH, INFANTILE SORE MOUTH.

This disease mostly occurs in children from one to three months old.

CAUSES.

Unhealthy milk and an accumulation of effete matter and lactic acid, which comes in contact with the mucous surface of the child's mouth, while nursing, producing abrasion.

SYMPTOMS.

Small white specks appearing, either single or in clusters, having a dark and inflamed base, which continues to spread and coalesce until the entire mucous surface is involved in the disease.

TREATMENT.

Remove the cause. Bathe the breast frequently in weak lye water, and thoroughly cleanse the nipple each time before the child nurses, and give the following compound :

℞ Hydrastin.....	gr. x.
Rhusine.....	gr. x.
Neutralizing Mixture.....	ʒij.

Give the child from fifteen to twenty drops two or three times a day; also wash the mouth in a weak solution of Hydrastin.

FOLLICULAR STOMATITIS, OR NURSING SORE MOUTH.

Symptoms are transparent whitish vesicles on elevated salivary glands. The vesicles break, and the fluid denudes the mucous surface of the Epithelium, causing inflammation and ulceration, the ulcers often extending over the entire mouth, and in some instances to the Œsophagus and stomach, producing general constitutional disturbance.

TREATMENT.

℞ Neutralizing Mixture.....	ʒij.
Salicine.....	gr. xxx.
Rhusine.....	gr. xx.

Mix, give one teaspoonful every two or three hours during the day. The mouth should be washed in a strong solution of Hydrastin both before and after each meal.

If the disease does not yield to the above treatment, the following antiperiodic and tonic should be given :

℞ Myricin.....	gr. xx.
Cornine.....	gr. x.
Iron by Hydrogen.....	gr. x.
White Sugar.....	gr. xxx.

Mix, divide into ten powders, and give one every three hours; after which give the following mixture :

℞ Neutralizing Mixture.....	ʒij.
Myricin.....	gr. x.
Helonin.....	gr. xx.

Mix, give one teaspoonful three times a day.

If there is debility, give the gin bitters of the American Dispensatory in quantities indicated.

The surface should be bathed every day in warm lye water. The diet should consist of animal broths; broiled beef, rice, bread and milk, &c.

QUINSY—CYNANCHE TONSILLARIS.

SYMPTOMS.

The parts involved in this disease are the tonsils and adjacent mucous surface. They appear red and swollen. The patient complains of great pain and difficulty in swallowing. The pulse becomes quick and hard, and the breathing nasal and laborious.

These symptoms are generally preceded by rigors or chills, alternated with flashes of heat. The tongue is covered with a light coat, the bowels are confined, the eyes are suffused and red, and the face swollen. As the disease advances the swelling increases, and the patient expectorates a thin viscid mucus. The throat, ears and eyes become painful, the breathing and deglutition more difficult, and the patient is compelled to assume the erect position on account of the great dyspnœa.

TREATMENT.

The patient's feet should be placed in hot water, and, in the early stage of the disease, a sufficient quantity of the acetic emetic Tinct. should be given to produce free emesis. After which the surface should be thoroughly bathed in warm saleratus water, and the patient placed in bed, with jugs of warm water to the feet, and an onion poultice to the throat. If there is much fever, from three to five drops of the Tinct. of Veratrum should be given from every half hour to an hour, until the fever subsides.

At the same time the throat should be thoroughly washed by means of a probang, with a weak solution of

nitrate of silver and Hydrastin. The bowels should be opened by small doses of Podophyllin and antibilious physic. If the swelling produces dangerous dyspnœa, the tonsils should be freely scarified with a sharp-pointed bistoury, and a strong solution of sulphate of zinc applied by means of the probang. Also apply to the throat, before the application of each onion poultice, a liniment composed of equal parts of Acetic Tet. of Beef's Gall, Gelseminum and Camphor. The patient should be kept quiet, and during convalescence the diet should be light and nutritious.

OTITIS, OR INFLAMMATION OF THE EAR.

CAUSES.

Local injuries, Scarlet Fever or inflammation of the Eustachian Tubes.

SYMPTOMS.

Pain, ringing in the ears, &c. Diagnosis is easily made with the Speculum.

TREATMENT.

Remove the cause, after which apply hot packs to the ear, and introduce lint, saturated with equal parts of Tinct. of Lobelia and Aconite. If there are constitutional symptoms, give a mild purgative of Euonymine and neutralizing mixture. If there is fever, give Eupatorin one or two grains three or four times a-day; also from five to ten drops of the Tinct. of Gelseminum every two or three hours until the fever abates. If there is ulceration, use a mild zinc wash; Compound Syrup of Stillingia, given in quantities sufficient to act as a mild alterative, will generally be adequate to a cure.

GASTRITIS, OR INFLAMMATION OF
THE STOMACH.

SYMPTOMS.

Vomiting, great thirst, precordial distress, a quick and hurried pulse, tenderness in the Epigastrium, with the tongue mostly dry and hard and the papillæ elevated. The skin is hot and dry, the urine scanty, and the bowels constipated. As the disease advances, the patient is restless and peevish, the countenance has a distressed, shivered and anxious appearance.

The nausea becomes constant, and every substance taken into the stomach is immediately rejected. The appearance of the rejected contents of the stomach is at first a greenish mucus, mixed with the ingesta; but if the disease is about to terminate in mortification, and death, they will become dark, and will finally have the appearance of coffee grounds.

CAUSES.

Worms, irritating substances taken into the stomach, or as is more frequently the case, it is one of the local symptoms of idiopathic fever.

TREATMENT.

After giving due attention to the cause of the disease, the feet should be placed in warm water, and the entire surface of the body thoroughly bathed in broke water and whiskey. After which, from one to ten drops of the Tinct. of Aconite should be given every fifteen or thirty minutes until a gentle perspiration is produced.

At the same time, the bowels should be evacuated by means of stimulating injections, and warm sinapisms applied to the Epigastrium.

After continuing the above treatment for five or six

hours, if the symptoms do not yield, the Tinct. of Bryonia may be substituted for the Aconite, and the patient caused to drink freely of mucilage, as Gum Arabic, Slippery Elm, Flaxseed, &c.

The sinapisms should be removed after having caused irritation, and hot packs applied in their place.

If, after pursuing the above treatment for ten or twelve hours, the inflammation still proves persistent, and the cause of the disease has been removed, a thorough spirit-sweat should be given, and the hot packs continued, and warm sinapisms applied to the feet. Also from one to five drops of the Tinct. Rhus Radicans given every hour until the disease becomes mitigated.

If it assumes an intermittent form, some of the anti-periodic compounds should be administered by means of starch-water injections, sufficiently to arrest the disease.

The diet should be fluid, but nutritious.

DYSPEPSIA, OR INDIGESTION.

CAUSE.

Debility of the stomach, and whatever prevents a normal secretion of gastric fluid.

SYMPTOMS.

Pain in the stomach after eating, palpitation of the heart, sharp and pinched features, furred tongue, irritable temper, wakefulness, a costive condition of the bowels, dry and husky skin, and debility.

TREATMENT.

R Populin	gr. xx.
Sanguinarin	gr. x.
White Sugar.....	gr. xxx.

Triturate, mix, divide into sixteen powders, and give one four times a day. After which,

R Hydrastin.....	gr. xxx.
Syrup of Sugar.....	Oss.
Muriated Tinct. of Iron.....	℥j.

Mix, and take one teaspoonful three times a day before meals.

If the above prescriptions do not give relief, the following compound may be administered :

R Neutralizing Mixture.....	Oss.
Aletrin.....	gr. x.
Chloride of Sodium.....	℥ss.

Mix, and give one teaspoonful three times a day.

A mixture of animal and vegetable diet should be taken at regular intervals, and thoroughly masticated.

A free state of the bowels should be maintained by the use of bran-water, salt and water, ripe fruit, etc. ; and the surface should be sponged several times a week in cold or warm water, as circumstances indicate.

ENTERITIS, OR INFLAMMATION OF THE SMALL INTESTINES.

In simple Enteritis, there is deep-seated pain in the umbilical region, and sometimes in other parts of the intestinal tubes. The pain is more or less constant, yet it is subject to paroxysmal aggravations, and is increased by pressure. The patient manifests restlessness by constant motion of the arms and legs. As the disease advances, the pulse becomes hard and wiry, the skin dry, and sometimes pungent, the tongue is covered with a dark brown coat ; and in later stages, there is diarrhœa and a bloated condition of the bowels.

TREATMENT.

The stomach should be thoroughly evacuated by *Lobelia* and *Sanguinaria*, in quantities sufficient to produce active emesis. As soon as this is effected, give a spirit vapor-bath, and wash the patient in strong saleratus water. A sinapism should be placed over the bowels, and *Aconite* administered in one or two-drop doses every ten or fifteen minutes until free diaphoresis is produced. If the symptoms should not become mitigated in ten or fifteen hours, the following antiperiodic should be given :

℞ Gelsemin	gr. i.
Sanguinaria	gr. x.
White Sugar	gr. xxx.

Triturate, mix, divide into ten powders, and give one every two or three hours. At the same time, if the fever prove obstinate, one or two drops of the Tinct. of *Bryonia* may be given between each powder.

When the sinapism has produced free counter-irritation, warm packs may be applied to the bowels.

If the disease assumes a periodic character, some of the antiperiodic mixtures should be given. The convalescence should be carefully watched, and the diet well regulated.

DYSENTERY, OR COLITIS, (AN INFLAMMATION OF THE COLON).

SYMPTOMS.

Acute dysentery commences with uneasiness, soreness, and sense of weight in the lower part of the bowels, and a constant desire to go to stool.

In the course of from five to twenty-four hours, the diarrhœa is changed to mucus mixed with blood. As the pain and tenesmus increase, the skin becomes hot and dry, the urine red and scanty, and not unfrequently there is much pain in micturition.

The tongue is covered at first with a light coat, which soon becomes heavy and of a dark brown color. The pulse varies in frequency and fulness according to the severity of the case. In children, there are more or less brain symptoms, which not unfrequently prove the most obstinate feature of the case.

CAUSES.

In children the disease is not unfrequently caused by ascarides in the lower portion of the rectum. Also by anything which tends to obstruct the portal circulation, and causes a sudden determination of the blood from the superficial capillaries to the deep capillaries of the bowels.

TREATMENT.

To ascertain the cause, and as far as possible to remove it, are the first things to be done in the treatment of this disease, as well as all others.

If the tongue is coated, and the stomach in a condition to indicate it, an emetic of Emetine or Lobelia may be given. During the operation, the patient should drink freely of some warm aromatic tea.

As soon as the effect of the emetic has passed off, the spirit vapor-bath should be given; after which the surface should be thoroughly bathed in warm lye water, and the patient placed in a recumbent position in bed.

If there is obstruction of the portal circulation from congestion of the liver or otherwise, the following purgative should be given:

℞ Podophyllin	gr. x.
Neutralizing mixture	ʒiij.
Pulv. Acacia	gr. x.

Mix, and give one teaspoonful every half hour until free catharsis is produced. Afterward give the following anti-periodic:

R Chloride of Sodium	ʒj
Quinine	gr. x.
Oil of Gaultheriæ	gutt. vi.

Triturate, divide into ten powders, and give one every two or three hours until all are taken.

During the administration of the powders, if there is much tenesmus, injections of starch-water, to which are added two or three grains of Tannin, and from one-fourth to one-half a grain of Morphine, should be given every five or six hours.

If there is frequent pulse, connected with fever, Aconite or Veratrum should be given in sufficient quantities to maintain a gentle moisture of the skin.

If, after giving the antiperiodic, the passages should still be frequent and painful, the following compound may be given :

R Neutralizing Mixture.....	ʒij.
Myricin and Rhusin	aa gr. x.
Morphine	gr. ij.
Ess. of Anise	ʒi.

Mix, and give from one-half teaspoonful to a teaspoonful every two or three hours, as the case may indicate.

Also apply the following liniment to the abdomen :

R Chloroform	ʒjss
Tet. of Camphor	ʒij.
Oil of Olives	ʒiij.

Mix, and apply to the bowels four or five times a day, followed by the application of hot dry flannel.

If the passages should be large and consist principally of blood, from five to ten drops of the oil of Erigeron should be given every two or three hours, in connection with the above treatment.

Where brain symptoms prove troublesome, the bowels should be kept open, and a free use made of Capsicum,

and diuretics, in connection with the other remedies. If there is heat in the head, cold packs should be applied, also sinapisms to the back of the neck.

The diet should consist of beef tea, boiled rice, soft ripe fruit, and such other articles of food as the condition of the patient may indicate. The convalescence should be watched with great care, as regards both diet and exercise.

ACUTE PERITONITIS, OR INFLAMMATION OF THE PERITONEUM.

SYMPTOMS.

There is a sharp pain in the abdomen over the region of the part inflamed. Soon after the first attack, there is generally more or less of a chill, followed by a decided reaction and fever. The pulse soon becomes quick, wiry, and weak, and the tongue is covered with a light brown coat. The abdomen is tympanitic, and frequently there is nausea and vomiting. The patient assumes a recumbent position, as pressure causes much pain. The skin is hot and dry, the urine generally scanty and high-colored. As the disease advances, the extremities become cold, the eyes have a peculiar anxious expression, the body is covered with a cold clammy sweat, and the patient expires. Or these symptoms may all become ameliorated, and result in gradual recovery.

TREATMENT.

R Podophyllin..... gr. i.
Ext. of Anti-Bilious Physic..... ʒi.

Mix, and give one teaspoonful every fifteen minutes, until it operates as a cathartic. After which, give the following antiperiodic:

R Quinine.....	gr. xx.
Gelsemin.....	gr. i.
Capsicum.....	gr. xx.

Mix, divide into six powders, and give one every three hours, until all are taken. At the same time, if there is fever, give Aconite sufficient to control it. Also apply a poultice to the abdomen, made of one pint of oil meal, and one tablespoonful of mustard, wet with warm water, and change as often as becomes necessary, to keep up a gentle irritation of the surface.

If, after the antiperiodic has been given, the symptoms still prove persistent, the cathartic should be repeated, followed by the Muriated Tinct. of Iron, from five to ten drops every two or three hours until the symptoms abate.

The above treatment, together with frequent bathing of the surface, is generally sufficient to control the disease.

PNEUMONIA, OR INFLAMMATION OF THE LUNGS.

SYMPTOMS.

The most prominent is a cough, with difficulty of breathing, followed by a hot skin, and increased fulness and frequency of the pulse.

In the *second* stage the cough becomes loose, and the expectoration free and copious, having a rusty appearance and being at times mixed with blood.

In the third stage, the Sputa assumes more of a purulent appearance, and the respiration is sufficiently hurried to produce more or less Dyspnoea.

The physical signs are *Crepitant Rhonchus* in the first stage, *Tubular or Bronchial Rhonchus* in the second stage, and when there is Hepatization in the third stage, there will be either *blowing tubular, sniffing metallic*, or

Crepitant Rhonchus, also dulness on percussion. If there is pulmonary abscess, there will be *amphoric tubular*, or *crack-metal rhonchus*. The vocal resonance will be either bronchophonous or pectoriloquous.

The varieties of pneumonia are numerous. At one time, it is marked by highly inflammatory symptoms; at another, it assumes more of a Typhoid character, and being connected with great debility, the entire phenomena of the disease resembles that of incipient Phthisis.

The prognosis of pneumonia, is altogether dependent upon the treatment. The mortality under *Allopathic* treatment being from fifteen to thirty per cent., while under a judicious regular course it scarcely amounts to one half of one per cent.

TREATMENT.

The prescriptions for simple sthenic pneumonia, are easily indicated; very few medicines being required.

The patient should be put upon the Tinct. of *Veratrum Viride*, in quantities sufficient to control the inflammatory action. In adults of full and plethoric habit, from five to ten drops may be given every half hour, until the inflammatory stage has passed.

A large cold pack may also be applied to the chest. When the inflammation has subsided, expectoration may be facilitated by giving equal parts of the Syrup of *Lobelia* and *Sanguinarin*, every two or three hours.

If there is periodicity to the disease, after the active stage has passed, *Ceracine* and *Cornine* may be given in sufficient quantities to produce an antiperiodic effect. At the same time, continue the syrup. If the disease should assume a *Typhoid* form, *Capsicum*, in connection with small doses of *Carbonate of Ammonia*, should be given. Beef tea, and small quantities of wine, may be administered, to maintain the integrity of the constitution, and

the patient's strength. If there should be bronchial symptoms, with a persistent cough, twenty or thirty drops of the Syrup of Stillingia should be given three or four times a day.

Where there is Hepatization of any portion of the lungs, small doses of Sanguinarin and Iodide of Potassium may be given. For further consideration of this subject, the reader is referred to Newton and Calkins on Thoracic diseases.

COLIC, SPASMODIC, OR BILIOUS COLIC.

SYMPTOMS.

It commences with very acute pain about the region of the navel. The patient complains of great thirst, and is generally costive. He vomits a hot, bitter, and mostly a yellow bile, which at first seems to afford some relief, but is quickly followed by the same violent pain as before. As the disease advances there is an increased propensity to vomit, which becomes almost continual. The natural motion of the intestines is so far inverted as to render an evacuation almost impossible. If the patient is young and plethoric, the pulse will be hard and resisting, the surface will be covered with a cold clammy sweat during the paroxysm of pain. The vomiting will also prove very persistent.

This disease may be distinguished from inflammation of the bowels by pressure upon the abdomen, which in bilious colic always affords relief; but, on the contrary, in inflammation of the bowels it increases the pain and aggravates all the symptoms.

CAUSES.

The causes of this disease may be various, but the effect is a spasmodic contraction of the muscles of the bowels.

TREATMENT.

℞ Dioscorine..... gr. x.
 Pulv. Camphor..... gr. iij.
 White Sugar..... gr. xx.

Mix, divide into ten powders, and give one every fifteen minutes until the patient is relieved. After which,

℞ Gelsemin..... gr. ij.
 Podophyllin..... gr. ij.
 Capsicum..... gr. vi.
 White Sugar..... gr. xx.

Mix, divide into five powders, and give one every hour, in a teaspoonful of Neutralizing Mixture, till it operates as a cathartic.

If the bowels resist the action of the cathartics, they should be injected with warm water, and small quantities of Lobelia Tea. Also apply a poultice to the bowels made of oil meal and mustard; say ten tablespoonfuls of oil meal to one of mustard. The patient should be kept warm and in bed. During the convalescence the diet should be of easy digestion and nutritious.

LEAD COLIC.

SYMPTOMS.

This disease is preceded by languor, pallor, general debility, pain in the Epigastrium, and a twisting griping pain in the region of the umbilicus.

TREATMENT.

R Sulphuric Acid..... gutt. xxx.
 Pure Water..... “ ʒi.

Give from ten to twenty drops five or six times a day for several days. During the time, a Lobelia emetic, vapor baths and mild purgatives should be given.

When the active stage of the disease has passed off, vegetable tonics, wine, porter, and a nutritious diet, are all that will be required to restore the patient to health.

SCARLATINA.

Scarlatina is divided into three varieties, indicating the different degrees of severity of the disease, viz: Scarlatina Simplex, Scarlatina Anginosa, Scarlatina Maligna.

SYMPTOMS.

The mild form of this disease is preceded by coldness and shivering, to which succeed febrile heat, thirst, and an accelerated pulse. About the fourth day the face swells, and irregular patches of a florid red color make their appearance on different parts of the body. In the course of four or five days, the eruption disappears, and the cuticle falls off in branny scales.

The second variety is marked by previous lassitude, dejection of mind, pain in the head, soreness, and pain in the muscles of the neck and shoulders, shivering and fever. To these succeed nausea, vomiting, difficulty of swallowing, a hurried respiration, and frequent sighing. There is a quick, weak, and sometimes a hard pulse; the skin is red, hot, and dry; the tongue is dry, and florid along the edges; and there is great thirst.

About the third day the redness about the face, neck,

and chest, becomes more intense, and the glands of the lower jaw are painful to the touch. In a few hours the redness becomes diffused over the entire body. About the fifth day the redness abates, and a brown color succeeds, the skin becomes rough, and falls off in large scales.

In the third variety, in addition to the common symptoms, there is great prostration, the surface has a dark livid appearance; there is nausea and vomiting, a quick and feeble pulse, and laborious breathing. There are also ulcerations on the tonsils and adjoining parts, covered with dark sloughs, and surrounded by a livid base. The efflorescence appears about the third day, but without relief. It assumes a dark purple appearance. Delirium, a debilitating diarrhæa, and hemorrhage, ensue, and in a great majority of cases under Allopathic treatment, death closes the scene.

TREATMENT.

But little treatment is necessary in simple Scarlatina. The patient should be kept in bed, and warm. The skin should be thoroughly bathed in warm lye water, and the surface anointed, after each bath, with sweet oil. A warm bread poultice should be applied to the neck, and from one to three drops of the Tinct. of Belladonna given five or six times a day.

In the Anginose form a more active treatment is indicated. A hot onion poultice should be applied to the throat, and changed every four or five hours. Every time the poultice is changed, the neck should be bathed with a liniment composed of the following ingredients:

R Oil of Stillingia	ʒss.
Tinct. of Capsicum	ʒij.
Oil Origanum	ʒj.

Mix.

Bathe the entire body, as in the simple form, with lye water, but add to every ounce of the sweet oil one-half

ounce of pyroligneous acid, and anoint the surface as before. Add twenty grains of triturated Belladonna to half a tumbler of soft water, and give one teaspoonful every half hour. Also, give the following compound :

R Capsicum	gr. xx.
Trit. Hydrastin	gr. xx.

Mix, divide into ten powders, and give one every three hours in a teaspoonful of sweet cream. These medicines should be continued until the disease abates. At the same time keep the bowels in a soluble condition by the use of warm water injections.

There is always extensive capillary congestion in the malignant form, not only in the glands of the throat, but through the entire system. To remove this capillary congestion, and bring about a reaction, is the first indication to be fulfilled in this form of the disease. For this purpose the following compound may be given :

R Xanthoxylin	gr. xx.
Capsicum	gr. x.
Hydrastin	gr. xx.

Mix, divide into ten powders, and give one every half hour. If practicable, put the patient in a warm bath; otherwise, apply hot packs to the bowels, back, and extremities; also, apply sinapisms to the feet and calves of the legs. If these measures fail to produce the desired effect in a few hours, hot rum toddy may be given in connection with them in sufficient quantities to produce the wished-for result. When the reaction is fully established, the patient should be placed upon Belladonna, as in other forms of the fever. Also, give the following antiperiodic :

R Quinine	gr. xx.
Baptisin	gr. v.
Hydrastin	gr. xxi.
White Sugar.....	gr. xxx.

Triturate, mix, divide into ten powders, and give one every two hours until all are taken. The onion poultice should be applied to the neck, as in the other forms of the disease; also, the oil and acid to the surface. The throat should be frequently bathed in a strong solution of Hydrastin and Bayberry, and the diet should be highly stimulating and nutritious.

PERTUSSIS, OR HOOPING COUGH.

The Hooping Cough is usually described as a disease of childhood; occurring but once in the same individual, usually at some age before puberty, and propagated by specific contagion. It mostly prevails as an epidemic; hence, a large number of individuals are attacked at about the same time. The diagnosis of Hooping Cough is, a suffocating convulsive cough, returning in regular paroxysms, and terminating in an excretion of thick, glary mucus. The cough is marked by a prolonged stridulous convulsive inspiration, attended by a peculiar tracheal rattle, and followed by short efforts of inspiration in rapid succession. The long Hooping inspiration is almost immediately repeated, and thus the paroxysm continues often for some minutes, until there is a discharge of slippery mucus, either by expectoration or vomiting, when the respiration becomes comparatively easy.

During the paroxysm, the face becomes much injected and red, the eyes suffused, and there is violent spasmodic action of all the muscles of the respiratory organs.

Hooping cough is not unfrequently combined with bronchial inflammation, and in these cases, there is more or less cough between the paroxysms.

The latent stage of the disease, is from eight to fifteen days. The cause of the spasmodic symptoms, is a closure of the glottis. When the disease is unaccompanied by

severe bronchial affections, and is not connected with Pneumonia, Trachietis, or inflammation of the brain, it is seldom attended with danger. When it is thus complicated, each disease should be treated separately.

TREATMENT.

For the primary disease, take of oil of Skunk Cabbage berries, from one to three drops, four or five times a day.

Or,

℞ Pulv. Alum	gr. xx.
Cochineal.....	gr. x.
Syrup of Stillingia.....	℥iss.

Mix, and give one half teaspoonful three or four times a day.

Or,

℞ Triturated Belladonna	gr. xxx.
“ Sanguinarin.....	gr. xx.
“ Eupatorin.....	gr. xx.

Mix, divide into fifteen powders, and give one three times a day. Once in five or six days, give from ten to fifteen grains of Sulphate of Cinchonin, divided into six parts, and taken at intervals of three hours.

ERYSIPELAS—ST. ANTHONY'S FIRE.

SYMPTOMS.

Shivering, thirst, pain in the back, limbs, and head, loss of strength, restlessness, quick pulse, nausea, and sometimes vomiting. In the course of a few hours, a red spot appears upon some part of the face, which tumefies and spreads rapidly. It may confine itself to the skin, or dip deep into the adjacent areolar and cellular tissues, producing Phlegmonous Erysipelas. There is general fever, a hard and full pulse, and coated tongue. The inflamed parts become of a dark purple appearance, terminating in large and extensive abscess, or in gangrene and death.

This form of the disease often assumes a periodic character, spreading with great rapidity for a few hours, producing dangerous constitutional disturbance, then subsiding for from twelve to twenty-four hours, when it renews its attack with more than former violence.

The prognosis of Erysipelas is always favorable, under Eclectic treatment, with good constitutions.

TREATMENT.

The first thing to be done in the treatment of this disease, is to give a thorough cathartic of Juglandin and Menispermis.

R Juglandin.....	gr. x.
Menispermis	gr. x.
Hyocianin	gr. j.
White Sugar.....	gr. xxx.

Triturate, mix, divide into ten powders, and give one every hour, until it operates as a cathartic.

At the same time, the patient should take a vapor bath, and the inflamed part should be thoroughly covered with Collodion. After the operation of the cathartic, the following compound should be given :

R Cinchonin.....	gr. xx.
Quinine.....	gr. x.
Capsicum	gr. x.
Gelsemin.....	gr. j.

Mix, divide into eight powders, and give one every three hours, until all are taken. After which, give from five to ten drops of Muriated Tet. of Iron, every two or three hours. The diet should be nutritious, and the surface frequently sponged with warm lye water. If there is fever, Veratrum or Aconite should be given to control it. The inflamed parts should be constantly protected by repeated use of the Collodion.

PLEURITIS.*

SYMPTOMS.

Acute sthenic pleuritis usually commences with a chill, soon succeeded by an acute lancinating pain in the side, cough, short and quick breathing, and fever.

Each of these will receive particular notice.

The *pain* may come on either before, at the same time, or a short time after the chill. In character it is severe, as if resulting from the thrust of an instrument, and hence it is often called a *stitch* in the side. Usually it is felt somewhere in the mammary region; but sometimes, elsewhere; sometimes near the lower margin of the chest, in which case it is, probably, the result of inflammation of that part of the pleura which covers the diaphragm. In most cases it is confined to one place; but it may be diffused over the surface of the chest, when it is sudden, very sharp and severe.

It is so nearly simulated by the nervous pains in hysteria, that it may lead to error in diagnosis. By inspiration, cough and motion, it is increased. Generally lying on the affected side, and pressure over the intercostal spaces, aggravate it. There is, a day or two after the occurrence of the most severe pain, a greater degree of soreness externally, than when early in the disease the pain is most acute. As the effusion increases, the pain decreases in consequence of the separation of the inflamed membranes by the fluid, and the prevention of friction. It is, in some cases, almost entirely wanting, being perceptible only as soreness on pressure.

The *cough* is usually short and dry, attended with but little expectoration of mucus or frothy matter. Sometimes a more copious expectoration is present. When the

* Newton and Calkins.

pleuritis is complicated with a degree of bronchitis, it is occasionally somewhat bloody. Severe pain often attends it, to avoid which, the patient tries to suppress the cough, and to a certain extent he succeeds by the effort. In some cases, however, this is wanting. When such is the fact, and there is at the same time no pain, the disease, by some authors, is called latent pleurisy.

The *breathing*, in most cases, is more or less difficult. The pain has the effect of preventing a full, deep inspiration. The patient is said to have a catch in his breath. In consequence of this, less air is taken into the lung when the pleura is affected, and the frequency of respiration is therefore increased, inversely, as the quantity of inspired air at each inspiration decreases. The dyspnœa, unlike the pain, increases as the disease advances. The effused fluid filling up the space usually occupied by the lung, causes this symptom.

The function of one lung is more or less suspended, and the action of the other is increased beyond its normal degree, so that the breathing of the patient becomes painful and difficult. This is more particularly the case when the effusion is both sudden and copious. When gradual, the system accustoms itself to the abnormal condition of the respiratory organs. In the latter stage it is most severe.

The *decubitus* has been considered as a pathognomonic sign of the disease. Yet there is much variance among observers in respect to this symptom. This results from the variation of the decubitus in the different stages of pleuritis. At first the patient cannot lie upon the affected side, on account of the increase of pain which that position produces. At a later stage, when the effusion separates the inflamed surfaces, the pain resulting from the position of the two portions of the pleura becomes less, and sometimes is entirely wanting. When the decubitus is on the

sound lung, the weight of the effused fluid, pressing on the mediastinum, and forcing this beyond the median line, preventing the ingress of air into the sound lung, causes pain from dyspnœa. And, consequently, at this period of the disease, the decubitus is most free from unpleasant sensations on the affected side.

The *fever* is usually considerable, and attended with the most common phenomena of febrile affections. The pulse is quick, sometimes rising to over a hundred beats in a minute, hard, full and tense. The skin is dry and hot, particularly over the chest, or the seat of the disease.

The tongue is parched, the urine scanty and high-colored, and occasionally there are cerebral symptoms.

Of the fever there are often daily remissions and exacerbations, the former coming on in the morning, the latter in the afternoon or evening. In four or five days it moderates considerably.

TREATMENT.

In strong and plethoric individuals, where there is a marked case of sthenic pleuritis, the stomach should be thoroughly evacuated by a Lobelia and Boneset emetic, followed by an active cathartic of Jalapin and Cream of Tartar. The affected side should be packed with cold water, and the patient caused to take from five to ten drops of the Tinct. of Veratrum Viride every half hour, until the symptoms of the disease abate. After which, the following compound should be given :

℞ Asclepin.....	gr. xx.
Gelsemin.....	gr. ij.
White Sugar.....	gr. xxx.

Triturate, divide into ten powders, and give one every three hours. The patient should drink freely of some diuretic mucilage, such as marshmallow or flaxseed.

If the case be one of asthenic pleuritis, the emetic and

cathartic should be omitted, and hot packs applied to the side or sides, and the Tinct. of Aconite given to control the inflammatory action, say from one to five drops every one or two hours. Also give the following compound :

℞ Asclepin.....	gr. xx.
Sanguinarin.....	gr. x.
Quinine.....	gr. x.
White Sugar.....	gr. xxx.

Triturate, mix, divide into ten powders, and give one every two or three hours. If the disease is not subdued, the following compound may be given :

℞ Eupatorin.....	gr. xx.
Sanguinarin.....	gr. x.
Apocynin.....	gr. x.
White Sugar.....	gr. xxx.

Triturate, mix, divide into ten powders, and give one every three hours. If there should be extensive effusion,

℞ Syrup of Marshmallow.....	ʒij.
Iodide of Potassium.....	gr. xxx.

Mix, and give one teaspoonful four or five times a day. Where there is much debility, beef tea, wine, porter, in connection with Iron by Hydrogen, should be freely given. The surface should be thoroughly bathed, and the patient caused to remain quiet in bed. If expectoration is difficult, small doses of Lobelia may be given three or four times a day. Where there is a tendency of the disease to assume a chronic form, an irritating plaster should be placed over the seat of the disease, and allowed to remain until a free discharge ensues. The patient's strength should be supported by vegetable tonics and chalybeates.

CHRONIC PLEURITIS.

This disease being so well described by my colleague, Prof. Calkins, in his work on thoracic diseases, I shall offer no apology for transferring it to these pages.

“Chronic Pleuritis,” says Prof. Calkins, “varies greatly, both in severity and duration. It may be *acute*, in respect to the degree of suffering and the rapidity of its progress; it may be *latent* in its character, and slow in the progress of the successive changes attending and consequent upon it. Between these extremes, the intermediate grades of morbid action are almost innumerable. The term *chronic*, then, when applied to pleuritis, seems to be more of a conventional term than in respect to other diseases. In pleuritis, the transition of the *acute* to the *chronic* state is so indefinite, and the symptoms of the recent disease sometimes have so little of an acute character, while that of a long duration occasionally manifests so much greater an intensity of irritation, that the terms, *acute* and *chronic*, would seem to be less applicable to pleuritis than to other diseases. This difficulty arises from the anatomical relations of the pleura. Being a shut sac, its acute inflammation is liable to be made chronic by the retention of inflammatory products; and the chronic is liable to be changed into the acute by the irritation of effused fluids.

“But, notwithstanding these difficulties, there seems to be no impropriety in ascribing to the disease, when highly inflammatory, and until the inflammatory symptoms seem to arrive at an acme, the term *acute*. If, after that period, lingering fever continues, evidently excited by the products of previous inflammatory action, then the term *chronic* may, with as much propriety, be applied to the disease *after*, as *acute* to the disease before the acme. In some cases, however, such an acme seems never to exist;

and to these the name *sub-acute* may with propriety be applied."

Pathology. — The anatomical appearances caused by chronic pleuritis, are very similar to the acute form of the disease. Of course, the influence of time would tend to produce certain modifications.

In general, we find the membranes thicker, often composed of several adherent layers, the earliest deposit being harder than those subsequently formed. The character of the liquid, too, is subject to various changes in the onward progress of the disease. It is less limpid, more prone to become turbid with flocculi of a fibrinous character. In some cases, it even appears in consistence like jelly. The quantity is greater, and consequently, the displacement of adjacent viscera is much more apparent. Here and there, adhesions are often formed between the pleura and lungs, which, in some cases, enclose little sacs of fluid.

Under the best treatment, the disease, when uncomplicated, will generally advance to a favorable termination.

But it often is the case, that the morbid products cannot be absorbed, and, consequently, they remain and pass through a series of pathological changes, sometimes ending in gangrene. Cartilaginous laminæ, bony plates, abscesses, tubercles, and hemorrhagic effusions, are among the successive steps in the progress of chronic pleuritis.

"Sometimes," says Dr. Wood, "the walls of the chest are forced inward contrary to their elasticity, so that, when a puncture is made from without, the air rushes in to supply the vacuity produced by their resilience. In some cases, secretion goes on as rapidly as absorption, and the liquid accumulation remains for a great length of time. This is especially the case in empyema, or collection of pus in the cavity of the pleura. Sometimes the pus makes its way into the substance of the lung, and a fistulous commu-

nication is formed between the bronchi and the pleural cavity through which pus is discharged and air admitted.

“In other instances the liquid takes an external direction, and by means of ulceration escapes into the cellular tissue without the chest, and, travelling occasionally for a considerable distance, produces sub-cutaneous abscesses in various parts of the chest, which ultimately open, unless life is previously worn out. In thus travelling, the pus has been known to occasion caries of the ribs and vertebræ. Sometimes the purulent collection is found to be connected with a tuberculous vomica.”

It is sometimes difficult to determine the causes which change ordinary acute pleuritis into the chronic form. Evidently, in many cases, too much depletion, the too frequent use of mercury, and other articles making up the antiphlogistic regimen, tend to the production of chronic pleuritis. Often, when a case seems to be cured by such means, the impoverished state of the blood, caused by the use of the lancet, thus rendering the system more liable to be affected by low grades of inflammation, develops a new and unwelcome train of symptoms, admonishing the physician that the supposed cure was, after all, delusive.

Dr. Gallup, defining chronic rheumatism, says that it is acute rheumatism half cured. So, it may be said with equal propriety, that chronic pleuritis is the acute variety half cured.

Diagnosis. — The general inflammatory symptoms of acute pleuritis may gradually disappear; but, unless the morbid products of the diseased action are removed from the pleural sac, the fever will recur, and change its type, now very closely resembling hectic, now becoming identical with it. This recurring fever is one of the most troublesome and alarming symptoms of chronic pleuritis; for in other respects the patient does not suffer in proportion to the extent or duration of the effusion.

Dr. Gerhard observes: "I once saw a patient who had performed the full duties of a sailor, going aloft with an enormous pleuritic effusion. When he returned from sea, it amounted to two or three gallons. This is an exceptional case; but it is very common to find patients who can perform many laborious occupations without much inconvenience. This is generally the case if the dyspnœa is not severe; and we find that some patients complain of little difficulty of breathing, with an extent of pectoral disease, which will give rise to great distress in other individuals. The symptoms which so frequently characterize chronic organic diseases, are extremely variable in this variety of pleurisy. These are emaciation, loss of the firmness of the muscles, harshness and dryness of the skin, and slight œdema of the legs. Sometimes they are nearly as well marked as in tuberculous disease of the lungs;—in other cases they are very slight; hence they constitute a diagnostic sign of the disease; and if we find them well characterized, we will do right to regard the case as one probably complicated with tubercles. If our impression be erroneous, we will soon rectify it as the symptoms will gradually become more decided in the latter case, and slowly disappear if the pleurisy be followed by recovery."

The diagnosis of chronic pleuritis, without the aid of the physical signs, is often very difficult.* Its general symptoms simulate those of phthisis. But the physical signs are far more reliable. When these are present, there is no difficulty in ascertaining the true character of the disease. If it is complicated with tuberculous deposition, the case should be regarded with much anxiety: for the diagnosis then becomes much more obscure, and the prognosis more "unfavorable."

* See EMPYEMA.

PROGNOSIS.

The prognosis of this disease depends much upon the extent of the effusion, the condition of the constitution, and the tendency to hereditary disease. Also, upon the skill with which the disease is treated. If the integrity of the constitution is not too much impaired, and there is not a marked tuberculous tendency, under a judicious treatment our prognosis will be favorable.

TREATMENT.

The treatment of this disease depends upon the constitution of the patient. If there is still an inflammatory process going on, Aconite, in connection with Veratrum and Gelsemin, should be used until it is controlled. As for instance, if the skin is hot and dry, the pulse quick, the urine scanty, with more or less dyspnoea, and alternate pyrexia, the following compound may be given :

R Gelsemin.....	gr. j.
Quinine.....	gr. xx.
Asclepin.....	gr. x
White Sugar	gr. xxx.

Mix, triturate, divide into ten powders, and give one every two or three hours until all are taken.

If the symptoms should not subside under this prescription, the irritating plaster should be applied over the entire surface of the affected side, and a thorough spirit-sweat be given ; after which, the following mixture :

R Syrup of Tolu.....	℥ij.
“ Sanguinarin.....	℥ij.
“ Iodide of Iron.....	℥ij.

Mix, dose one teaspoonful every three hours.

If there are febrile symptoms, from one to three drops of the Tct. of Aconite should be given every three hours, in connection with the above mixture.

The diet should be nutritious and stimulating, and if there is much debility, a small quantity of Porter or Scotch Ale should be taken four or five times a day. If there is much effusion, an attempt should be made to produce absorption by the following mixture:

R Syrup of Iodide of Potassium	ʒj.
“ Apocynin.....	ʒij.
“ Stillingia.....	ʒiij.

Mix, dose one teaspoonful three or four times a day. At the same time drink freely three times a day of a tea made of equal parts of Eupatorium, Purpureum and Pipsissewa. If the strength of the patient will bear it, one eighth of a grain of Phytolaccin and five grains of Cream of Tartar should be given.

The irritating plaster should not be removed until a free discharge ensues, which should be maintained by the occasional use of the vegetable caustic, and a constant application of slippery elm poultice. If the absorbents should prove too debilitating to the patient, they should be discontinued for a few days, and the following tonic be given:

R Hydrastin.....	gr. x.
Phosphate of Iron.....	gr. xx.
Prunin	gr. x.
White Sugar.....	gr. xxx.

Mix, triturate, and divide into ten powders, and give one every three hours.

If there are periodical symptoms in connection with debility, and the above prescription should fail to give relief, five drops of the muriated Tct. of Iron, and two grains of Quinine, should be given four times a day. Also a liberal supply of beef tea, prepared as directed in treatment of Typhoid Fever. After recruiting the patient's strength for some days, the diuretics and absorbents should again be resumed, and persisted in for the purpose of pro-

ducing absorption of the effused fluid. If the above treatment should prove unsuccessful, and the Empyema likely to prove disastrous to the patient, the operation of Paracentesis Thoracis should be performed as directed under the head of Empyema.

EMPHYEMA

Is a collection of fluid in some part of the body, particularly in that of the pleura. It consists mostly of a purulent, sero-purulent or serous fluid, within the cavity of the pleura, and is dependent upon chronic pleurisy. When inflammation attacks a serous or diaphanous membrane, it loses its transparency, becoming dull, and in some instances dry. These changes may be observed not only in the Pleura, Pericardium and Peritoneum, but in the arachnoid membrane, in which it is distinct when other traces of inflammation cannot be recognized. At the same time, red vessels appear in isolated spots over a considerable extent. They are arborescent, and consist of minute red lines radiating from star-like points. These vessels, though placed in the substance of the membrane, gradually approach the surface as the process advances. They are not newly developed, but are the colorless capillaries of the sound part, injected with red blood. After existing for a longer or shorter time, these changes are succeeded by others, which are regarded as their effects. The first and most important of these is, the formation of a new fluid at the free and inadhrent surface of the membrane.

The nature of the fluid varies according to the stage of the inflammation. In the commencement of the inflammation, the capillaries begin to deposit a semi-transparent fluid, in small quantities, which becomes more abundant as the disease advances. It is straw-colored, of a homoge-

neous character, and, as it is effused, undergoes spontaneous coagulation. This consists in part of the fluid attaining a solid form like a jelly in layers of variable thickness, with a honey-comb surface, and thready filaments coalescing and quite consistent. A small quantity of a thin fluid is found in the interstices of these filaments, oozing from the surface of the coagulated part, and lodging in the most dependent part of the cavity. This process may continue until a large amount of fluid is accumulated, or the entire product of the inflamed surface may be deficient in albumen, producing an extensive accumulation of sero-purulent fluid.

Baillie and other observers state "that this fluid has been supposed to be derived immediately from the blood; but that this is not correct, as it is the serous or watery portion of the morbid exudations, from the surface and interstices of which it may be seen trickling.

The red or brown tint is derived from the blood issuing from the newly-formed capillaries. Shreds of lymph are found floating in it when the accumulation occurs in the pleural cavity. The sero-purulent is often connected with albuminous fluid, from which it is separated during the process of coagulation. It consists mostly of serous fluid, with minute granules of albuminous matter, which precipitate to the bottom, leaving a chalk-like liquid, which constitutes the majority of the effused fluid in the cavity. In this fluid may be seen small particles of lymph afloat. The puriform fluid of serous membranes consists of serous fluid with small granules of opaque matter, not coagulable, and is considered as an abortive effort to produce albuminous exudation. The puriform deposit mostly occurs in the peritoneum. It is a white or cream-colored opaque fluid. It occurs mostly in chronic pleurisy and peritonitis. It has been supposed that genuine purulent matter was not formed unless there had been previous ulceration of the part. But

the researches of Baillie, Black, Hunter, and Millin, have amply shown that purulent fluid may either be secreted by the inflamed membrane, or from the organized layers of lymph, or from both. In the first, the fluid is secreted directly from the capillaries of the inflamed membrane. In the second, it is derived from the organized false membranes which take on the suppurative action. In the third, both sets of vessels are concerned.

SYMPTOMS.

The patient either lies on his back diagonally, or on the diseased side with the head slightly bent forward. The voice is weak, and there is a persistent cough, with more or less expectoration of mucus or muco-purulent matter. The face is buffy, and semi-transparent; the lips tumid and livid. The pulse is habitually quick and small, and febrile attacks are frequent, and often connected with chills. In recent empyema, the diagnosis may be confounded with that of pneumonic solidification. But in empyema, vocal fremitus disappears. In hepatization of the lung, it is maintained, and frequently above the average of health.

In empyema there is no crepitant rhonchus, nor is there true tubular sniffling, metallic respiration; vocal resonance is well or weakly bronchophonic. There is dulness on percussion over the entire pleural sac, and not unfrequently effusion becomes so extensive as to force the lung towards the mediastinum and spine, compressing it in so small a bulk that it appears to be destroyed. Its vessels are crushed together; its bronchial tubes and vessels closed, and the whole organ is rendered unfit for respiration. Unless much care is taken in diagnosis, this condition will be mistaken for atrophy of the lungs. In other cases the heart and mediastinum are carried over to the right side, and the heart will be found beating on the right side of the sternum between the third and fourth ribs.

A case of this kind occurred in my practice, where the effusion, following latent pleuritis, was so extensive that it not only carried the lung forward and backward towards the mediastinum, and against the spine, compressing it so completely, as to prevent the ingress of air; but, the heart and mediastinum were carried forward, and beneath the sternum, so as to encroach materially upon the right lung. In this case, the symptoms at first were those of latent pleuritis, followed by a persistent cough, with expectoration of muco-purulent fluid, great dyspnœa, and inability to lie on the affected side. There was great dullness on percussion, which extended an inch over the right of the sternum.

The only physical signs which were diagnostic of the disease, were the absence of respiratory murmur on the left side, and the deviation of the area of dullness upon percussion; on changing the position of the patient, the dyspnœa and the increased diameter of the left half of the chest, which was three and one-half inches greater than the right. In this case, absorbents, diuretics, and tonics, only gave temporary relief. And in the course of two and one half years, an opening made its appearance in the base of the pleura and diaphragm, where it had previously become attached, and the fluid made its escape into the cavity of the abdomen, producing peritonitis and death. The patient refused to submit to the operation of Paracentesis. Dr. Hughes reports a case of thoracic disease, where the patient became much debilitated, with quick pulse, dyspnœa, and every physical sign of effusion into the right pleura. There was no bulging of the intercostal space; but a flat fluctuating tumor was observed, which dilated upon coughing. A small trochar was introduced, and twenty-four ounces of turbid serum were drawn off. Iodide of Potassium and Sarsaparilla were taken, which afforded partial relief,—yet, he states that he

operated again, in two weeks, and drew off thirty-six ounces more. No inconvenience followed, and the patient appeared much improved. Some two months afterward, the tapping was again repeated, and twelve ounces of fluid were drawn off. In two months more his health appeared good; but there seeming to be an increase of fluid, tapping was again performed, and thirty-six ounces of fluid evacuated. He was tapped again on the eighteenth and twenty-sixth of November successively, which was also again performed on the twenty-first of December. Finding that repetition of the operation must still be continued, the patient learned to perform it himself, and actually did so twice. The prognosis was subsequently favorable, and after fifteen tapplings his restoration was complete.

TREATMENT.

The first efforts of the physician should be to produce absorption, which can be accomplished, in most cases, where the walls of the sac are in a normal condition. But, unfortunately, in many instances the albuminous exudation forms a complete false membrane to the internal walls of the sac, which entirely precludes the action of the absorbents upon the effused fluid. In this event but little can be expected from the use of remedies, until the fluid is evacuated by means of the trochar.

The operation of Paracentesis Thoracis is performed in this manner. The patient should be propped up in bed, and inclined a little to the sound side, so as to separate the ribs, as much as possible, on the diseased side. The skin is to be divided to the extent of one and a half inches, in a direction parallel with the superior edge of the lower rib, on the intercostal space that is selected for the puncture. After dividing the superficial fascia, and any portion of a muscle of the chest that may intervene, as well as the external and internal intercostal muscles, the pleura will

be seen to bulge into the wound. After being distinctly felt by the finger, so as to establish the fact that only fluid is behind it, a trochar, armed with a canula, should be introduced through the sac; the trochar should be withdrawn, and the canula allowed to remain until the fluid is discharged. Or the pleura may be punctured by means of a sharp-pointed bistoury. On making an incision through the integument, the skin should be drawn up from an inch to an inch and a half above the intercostal space intended for the internal opening, so that after the evacuation of fluid, the integument, by passing down over the internal wound, may exclude the air from the pleural cavity, which is one of the most essential conditions to be observed in this operation.

If there is a probability that the fluid may be absorbed, an attempt should be made, by the use of the following :

℞ Corydalin.....	gr. x.
Phytolaccin.....	gr. ij.
Iodide of Potassium	gr. xxx.
Syrup of Marshmallow.....	℥ij.

Triturate, and mix well together; give from one half to one dram three times a day.

At the same time apply the irritating plaster to the affected side, until a free discharge ensues.

The strength of the patient should be maintained by the use of porter, wine, beef tea, and such articles of food as are easy of digestion. When the above remedy has been used for two or three weeks, a change may be made to the following :

℞ Quinine.....	gr. xx.
Digitalin.....	gr. ij.
Bitartrate of Potassa.....	℥ij.
Syrup of Stillingia and Syrup of Iodide of Iron	aa ℥ij.

Mix, and give one half teaspoonful three times a day.

The skin should be thoroughly bathed in lye water two or three times a week, and every effort should be made to preserve the patient's strength.

If, after the above treatment, and such other remedies as seem to be indicated, the patient is not materially relieved, tapping should be resorted to at once. In performing this operation, much care is required to prevent the ingress of air into the cavity of the chest. Otherwise empyema would be removed only by substituting emphysema. After the operation, a general diuretic, alterative, and tonic treatment should be pursued, for the purpose of preventing a re-accumulation of the fluid. If empyema is connected with organic disease of the lungs, or general tuberculosis, much relief may be obtained from the operation of Paracentesis. Although it may not effect a cure, still it will very materially assist your constitutional treatment.

PHTHISIS.

The essential character of pulmonary consumption consists in the deposit of tubercles in the tissues of the lungs. This deposit may begin with local mischief, or may evidently be the sequel of constitutional disorder. In both varieties the general disease is present, although it may exist in a latent form. Of this the formation of tuberculous matter is a proof. It is evident, however, that the presence of tubercles does not alone constitute the disease. One step back, along the chain of causation, is a morbid condition, of which tubercles are but the effect. This morbid condition, whatever is its nature, may exist a long time before the formation of tubercle begins.

tissue not requiring for its nutrition, compound principles identical with it to be introduced into the blood with the food, and having a nutrition peculiar to itself, differing from that of the cellular and muscular structures. The fatal disease tuberculosis may be traced to a primary error or defect in the blood-making process. Vitiating air, or air stagnating or insufficiently renewed within the chest; and probably other anti-hygienic influences, as a vitiated or defective diet, acting singly, coetaneously, or as respects each other, ancillary, produces slowly under ordinary circumstances, but occasionally with great rapidity, some unknown change in a portion of the proteiniform principle of recently formed liquor sanguinis; this change may consist in hyper-oxidation; but whether so or not, it deteriorates its properties, rendering it, more or less, altogether unsuitable as a material for organization.

At the same time, the oily principle of nutrition circulating with a diminished number of real corpuscles, is in part converted into a fatty substance of a lower degree of oxidation. These modified proteiniform and oleaginous principles are exuded in the blastema, and are either employed in the assimilating processes, deranging the nutrition of the organic structures, and giving the tuberculous or scrofulous character to various pathological processes; or, in the more advanced stages of the morbid process, they are deposited in particular tissues, and accumulate generally in the form of tubercle, but sometimes both as tubercle and morbid fat, substances for the most part incapable of organization.

In the present state of pathological science, confining ourselves to its legitimate object, the study of *phenomena*, apart from any metaphysical views of final causes relative to the *powers* of nature, this appears to be the most accurate definition that can be given of the most essential nature of tuberculosis.—(DR. ANCELL.)

That a change takes place in the blood, which causes or precedes the deposit and development of tubercles, is well established. The corpuscles are diminished, and the albumen increased in quantity. The fibrin is below, rather than above the normal amount, and, it may be inferred, that it is also defective in its nature. Elsner, and some other analysts, have found the fatty principles diminished.

Dr. Fricke's analyses indicate an increase above the standard of health, in the lime, and a decrease in the phosphates; while l'Heritier states, that in scrofula the earthy salts are diminished. Hence, the blood may be stated generally to be degraded in quality, and endowed with a low degree of vitality. Whether these be the real changes in the blood is not certainly determined. Physiologists and pathologists are not fully agreed as to the nature of all the changes which the blood undergoes in the scrofulous diathesis. Andral showed that in phthisis pulmonalis, the fibrin was augmented. The probability is, that this increase of fibrin is most frequent, when intercurrent pneumonitis is associated with tubercular disease. To attain to accuracy in this matter is very difficult, on account of the variable state of the blood, arising from exercise, diet, time of the day, and other changing circumstances.

The conclusions to which we may logically come, are the following: 1. That from the earliest invasion, the sum of the vital force is either below the standard of health, or it is relatively low as respects the structure and organization of the individual. 2. That this diminution in the sum of the vital force; is dependent on the imperfect blastema of the diseased blood, causing perversion of the tissues. 3. That as tuberculosis advances, the sum of the vital force for the whole system, continues to diminish. 4. That the nutritive powers of the blood, as respects the nervous tissue, frequently remains undiminished; this

But in what manner does the deposit take place? We possess sufficient evidence that it is derived from the blood; that it transudes from the capillary vessels of the part in which we find it; and that after being deposited, it is liable to undergo certain further changes. On the examination of incipient tubercular deposit, we may always note that there is congestion in the tissues immediately surrounding it. In the pia mater of the sylvian fissure, we see an increased redness, in which a few vessels are more prominent than usual; in the pulmonary parenchyma we may especially, by the use of the microscope, discover the engorgement of the interlobular capillaries investing the air-vesicle into which the tubercle is being secreted. In the mucous membrane of the intestines we see the exquisite arborescent arrangement of the congested vessels, tending from the mesenteric attachment to the point where we observe the deposit, shining through the mucous surface from the submucous tissue, where it has collected. The first elimination of the morbid products acts like a magnetic point of attraction, and generally serves as a centre around which the deposit progressively enlarges by eccentric deposition.

Tubercles exist in various forms; in fine points, grey and yellow granulations, miliary tubercles, and grey or yellow tubercular masses, softened and cretaceous. Each of these modifications requires a more particular notice.

1. *Pulmonary Granulations* — *Grey Granulations* — *Miliary Tubercles*.—These various names have been used by authors to describe round, small, translucent, shining, homogeneous bodies, often not larger than a millet-seed, but varying from this to the size of a pea, which appears to be the primitive state of tubercles. Usually they are of a greyish, but often they are of a reddish or of a brownish color, and in some cases they are nearly colorless. Sometimes they are isolated, sometimes clustered in small

bunches, or in aggregate masses. In the latter state they are most often found in the upper portion of the lung. But in the isolated form they are scattered sometimes thickly through the whole or greater portion of the pulmonary tissue; not unfrequently they are found situated beneath the pleura, producing an irregularity perceptible to the touch. This is more often the case in children than adults.

2. *Grey Tubercular Infiltration*.—Laennec defines this as the same kind of matter which forms the granules above described, deposited in the cellular tissue of the lungs in irregular masses, sometimes one, two, or even three inches in cubic dimensions without definite boundaries, or limited only by the extent of the lobules. It is hard, homogeneous, translucent, and of a greyish color, sometimes darkened by the black matter of the lungs, portions of which become enveloped in the masses as they are formed. In some cases no traces of pulmonary tissue can be detected in the masses; in others they present remains of blood-vessels, bronchial tubes, and cellular membrane; and occasionally they are partially penetrated by the air in respiration.

3. *Crude Tubercle and Yellow Tuberculous Infiltration*.—The grey translucent matter constituting the first two deposits above noticed, appears to undergo a gradual conversion into what has usually been considered the proper tuberculous substance. In the miliary granulations, the transformation commences in a small yellowish, white spot, which most commonly appears at or near the centre, and gradually enlarges until the whole granule assumes that character.

In this altered state, the little bodies are now called *crude tubercles*. In the aggregated granules, the change commences at several points, each probably answering to a distinct granule, and considerable masses of yellow opaque

matter result from the extension and ultimate coalescence of these central spots.

The same transformation takes place in the infiltrated translucent matter, beginning in like manner with isolated opaque spots, and spreading until it involves the whole deposit, which, when thus altered, receives the name of *yellow tuberculous infiltration*. This may be distinguished from the crude tubercle by an irregular and angular, instead of roundish form, and by a less regular line of division between it and the pulmonary tissue. There is no doubt that both the crude tubercle and yellow infiltration are often originally deposited in this state, without the preliminary formation of the translucent matter.

The next important change in tubercle is that of softening. This, in many authors, is said to begin in the centre, and to gradually advance to the circumference. Concerning the truth of this, there is, however, some doubt. The reasons as given by Mr. Carswell upon which such a doubt is based, are the following:—Tubercular matter, according to his theory, is contained in the air-cells and bronchi. If, therefore, this morbid product is confined to the surface of either, or has accumulated to such a degree as to leave only a limited central portion of their cavities unoccupied, it is obvious that when they are divided transversely, the following appearances will be observed:—1. A bronchial tube will resemble a tubercle having a central depression, or soft central point, in consequence of the centre of the bronchus not being, or never having been occupied by the tuberculous matter, and of its containing at the same time a small quantity of mucus or other secreted fluids:—2. The air-cells will exhibit a number of similar appearances, or rings of tuberculous matter joined together, and containing in their centres a quantity of the same kind of fluids. When the bronchi or air-cells are completely filled with tuberculous matter, no such appearances as those we have

just described are observed, and hence the reason why tubercle, in such circumstances, has been said to be still in a state of crudity, or in that state which is believed to precede the softening process.

As the softening process advances, the whole tubercle becomes converted into a soft, pultaceous, yellowish mass, in appearance resembling pus. The infiltrated mass, likewise, undergoes a similar change. Sometimes the entire tuberculous deposit seems throughout its whole mass, to become suddenly softened, and, in this manner, large portions of the lung are quickly destroyed. The pressure of the growing tubercle upon the circumjacent lung, at first makes it less vascular; but reaction at length takes place, inflammation succeeds, and congestion, ulceration and suppuration follow. In some cases the tubercular disease passes through its various stages without giving rise to marked inflammation. In the majority of cases, however, the bronchi, air-cells and cellular tissue, are more or less affected by the inflammatory process. The succeeding ulceration gives rise to the formation of cavities. Frequently one large vomica is made up of several smaller ones, which, in the parietes of the large cavity, make excavations of irregular shape, now winding and now crossed by bands of tissue. The size of the cavity varies from that of a pea to that of an orange. Its contents consist of a mixture of pus and bloody matter, and portions of pulmonary tissue. Sometimes they are inodorous, sometimes fetid. In children the vomicae are less common than in adults. As the disease advances, a false membrane begins to form around the decaying tubercle, at first thin and delicate, and in appearance resembling mucous membrane. Large abscesses are sometimes seen, between which and the bronchi there is no communication.

Cicatrization of Tuberculous Cavities. — That this is not a very rare occurrence, Laennec proved in his early

researches into the termination of tuberculous disease. Indeed, from this we learn that phthisis sometimes terminates favorably. This happens when the deposit is limited in extent.

But, sometimes at the apex of the lung, we find an old adhesion, sometimes a crust of fibro-cartilaginous deposit, or even a fibrous band passing from the lung to the ribs. Adjacent to this pathological change, the lung is puckered and drawn inward. To the touch, it feels firm and consolidated; to the eye, it appears dark, from an abundant deposit of black pigment. On making an incision, we find a cavity lined by grey fibrous membrane, semi-transparent, or thick, whitish, and fibro-cartilaginous, or soft and pliable, like the mucous membrane.

In the winter of 1855, my colleague, Prof. Gauntt, and myself, made a post-mortem examination of a female, who had been laboring under phthisis for the last twelve years. In her case the right lung had been entirely destroyed, save a very small portion, just below bifurcation of the bronchi, which was completely injected with tuberculous matter. This portion was about the size of a hen's egg, and completely impervious to air. A fibrous band passed from this bunch to the lower portion of the pulmonary cavity, and was attached to the pleura costalis. The cavity was filled with sero-purulent fluid; but the woman had enjoyed a respite from the urgent symptoms of the disease, save periodical attacks of dyspnoea, in one of which she died.

Adhesions are almost always present in phthisis. In 112 cases examined by Louis, there was only one in which no adhesion was found. To some extent, their location corresponds to that of tubercles. In rare cases, the entire surface of the lung is bound down to the costal pleura, and to that of the diaphragm. These have the effect to prevent pneumothorax. The trachea and bronchial tubes

often are the seat of extensive lesion. Those are most often affected which form a way of exit to vomicæ. Their posterior, more often than their anterior, internal surfaces are affected. The larynx and epiglottis, are sometimes the location of tuberculous disease. Among other lesions attending phthisis, are partial emphysema of the lung, dilatation of the bronchi, and enlargement of the bronchial glands. This latter effect is most common in children.

Appearances in other parts of the body.—The origin of tubercles being in the blood, their distribution throughout the entire system is a necessary result. But according to Louis, this general law is established, that when tuberculous deposit exists in other organs, it always exists in the lungs. The converse of this, is far from being true; and the law itself is occasionally subject to exceptions, the occurrence of which is most frequent in children. Without the lungs, the tuberculous depositions are most often composed of the yellow opaque tubercle. Grey granulations or miliary tubercles, have also been observed in various parts of the body. From some form of tubercle, scarcely an organ of the body is wholly exempt. They are found in the liver, intestines, mesentery, prostate gland, testicles, heart, bladder, uterus, spleen, and kidneys, and in the membranes and substances of the brain. It was the conclusion of Louis, that, of all the cases of tubercles, occurring in persons over the age of fifteen years, one-third had them in the small intestines, one fourth in the mesenteric glands, one-ninth in the large intestines, one-tenth in the cervical glands, one-twelfth in the lumbar glands, and one-fourteenth in the spleen. The stomach becomes larger than natural, more thin, and is subject to chronic inflammation of its mucous surface. The glands of Peyer—those near the cæcum—become the seat of tubercles. The mucous glands of the small intestines, sometimes ulcerate, causing perforation, and the admission

of the faecal secretions into the cavities of the peritoneum. A similar diseased state of the large intestines sometimes occurs. The mesenteric glands are very much enlarged. In the brain, tubercular deposition gives rise to hydrocephalus.

GENERAL SYMPTOMS AND COURSE OF PHTHISIS.

Since the discovery of the physical signs by Laennec, the tendency of some minds has been to disregard the general symptoms in the formation of a diagnosis. Among such, an unnecessary delay is often caused in the application of remedial agents; for the general symptoms very frequently are the first indications of approaching disease. A diagnosis should not then be wholly dependent upon the physical signs in the first stage; for these are seldom manifest, until the disease has so far progressed as to make a prognosis unfavorable. Certain general symptoms are grouped together, and said to be indicative of the *scrofulous diathesis*, or *tuberculous cachexia*. What this condition of the system is, or what its influence, in the development of phthisis, it may be difficult to accurately ascertain; and yet the description of some of its more important symptoms, may be of utility in detecting that first pathological change in which phthisis begins.

Among the more important symptoms are, a pale, pasty appearance of the countenance, large upper lip and alæ nasi. In persons of dark complexion, the skin is sallow; in those of fair complexion it is unnaturally white, resembling blanched wax rather than a healthy countenance. The veins are large and conspicuous, the pupils of the eyes are large, eyelashes long, with a fair, florid complexion. In persons of a bilious temperament the skin is coarse, its color dingy. The form of the body is often destitute of symmetry. The trunk is small, the head large, abdomen tumid, limbs unshapely, the growth of the body is irregular,

the functions of nutrition are feeble and deranged. The intellect is often very active; there is great sensibility to impressions and acuteness of mind.

Stages. — For convenience in description, phthisis has been divided into three stages. Between these no line of demarkation is accurately drawn. The first stage begins with the onset of the disease, and ends when the softening of the tubercle has commenced.

General Symptoms. — The pulse is accelerated, especially after eating, towards evening, or by slight exercise. A burning sensation is felt in the palms of the hands and soles of the feet. Towards evening a slight chilliness comes on; towards morning, perspiration supervenes. The febrile paroxysm is sometimes very slight, scarcely attracting notice; sometimes severe, causing unpleasant sensations, and exciting alarm. Sleep ceases to refresh, food to give strength and vigor. The aspect of the patient changes; the countenance is pale, expressive of languor, or red with the hectic flush. The skin is less elastic; the muscles less firm; menstruation is tardy or entirely wanting; emaciation becomes evident. If these symptoms have appeared in the spring-time, by the use of proper remedies, and regimen, they are almost entirely removed, until the returning autumn and winter bring them on with increasing severity. Occasionally they seem to arise from bronchitis, pleuritis, pneumonitis, or some febrile disease. When they succeed to measles or scarlet fever, they frequently progress with unbounded rapidity. The *rational symptoms* are subject to much variation. In most cases, however, a short, dry cough is one of the first symptoms that excites alarm. Often very slight, a mere hacking in the morning, it steadily increases, and at length is accompanied with a frothy expectoration of transparent mucus, and afterwards of yellow, opaque matter. Slight dyspnoea occurs when the patient exercises. About the sides and

shoulders there are fugitive pains. Slight hemorrhage from the lungs occurs; at times it may be somewhat copious, but often in small quantity. As the disease progresses, the cough increases, preventing sleep, and sometimes occurring in paroxysms. The expectoration is correspondingly increased, becoming thicker, more yellowish, or greenish and purulent. The other symptoms usually advance with equal pace. Sometimes the disease is very insidious in its approach. Suddenly, without any premonition, a violent attack of hæmoptysis occurs, immediately succeeded by all the appearances of confirmed phthisis. These rational symptoms are intimately connected with the tubercular deposition. The tubercles are in a state of cruddiness. Softening has not yet commenced. They are in the form of small, roundish, homogeneous bodies, collected in clusters, or more widely disseminated through the lungs in the form of miliary tubercles. Sometimes they are more or less firm, of a greyish color, or translucent.

Physical Signs. — In the nascent state of phthisis, we cannot derive positive information from physical exploration. In order to produce abnormal sounds on percussion and auscultation, the deposit of tubercles must be considerable; or there must be in some one part of the lungs, be it ever so limited, a deposit sufficiently great to interfere with the pulmonary functions.

If the tubercles are small and scattered, the physical signs will not be so sure to detect the morbid changes. If, on the contrary, they are large and clustered together, abnormal sounds are more readily developed; so that it is evident that the physical signs cannot determine the accurate amount of tuberculous deposition; since the arrangement of tubercles, as well as their number, has a modifying influence. Shall we therefore conclude that the physical signs are of no practical utility? As well might we deny the usefulness of the telescope, because it does not

reveal all the minute phenomena of the heavens. Because no one of the physical signs is absolutely pathognomic, we should not conclude that their evidence, added to that afforded by the general symptoms, is not of great value. These signs, found at the point most subject to tubercular disease, the comparative rarity of any other lesions capable of producing the same physical phenomena, enable us to arrive at a degree of probability which is almost equivalent to certainty. The existence of the twofold evidence given by the general symptoms and the physical signs, makes the diagnosis far more sure than it could be when founded only on one class of symptoms.

Inspection is often a valuable means of diagnosis. Prominence of the clavicles, contraction of the intercostal spaces, a flatness of the chest in front, an unequal height of the shoulders, a depression of the ribs,—all these, when present in a tuberculous patient, indicate the presence of phthisis.

Percussion is usually somewhat dull under the clavicles. An inequality in its degree on opposite sides of the chest, and at points equally distant from the median line, adds much more significance to this physical sign, and especially if the dulness is greater on the left side. In emphysema and pneumo-thorax a similar inequality of sound may exist.

In these instances the diseased side is most sonorous; but the respiration is most feeble where the resonance is greatest, a circumstance which distinguishes this condition from phthisis. An emphysematous condition of the lung occurring adjacent to the location of solidification from tubercles, may cause the percussion to remain nearly normal. Were this coincidence common, it would certainly diminish the value of percussion in diagnosis. But it is of very rare occurrence. The signs derived from percussion should be sought about the clavicular and acromial regions.

Obscurity of resonance being detected beneath one or both clavicles, or at any point of the chest near to the apices of the lungs, what conclusion should be formed as to the nature of the disease? To this question Chomel replies:—“Obscurity of sound, and feeble respiration under one of the clavicles, give strong reason to suppose the existence of tubercles, for partial effusions take place in the immense majority of cases at the inferior and posterior parts of the chest, and it is almost never that chronic pneumonia is primitive and without the presence of tubercles.

In the early stage, the slightest difference of note or pitch on opposite sides of the chest, if confined to the clavicular and acromial regions, should excite suspicion. Although the dulness may be confined to a small locality over the top of the shoulders and the *scaleni* muscles, yet if it be clearly perceptible it is a very sure indication of the existence of phthisis.

Auscultation, in the first stage, reveals a feebleness of respiratory murmur in the sub-clavicular region. This occurs where percussion is dull, and at the same time the resonance of the voice is greater than normal. While in one part of the lung these signs are heard, in another the respiration is *blowing*. A slight difference of sound in relative situations on both sides, does not necessarily indicate phthisis. The anatomical relations of the lungs have a modifying effect. A sound in the right lung of a phthisical patient should not be considered as indicative of tubercles, unless it is decidedly blowing. But if the respiration is more blowing at the apex of the left than at that of the right lung, there can be but little doubt that tuberculous disease is present. With the advance of the disease, the respiration becomes somewhat rough, or even bronchial, with a prolongation of the expiratory sound, which is one of the most striking characteristics of tuber

culous deposition. Inspiration is at times somewhat jerking. The cardiac pulsations are more audible than usual. Bronchial respiration and bronchophony are heard out of their natural locality, thus becoming indications of pulmonary lesions.

Second Stage of phthisis may be considered as beginning with the softening of tubercles, and terminating when cavities are fully formed, and all the physical effects arising from them fully developed. In other words, it is the forming stage of vomicae.

General Symptoms. — Of the general symptoms collectively, I remark that they are more severe. The evening chills are more constant and troublesome; the succeeding heat is more intense and more general, the morning sweats more regular and copious. Hectic is more constant, and, to use the words of another, “hangs out upon the cheek the red flag of death;” the pulse is more frequent, the respiration quick and laborious, even when the patient is at rest. Languor and weakness increase, emaciation is rapid, the muscles are soft and flabby, and the patient can no longer endure his wonted amount of physical or mental exertion. Paleness of the countenance frequently remains through the early part of the day. Sometimes there is a greater tendency to chills shown by an increased sensibility to cold, and the evening exacerbation brings on an increased heat of the palms of the hands and the soles of the feet. The countenance, under the influence of the morbid excitement, is for a while more animated, the eye brightens, and the red blush of hectic gives to the features new beauty and loveliness. When speaking, the lips of the patient slightly quiver, there is breathlessness which interrupts him in the middle of a sentence. Sleep is more disturbed. Not unfrequently the mind, even in this stage of the disease, is buoyant and hopeful. The least or most temporary amendment in his symptoms, or the delusive

promises and boasts of quacks, inspire him with the joy of hope. *The Physical Signs* in this stage are more marked. As the disease advances, the tubercles soften and become diluted with a morbid secretion from the pulmonary tissues. Particles of curdy or cheesy matter pass from their locality, in the parenchyma of the lungs, into the bronchial tubes, and are expectorated. The exit of this matter from the lungs gives rise to little vacuities called caverns, cavities, vomicæ or excavations. A careful examination of the chest, at this time, affords positive evidence of the internal mischief. The upper parts are less freely raised during respiration than in the healthy state; this phenomenon frequently being more evident on one side than on the other. The sub-clavicular regions on both sides, give a dull sound on percussion. To the mind, the ear, or stethoscope, when applied to those portions of the chest situated where percussion is dull, reveals a slight crackling noise—the crepitating rhonchus.

After vomicæ are formed, the cavernous rale or the gurgling is heard, when the cavity is partly filled with liquid. Resonance of the voice and cough, and at length pectoriloquy follow. If a solidified portion of lung, enclosing a considerable bronchus, comes near to the surface of the chest, then bronchial breathing and bronchophony are heard. Percussion, too, will give the same sound, whether the lung be hepatized or blocked up by tubercular matter. This condition of the lungs may be present in one part, while cavities exist in another, and therefore, different parts of the chest will exhibit different physical signs; I have said that the gurgling sound is heard in case the vomicæ contains liquid. But does this sound necessarily prove in all cases the existence of cavities? Dr. Watson remarks, “that where we hear, during inspiration, the gurgling rale—called by Laennec, gargouillement—we may conclude, that there exists a cavity. But the

cavity will not necessarily be a vomica. In ninety-nine cases out of a hundred, it will be so; but in the hundredth, perhaps it will not."

Dilatation of the bronchi, sometimes produces a considerable globular expansion. In case these cavities, formed by such an expansion, were filled with a liquid, the same sound would be produced, as that caused by tubercular vomicae.

Third Stage. — The third stage is that period, which commences when cavities are *already formed*, and continues until the termination of the disease. This has been called the colliquative stage, from the copious perspiration, the frequent attacks of diarrhæa, and the abundant expectoration with which it is attended. The feet and ankles become œdematous; the vital powers gradually decrease, one after another; the functions of life fail; the body, by a *facilis descensus*, falls to the earth, and the soul rises to eternity.

General Symptoms. — The most important of these are, the colliquative sweat, diarrhæa, extreme emaciation, anasarca swelling of the lower limbs, and high febrile excitement. A sure indication of approaching dissolution, is an aphthous condition of the mouth. This usually comes on during the last weeks, or days of existence. The mental faculties, at this period of phthisis, are more or less deranged. Reason remains; but it is not the reason of health. Slight delirium sometimes occurs; the patient becomes indifferent to what is passing around him, and to his own state, when a little while before his attention was aroused by every unfavorable symptom.

Special Symptoms. — The expectoration is very copious, consisting of a heterogeneous mass of mucus, pus, softened and occasionally solid tubercle, blood, shreds of lymph, rarely portions of pulmonary tissue, sometimes very fetid. The cough and dyspnœa increase. The

shoulders are raised and brought forward; the chest is narrow and flat. During respiration, the clavicular regions are less moveable than natural, and when the patient attempts to make a full inspiration, the upper part of the thorax, instead of expanding with the appearance of spontaneous ease, peculiar to the healthy state of the lungs, seems to be forcibly dragged up at each respiratory effort.

Physical Signs.—The physical signs in the third stage are similar to those in the second. The gurgling rale, the increased resonance of voice, bronchophony, and pectoriloquy, amphoric resonance, and metallic tinkling, may be present in different cases and at different times. Some of these signs are more frequently heard than others. The metallic tinkling is oftener present in a large than in a small cavity; and since large cavities are formed in the third stage, this symptom is observed only when the disease is far advanced.

Hæmoptysis.—This is the most important rational symptom that occurs in phthisis. In other diseases and conditions of the lungs, it is so rare that it very certainly indicates the nature of the case. Hæmoptysis, to be sure, may be produced by other causes—by certain forms of heart disease, by cancer, by cirrhosis of the lungs; and, in females, by vicarious menstruation. But these latter conditions of the lungs are very rare, and therefore hæmoptysis should be considered a strong evidence of phthisis.

Emaciation.—This is one of the cardinal symptoms of phthisis. Frequently it precedes the other symptoms. Between the ages of forty and fifty, Dr. James Clark found it one of the earliest symptoms of this disease. Indigestion is regarded by the patient and his friends as one of the principal causes of this atrophy. It is frequently associated with anæmia. There is many times a peculiar physiognomy; the cheek is pale and thin, and the eye bright.

Every organ in the body, except the liver and the heart, even the blood itself, emaciates. And this is often the first symptom noticed. At length slight disturbance is manifest — a little dyspnoea, a little chilliness towards evening, and a tendency to cough. This symptom, emaciation, is not always progressive. The patient may gain flesh, but he soon loses it again; then perhaps gains awhile in weight; and so on alternately. This, however, is observable: he seldom gains as much as he loses. There is a gradual though not a continuous descent. It is true also, that while there is an increase of weight, the tubercular disease advances; and while the patient and friends are elated with hope by the apparent amendment, a fatal termination steadily approaches. Loss of appetite and diarrhæa very much increase the emaciation.

Diarrhæa. — The rapidity of the progress of consumption very much depends upon this. With the number of evacuations Louis found that the loss of strength corresponded. This fact should militate against the employment of cathartics in phthisis. "A tablespoonful of castor oil," says Dr. James Clark, "I have seen throw a phthisical patient into an alarming state of debility." In those who have in health a costive state of the bowels, incipient phthisis produces regularity of action. Diarrhæa is usually confined to the advanced stage of the disease. In one-eighth of the cases treated by Louis, diarrhæa commenced with the disease, and continued until its termination; in the majority it occurred in the later stages; in others during the last days of life; and in four out of one hundred and twelve cases, it never appeared. The distress attending this symptom is often severe; before each evacuation the pain is often intense, and immediately after it there is a deadly sensation of sinking. It has an effect upon the cough and expectoration.

The severity of these symptoms is usually in an inverse

ratio to that of the diarrhæa. As a diagnostic sign it is not of great value. The nature of the disease is known by other means, before this becomes fully developed. The cause of the diarrhæa is the softening of the tuberculous matter deposited among the coats of the intestines. After death we find ulceration of the mucous membrane, tuberculous deposits thickening and softening, and enlarged mucous follicles, especially near the termination of the ileum and in the colon.

Edema. — This is an invariable attendant of the last stage of phthisis. In young delicate females it may supervene in the earlier stages. Generally it shows itself first in the lower extremities, and is confined to them. In the morning there is sometimes an œdematous appearance in the face. For the diagnosis this is of no value; but it is a prognostic of approaching death. Is the suppression of the menses the cause of the tuberculous disease? Some have thought it might lead to tubercles in the lungs. The menstrual suppression is for the most part the effect of that general debility, that deficiency of the nutritive properties of the blood which precedes the deposition of tubercles. If this theory is true, then the treatment, instead of being wholly directed to the restoration of the uterine functions, should be directed to remedy that deficient nutrition and its consequent debility, which cause the menstrual suppression, and the tuberculous deposition. The cessation of the menses is sometimes one of the first, if not the first, prominent symptom of phthisis; and a careful examination of the case will often discover this to be the fact. Attendant upon this symptom there are, in most cases, a slight cough, a little chilliness and fever, and some of the physical signs of incipient phthisis. In general this function continues, but decreases in quantity, during the early stage of the disease. From a great variety of causes, this

function is so liable to derangement, that as a diagnostic sign it is not of much value.

Duration of Phthisis. — Tuberculous phthisis is essentially a chronic disease, the range of its duration being considerable. Cases have been recorded which have terminated in eleven days, while others have lingered for twenty or even forty years. These, however, are extreme cases; the majority terminate in one or two years, the average duration being eighteen months.

Phthisis in Infancy and Childhood. — Phthisis is more common in infancy and childhood than was once supposed. Dr. Guersent, one of the physicians to the Hospital des Enfants Malades, an institution appropriated to the treatment of patients between the age of one and sixteen years, gives, as the result of his observations, that five-sixths of those who die in that hospital are more or less tuberculous. Early in life, its existence is manifested by symptoms somewhat different from those of adults. The cough occurs in paroxysms; hectic expectoration and hemorrhage from the lungs are not so apparent. The tuberculous cachexia, rapid pulse and breathing, emaciation and derangement of the digestive organs, tumid abdomen and irregular action of the bowels, at one time constipated, at another affected with diarrhæa, and the pale unnatural color of the evacuations, point out the nature of the disease. In children the mesenteric glands are more subject to disease than in adults. But the most frequent seat of tuberculous affections is the bronchial glands, and the next in frequency is the lungs. The relative frequency of tubercles in the bronchial glands of children, compared with the lungs, is not less than five to four, which is reversed after the age of puberty.

CAUSES OF PHTHISIS.

Among the causes of phthisis, hereditary predisposition occupies the most important place. And yet this hereditary tendency explains nothing in relation to the real cause of the disease. It is the name of a fact, not a cause, which is sure to produce specific results. We must, therefore, in order to arrive at anything definite or practical, seek to find that in which the fact has its origin—whether it is a peculiar state of the blood, or a want of functional power,—in the digestive organs, or in the respiratory apparatus. Vitality is the effect of so many conditional causes, each liable to vary in intensity, and by that variation to influence the result—the degree of vitality,—that it is difficult to tell in what ultimate change phthisis has its origin. But the nearer we can ascend to the sources of knowledge, the more general and conditional that obtained knowledge becomes, for all other knowledge relates to it as species to genera. Accordingly, it is evident that if chemistry or optics could detect that condition of the blood, whatever it is, which is most prevalent in the progeny of tuberculous parents, before deposition of tuberculous matter takes place, a general fact would be obtained of more value than many particulars often spoken of by medical writers. From pathology or from chemistry we gain no evidence that those who are predisposed to phthisis have blood essentially differing from that of others. And the existence of the hereditary tendency has been questioned by some recent observers. But because of the non-appearance of an abnormal change in the constituents of the blood, except in rare cases, or because the existence of that tendency is denied, we should not therefore conclude that hereditary influence does not exist. It may exist, but not as an ultimate cause, ever producing a certain result.

Occupations of Life.—Concerning the causes of phthisis,

Lombard, of Geneva, has given us some valuable statistical information. The result of his researches is thus stated:—The circumstances which increase the tendency to phthisis are poverty, sedentary habits, violent exercise of the chest, an habitually bent position of the body, impure air in workshops, the inhalation of certain mineral and vegetable vapors, or air loaded with a coarse or impalpable dust, or with light, thready, elastic substances.

The conditions which seem to exert a favorable preservative influence, are easy circumstances, an active life in the open air, regular general exercise, the inhalation of watery vapor, and animal and vegetable emanations. Sedentary habits are prone to produce phthisis. The habit of sitting with the body inclined forward, thus preventing the free expansion of the lungs, and the action of the stomach, and other abdominal viscera, is one cause of the injurious tendency of a studious life. Among shoemakers and tailors, the proportion of phthisical patients is very large.

Dyspepsia. — In dyspeptic diseases, many authors have placed one prominent cause of phthisis; and with good reason they have done so. For since tubercles depend for their development upon a want of nutrition in the blood, and since dyspeptic diseases deprive the blood of its nutritive properties, there is every reason to believe, that in this source tubercles have their origin.

There are other causes of phthisis, seldom described in medical works. Of these, one is masturbation, which, by its debilitating effects upon the general constitution, tends in an eminent degree to favor the development of tubercles. Another cause is the use of such remedial agents in the cure of disease, as leave after their primary effects have subsided, secondary ones, which in the end prove worse than the original disease. If this be so, and the history of thousands of individuals corroborates its truth, then

why may not its action upon the system directly induce tuberculous disease? Indirectly, if not directly, by debilitating the system deteriorating the red blood, and inducing emaciation, it so influences the mass of the fluids, as to predispose the system to the ingress of phthisis; it leaves the territory unguarded by any vital force, even by that mysterious one, "*the vis medicatrix naturæ.*" A patient, somewhat predisposed to phthisis, takes a severe cold in the autumn. Febrile symptoms supervene. There is, according to the opinion of some, an exalted condition of vital action; and consequently, all the instruments of the antiphlogistic regimen and treatment, are immediately used to subdue the inflammation. After a number of weeks, the patient may slowly recover. But his digestive organs do not seem to be healthy. Strength does not return; a slight cough begins, and in from six months to a year, phthisical symptoms are fully developed. Such cases often occur, and so often, that the more judicious physicians of all creeds, even those standing on the conservative platform, now begin to abandon the use of depressing remedies; not because as some often pretend, diseases are now so different in their nature, as not to require the same treatment, but because the application of science to the study of medicine, has exploded the idea that it is necessary to hazard life, by the use of deleterious agents, in order to produce a speedy and complete cure.

Prognosis.—In those cases where the disease is far advanced, the prognosis is always very unfavorable. So small is the chance of recovery, that the physician has no good reason to encourage either patient or friends.

But morbid anatomy has demonstrated, that even in the last stages, recoveries do take place; the cavities are filled with chalky concretions, their parietes contract, and cicatrices are produced. What else than the cure of phthisis do such facts teach? On this subject, Dr Swett remarks,

“I never shall entirely despair of the life of a patient, when I recollect what I once witnessed in this Hospital. A patient was admitted with phthisis. The disease was perfectly well characterized, and in its most advanced stage; a large and well-marked abscess existed under the right clavicle. Indeed the signs of this lesion were so distinct, that I was in the habit of calling the attention, of students in attendance, to them, as perfect in their character. On one occasion, as I approached the bed for this purpose, I found the patient, who had been gradually sinking, in such a state that it seemed to me improper to disturb him. He was bolstered up in bed, with his head falling upon his shoulder, breathing with great difficulty, bathed in perspiration, and with a rapid and feeble pulse. The next day my attendance ceased, and after two months was again commenced. On entering the ward, the house physician called my attention to a man, dressed, and walking about the ward, apparently stout and well, although somewhat pale. To my great astonishment, it was the patient I had left two months before, apparently dying.” The same author testifies that he has known a number of cases of patients, who have had all the evidences of phthisis, and yet have recovered.

TREATMENT.

“The indications to be fulfilled in the treatment of this disease,” says Prof. Calkins in his very excellent work on thoracic diseases, “are, first, to prevent the further deposition and development of tubercles; and, secondly, to prevent and to protect, as far as possible, the lungs and other organs from their injurious results. The means both prophylactic and remedial, which can be of any utility for this purpose, must be directed to the attainment of this result: the production of that state of the solids and fluids which is most adverse to the development of tubercles.” Prof.

J. G. Jones says: "The leading indications to be fulfilled in the treatment of this disease are twofold, to wit: 1. To change the condition of the blood, and restore the qualities pertaining to its healthy state. 2. To prevent the further deposition and development of tubercles, give tone and vigor to the whole system, and in a measure change its diathesis." Professor Powel, in a work on the treatment of diseases, makes the following remarks: "In the treatment of this disease, little else can be done than to make use of means which will enrich the fibrinous portions of the blood, strengthen the nervous and muscular system of the patient, and relieve troublesome and dangerous symptoms as they may appear." Dr. Walshe gives the results which he obtained in the Consumption Hospital as follows: "1. Of a given mass of patients entering the hospital in all stages of the disease, and in every variety of general condition — between the actual moribund state and that of but slight constitutional suffering—the number leaving it, on the one hand, *improved* or *unadvanced* was more than double that, on the other hand, leaving it in a worse state or dying within its walls (the exact ratio is 67·84 : 32·16). If the cases in which death was actually imminent at the period of admission, were excluded, the result would be very materially more favorable than this. 2. In 4·26 per cent. of the cases, complete restoration to health, not only as regards apparent disturbance of the functions generally, but as regards local evidence of actual pulmonary disease, was effected. 3. Complete removal of symptoms was more frequently effected in the male than in the female; but, on the other hand, the results were on the whole slightly more favorable in the latter than in the former sex. 4. All patients who grew worse while they were in the hospital had reached the stage of excavation on admission; and all patients whose tubercles were yet unsoftened on admission, left the hospital either improved,

or having had a *statu quo* condition kept up. Improvement is more probable than the reverse, even where excavation exists on admission. 5. In a given mass of cases, the chances of favorable influence from sojourn in the hospital will be greater in a certain (undetermined) ratio as the duration of the disease previous to admission has been greater; in other terms, natural tendency to a slow course is a more important element of success in the treatment of the disease, than the fact of that treatment having been undertaken at an early period. 6. The mean length of stay in the hospital, in the most favorable class of cases, nearly doubled that in the least favorable. 7. The chances of benefit are most in favor of those whose trades are pursued out of doors (wholly or partially) than of those who work wholly within doors. 8. The results did not appear to be influenced by the laborious or non-laborious character of the trade individuals might have pursued. 9. The age of the sufferers did not appear to exercise any very material influence on the character of the results. 10. Patients coming from the country have, on an average, a slightly stronger chance of improvement than the residents of London and its suburbs. 11. Patients admitted during the warmer half of the year, benefit by a sojourn at Brompton, to a slight extent, more than those received during the six colder months."

From the above facts, together with the experience of every intelligent Eclectic physician, it appears that pulmonary consumption is occasionally cured, and sometimes terminates favorably without medical aid; and perhaps I might state, in spite of medicinal treatment. But when we consider the irrational treatment which has been relied upon for the cure of this disease, we can hardly be surprised at its fatality. Nor that not only the medical fraternity, but the community generally, have been led to believe that it is incurable. So much so is this the case, that

a large number of physicians deem it a sufficient apology for losing a patient in the prime of life, to state that he died of pulmonary consumption. I do not expect in this article to lay down a course of treatment that will always cure, irrespective of age, condition of the patient, and stage of the disease; but, I do expect to explain such a course, as will, if properly applied, cure a large proportion, and materially relieve such as cannot be entirely restored.

When a person exhibits premonitory symptoms of phthisis, every exciting cause of the disease should be removed. The patient should exercise freely in the open air, and be placed upon a full and nutritious diet, such as beef-steak rare cooked, &c. He should also take a reasonable quantity of some stimulant, as brandy toddy, or some malt liquors, before each meal. If this does not remove those early symptoms, chalybeates, in connection with sugar, may be given as follows :

R Precipitated Carbonate of Iron..... ʒij.
 White Sugar..... ʒvij.

Mix and triturate, take one teaspoonful three or four times a day. Should the beef, and other articles of food, not be well digested, on account of a dyspeptic habit which frequently precedes this disease, slightly cooked eggs and rich animal soups may take their place. This course has been efficient in my hands in a large number of cases, where the early symptoms of phthisis were developed. But where the disease is farther advanced, with more or less anemia, cough and expectoration, with depression beneath the clavicle, feeble respiratory murmur, and dulness on percussion, and especially if there is connected with this a tubercular diathesis, then much effort will be required to prevent a disastrous encroachment of the disease. In this condition and stage of symptoms, the following treatment should be instituted.

A large double flannel cloth, within which has been quilted a liberal quantity of coarse salt, should be placed over the chest and back in such a manner as to protect both the anterior and posterior portions of both lungs. This salt pack should be changed from time to time, but should be worn until the disease is removed. And for supplying those deficiencies of the blood, which are such a prolific cause of pulmonary consumption, give the following compound :

℞ The white of eggs.....	xij.
Iron by Hydrogen.....	gr. xx.
Phosphate of Lime.....	ʒij.
Chloride of Sodium.....	ʒij.

Mix with one pint of best brandy, one pound of sugar, and one pint of water; dose one tablespoonful three or four times a day. In connection with this, the patient should exercise freely in the open air, and should make a liberal use of warm or cold baths, as the case may seem to indicate. If there are chills,

℞ Quinine	gr. xx.
Phosphate of Iron.....	gr. x.
Morphine	gr. jss.
White Sugar.....	gr. xxx.

Mix, triturate, divide into fifteen powders, and take one every three hours. If the first fifteen powders fail to interrupt the chills, they should be repeated from time to time, until they cease entirely. If there is troublesome cough, with dyspnœa, give the following mixture :

℞ Simple Syrup of Stillingia.....	ʒij.
Syrup of Tolu.....	ʒij.
Morphine.....	gr. ij.

Mix; dose, one teaspoonful three times a day, and oftener if required. If there appears to be bronchial irritation, from one-eighth to one-half a grain of Gelsemin should be taken at bed-time. If the salt pack should be removed

at any time during the treatment, the chest should be well protected by oil silk or flannel. In nearly all cases of pulmonary consumption, there is a deficiency of the natural covering, the hair. In fact, so general is this the case, that I have come to regard a deficiency of hair on the chest as one of the indications of a tuberculous diathesis. For the hair is not simply an ornament, but it serves to separate certain proportions of carbon, silica, sulphur and other materials from the blood. As the disease advances to the latter part of the second stage, other symptoms make their appearance, as diarrhæa, and a muco-purulent matter or pus, constituting the sputa, indicating a breaking down of the tuberculous deposit, with more or less affection of the glands of the bowels. To control the diarrhæa, no medicine is more effectual than the following :

℞ Sub-nitrate of Bismuth.....	gr. xx.
Quinine.. .. .	gr. xvj.
Pulverized Gum Arabic.....	gr. xxx.

Mix, triturate, divide into twenty powders, and give one every five or six hours until that symptom is controlled.

The method of treating this disease by introducing medicine into the system by inhalation, having received much attention of late, I will quote the remarks of Dr. Turnbull upon the subject, as they appear to embrace most of the facts essential to it.

“ Dr. Snow has shown, in a paper on the inhalation of various medicinal substances, that some must be inhaled by the aid of heat, such as opium, morphia, extract of stramonium, and the gum resins; others with heated vapor, such as iodine, camphor and creosote, and a third class of substances, such as hydrocyanic acid, ammonia and chlorine, at the ordinary temperature. Mead, in his day, recommended fumigations with the balsams in phthisical cases,

and Dr. A. T. Thomson (*Cyclopedia of Medicine, Art Expectorants*) has stated that he has seen much benefit derived from them, when inhaled in spasmodic asthma, in shortening the paroxysm, and promoting expectoration. Dr. Snow found that ammoniacum gives off a fragrant, rather pungent odor, which can be inhaled very well by most persons. He also found inhalation of the watery extract of opium serviceable in relieving the cough; but that morphia was the most pleasant and suitable preparation of opium for inhalation. Extract of stramonium afforded more or less relief in five or six cases of asthma.

He tried iodine in eighteen cases of consumption at Brompton Hospital; in ten of them it was continued for more than a month; and the conclusion to which he came, was that no benefit could be observed to follow its use. Oil of turpentine appeared to relieve the cough in a few cases, and likewise camphor. He used the volatile alkalioid conia in the quantity of one minim, diluted with nine of spirit; the cough was usually relieved, and in two or three cases the breathing also. It would seem, therefore, from its volatility at the ordinary temperature, to be a remedy peculiarly suitable for inhalation, if it could be obtained more easily. Dr. Snow also found great relief in a few cases of bronchitis with difficult expectoration, from inhaling ammonia, twenty drops of the strong solution being mixed with two ounces of water in a Woulfe's bottle. Chlorine has been used for inhalation; it was introduced for this purpose in France, and there is good reason to believe that it has proved of material service in cases of chronic bronchitis, and even in some of phthisis.

With reference to its use in this latter disease, Dr. James Clark has observed, "We have tried it in many instances, and it has in several, apparently suspended the progress of the disease." He also states that it relieved dyspnoea and cough in some cases, though in the majority

it procured no amelioration. Dr. A. T. Thomson has likewise stated, that in cases of asthma, the relief it produced was very striking, and that in phthisis, he had observed the hectic symptoms abate.

Of the various remedies now mentioned, it is probable that gum resins and balsams, camphor, conia, and chlorine, are the most suitable and useful for inhalation; but it does not appear that by inhalation of opium, or morphia, very decided advantage has been gained over the ordinary mode of exhibiting them.

The vapor of tar was formerly recommended for inhalation, and few medicines have been more used for this purpose than creosote. Sir Alexander Crichton, in 1823, strongly recommended tar vapor in consumption; but Dr. Forbes, in a report of cases in which he had tried it, published in the *Medical and Physical Journal*, stated that he found it injurious in this disease, though of service in some cases of chronic bronchitis. He appears, however, to have used it in cases so far advanced, that no benefit could reasonably have been expected from its employment. Creosote has now superseded the use of tar vapor, which does not, from its irritating properties, seem well suited for inhalation, though there can be very little doubt, when we consider the healing power it has in external application, that it must exert a similar effect upon the lungs, if it could be used in such a form as to obtain its beneficial influence apart from its irritating properties. Creosote is perhaps more generally used by the profession for the purpose of inhalation, than any other remedy; and I believe that when sufficiently diluted with vapor of water, it is one of the most useful. I have found that it has a sedative influence, relieving cough and promoting expectoration, whilst it at the same time not unfrequently lessens the quantity of this secretion, both in consumption and bronchitis. I have already observed

that the pyrogenic bodies act upon the mucous and cutaneous surfaces; and my attention has been directed to other bodies of this class, by the fact that many of them have remarkable healing properties, when applied to ulcers and chronic cutaneous eruptions, a fact which leads me to expect that this class of bodies may, when fully investigated, furnish a suitable remedy for promoting the healing of pulmonary ulcers, and thus supply the desideratum to which I have previously alluded. Many of the pyrogenic bodies possess such healing properties in cutaneous diseases, in a greater or less degree. From my own experience, I know that ointments, made with tar, creosote, spirit of tar, juniper tar oil, and naphthaline, have such properties, and are valuable remedies in the treatment of skin diseases.

The inference drawn from these facts, has led me to use for inhalation, some other pyrogenic bodies, viz: spirits of tar, juniper tar oil, Persian naphtha, and enpione. The spirit of tar possesses the healing virtues of tar without its irritating effects; so much so, that I think it might advantageously supersede the crude substance as an external remedy. It is more readily volatilized than creosote; and when inhaled, it produces generally a mild, stimulating, and often rather a soothing effect upon the lungs. In some instances, however, it has appeared to increase the cough and expectoration, and it is not, therefore, suited for bronchitis, until inflammatory action has been subdued completely; or for cases of consumption, until progress has been made in arresting the disease. Without wishing to speak confidently of the remedy, I may state that it has appeared useful in some cases of the latter disease, in conjunction with other treatment. Juniper tar oil (*oleum codinum*), which is a valuable remedy in skin diseases, and much used on the Continent, is less volatile than spirits of tar, and is less irritating when

inhaled. Persian naphtha and eupione possess decided anæsthetic properties; the former, when inhaled along with the vapor of water, has in some instances relieved difficulty of breathing in a very remarkable and decided manner; and this fact renders it worthy of trial in spasmodic asthma. Eupione has decided sedative properties: it has relieved cough and difficult breathing, and patients have slept well after using it; but it is not a pleasant remedy to inhale, and it has not unfrequently produced sickness afterwards, so that I should not recommend it to be used for this purpose.

I have used several of the essential oils for the purpose of inhalation. Many of them possess decidedly anti-spasmodic properties, and I have found that they have a remarkably strong power over difficulty of breathing, a property which renders them peculiarly suitable for relieving spasmodic asthma. The oil should be dissolved in spirit, and inhaled with the vapor of water, so as to dilute its stimulating properties. The oils of cubeb and copaiva, which are hydro-carbons, are mild in their action, and produce very little stimulating effect. The oxygenated oils which I have used appeared to be more stimulating in their action on the air-tubes, and some of them have stronger anti-spasmodic and expectorant properties. The oils of anise and peppermint are very stimulating, and in general cause too much irritation. Oil of spearmint is milder and antispasmodic, relieving difficulty of breathing in asthma, and even in phthisis. Oil of fennel is also mild. The oil of origanum is moderately stimulating and expectorant. I have also used the oils of rosemary and pimento, which have similar properties. The hydruret of benzyle, which is the oil of bitter almonds deprived of its prussic acid, is very irritating and much too stimulating for inhalation. Chloroform is a remedy which has been much used by some medical men for the purpose of inha-

lation, not only in asthma, but, in a small quantity, in consumption, in order to relieve irritable cough. In some cases I have dissolved the essential oils in chloroform, and used them in this way for inhalation, their volatility being thus so much increased that they may be given on a handkerchief, as chloroform is usually administered.

In addition to the remedies spoken of by Dr. Turnbull, Carbonate of Ammonia, Nitrate of Silver, Sanguinaria and Veratrum Viride have been quite extensively used by different physicians, and in some cases to much advantage. The oil of Erigeron, spoken of by Dr. Turnbull, I have used quite successfully in several cases of hæmoptysis, connected with phthisis, but whether it acts more efficiently in this way than when introduced into the stomach, I am not prepared to say. If the inhalation of medicine be resorted to, the introduction of medicine into the stomach should not be neglected. We can readily conceive how ineffectual a treatment exclusively by inhalation must prove, since the well established pathology of this disease shows the local affection of the lungs to be only one of the unhealthy products of the constitution. In this stage of the disease, much benefit will be derived from the use of diuretics to relieve the blood from the excess of uric, and other acids, with which it becomes overcharged, and also of the disintegrated tissue which accumulates in the system, owing to imperfect respiration. Among the best diuretics to accomplish this object is the following :

R Pipsissewa	ʒj.
Indian Hemp	ʒjss.
Marshmallow	ʒj.

Bruise all together, and make one quart of syrup with white sugar, and add one half pint of best gin, and let the patient take from one half to one wine glass full four or five times a day.

For the purpose of procuring rest at night,

℞ Quinine.....	gr. x.
Scutellarin	gr. xv.
Gelsemin.....	gr. ij.
Iron by Hydrogen.....	gr. xij.

Mix, divide into ten powders, and give one every night at bed-time.

Where there is great emaciation and debility in this stage, for supplying material for combustion, and for increasing the quality and quantity of blood :

℞ Cod Liver Oil.....	℥j.
Good Brandy.....	℥ss.
Chloride of Sodium.....	ʒij.
Phosphate of Iron.....	ʒjss.

Mix, and shake well before using. Dose, one tablespoonful three or four times a day. If there is much bronchial irritation in connection with tuberculous affection,

℞ Syrup of Stillingia.....	ʒij.
Tct. of Veratrum Viride.....	ʒss.

Mix, and give thirty drops three or four times a day.

For the purpose of promoting absorption of the already existing tuberculous deposit, Prof. John Fondey, Emeritus Prof. of Theory and Practice of Medicine in the Eclectic Medical College of Pennsylvania, who has had great experience in the treatment of this class of diseases, places much reliance on the use of electricity.

In his treatise upon this subject, p. 68, he thus remarks : "The electro-magnetic machine constitutes one of the most powerful means that we possess, to accomplish the results so desirable in the treatment of this disease. What we want in the remedies which we employ, is some power that will excite the contractility of the coats of the vessels, of the enlarged absorbent glands, as well as of the lymphatic vessels ; give strength to the magnetic organization of the

part, and promote the absorption of the deposits that may have occurred in and around these glands and vessels."

Dr. Cartwright, of New Orleans, who has published several very interesting articles upon the nature and treatment of tuberculous affections of the lungs, cites quite a number of cases where absorption of the tuberculous deposition was effected by the inhalation of the vapor of sugar.

I have generally obtained the most satisfactory results in promoting the absorption of tuberculous deposits by the use of Iodide of Potassium, in connection with mucilage. The mucilage prevents the irritating effects of the Iodide of Potassium on the bowels. The chest should be thoroughly bathed twice a day with a liniment made as follows :

℞ Oil of Stillingia	ʒj.
White of three eggs.	
Oil of Turpentine	ʒij.
Chloride of Sodium	ʒij.

Mix, and shake well together. During the entire treatment of this disease, the strictest attention should be given to bathing, diet, and exercise in the open air. Every means should be resorted to which has a tendency to improve the general health of the patient. Where the disease assumes a periodic character, the greatest benefit will be derived from administering a liberal quantity of Quinine and Iron every seven or eight days. When the disease is complicated with other local difficulties, such as leucorrhœa, spermatorrhœa, &c., they should receive especial attention.

HÆMOPTYSIS.

By hæmoptysis we understand expectoration of blood. It may occur from the mucous surface of the bronchial tubes, by extravasation of blood into the pulmonary tissue, &c., or from the corrosion of a blood-vessel on the wall of a tuber-

culous vomica. It is also said to occur from the granulated surfaces in phthisis. The most common cause of the disease in females, when it occurs from the mucous surface of the bronchi, is vicarious menstruation, which takes place about the period of the catamenia. In these cases, for some time previous to the attack, there will be observed a diminution in the catamenial flow, accompanied by anæmia. Indeed, we have reason to suspect that, in connection with the catamenial derangement, there is tuberculous affection of the lungs. I do not recollect, out of a large number of cases, a single exception, and in quite a number of cases, it has terminated in acute phthisis. When the blood escapes from the bronchial mucous surface, it may be detected by the bubbling liquid rhonchus in the bronchi. The discharge is generally preceded by more or less constitutional disturbance, such as constipated bowels, furred tongue, and cough, which is often persistent, and accompanied with great dyspnœa. Where it occurs from the rupture of corroded blood-vessels, the premonitory symptoms are quite obscure, and the discharge of blood is very sudden, with violent cough and dyspnœa. The physical sign is the mucous *râle*. When it occurs from the granulated surface of the pulmonary tissue, or from pulmonary apoplexy, a correct diagnosis of the case may be made from its previous history, together with the rational and physical signs. The general symptoms of hæmoptysis are dulness, cold extremities, followed by flushes of heat, and red cheeks. The discharge from the lungs is attended with dyspnœa, pain, and oppression of the præcordia, a sense of rawness in the throat, and a sweetish taste in the mouth. The expectoration consists of bright, frothy, or black and clotted blood, sometimes mixed with mucus. Says *Laennec*: "When the hemorrhage is very great, it comes on with a moderate degree of cough, and is accompanied with a convulsive elevation of the diaphragm

like that which takes place in vomiting. Auscultation furnishes us with two signs of pulmonary apoplexy, absence of the natural respiratory sound over a circumscribed space and crepitant *râle* around this space.

TREATMENT.

Where this disease is dependent upon derangement of the catamenia, the feet should be placed in warm water, and hot sinapisms applied to the back and lower portions of the bowels, and from five to ten grains of pulverized matico given every fifteen or twenty minutes until the hemorrhage ceases. Or, put one drachm of the oil of Erigeron in a pint bottle, fill it with hot water, and cause the patient to inhale the vapor. Either of these remedies will arrest the hemorrhage. Or, in the absence of other remedies, a teaspoonful of a strong solution of salt and water taken every five or ten minutes, will frequently prove effectual. As soon as this symptom is removed, the patient should be put upon a treatment as directed under the head of irregularities of the catamenia. Where hemorrhage occurs from the rupture of large vessels, ligatures should be applied to the legs and arms, and the patient caused to inhale a strong vapor of the oil of Erigeron, and at the same time from five to ten grains of the matico should be given every fifteen or twenty minutes, until it is arrested. During the active hemorrhage, the ligatures should be so adjusted as to retain the main volume of blood in the extremities, which should only be allowed to return by degrees after the bleeding has ceased.

As this form of hæmoptysis is always connected with phthisis, the patient should be treated accordingly. If it arises from pulmonary apoplexy, the ligatures should be used as in the other case. A hot sinapism should also be applied to the chest, and the surface should be thoroughly bathed in hot whiskey and capsicum, for the purpose of

diverting the blood from the deep capillaries of the lungs to the superficial capillaries. Also, administer the matico with small doses of Lobelia and capsicum every fifteen or twenty minutes. The bowels should be moved by a stimulating injection, and the patient allowed to hold ice in his mouth.

As soon as the hemorrhage ceases, the circulation should be controlled by the use of Aconite. As this form of hæmoptysis is connected not only with phthisis, but also with pneumonia and scurvy, the primary cause of the affection should be treated according to the nature of the case, and the condition of the patient.

BRONCHITIS.

Inflammation of the mucous membrane of the bronchi is one of the most common forms of pulmonary disease. It may be either acute or chronic. In the acute form, coryza, sore throat, hoarseness, and slight rigors, are the first symptoms. There is also lassitude with more or less pain in the limbs. As the disease advances there is a sensation of heat and soreness or rawness of the bronchial surface, accompanied by pain on coughing, and oppressed breathing. There is a persistent cough, with an expectoration of frothy mucus of a saline taste. In a more severe form of the disease, the small capillary tubes, as well as those of a medium and large size, are implicated. In this form of the disease the pulse is extremely frequent; there is great dyspnœa, a cyanotic appearance of the countenance, coldness of the body, difficult respiration, and a marked tendency to asphyxia. In these cases the vital powers rapidly become exhausted, and unless relieved by timely treatment, delirium with fatal coma terminates the patient's existence.

Physical Signs.—In certain cases slight dulness on percussion will be detected. In protracted cases, a considerable amount of dulness may be observed at the base of the lung, owing to the gravitation of the excreted fluid. On auscultating the chest, the respiratory murmur will be found weakened, and in some instances entirely suppressed. There is sonorous, sibilant, and mucous rhonchus in various combinations. The sonorous and sibilant rhonchus is most marked in the early stage of the disease; the mucous in the second. But both are frequently combined in the second stage. In capillary bronchitis, in addition to the above signs, there is sub-crepitant rhonchus at both bases, posteriorly, with a fine mucous r le higher up. If the fine mucous r le is predominant, it most positively indicates inflammation of the capillary bronchial tubes.

TREATMENT.

The surface should be thoroughly bathed in hot lye water, and the patient placed in bed with a warming poultice applied over each lung. From five to ten drops of the Tinct. of *Veratrum Viride* should be given every half hour until the active symptoms of the disease disappear. As soon as this occurs—

R Quinine	gr. xv.
Gelsemin	gr. jss.
Iron by Hydrogen	gr. x.
Pulverized Acacia	gr. xx.

Mix, and triturate; divide into eight powders, and give one every two hours. After which, if there are any lingering symptoms, small doses of the Tinct. of *Aconite* should be given. To relieve the cough, if any should remain, the acetic Syrup of *Sanguinaria* should be used as indicated. The patient's strength may be maintained by the use of chalybeates, vegetable tonics, and a nutritious diet.

CHRONIC BRONCHITIS.

This, like other forms of chronic inflammation, frequently succeeds the acute form, although it may occur in a slow and insidious manner, without being preceded by an acute form of the disease.

It attacks individuals of all ages; but is most frequently met with in the aged, and those who are much exposed to the inhalation of dust. When the disease succeeds to acute bronchitis, the febrile symptoms disappear; but the pulse still remains frequent, and the cough and difficulty of breathing prove persistent, although these symptoms are materially relieved by free expectoration. There are still nightly exacerbations, and irregular sleep. The expectoration is copious, opaque, and in some instances, puriform. Night sweats are frequent, occasioning great debility. If the disease should not be relieved, the cough will become croupy, the expectoration more copious, the dyspnoea increases, there is diarrhæa, and death soon follows.

Physical Signs.—These are sub-crepitant, mucous, sibilant, and sonorous rales. It is said by Laennec, that we frequently have all the sounds in chronic bronchitis quickly following each other, which he calls, "*cantus omnium avium*" (the song of all the birds). If the disease is mostly confined to the extreme ramifications of the bronchi, the sub-crepitant rale will be predominant; if the larger tubes, the sibilant. If the larger tubes are the seat of the disease, the sonorous rale will indicate it.

TREATMENT.

In the early stage of chronic bronchitis:

R Compound Syrup of Stillingia.....	Oss.
Iodide of Potassa	ʒj.

Mix, and take one teaspoonful every five or six hours. A salt pack should be applied to the chest, and occasionally moistened with equal parts of the Tinct. of Iodine and Aconite. If there are night sweats, and periodical exacerbations :

℞ Quinine	gr. xx.
Iron by Hydrogen	gr. x.
Cream of Tartar	gr. xxx.

Mix, triturate, divide into eight powders, and give one every four or five hours. If there is much debility, a liberal use should be made of porter, ale, or brandy, together with a nutritious animal diet. Where there is much irritation of the upper part of the bronchi, benefit is sometimes derived from the use of astringent gargles. Also by inhaling the vapor of Aconite or Lobelia.

If the cough is troublesome at night, a small dose of Lupuline, Morphine, and Prunin, may be taken at bedtime. When the disease assumes a tuberculous character, it should be treated as in phthisis.

EMPHYSEMA.

This term applies to air in the cellular tissue, all portions of which are liable to the affection. The sub-cutaneous is the most so; but all the prolongations of this tissue through the body communicate with it by the areolar structure. Thus the air when effused into the cellular tissue may pervade nearly every tissue of the body.

There are three ways by which air may make its ingress into the cellular tissue. 1. By a wound of the integument. This is termed traumatic emphysema. 2. By the development of gas within its cells. 3. By a fistulous opening through the lung, communicating with the pleural cavity.

The diagnosis of emphysema is seldom difficult. As when air accumulates in the cavity of the pleura, it will readily be distinguished from empyema, by the resonance on percussion. And when it accumulates in the cellular tissue, the swelling is uniform and light, and yields a peculiar crepitant sound upon pressure, caused by the removal of the air from one cell to the other.

The prognosis will depend upon the cause of the emphysema and the state of the respiratory organs.

TREATMENT.

In the treatment of this disease the object should be to arrest its progress by preventing a further accumulation of air in the cellular tissue, and to remove that already accumulated. In spontaneous emphysema the only effectual method of arresting the disease is to correct the morbid state of the system, which gives rise to it. When it proceeds from asthemic and typhoid disease, Quinine and Iron with a liberal diet will generally arrest its progress. By scarification, the air which has previously accumulated, will make its escape. In emphysema arising from wounds, by enlarging the wound so as to give free exit to the air, the difficulty may be relieved. Where it occurs as the effect of a fistulous opening into the pleura, the inhalation of the vapor of nitrate of silver, together with astringents, will generally effect a cure. If there is tuberculous affection of the lungs, it should be treated as directed under that head.

NEPHRITIS, OR INFLAMMATION OF THE KIDNEYS.

SYMPTOMS.

There is an acute pain in the region of the kidneys, with some fever, and a dull pain in the thigh of the affected side. The urine is at first clear, but soon becomes of a

dark red color. The patient feels great uneasiness when he attempts to walk or sit upright. He lies easiest on the affected side. The pulse is, at first, hard and full, but in the course of a few days, it becomes small, weak, and quick. The skin is hot, and the tongue covered with a dark brown coat.

TREATMENT.

Apply hot wet packs over the region of the kidneys, and give freely of the syrup of Marshmallow, Cliver tea, &c. Also, give the following compound :

R Sweet Spirits of Nitre	ʒj
Tinct. of Aconite	gutt. xxx.
Gelsemium	ʒii.

Mix, and give fifteen drops every two or three hours as the case may indicate. If the disease should prove obstinate, a mild alterative of Euonymine should be given at bedtime, and Digitalis and Cream of Tartar should be substituted for the Aconite and Gelsemium. The patient should keep quiet, and in bed, and the diet should be of a light vegetable character.

CYSTITIS, OR INFLAMMATION OF THE BLADDER.

Inflammation of the bladder very much resembles that of the kidneys in its symptoms. But there may be acute pain and tension at the lower part of the bowels, and difficulty of urinating, with constant inclination to do so, and also to go to stool.

TREATMENT.

The bowels should be thoroughly evacuated by Jalapin and Neutralizing mixture. The patient should be placed in bed, and hot packs should be applied over the region of the bladder. The bladder should be injected with a

luke-warm mucilage of slippery elm, and the patient caused to drink of Marshmallow, flaxseed, slippery elm, &c. If the inflammation is not thus controlled, give the following compound :

℞ Pulverized Acacia	gr. xx.
Soft Water	℥ii.
Sweet Spirits of Nitre	℥ss.
Tinct. Veratrum Viride	gutt. xx.

Mix, give one half teaspoonful every half hour until the symptoms are controlled. Continue the mucilage until the patient is completely free from the disease.

HEPATITIS, OR INFLAMMATION OF THE LIVER.

SYMPTOMS.

The diagnostic symptoms of this disease are tension of the right side, under the false ribs, attended with fever, difficulty of breathing, anorexia, thirst, and a pale and yellow appearance of the skin and eyes. When the inflammation is extensive, the pulse becomes quick and hard, and sometimes irregular. The patient is troubled with a dry, hacking cough, and a constipated condition of the bowels; although, in the latter stage of the disease, and in warm climates, there is sometimes a diarrhœa with bilious vomiting, great tenderness in the hypochondrium, and dulness on percussion.

TREATMENT.

A hot sinapism should be placed over the region of the liver. The surface should be bathed in warm lye water, and the following compound be given :

℞ Euonymin	gr. xx.
Sanguinarin	gr. x.
Bitartrate of Potassa	gr. xxx.

Triturate, mix; divide into ten powders, and give one every three hours. At the same time, if there is fever, give from ten to twenty drops of the Tinct. of Gelsemium so often as to maintain a gentle moisture of the skin.

When the sinapism has produced irritation of the surface, it should be removed and hot packs applied instead. If the disease should still prove persistent, the following compound must be substituted for the first :

℞ Muriate of Ammonia	gr. xx.
Irisin	gr. x.
Gelsemin	gr. j.

Triturate, mix, divide into ten powders, and give one every two hours until all are taken, or until the disease is removed. If the disease should assume a chronic form, a pill of the extract of Dandelion and Capsicum should be given two or three times a day. If the bowels should become constipated from a deficient secretion of bile, give the following compound :

℞ Syrup of Boneset.....	Oss.
Common Salt.....	ʒi.
Sulphur	gr. xxx.

Mix, and give one teaspoonful three times a day, and let the diet be free and nutritious.

ASTHMA.

SYMPTOMS.

The symptoms indicating asthma are various. Some of them are premonitory, and, by those who are accustomed to the affection, are understood as warnings of an approaching attack. Among these are loss of appetite, flatulence, eructation, languor, irritability, drowsiness, oppression and chilliness. Perhaps he retires at night with a sense of uncomfortableness.

It is very common for an attack actually to commence sometime after midnight, or about 2 or 3 o'clock in the morning, and the general signs are much like the following :

Often the person is aroused from sleep by a feeling of constriction across his chest, or inability properly to expand it. He raises himself in bed, and sits bowing forward, perhaps with his elbows resting on his knees, drawn up before him. His breathing is labored, and attended with a wheezing noise, often so loud as to be audible in another apartment, or at a distance.

He asks for more air to be admitted into the room, and makes a strong voluntary effort to expand his chest in inspiration, and to contract it in expiration; or, if able, he rises from his bed, and hastens to a door or window, at which, however cold the weather, he often long remains. The labor of respiration gives warmth to his body, and he often perspires freely. His extremities, however, are liable to become cold, and his countenance is generally distressed, pale and haggard, though sometimes it is red and turgid. Often the pulse is small, feeble and irregular, though sometimes it is scarcely disturbed. Sometimes the heart palpitates, and flatulency becomes troublesome; the urine becomes copious and pale, and even the fæces are passed with the impatient hurry of spasmodic action. The speech of the sufferer is interrupted and difficult, and there is a propensity to cough, which he sometimes favors with the hope of forcing away the impediment to his breathing.*

TREATMENT.

In the treatment of this disease, the first thing to be attained is the relief of the excessive dyspnoea. For this purpose, give the following mixture :

R Tinct. of Gelsemium.....	ʒj.
“ Lobelia	ʒss.

Mix, and give fifteen or twenty drops every ten or fifteen minutes, till the paroxysm passes off. After which, give the following compound :

R Quinine.....	ʒij.
Cornine	ʒiij.
Compound Syrup of Stillingia.....	Oj.
Phosphate of Lime.....	ʒj.

Mix, and give from one half to one teaspoonful three times a day, during the interval between the paroxysms of dyspnœa. Whenever the paroxysms return, the Gelsemium and Lobelia should be repeated. But as soon as relief is obtained, the alterative and antiperiodic should be resumed. Other medicines, such as Chalybeates and vegetable tonics, if required to maintain the integrity of the constitution, should be given. The above course, if persisted in, will seldom fail to remove this very troublesome disease.

CHOLERA MORBUS.

Cholera Morbus is a violent purging and vomiting, with griping, sickness, and a constant desire to go to stool.

It is occasioned by a redundancy of bile, by the fermentation of food on the stomach, such as cucumbers, melons, sweet-meats, cherries, and all unripe fruit. Also exposure to damp night atmosphere.

SYMPTOMS.

It is generally preceded by Cardialgia, sour stomach, flatulency, and pain in the bowels. As the disease advances, the pulse becomes very feeble, and the surface cold and clammy. The urine is scanty, and there is almost constant vomiting and purging.

TREATMENT.

℞ Neutralizing Mixture.....	ʒij.
Tinct. of Prickly Ash Berries.....	ʒj.

Mix, and give from 30 to 60 drops every fifteen or twenty minutes, till the vomiting and purging cease. Apply a hot sinapism over the region of the stomach and bowels, and place jugs of hot water about the patient. If the use of the above mixture for a proper time does not afford relief, give the following :

℞ Pulverized Camphor.....	gr. x.
“ Capsicum.....	gr. xv.
Oil of Peppermint.....	gutt. iij.
Morphine	gr. j.

Triturate, mix, divide into ten powders, and give one every half hour. At the same time, give the patient freely of rice coffee, made by scorching the rice and preparing it as common coffee. If the disease assumes a periodic character, some of the antiperiodic compounds should be given for the purpose of interrupting its periodicity. After the vomiting and purging cease, mild alteratives should be given, as *Euonymine*, *Hydrastin*, &c. The diet should consist of rice, dropped eggs, broiled beef, &c. The patient should avoid exposure to the sun, and violent exercise, until completely recovered.

CHOLERA, EPIDEMIC OR CHOLERA ASPHYXIA.

This disease began to excite general attention in 1817. It commenced in Bengal in India, from which place it has scarcely been absent since. In 1818 it passed on to the Coromandel coast, and in the same year to Malabar, the Burmese Empire, Sumatra and Ceylon. In 1820 it spread

to China, and successively throughout the larger portion of Eastern Asia, and to the islands of the Mediterranean, to Arabia, Mesopotamia and Syria. In 1821 and in 1822 to Persia. In 1831 it appeared in Prussia and in Austria. In June of the same year it appeared in St. Petersburg, in October at Hamburg and London. On the eighth of June, 1832, it first made its appearance on the American Continent in Quebec, and in a few days at Montreal. On the 24th of June in New York, on the 3d of July in Albany, on the 5th of July in Philadelphia, on the 30th of September in Cincinnati, from whence it spread to Madison, Louisville, St. Louis, Maysville, Wheeling, and made its way to most of the important towns in the United States.

It reappeared in America in 1848, where it has prevailed as an epidemic or in a sporadic form ever since. Its fearful ravages and well-known fatality, have elicited on the part of the medical profession, the most anxious inquiries, in regard to its cause and *pathology*.

SYMPTOMS.

Malignant cholera, like most other epidemic diseases, presents a great diversity of symptoms. Its attack is usually violent and sudden, but mostly preceded by certain premonitory symptoms, such as a furred tongue, diarrhæa, with a complete loss of the digestive powers, and sometimes with headache and ringing in the ears. After these symptoms have continued for a longer or shorter time, the patient is attacked with violent Cardialgia or heart-burn, soon followed by nausea and vomiting, with a profuse colliquative diarrhæa. The discharges from the stomach and bowels resemble rice water. These symptoms are soon followed by great weakness and sense of exhaustion.

The powers of locomotion are speedily arrested, and

spasms affecting the whole of the muscles of voluntary motion, but particularly those of the arms and legs, come on. The pulse becomes small, weak, and accelerated, the respiration labored, the tongue flat, white, and moist. These symptoms are soon followed by a sense of pain, and burning heat in the stomach, and great desire for cold drinks. The skin becomes cold, corrugated, and covered with a clammy sweat. The lips, limbs, and at times the entire body, have a peculiar livid hue.

The pulse decreases until it is no longer felt at the wrist, the respiration is slow and feeble, the breath is cold, the eyes are sunken, and surrounded by a livid circle. At this stage there is no secretion of the bile and urine, and the vomiting, purging, and spasms abate. The powers of the mind seem unimpaired, for the patient continues to answer questions freely; but he frequently expires in this stage suddenly and without a struggle.

The limits of this work will not permit me to enter into the details of the different varieties of this disease; but suffice it to say, it often runs an entire course to a fatal termination, without vomiting or cramp, but characterized by the peculiar diarrhæa. Again the diarrhæa may be absent, and the vomiting be the principal symptom. The rice-water evacuations, together with the excessive prostration, are sufficient to distinguish it from cholera morbus.

TREATMENT.

The indications to be fulfilled in the treatment of Cholera, are to arrest the diarrhæa and vomiting, and to produce reaction, or to equalize the circulation, by inducing the blood from the deep-seated, to the superficial capillary vessels. For the purpose of arresting the vomiting and diarrhæa, small doses of Camphor, Capsicum, and Morphine, should be given every ten or fifteen minutes, in a small quantity of Neutralizing Mixture: say,

R Pulv. Camphor.....	gr. v.
Capsicum	gr. x.
Morphine	gr. j.

Triturate, mix, divide into ten powders, and give one every fifteen or twenty minutes in one half to one teaspoonful of Neutralizing Mixture, until the nausea and vomiting cease. At the same time the patient should be placed in bed in a recumbent posture, which should be maintained during the entire active stage of the disease. The body should be thoroughly bathed in equal parts of lye water, and Tinct. of Capsicum. Also apply sinapisms along the spine, calves of the legs, abdomen and arms. They should be applied hot, made up of good ground mustard, and wet with hot vinegar. If there is thirst, hot rice coffee should be freely given. Also toast water and essence of beef, prepared as directed in the treatment of typhoid fever. If the nausea, vomiting, and diarrhæa, do not yield to the above treatment, the following compound may be given :

R Tinct. of Prickly Ash Berries.....	ʒiij.
Neutralizing Mixture.....	ʒiij.
Tinct. of Capsicum.....	ʒiij.

Mix, and give one teaspoonful in hot peppermint sling every five or ten minutes. Also inject the bowels with the following mixture :

R Starch Water	Oss.
Tinct. of Xanthoxilin Berries.....	ʒij.
Morphine.....	grs. iij.

Mix, and give six ounces as an injection after each passage from the bowels. If reaction should not follow these measures, hot brandy toddy may be given in connection with them every half hour. If there should be cramp with the vomiting and diarrhæa :

℞ Gelsemin	gr. ij.
Hyosciamin.....	gr. j.
Pulv. Camphor.....	gr. ij.
White Sugar	gr. xxx.

Triturate, mix, divide into ten powders, and give one every half hour, or oftener, as the case seems to indicate.

If the discharges continue, and the patient be prostrated, the following compound will often be successful :

℞ Rhusin	gr. xij.
Quinine	gr. x.
Piperine	gr. xx.
Hydrocyanic acid	gutt. iij.
White Sugar.....	gr. xxx.

Mix, triturate, divide into twenty powders, and give one every thirty minutes. If the sinapisms produce too strong counter-irritation, they should be taken off, and large hot packs applied in their place. If the reaction should be followed by fever, Aconite should be given in quantities sufficient to control the circulation, and maintain moisture of the surface.

Where the patient has passed into the collapsed state, the following compound is valuable :

℞ Xanthoxylin	gr. xx.
Piperine	gr. x.
Oil of Capsicum.....	gutt. x.
White Sugar.....	gr. xxx.

Mix, divide into ten powders, and give as often as the symptoms indicate the necessity.

Shocks of electricity, passed through the stomach and liver, have been reputed of much value. Also highly stimulating diuretics, such as oil of Turpentine, Hemlock, Wintergreen, &c.

The following compound was used with much success by my colleague, the late Dr. Hotchkiss :

R Chloroform	ʒii.
Tinct. of Camphor	ʒii.
— Tinct. of Opium	ʒi.

Mix, and give from ten to twenty drops every twenty or thirty minutes, as the case may be. As soon as the active stage has passed off, the patient should take freely of fluid nutriment containing the elements of the blood, for the purpose of restoring its exhausted condition. Also, he should remain quiet and in bed, and avoid both mental and physical exertions.

SMALL-POX, OR VARIOLA.

SYMPTOMS.

The premonitory symptoms of this disease do not vary much from those of ordinary bilious fever.

It is generally preceded by more or less languor, anorexia, headache, and constipation of the bowels. When these symptoms have continued for two or three days, the patient is seized with violent pain in the back, increased pain in the head and limbs, great restlessness; the pulse becomes accelerated, and the skin is hot and pungent. The eyes are suffused, and in some cases the fever is alternated with rigors or chills. On the fourth or fifth day of the disease, small red spots make their appearance on the face and neck, which gradually diffuse themselves over the entire body.

The eruption is at first pustular, but in the course of eight or ten days becomes vesicular at the apex, yet still remaining pustular at the base. The vesicular portion of the pustule has a cupped appearance, while the base remains white and opaque. Maturation commences from the tenth to the fifteenth day, at which time the pustules become covered with a mahogany-colored scab, terminating in desiccation and desquamation, and leaving a deep

pit. At this stage the patient generally has a fresh attack of fever, called the secondary fever. When the pustules are very numerous, and run into each other, the disease is called confluent small-pox. This is decidedly more violent than the simple form.

There is extensive œdema of the face and lower extremities, and inflammation of the fauces, lungs, and in some instances, the brain; and the disease not unfrequently terminates in consumption, blindness, and ulceration of the intestines.

TREATMENT.

In the treatment of small-pox, much diversity of opinion exists among eclectic physicians; but the treatment about to be described has not only proved universally successful in my own practice, but in that of several of my colleagues, who have had the most ample experience in this disease.

If called in the early stage, the first thing to be done is to give the patient an active cathartic of Podophyllin and Antibilious physic. The patient should then take a thorough spirit-sweat, after which the body should be thoroughly bathed in hot lye water, and the patient placed in bed, in a room well ventilated. The following compound should then be given:

℞ Bayberry Bark, Pulv.	ʒss.
Ginger, Pulv.	ʒj.
Macrotys, Pulv.	ʒij.
Capsicum	ʒj.

Mix, put it in one quart of water, steep for fifteen or twenty minutes, strain, sweeten, and give two or three tablespoonfuls every hour during the development of the disease. If there is fever, give Aconite to control it, and small doses of diaphoretic powders at night to procure rest, if necessary. The surface should be bathed in lye water and whiskey three or four times a day.

If the pustules should not fill well, and the strength of

the patient should fail, small doses of equal parts of Hydrastin and Quinine should be given three or four times a day. Also, give milk punch, beef tea, and such other articles of diet as are easy of digestion and nutritious. Collodion should be applied as a wash morning and evening, to prevent being marked by the eruption. If the disease be of the complicated variety, the constitutional symptoms will require more attention.

If the lungs become affected either by congestion or inflammation, they should be relieved by Lobelia and Capsicum. If the liver is thus diseased, Euonymine and Lepandrin may be used. If the glands of the bowels should become diseased, Hydrastin and the Nitrate of Silver pill as directed under the head of Typhoid Fever, should be given.

The fever should be controlled as in the simple form, and the patient's strength maintained by the use of beef tea, wine, porter, vegetable tonics, Chalybeates, &c.

RUBEOLA, OR MEASLES.*

In our humble opinion, this is both a contagious and infectious disease, affecting, in this climate, children and adults with almost equal severity; the disease is inflammatory, affecting at once the skin and gastro-pulmonary mucous membrane; in which, after catarrhal fever has continued about three days, a rash appears on the skin, at first in small stigmatized dots, not unlike flea-bites, which presently coalescing, form patches of a crescent or semi-lunar form; first on the face, and thence spreading gradually downwards over the whole body and limbs, at the end of four days they disappear by desquamation of the cuticle. In short, the symptoms which usher in an attack of measles, are the symptoms of coryza and catarrh.*

* Massie's Practice of Medicine.

TREATMENT.

In the great majority of cases, but little treatment is necessary, save to have the patient confined to the house, which should be kept of an agreeable temperature, and freely ventilated. The clothing should be changed daily, and the bowels kept regular by small doses of Neutralizing Mixture and Leptandrin.

Should symptoms of Pneumonia, Bronchitis, or Laryngitis make their appearance, an emetic of Lobelia and Sanguinaria should be administered, together with the warm bath and laxative enema. As soon as the effects of the emetic have passed off, the following compound should be given, if a child over eight years of age; if younger, in proportion to the age:

R Triturated Belladonna.....	gr. x.
Sulphate of Cinchonin	gr. xx.
Triturated Leptandrin	gr. xx.

Mix, divide into ten powders, and give one every two hours; also give freely of warm sage tea.

If there should be fever, and pain in the head, five drops of Aconite, added to three ounces of water, and a teaspoonful given every half hour, will soon control it.

If, as sometimes happens, the patient should be seized with convulsions, small doses of equal parts of Lobelin and Scutellarin, given every ten or fifteen minutes, will relieve them.

The surface should be frequently sponged, and if there is heat in the head, moderately cold packs should be applied and continued until the head is relieved.

The diet should be light, and taken in small quantities. If Ophthalmia makes its appearance during the disease or afterwards, mild zinc ointment should be used, and the eyes should be frequently bathed in warm milk and water.

VARICELLA, OR CHICKEN-POX.

This is a contagious disease, and in its first appearance, bears some resemblance to small-pox.

SYMPTOMS.

Small, pointed, transparent red vesicles, some of which become pustular. They run their course in from five to six days, without producing any very marked constitutional disturbance.

TREATMENT.

The diet should be regulated, and regularity of the bowels maintained. If fever arises, give Aconite in small quantities, and a gentle purgative of Euonymine and neutralizing mixture.

**MANIA-POTU, OR DELIRIUM
TREMENS.**

This disease in some of its symptoms, resembles inflammation of the brain. It is caused by the use of Alcoholic drinks.

SYMPTOMS.

Constant wakefulness, and motion of the hands and arms, and continual delirious talk. The whole body is in a state of tremor, wrongs are imagined, injuries apprehended, and the patient constantly beholds imaginary images, which terrify his mind, producing great mental excitement. This disease is easily distinguished from Pleuritis, by the softness of the pulse, the flushed face, and the habits of the patient.

TREATMENT.

In this disease it is necessary to continue the use of stimulants, in a moderate degree. The patient should take warm whiskey toddy, mixed with starch water, often enough to maintain a decided influence of the spirits upon the brain. At the same time give freely of beef tea, wine whey, soft boiled eggs, &c. If the disease does not yield to the above treatment, give the following compound :

R Morphine gr. ij.
 Capsicum..... gr. xx.

Divide into ten powders, and give one every two or three hours till the disease yields.

Or,

R Scutellarin..... gr. xx.
 Hyosciamin gr. iij.
 Cypripedin gr. xx.

Triturate, mix, divide into ten powders, and give one every hour. When the disease becomes manageable, the use of alcoholic drinks should be discontinued, and the patient warned against the use of a drug, the effects of which are fraught with so much evil. During the treatment, the bowels should be kept regular, by the use of mild stimulating alteratives, and the skin thoroughly cleansed by bathing.

HYDROCEPHALUS, OR DROPSY OF THE BRAIN.

SYMPTOMS.

When the disease comes on moderately, the patient becomes peevish and fretful. If it is a child, which is most frequently the case, there will be frequent extension of the hands to the head, and the sleep will be disturbed

by frightful dreams, causing starting, jumping, and screams.

As the disease advances, there is anorexia, dizziness, vertigo, nausea, vomiting, and delirium.

The pulse is soft and quick, and the tongue is covered with a light coat. In the early stage of the disease, the bowels are costive; but in the latter stage, there is frequently diarrhæa. Paralysis and convulsions often result from this disease.

TREATMENT.

In the early stage of this disease, Aconite should be given to control the fever and inflammation. After which, a purgative of Podophyllin and Jalapin should be given. Warm water and whiskey should be applied to the head, and sinapisms to the feet and calves of the legs. After the operation of the cathartic, give the following compound :

℞ Syrup of Marshmallow..... ʒiij.
Iodide of Potassium..... ʒij.

Mix, and give one half teaspoonful every hour. At the same time, give two or three tablespoonfuls of strong Buchu and uva ursi tea, and ten drops of sweet-spirits of Nitre every three hours. If there is much debility, connected with periodical symptoms, the following compound may be given, with the above treatment :

℞ Quinine gr. x.
Ferrocyanide of Potassium..... gr. j.
Digitalin..... gr. j.
White Sugar..... gr. xl.

Triturate, mix; divide into twelve powders, and give one every three hours. The purgative should be repeated, and the strength of the patient maintained by the free use of Iron, vegetable tonics, and a nutritious diet.

ASCITES, OR DROPSY OF THE ABDOMEN.

SYMPTOMS.

Swelling of the bowels, and often a fluctuation which may be perceived by laying the hand on one side of the abdomen, and at the same time gently rubbing the other side. This disease is mostly connected with Anasarca, or a collection of water in the cellular tissue, indicated at first by swelling of the feet and ankles towards night, but which disappear before morning. Pressure of the swollen parts with the finger in the evening, produces indentation, which remains for some time. The swelling gradually ascends to the trunk of the body, the arms and the head.

At this time the breathing becomes difficult, the urine is scanty and high-colored, the bowels are costive, the countenance is heavy and bloated, the skin is dry, and has a dirty sallow appearance, there is a dry cough and a slow irregular fever.

When these symptoms have continued for a longer or shorter time, there is generally a deposition of tuberculous matter in the lungs, a hectic fever, and unless the progress of the disease is arrested by timely treatment, death is the result. The use of Mercurials, the suppression of the Catamenia, Chronic ague, improper diet, &c., are among the causes of this disease.

TREATMENT.

The first object should be to remove the cause. At the same time, means should be resorted to by which the blood may be restored to a natural condition, and at the same time relieve the different tissues from their incumbrance of water. The patient should be placed upon a strong nutritious diet, and should freely use beef tea, porter, &c., and should take the following compound :

R Iron by Hydrogen.....	gr. xx.
Syrup of dwarf Elder.....	℥ss.
Cream of Tartar..	ʒss.

Mix, and give one tablespoonful three or four times a day. Two or three times a week the patient should take a thorough spirit-sweat, and the body should be sponged every morning in warm or cold water, as the condition of the case may indicate.

If the patient's strength will warrant, a cathartic of Jalapin and Cream of Tartar may be given once or twice a week. When the above course has been pursued for a few days, if the patient does not manifest signs of rapid recovery, give the following compound :

R Digitalin.....	gr. iij.
Cinchonine.....	gr. xxx.
Phosphate of Iron.....	gr. xxx.
White Sugar.....	ʒj.

Mix, triturate ; divide into sixteen powders, and give one four times a day in watermelon seed tea.

After these are all taken, the syrup should be resumed, and the vapor bath continued.

Every possible means should be resorted to by which the patient's strength may be maintained.

PAROTITIS, OR MUMPS.

This is a contagious disease, affecting the Parotid gland.

SYMPTOMS.

The skin becomes hot and dry, the pulse increases in frequency. The tongue is covered with a thin white coat, the bowels are costive, and the urine is scanty and high-colored. These symptoms are followed by a swelling just

below the angle of the lower jaw, sometimes on one side, at others on both. The swelling increases rapidly for about two days, when it begins to decline.

This disease is frequently transferred from the glands of the neck to the mammary glands, in the female, and to the testicles of the male.

TREATMENT.

If there is much fever in the active stage, the body should be bathed in warm lye water, and Aconite given in quantities sufficient to subdue it. The patient should keep quiet, and in bed. If the bowels are confined, a mild dose of Antibilious Physic may be given. If there should be a metastasis of the disease, a stimulating liniment should be applied, such as Tinct. of Capsicum and Myrrh, and a mild alterative of Euonymine given two or three times a day.

EPILEPSY.

SYMPTOMS.

The patient falls suddenly, and is seized with convulsions. The features are distorted and fixed, the senses are suspended, and the subject paralyzed. During the struggle, mucus, commingled with bubbles of air, issues from the mouth. The breathing is generally hurried, and the pulse is feeble and frequent. These attacks return at stated periods, and generally increase in severity as the patient grows older. The disease is frequently developed by irritation from teething, worms, suppression of the menses blows upon the head, spermatorrhæa, &c.

TREATMENT.

In the early stage of the disease, but little need be done save to remove the cause. But after the disease has become established, the convulsions will continue, although the cause be removed.

In such cases the intermittent and antiperiodic treatment is that only which has proved successful in my hands. While the patient is laboring under the paroxysms, the following mixture should be given :

R Fluid Extract of Scutellaria,	} ad libitum.
“ “ of Lobelia,	
“ “ of Cypripedin,	

Equal parts. Mix, and give from ten to twenty drops every ten or twenty minutes, until the convulsions cease. Then open the bowels by a mild, neutralizing physic, and the skin by tepid baths, after which give the following compound :

R Chinoidin	gr. xxx.
Fiburine	gr. xx.
Quinine	gr. x.

Mix, divide into twenty powders, and give one three times a-day. Continue the powders between the first four or five paroxysms, and relieve the patient during the paroxysms by the anti-spasmodic mixtures, followed by the cathartic. If the above treatment does not interrupt the paroxysms in the course of eight or ten weeks, the following mixture may be given between the spasms :

R Port Wine	Oss.
Hydrocyanic acid	gutt. xx.
Quinine	gr. xx.
Iron by Hydrogen	gr. xxx.

Mix, and give one teaspoonful three times a-day. The patient's bowels should be opened by mild purgatives. The mind should be kept cheerful, and the diet should be nutritious, and of easy digestion. The antiperiodic and

intermittent treatment should be pursued until a cure is effected, which will be the case in the course of time, unless there is some organic lesion of the brain.

APOPLEXY.

Sanguineous Apoplexy is the effusion of blood into the substances of the brain. Traumatic, or Apoplexy caused by blows on the head, is the effusion of blood into the membranes of the brain.

SYMPTOMS.

Apoplexy is generally preceded by giddiness, pain and swimming in the head, ringing in the ears, and laborious respiration. In Sanguineous apoplexy, if the person does not drop dead at once, he gradually becomes stupid, until he passes into a profound sleep; the face is swollen, the eyes are fixed, the blood-vessels about the neck beat rapidly and forcibly, the breathing is sonorous, and it is impossible to arouse the patient from his state of lethargy.

TREATMENT.

Ligatures should be placed around the arms close to the shoulder; also, around the legs at their connection with the body. They should be so adjusted as to admit of the passage of the blood through the arteries, but to prevent its return through the veins.

If the patient can swallow, a large dose of antibilious physic should be given. The feet should be placed in hot water, and cold water applied to the head. If the circulation continues to be rapid, *Veratrum* should be given in quantities sufficient to moderate its action.

The ligatures should be kept on until the patient appears entirely relieved, but should be tightened or loosened according to circumstances. If symptoms indicate hemor-

rhage to any considerable extent, small doses of Digitalin should be given three or four times a day, in connection with Iodide of Potassium. The bowels should be kept regular, and the diet mild.

CHOREA, OR ST. VITUS' DANCE.

SYMPTOMS.

There is a lameness of one leg, which is partly deprived of its natural motion. The arms are next affected, and are thrown into various contortions. The muscles of one side of the face have a constant involuntary motion. The appetite is lost, and the bowels become irregular.

TREATMENT.

℞ Scutellarin	gr. xxx.
Cypripedin	gr. xx.
Carbonate of Iron	ʒij.
Port Wine	ʒj.

Give one tablespoonful three times a day. The bowels should be kept open with small doses of Euonymine, and the surface should be bathed with tepid water every morning. If the disease should be caused by suppression of the menses, Macrotin should be given in connection with Iron. If by worms, Santonine and Podophyllin. If by ague, some of the antiperiodic compounds may be given.

PARALYSIS, OR PALSY.

If the palsy is confined to one side of the body, it is called Hemiplegia. If to the lower half, Paraplegia.

TREATMENT.

When the palsy attacks the heart, lungs, or any other vital organ, it soon terminates in death. But when it

arises from injuries of the spine, effusions into or softening of the brain, or in a deficiency of nervous fluid, the following treatment may be resorted to with hopes of success. First. The patient should be enjoined to remain quiet in bed, and if an injury to the spine is the cause of the disease, the irritating plaster should be applied along the spine. The bowels should be acted upon by giving small doses of antibilious physic, and a mild current of electricity should be passed from above the part of the injury through the paralyzed parts. The diet should be sufficient to maintain an ordinary degree of health. A liniment should be applied to the palsied part, composed of the following substances :

R Oil of Origanum.....	ʒij.
“ Capsicum.....	ʒj.
“ Stillingia.....	ʒij.
“ Alcohol	ʒj.

Mix, and bathe the affected part three or four times a day, following the same by brisk friction. The patient should take from one to three drops of the Tinct. of Rhus Toxicodendron from one to three times a day. If the disease occurs from injuries of other parts of the body, a similar course should be pursued, both as regards the electricity and counter-irritation. If there should be softening of the nervous centres, or brain, from one to five drops of the Tinct. of Phosphorus should be given three or four times a day, in connection with chalybeates and vegetable tonics.

This course should be persisted in for some length of time, unless the disease yields. In quite a number of cases with which I have been familiar, recovery has taken place after a lapse of more than a year's treatment.

TETANUS, OR LOCKED JAW.

This disease generally arises from wounds, but occasionally it is a symptom of other diseases.

SYMPTOMS.

Stiffness in the back of the neck, difficulty of swallowing, rigidity of the muscles of the lower jaw, also of those of the spine, and sometimes nearly all the muscles of the body are involved.

TREATMENT.

If this disease is caused by a wound, it should be thoroughly burnt with caustic, and a poultice applied until a complete discharge is produced. At the same time the patient should take a lobelia emetic, followed by Euonymine and Jalapin, until it operates as an active cathartic. After which, give the following compound :

R Dioscorine.....	gr. xx.
Scutellarin.....	gr. xxx.
Quinine.....	gr. xx.

Mix, divide into ten powders, and give one every two hours until all are taken. If the disease is not removed, the Lobelia emetic should be repeated, and again followed by the powders. The skin should be kept cleansed by lye water baths, and a free diet allowed.

The above treatment has proved triumphantly successful in my hands in several well-marked cases of this disease.

HYDROPHOBIA.

This disease is caused by the bite of rabid animals. The wound generally heals rapidly, and it is not until

twenty or thirty days have elapsed that any pain is felt in the wound.

SYMPTOMS

Anxiety, restlessness, nervousness, loss of sleep, horror of water, and finally convulsive spasms, are the prominent symptoms of the affection.

TREATMENT

In the treatment of this disease, much depends upon thoroughness and perseverance. The wound should be canterized with caustic Potassa, and caused to discharge freely for five or six weeks. The patient should take an active Lobelia emetic, followed by a brisk Podophyllin cathartic, and a spirit sweat. After which, the following compound should be given :

R Scutellarin.....	gr. xx.
Cypripedin.....	gr. xx.
Lobelin.....	gr. v.
Quinine	gr. xxx.

Mix, divide into ten powders, and give one every two hours until all are taken. At the same time, a strong decoction of Plantain should be drunk freely during the day. Lupulin and Hyosciamin should be given at bedtime, to produce sleep. The emetic and other remedies should be continued until the patient is entirely relieved from the disease.

This treatment has proved successful in the hands of several eclectic physicians.

DIABETES, OR SACCHARINE URINE.

This disease has its primary cause in the stomach.

SYMPTOMS.

It is generally preceded by debility, anorexia, dry skin, pain in the lumbar region, and great thirst, with alternate attacks of chills and fever. On examining the urine, it is found to have a sweetish taste and smell.

TREATMENT.

Give one grain of Aletrine in a tablespoonful of brandy toddy three times a day, and keep the surface freely bathed in warm broke water and whiskey.

In the early stage of the disease, this treatment, if persisted in for three or four weeks, will generally effect a cure. But in the more advanced stage, where the kidneys have become organically affected, the irritating plaster should be applied over that region, and the following compound given :

R Xanthoxylin.....	gr. x.
Populin	gr. x.
Prunin	gr. x.
Sach. Alba.....	gr. xxv.

Mix, divide into twelve powders, and give one every three hours. After which, give the following :

R Syrup of Sugar.....	ʒij.
Tinct. of Capsicum.....	ʒij.
Muriated Tinct. of Iron.....	ʒj.

Mix, and give one teaspoonful three times a day. If there are intermittent symptoms, some of the antiperiodic compounds should be given, followed by bitters made of Brandy and Aletris Farinosa.

The bowels should be kept regular, and the stomach evacuated with Sanguinaria, and Lobelia if indicated.

RHEUMATISM.

Acute rheumatism commences with weariness, shivering, quick pulse, restlessness, thirst, and fever. The patient soon complains of pains in some of the joints, which increase by motion. The parts swell, and have a red and inflamed appearance, the tongue is covered with a heavy white coat, the bowels are costive, the urine scanty and high-colored.

TREATMENT.

℞ Podophyllin.....	gr. ij.
Xanthoxylin	gr. iij.
White Sugar	gr. xxx.

Mix, triturate, and divide into eight powders. Give one every hour until it operates as a cathartic. After which, give the following compound :

℞ Sanguinarin.....	gr. ij.
Iridin.....	gr. j.
Quinine	gr. x.

Mix, divide into ten powders, and give one every three hours. The body should be thoroughly bathed in strong salt and water, and the inflamed joints packed with hot cloths. If the disease does not yield, a pill may be given composed of the following materials :

℞ Ext. Hyosciamus.....	gr. ij.
Ext. Indian Hemp.....	gr. xx.
Capsicum	gr. x.

Mix, form a mass, and make three-grain pills. Give one every three or four hours. If there is fever, Aconite or Veratrin should be given to control it. If the rheumatism is of a chronic character, give the following :

℞ White Pine Turpentine.....	gr. xxx.
Extract of Poke Root	gr. x.
Macrotin	gr. v.
Apocynia	gr. x.

Mix, form a mass, and make three-grain pills. Give one every five hours. Animal broths should be taken freely as a diet. The kidneys should be stimulated by mucilaginous diuretics, and stimulating liniments should be applied to the affected limbs.

Much care should be taken not to induce metastasis to the heart; but if that should occur, Aconite, compound syrup of *Stillingia*, and Iodide of Potassium are the remedies.

TRACHEITIS, (CROUP, OR INFLAMMATION OF THE TRACHEA.)

This disease is divided into two varieties, the spasmodic and pseudo-membranous. In the spasmodic form, there is a sudden contraction of the Trachea, owing to a slight cold, or the transmission of irritation to that organ from the stomach and gums in teething. The only treatment required in this form of the disease, is some active anti-spasmodic. It may be distinguished from the Pseudo-membranous variety, by its sudden appearance at night, when the child was apparently well during the day, and by its almost as sudden disappearance on the administration of a few drops of Tinct. of *Lobelia*, and the application of a wet pack to the neck.

The symptoms of the spasmodic kind, are a sudden hoarse cough, followed by a whistling and difficult respiration.

The symptoms of the pseudo-membranous kind, are very insidious. The child is irritable, restless, and peevish, and at times has a fever. He will also be observed to spit frequently. These symptoms, in the course of from twenty-eight to thirty-six hours, will be followed by a slight cough, which increases, and the voice soon becomes hoarse.

The disposition to spit also increases, and the sputa, if examined, is found to be of an albuminous character, thus clearly indicating the nature of the disease.

The symptoms are all aggravated at night, the pulse becoming quick, and the breathing laborious; but in the morning, they are much ameliorated. In the afternoon, the symptoms again appear, and are greatly aggravated.

The child throws his head back, and frequently grasps at the neck, the expectoration ceases, the breathing is more labored, and the pulse more frequent. He is unable to speak above a whisper, and unless relieved by proper treatment, soon becomes stupid and expires.

T R E A T M E N T.

The treatment here recommended, is of a very simple character, and rather belongs to Prof. J. G. Jones than to myself. And as all other methods with which I have been familiar have almost universally failed, while this has always proved successful, I most confidently recommend it to the profession as the only radical cure ever offered for this hitherto almost invariably fatal disease.

In the early stage, a thorough Podophyllin and Cream of Tartar cathartic should be given, the feet should be placed in hot water, and a cold wet pack applied to the throat. The pack should be changed sufficiently often to keep it cold. After which, the patient should be put upon a mild acetic syrup:

R Sanguinaria Pulv.....	ʒj.
Acetic acid.....	ʒiij.
White Sugar	ʒiij.

Mix, steep for fifteen or twenty minutes, and give one half teaspoonful every half hour. This prescription should be continued as long as any symptoms of the disease remains. If the treatment is not commenced until the disease is far advanced, the cathartic should be omitted, and the syrup

given at once. The bowels should be moved by laxative enema, and the surface frequently sponged in tepid water.

If the disease proves obstinate, two or three antiperiodic powders should be given during the Apyrexia. The syrup should also be continued. There should be no more of the syrup given than the stomach will tolerate.

The strength should be maintained by a generous diet, and all excitement should be avoided.

WORMS.

According to the classification of the entozoist, the following are the different varieties that infest the alimentary canal :

1st. *Ascaris Lumbricoides*, or common round worm.

2d. *Ascaris Vermicularis*, or thread worm.

3d. *Tricocephalus Dispar*, or long thread worm.

4th. *Tænia Solium*, or common tape worm.

5th. *Tænia Lata*, or broad tape worm.

The most common varieties of worms met with in this country, are the common round worm, mostly found in the small intestines, and the short thread worm, which inhabits the rectum or lower portion of the bowels.

SYMPTOMS.

The symptoms of worms are various. The most common are frequent flashes of fever, which disappear in a few hours; irregular appetite, irritable temper, symptoms of irritation about the fauces, tumefaction of the glands, frequent changes in the appearance of the urine, which is at one time scanty, and of a milky appearance; at others, copious and limpid. The irritation will be so great at times as to affect the brain, and convulsions follow. If the

worms infest the rectum, there will be constant itching and uneasiness of that part, and at times a slight sanious discharge.

TREATMENT.

For the long round worm :

R Santonine	gr. vj.
Podophyllin	gr. j.
White Sugar	gr. xxx.

Mix, triturate, divide into twelve powders, and give one every three or four hours until they act upon the bowels. If this should fail, the following mixture may be given :

R Neutralizing mixture	℥ij.
Essence of Wormwood	℥j.
Tinct. of Aloes	℥ss.
Santonine	gr. x.

Mix, and give one teaspoonful three times a-day.

Or—

R Santonine	gr. x.
White Sugar	gr. xxx.

Triturate, divide into ten powders, and give one every night on going to bed. After two or three days, give a mild purgative. If the patient is troubled with *Ascarides*, in addition to the above, injections should be given :

R Santonine	gr. xx.
Hydrastin	gr. xx.
White Sugar	℥j.
Warm water	℥iv.

Mix, and give as an injection every morning and evening. If either variety of the tape-worm afflicts the patient, the following mixtures may be given :

R Fresh Pumpkin-seeds after the shell is taken off ...	℥ij.
White Sugar	℥ij.

Bruise and mix. Give one teaspoonful every half hour until all is taken. After which give a brisk purgative of Podophyllin. If the first mixture does not succeed, it may be repeated. Or the following compound may be given :

R Oil of Male Fern	ʒij.
“ Turpentine	ʒij.
“ Red Cedar	ʒj.
“ Worm Seed	ʒij.
Castor Oil	ʒij.

Mix, and give one teaspoonful every half hour until it operates upon the bowels. During the treatment for the tape-worm, the patient should abstain from food; and if the passage of the worm is commenced, it should be carefully wound around a stick, to prevent it from being broken.

ANEMIA, OR CHLOROSIS.

SYMPTOMS.

The symptoms of this disease are paleness of the skin and mucous surface, and a peculiar white appearance of the conjunctiva. When the disease has advanced for some time, the countenance assumes a sallow and bloated appearance. The patient is feeble, and cannot bear much exertion. The circulation is irregular and weak; the respiration, although natural when the patient is quiet, becomes labored on the least exertion, and there is frequently violent palpitation of the heart.

The nervous system is most disordered; vertigo, dizziness, and feelings of fainting are not uncommon. At times there are violent neuralgic pains in the head, back, limbs, and side. In females the menses are almost entirely suppressed or altogether wanting. The blood in this disease is found to be deficient in iron.

TREATMENT.

R Carbonate of Iron	ʒij.
Port Wine	Oj.
Common Salt	ʒij.
Hydrastin	ʒj.

Mix, and give one teaspoonful three times a day. If the patient is a female with partial or complete suppression of the menses, the following pill should be given :

R Senecia	gr. xx.
Macrotin	gr. v.
Vallee's mass	gr. xxx.
Podophyllin	gr. j.

Mix, form a mass, and make three-grain pills. Give one in connection with the wine tonic three times a-day. The diet should consist of rich animal broths, and the patient take plenty of out-door exercise. The bowels should be kept open by the use of some mild laxative, such as Apocynia and Euonymine. If the disease does not yield, the following compound may be given :

R Brandy	Oss.
Water	Oss.
Phosphate of Lime	℥ij.
Iron by Hydrogen	gr. xxx.
White Sugar	℥iv.

Mix, and give one tablespoonful three times a-day. The above treatment, together with cold baths, followed by a reaction, will generally prove effectual.

MILIARY FEVER

Is characterized by an irregular eruption of round vesicles of the size of a millet-seed, upon slightly elevated and inflamed patches of cuticle.

It mostly commences with rigors and languor, a quick pulse, hot and dry skin, and thirst. The eruption generally appears about the fifth or sixth day from the commencement of the febrile attack. Previous to its appearance, there is a sense of pricking or itching of the skin. The patient complains of great præcordial oppression, but is soon relieved by a profuse perspiration, and in the course

of from three to five days the vesicles form into small scales, and fall off.

The eruption is generally distinct, but is sometimes confluent. It is said rarely to affect the face, and different crops may appear in the same fever. It is mostly a symptomatic disease, and occasionally appears in the course of nearly all low forms of fever;—although it may be idiopathic when it attacks those who have been previously weakened by fatigue, or a long exposure to damp and malarious atmosphere; or who have been for a long time confined to a bad regimen.

TREATMENT.

As this disease is mostly dependent upon constitutional debility, caused by some previous difficulty, it will be of the first importance to ascertain the cause, and remove it; after which the skin should be thoroughly bathed in warm lye water, and small doses of Aconite administered until a free perspiration is produced. For the purpose of stimulating the secretions, and as a mild purgative, the following compound should be given :

Euonymin	gr. iij.
Irisin	gr. ij.
White Sugar	gr. xxx.

Triturate, mix, divide into ten powders, and give one every hour until all are taken, or until they act upon the bowels. If the disease does not yield to this mild treatment, small doses of Quinine and Iron together, with an active, stimulating, and nutritious diet, should be resorted to. When the active stage of the disease is passed, the patient should be allowed a liberal quantity of porter, in connection with vegetable tonics and chalybeates. If the disease is connected with a scrofulous diathesis, the compound syrup of *Stillingia*, with Iodide of Potassium, should be given until the patient is entirely restored.

ROSEOLA, OR ROSE-RASH,

Is a fever attended with a rose-colored efflorescence, and not contagious. It has often been confounded with measles and scarlet-fever. It mostly depends upon indigestion, and seldom requires medical treatment. The diet should be regulated, and if the fever is troublesome, small doses of Aconite, and a gentle purgative of Neutralizing mixture, may be given.

URTICARIA, OR NETTLE-RASH,

Is characterized by circular elevations of the cuticle, of a red color, with a white spot in the centre.

The eruption is generally preceded by gastro-intestinal irritation and fever. There is frequently restlessness, languor, and anorexia. If the eruption is extensive, the patient suffers much from the itching and heat which it occasions. This disease is frequently caused by excess in eating and drinking, also by undue heating of the blood. It may continue for an indefinite period, and reappear whenever the stomach becomes deranged.

TREATMENT.

The patient's diet should be well regulated, and all excesses carefully avoided. The surface should be freely bathed, two or three times a week, and a mild vegetable alterative and tonic be given. If the disease assumes a periodic character, as it sometimes does, an antiperiodic should be administered, succeeded by the following compound:

R Cream of Tartar.....	gr. xxx.
Leptandrin	gr. xx.
White Sugar	gr. xxx.

Triturate, mix, divide into ten powders, and give one three times a day.

THE PLAGUE.

This disease is regarded as nothing more than a malignant typhus fever, attended during its course, by buboes and carbuncles.

Mackintosh gives the following diagnostic symptoms of the Plague :

It is ushered in by rigors and oppression, followed by heat of the skin, great prostration of strength, giddiness and headache. The expression of the countenance is besotted, and the eyes have a muddy glistening appearance.

The intellect is sometimes cloudy, at others there is insensibility and fixed delirium.

Occasionally, stupor takes place, and in some instances the functions of the brain remain distinct and clear. The patient in general seems indifferent respecting his fate. The tongue is at first moist, although it is more or less loaded. There is sometimes constipation, at others diarrhæa. The stools are very offensive, and there is constant nausea and vomiting. About the third day from the attack, there is acute pain, followed by redness and swelling in the arm-pits and groins, which terminates in carbuncles and buboes, unless it is immediately relieved. And unless suppuration soon takes place, death speedily follows. It is stated that if the patient survives the fifth day, and the buboes appear well-formed, the patient may be pronounced convalescent. The points of danger in this disease appear to be, the time in which the buboes ought to appear, and the time of maturation. For a full description of this disease, the reader is referred to the writings of Dr. James McGregor, who has described it minutely, as it appears in India and Egypt.

TREATMENT.

Cullin condemns both blood-letting and purgatives in this disease, and states that the chief object in the treatment should be to relieve the spasms of the extreme vessels. For this, he recommends the application of oil to the surface, and some antispasmodic internally. There can be no doubt that this disease requires a vigorous, stimulating, and antiperiodic treatment from the commencement. From all the information I can obtain, I should make a liberal use of hot alkaline baths, anti periodics, and a free use of Aconite to control the fever. Also a liberal use of tonics, antispasmodics, and stimulants, with a nutritious diet.

DIFFICULT DENTITION.

Few children pass through the process of dentition without more or less suffering, and often a variety of complicated symptoms make their appearance, all depending upon one general cause, viz: dentition. It has long been observed, that children who pass through the period of teething early, suffer less than those whose teeth are longer making their appearance.

The ages at which children cut their teeth are various. There are instances of children being born with full sets of teeth, as is recorded of Richard the Third and Louis Fourteenth. In general, however, the teeth begin to appear between the age of six and eight months. The two centre incisors of the lower jaw, are commonly cut first, and are soon followed by those of the upper, after which the two lateral incisors of the lower, and then those of the upper jaw make their appearance. Between the twelfth and sixteenth months, the intergrinders of the

lower jaw appear, and next in succession are the cuspides or eye teeth. The others soon follow, so that by the age of two years, the child has its complete set of teeth, twenty in number. The formation of each tooth goes on in a membranous and vesicular sack, which is firmly united to the gum. It is supposed that in tedious and difficult dentition, the sack becomes more vesicular, and is materially thickened. This, together with the pressure of the teeth upon the gums, is supposed to be the only cause of the various ills incident to this period.

The teeth are composed of Phosphate and Carbonate of Lime, Fluoride of Calcium and Cartilage.

On analysis by Berzelius they were found to be composed of

Cartilage and vessels.....	28.0
Phosphate of Lime.....	64.2
Carbonate of Lime.....	5.3
Phosphate of Magnesia.....	1.0
Soda with Chloride of Sodium.....	1.1

According to Lessaigne, it appears that as the teeth become older there is an increase of the Phosphate of Lime, and a corresponding diminution of the Carbonate. From the above facts, it seems the food should contain these elements, to enable the teeth to become perfectly and timely developed. The cause of the diseases so frequently identified with dentition, is a lack of the proper histogenetic material, thereby causing a drain upon the other tissues, which, together with the long-continued irritation of the teeth upon the nerves, produces a train of morbid symptoms, which are attributed to anything but their true source.

The child, under these circumstances, becomes restless, fretful and feverish, the sleep is disturbed, the bowels are irregular, the face is flushed, and in some cases there is slight spasmodic twitching of the muscles, and in others general convulsions.

Sometimes the child becomes troubled with an irritable cough, with wheezing, a hot skin, quick pulse and scanty urine, denoting great irritation of the bronchial and pulmonary tissues. Cutaneous and glandular affections often occur. The sub-maxillary glands are those most commonly affected. Occasionally there is inflammation of the eyes, causing purulent Ophthalmia.

The enumeration of the above symptoms will show the importance of a correct diagnosis in these cases.

TREATMENT.

There is no disease in which the ordinary allopathic treatment proves more mischievous than in this.

The poor child has its gums scarified and mutilated to no purpose. In some cases its stomach and bowels are entirely destroyed by the drastic doses of Calomel, Rhubarb, Prepared Chalk, and the like; while in other cases, Opium, Paregoric, Godfrey's Cordial, Bateman's Drops, and a long catalogue of irritants and narcotics, tending still farther to depress the feeble vitality of the child, cause Dropsy of the Brain, Tabes Mesenterica, and Tuberculous Consumption. Now these medicines have not one particle of the aliment needed to build up the structure which is making such extensive drains upon the other tissues, and causing such derangement of the vital powers. The scari-fying of the gums frequently produces an irreparable injury to the teeth, by denuding them of their soft enamel, an injury seldom repaired. Hence the frequent premature decay of the teeth. The proper treatment consists in administering in small quantities those elements of which the system is deficient. For instance :

R Phosphate of Lime.....	gr. xx.
Carbonate of Magnesia.....	gr. x.
Phosphate of Iron.....	gr. v.
Simple Syrup.....	ʒiij.

Dose, one teaspoonful three or four times a day. If there is fever, a few doses of Aconite, given at intervals of from half an hour to an hour, will be sufficient to control it. If the disease proves persistent, or assumes a periodical character, Quinine may be given in combination with some of the other articles, or alone as indicated. If Bronchial irritation is the prominent symptom, two or three drops of the Tet. of Veratrum may be given every three or four hours until the symptoms subside. If there is diarrhæa, Neutralizing Mixture, with small doses of Geranin, should be given. The surface should be frequently bathed, and the diet should be nutritious and of easy digestion. The Lime, Magnesia and Iron should be continued from time to time until dentition is complete.

Many cases might be adduced to illustrate this mode of treatment, but one will suffice.

In June, 1855, I was called to see a child fourteen months old, in which the teeth had not made their appearance.

The Doctor had pronounced it to have Pneumonia. It had been afflicted with alternate diarrhæa and costiveness for three months and on two or three occasions had had convulsions. Its gums had been lanced eight or ten times. I immediately ordered Magnesia, Lime and Iron, with small doses of Quinine, and a good diet, and in three weeks the constitutional difficulties had disappeared, and the teeth had begun to make their appearance. In the course of six months, by the occasional use of the above remedies, the teeth were fully developed, and the child restored to perfect health.

INFLAMMATION AND ULCERATION OF THE ŒSOPHAGUS.

There is no structure in the human body more exempt from disease than the œsophagus; but when it becomes inflamed, it is quite difficult to detect it until ulceration and constriction take place.

Inflammation may be partial, affecting only a small portion of the œsophagus, and if ulceration occurs, there will be no contraction; but the patient will feel slight pain, and there will be momentary stoppage of the food as it passes on to the stomach. If the whole caliber is inflamed, the difficulty of swallowing will be much greater, not so much owing to the stricture of the œsophagus, as to the constant tendency to vomit. There will be more or less constitutional symptoms, as debility, hot skin, scanty urine, &c. Not unfrequently the entire system materially sympathizes with the local affection.

TREATMENT

The constitutional symptoms should be removed, and at the same time an irritating plaster should be applied to the throat, or the region of the inflamed and ulcerated parts, and caused to remain until a free discharge ensues. The bowels should be maintained in a soluble state, and the skin freely bathed in hot lye water and whiskey as often as two or three times a week. And the following compound should be administered:

℞ Syrup of Marshmallow.....	ʒiij.
Syrup of Iodide of Iron.....	ʒij.
Compound Syrup of Stillingia.....	ʒj.

Mix, dose one teaspoonful three times a day. The diet should be nutritious and easy of digestion, and every possible exertion should be made to maintain the integrity of

the constitution. If the ulceration proves unyielding, a strong solution of Hydrastin, to which may be added a few drops of the Tct. of Iodine, may be taken in reasonable doses three or four times a day.

If the above treatment should not prove successful, the application of a mild solution of nitrate of silver may be made once or twice a week by means of a probang. The above remedies will be sufficient to effect a cure, provided the cause of the disease has received due attention.

GASTRODENIA.

Gastrodenia is a neuralgic affection of the stomach, and is closely allied to dyspepsia, and in some instances appearing as one of its symptoms. Sometimes the appetite remains good, but generally it is impaired. There is gnawing pain in the stomach, extending to the back, accompanied with anxiety and sense of constriction, with a strong tendency to vomit. There is constipation of the bowels, and more or less pain in the head. The principal causes of this disease are the long-continued use of indigestible food, very warm or very cold drinks, or the use of Alcoholic drinks, schirrous and cancerous affections of the stomach, &c.

TREATMENT.

If the disease is dependent, either upon irregularities of eating or drinking, or upon the excess of either, this should be carefully avoided. During the attack, much benefit may be derived from an emetic.

℞ Lobelia Seed Pulv..... gr. x.
 Bayberry Bark Pulv..... gr. xxx.

Mix, add one half pint of warm water, two tablespoonfuls of milk, sweeten, steep fifteen minutes, and give a wine-glass full every fifteen minutes till it operates freely as an emetic. After which

R Lupulin.....	gr. x.
Scutellarin	gr. xx.
Leptandrin.	gr. xxx.

Mix, triturate; divide into fifteen powders, and give one every three or four hours. If the pain still continues in the stomach, small doses of Morphine may be taken at bed-time. The constitutional symptoms should be carefully attended to, and if the disease becomes periodical, one of the antiperiodic preparations should be administered. The diet should consist of animal and vegetable broths, and the body well bathed in warm or cold water as often as three or four times a week.

HÆMATEMESIS.

This disease most frequently attacks women, particularly those who are of a plethoric habit, and at times when there is a suppression of the catamenia. Each attack is generally preceded by rigors. Pure blood is seldom vomited, unless caused by internal violence or corrosion of the vessels of the stomach. The blood seldom coagulates, and seems to be the product of passive hemorrhage, or exudation from the minute vessels of the mucous membrane.

The diagnostic symptom of hemorrhage from the stomach is a sense of weight and pain in that region, unaccompanied by cough. Every part of the mucous membrane of the alimentary canal is perhaps equally liable to passive hemorrhagic exudation.

Occasionally the disease is so general as to give rise to a sanguineous cholera. In some instances it is confined to the bowels, the stomach not participating in it. The most alarming intestinal hemorrhage is called melæna, and is characterized sometimes by full discharges of black blood, resembling ink mixed with sand; but at others, it is more of a sanguineous character. Hemorrhage from the stomach

and bowels produces great exhaustion, and unless relieved, soon proves fatal. This disease frequently accompanies some form of fever, especially typhoid fever. When the hemorrhage is from the stomach, it is a less fatal symptom than when it occurs from the bowels; yet it rapidly exhausts the patient, and frequently proves disastrous, unless timely relief is given.

TREATMENT.

In hemorrhage from the stomach or bowels, an infusion of matico, in connection with the ligatures, and hot turpentine and mustard sinapisms, will generally give relief. If the patient is an adult, give two or three tablespoonfuls of a strong tea, made of the matico leaves, every five minutes. At the same time apply the ligatures to the arms and legs; also, a sinapism over the stomach or bowels, as the case may be, made by taking one tablespoonful of mustard, four tablespoonfuls of pulverized slippery elm, and one of oil of turpentine, mixed with hot water, and applied as warm as the patient will bear it. The matico tea should be continued until the hemorrhage ceases, or for one or two hours. If it proves ineffectual, a pill may be given, made as follows:

℞ Nitrate of Silver	gr. j.
Geranin	gr. x.
Pulv. Gum Arabic	gr. xxx.

Triturate, and make sixteen pills. Give one every half hour while the hemorrhage continues. After which the patient's strength should be well supported by vegetable tonics, iron, and a generous diet. If the hemorrhage should be owing to a suppression of the catamenia, the feet should be immediately placed in a tub of warm water, and a large Galbanum plaster applied along the spine and across the lower portion of the abdomen. Also, ten or fifteen drops of the oil of Erigeron should be given every

fifteen minutes, until the hemorrhage ceases. After which the patient should be treated as directed under derangement of the menses.

JAUNDICE, OR YELLOWNESS.

This appearance is owing to the deposit of the coloring matter of the bile in the skin and other tissues and fluids. This substance must be presumed to exist in the blood of the jaundiced patient, and it is claimed to be found in healthy blood. But the prevalent belief is that the bile-pigment is absorbed after having been secreted by the liver: an opinion founded upon the most common cause of jaundice, *i. e.*, the obstruction of the *ductus communis*, or one or more of the branches of the hepatic duct, by a gall stone, or by the pressure of a tumor, &c. But among the most common causes of jaundice is a deficiency of the secreting cells of the liver; consequently no biliary secretion takes place. Jaundice is considered by some as an idiopathic disease, but it is mostly a symptom of some specific difficulty, and for which it serves as a diagnostic symptom. It is a phenomenon of several fevers, *viz.*: bilious remittent and yellow; also of different affections of the liver, gall-ducts, and stomach. When it comes on with indigestion, slight fever, sluggishness, and pain in the hypochondrium, it may be regarded as a functional disease of the liver and stomach. But when it follows violent and spasmodic pain in the region of the liver, it is dependent upon the arrest of gall-stone in the biliary passage. When it precedes delirium or coma and convulsions, it indicates disorganization of the hepatic cells; and when it comes on slowly and lasts a long time, and acquires a dark tinge, it depends either upon organic disease of the liver, or some of the neighboring organs obstructing the discharge of bile into the duodenum. The symptoms of

jaundice, excepting the yellowness, depend much upon the cause of the difficulty, though in all cases the skin is husky and dry; the urine partakes of the color of the skin; the fæces are either of a dough or grey-ash color, and in most cases there is constipation of the bowels. The other symptoms vary in different cases.

TREATMENT.

The treatment of this disease should depend entirely upon its cause as indicated by the symptoms connected with it. If it depends upon a functional disorder of the liver, the following compound may be given :

Euonymine	gr. x.
Podophyllin	gr. ij.
Gelsemin	gr. j.
White Sugar	gr. xxx.

Mix, triturate, divide into six powders, and take one every two hours. After which —

R Phytolaccin	gr. vj.
Flour of Sulphur	gr. xxx.
Extract Dandelion	ʒj.

Make twenty pills, and take one four times a day. The surface should be freely bathed, and the diet should be easy of digestion. After the pills are taken, the following may be given :

R Cream of Tartar	ʒij.
Sanguinarin	gr. x.
Sulphur	gr. xx.
Iron by Hydrogen	gr. xx.
Best Gin	Oj.

Mix, and take one tablespoonful three times a-day. When the disease is dependent upon the arrest of gall-stone in the biliary passage, a thorough Lobelia emetic should be given, followed by a spirit-sweat and a brisk purgative, as follows :

R Podophyllin	gr. ij.
Cream of Tartar	gr. x.
Gelsemin	gr. ss.

Mix, triturate, and divide into four powders, and give one every two hours until it operates as a cathartic.

If the above prescriptions fail to give relief, they should be repeated at proper intervals.

DISEASES OF THE HEART.

The most common disease of this organ is fluttering or palpitation. This may be connected with various structural changes in the organ, yet it frequently exists independent of any such change. "The distinction between organic and functional disease of the heart," says Dr. Walshe, "is far from being easily made. Many of the general rules given for this purpose fail clinically." The inconstancy of functional and the constancy of organic ailment are strongly dwelt upon for examples. But all the subjective and many of the objective symptoms may disappear temporarily in cases of extensive organic disease. The existence of secondary changes, such as sub-cutaneous œdema, congestion of the lungs, &c., commonly proves the cardiac affection to be organic, but not always; for spanæmia, added to nervous palpitation, may induce œdema. If exercise relieves a disturbed condition of the heart, its affection is pronounced to be dynamic only; but if spanæmia exist, exercise may be unbearable. From these remarks of Dr. Walshe, it will be perceived that without much care, functional and organic disease of the heart are liable to be confounded. Indeed, nothing was more common than this, previous to the discovery of physical diagnosis and their complete elucidation by Laennec. And now, without repeated physical examinations, even an adept in this method

of diagnosis may mistake mere irregularity of rhythm for structural cardiac disease; as it is now universally admitted that palpitation, when connected with spanæmia, will not only produce a basic systolic murmur, but a systolic murmur at the mitral apex may be generated by the irregular action of the muscoli papillaries, and even the area of dulness may be extended temporarily, owing to the distension of the cavity of the heart with blood.

SYMPTOMS OF DYNAMIC PALPITATION.

According to Laennec, the first impression conveyed by the stethoscope is, that the heart is not enlarged. The sound is not heard loudly over a great extent, but this depends very much upon the thickness of the chest. Laennec states that in nervous palpitation of the heart, the heat of the patient is never sensibly elevated by the increased action of the heart, which is the case in organic disease of this organ. This may be true as a general rule, but is far from being universally so, as my own professional experience has proved. Dr. Walshe states that in nervous affections of the heart, the area of dulness remains unaltered; but that distension to the right of the sternum may occur in prolonged paroxysms. He states also that the first sound is too loud and clear at the mitral apex, and somewhat abrupt and short. The sound is duller and less clicking than is natural at the mid-sternal base. The first sound may be loud enough to be audible both to the patient and to the bystanders at a distance of some inches from the chest. Reduplication of the second sound at the base is common; and a clear metallic ring or a præcordial rub may accompany the shock at the mitral apex.

Prof. Calkins remarks, that in order to form a correct diagnosis, we should recollect that the character of organic disease of the heart is to progress; that of functional to occur at regular intervals; that active exercise almost

invariably aggravates organic, but seldom increases the symptoms of functional; that the physical signs generally are soon developed, and remain permanent in organic, while they seldom exist—and when they do, they arise from chlorosis—in functional. The rational symptoms, which more frequently occur in nervous disease of the heart, than in functional, are choking in the throat, precordial anxiety, with faintness and actual syncope, or active pains simulating angina. The pulse beats with increased frequency, and there is a clammy coldness of the extremities, with a flushed face. The fits of palpitation may last for a few minutes, or they may last for hours, or even days.

TREATMENT.

During the paroxysms, the remedies should be of such character as to lessen their intensity, and, if possible, at the same time to remove the cause. If this cannot be done, the paroxysm should be relieved, and an effort made to remove the cause afterwards. For the purpose of relieving the paroxysm,

R Gelsemin.....	gr. j.
Scutellarin	gr. x.
Cypripedin.....	gr. xv.
White Sugar.....	gr. xxx.

Mix, triturate; divide into eight powders, and give one every hour until the paroxysm is relieved. At the same time, the feet should be bathed in warm water, and the patient should avoid all mental and bodily excitement. After which, if there is spanæmia,

R Quinine.....	gr. x.
Iron by Hydrogen	gr. xij.
Hydrastin.....	gr. xj.
White Sugar	gr. xxx.

Mix, triturate; divide into ten powders, and give one three times a day. The diet should be generous, and the following tonic should succeed the powders:

℞ Scutellarin.....	gr. xx.
Precipitated Carbonate of Iron.....	gr. xxx.
Caulophyllin	ʒj.
White Sugar	lbss.

Mix, triturate; add to one pint of good port wine, and take one tablespoonful three times a day before eating. The bowels should be kept in a free state by the use of Leptandrin and Neutralizing Mixture, and the patient should avoid all undue exercise.

ANGINA PECTORIS.

This is a disease characterized by paroxysmal pains and tenderness in the precordial region, extending to the head, shoulders, arms and legs, and in some cases producing numbness. The pain is sudden in its onset, but is mostly of a dull character, although in some cases it is lancinating or tearing, producing exquisite torture and contractive suffocation. There may be slight dyspnœa or orthopnœa, with lividity of the countenance. The heart usually palpitates, the extremities become cold, the urine is passed in large quantities, and is mostly of a limpid appearance. The bowels are constipated, and in most cases there is more or less constitutional disturbance for some time previous to the attack. If there are cardiac murmurs in connection with the disease, there is reason to apprehend that it is connected with some organic difficulty of the heart. This disease may be a pure neuralgic affection of that organ, accompanied by hysteria and anæmia, or it may be of a periodic character, of miasmatic origin,—a mere masked ague—or it may depend upon some organic disease of the heart.

TREATMENT.

In this affection, the first object should be to relieve the urgent symptoms. For this purpose, the feet should be placed in hot water, a large sinapism applied over the region of the heart, and the patient caused to take one drop of Aconite every five minutes until the symptoms are relieved. If they are not relieved in the course of half an hour, the following compound should be given :

R Lobelin.....	gr. j.
Lupulin	gr. vj.
Hyosciamin	gr. ij.
White Sugar.....	gr. xxx.

Mix, divide into ten powders, and give one every ten minutes until relief is obtained. As soon as the severity of the paroxysm is relieved, the cause of the disease should be ascertained, and such a course pursued as will effect a permanent cure. Antiperiodics should be given where the disease is produced by miasm, chalybeates and tonics where it is dependent upon anæmia, and if it originates in organic disease of the heart, the proper treatment may be found under that head.

CONGESTION, OR ACCUMULATION OF BLOOD IN THE CAVITIES OF THE HEART.

Congestion, or accumulation of blood in the cavities of the heart, may occur in consequence of fibrinous deposits interfering with the free movement of the valves. This deposit seems mostly to be a product of endocarditis, although it may arise from regurgitation during fits of dyspnœa, and whenever there is sudden obstruction of the circulation through the lungs.

SYMPTOMS.

These are orthopnœa, cough, lividity of the countenance, oppression and anxiety. The physical signs are extended area of dulness, irregular rhythm and a labored impulse of the heart. Dropsical effusions and anæmia are frequently produced by this disease.

TREATMENT.

Give a free purgative of Podophyllin and Cream of Tartar, followed by Syrup of Marshmallow and Iodide of Potassium. If the disease proves obstinate, an irritating plaster should be placed over the region of the heart, and allowed to remain until a free discharge ensues. Aconite should be given to control the circulation, and the diet should be nutritious.

PERICARDITIS, OR INFLAMMATION OF THE PERICARDIUM.

The symptoms of this disease depend much upon the state of the inflammation, during the first stage of the inflammatory process. There is more or less fever, with increased frequency of the pulse, cough and dyspnœa. The physical sign is a sound of grating friction. In the second stage, which is that of exudation, there is pain in the region of the heart, irregular pulse, anxiety, dyspnœa, cough, and a tendency to syncope. The features are sharp, and indicate distress. There is scanty and high-colored urine, with alternate fever and apyrexia.

The physical signs are frictional sound, and valvular murmurs, dependent upon endocarditis. In the third stage, bulging of the precordial region may be observed, and if there is extensive effusion, displacement of the apex

of the heart upwards. The area of dulness will be changed, and very materially enlarged. The sound of the heart will be indistinct and muffled. If adhesion of the pericardial surface to the heart should occur, the action of the heart will be tremulous and unsteady. As the disease advances, the head is kept elevated, orthopnea is a constant symptom, and the patient dreads movement of any kind. In fatal cases *risus sardonius* often occurs, with tenderness of the Epigastrium, Spasmodic dysphagia, nausea, and vomiting, quasimania, stupor, and death. Or the severity of the symptoms may gradually yield, and the patient recover.

CAUSE.

This disease may be caused by metastasis of inflammation from other parts, as in pleuritis, pneumonia, rheumatism, phlebitis, &c., and in some cases it is said to be idiopathic.

TREATMENT.

In the first stage of this disease, the bowels should be opened by full doses of Podophyllin and Cream of Tartar, a warm sinapism should be applied over the region of the heart, and the surface thoroughly bathed in lye water and whiskey. The operation of the cathartic should be followed by from one to five drops of the Tinct. of Aconite every hour, until free diaphoresis ensues. This course will control the active form of the inflammation, after which the patient should take the following diuretic and alterative mixture :

℞ Syrup of Marshmallow..... ℥v.
Iodide of Potassium..... ℥ss.

Mix, and give one teaspoonful every three hours. At the same time, give from five to ten drops of the Muriated

Tinct. of Iron every five hours. If the disease should be of a periodic character, from five to ten grains of the Sulphate of Cinchonin, and one-eighth of a grain of Gelsemin should be given every three or four hours until that symptom is controlled. If extensive effusion should occur, from one-eighth to one-fourth of a grain of Phytolaccin to the Syrup of Potassa and Marshmallow, may be added. If, after the active symptoms of the disease, there should still remain some cardiac disturbances, the acetic syrup of Sanguinaria will generally suffice to control them.

ENDOCARDITIS.

The symptoms of this disease are pain and uneasiness in the region of the heart, with precordial pressure. The decubitis is dorsal. The skin is hot, the countenance is livid, and there is cough, dyspnœa, and tendency to syncope. The physical signs are uneasiness, and increase of the action of the heart, and a grating accompanying the bellows sound. The normal systolic murmurs will be changed, corresponding to the stage of the disease.

TREATMENT.

The treatment of endocarditis, is essentially the same as in pericarditis. The surface should be bathed in lye water, a warm pack applied over the cardiac region, and Aconite or veratrum given until the active stage of the disease is removed. These should be followed by diuretics, alteratives, and tonics.

CARDITIS, OR INFLAMMATION OF THE SUBSTANCE OF THE HEART.

This disease is mostly connected with endocarditis or pericarditis, and even when it exists as an idiopathic disease, its symptoms are so closely allied to them that as yet the diagnostic symptoms are very obscure. The treatment should be the same as of inflammation of its membranes.

ATROPHY OF THE HEART.

In valvular atrophy, says Dr. Walshe, when the chordæ tendinæ of the mitral valve are shortened or extremely thin, they are probably purely atrophous; the large tongue of the valve is simply defective in size, without obvious puckering, or other evidence of past inflammation: in either case regurgitation may occur. The sigmoid and pulmonary valves may also become atrophous, causing regurgitation in the aorta and pulmonary veins; in the former producing syncope, in the latter asphyxia.

The physical signs are regurgitation with bellows sound. Where there is atrophy of the parenchyma of the heart, the area of dulness will be diminished, and the diastole and systole will both be feeble.

The rational symptoms are pallor, coldness of the extremities, cough, irregular respiration, palpitation, precordial oppression, œdema of the extremities, and in females, irregularities of the catamenia, hæmoptysis, and it frequently terminates in dropsy and phthisis. In old age, the valves of the heart becoming atrophied, frequently causes pulmonary apoplexy.

TREATMENT.

The patient should avoid all excesses, in mental and bodily exercise. The diet should consist of rich animal broths, with a liberal amount of fats and sugar. Give the following compound :

R Precipitated Carbonate of Iron.....	ʒj.
Hydrastin	ʒij.
White Sugar.....	ʒiij.
Port Wine	Oj.
Water.....	Oss.

Dose, one tablespoonful three times a day. If there is much irregularity in the action of the heart, one grain of Myricin, and one-sixteenth of a grain of Veratrin, given twice or three times a day, will usually give relief. In old age, much benefit is sometimes derived from a moderate quantity of malt liquor once or twice a day.

HYPERTROPHY OF THE HEART.

By this disease, is understood thickening of one or more of the cavities of the heart. It may exist with, or without other affections of this organ. The difficulties with which it is most frequently connected are dilatation and ossification of the valves. It is said that hypertrophy is mostly confined to the ventricles, and that it is more commonly met with in the left ventricle, than the right. This may sometimes be true, yet, in my practice, it is far from being generally so; as in some thirty cases of both complicated and uncomplicated hypertrophy, the majority occurred in the auricles. Hypertrophy of the heart may be caused by a preternatural determination of blood to the organ, from a latent form of inflammation, or it may arise from a long-continued increase of action dependent upon nervous disease.

SYMPTOMS.

The symptoms of hypertrophy of the left ventricle are a sensible, constant increase of the action of the heart; the pulse strong, full, and vibrating. On percussion the area of dulness is extended; and on auscultating the chest, the sound of the heart will be found very much enfeebled, and if hypertrophy is connected with dilatation, the diastole will be materially prolonged. In this way we may be enabled to distinguish between simple hypertrophy and that accompanied with increase in the capacity of the cavity. In hypertrophy of the right ventricle, the signs are very nearly the same as above, except the shock of the heart's action will be felt at the base of the sternum, instead of between the fifth and sixth ribs, as in hypertrophy of the left side.

In hypertrophy of the ventricles, the impulse will be much increased, and the systole shortened in duration, while the diastole will be prolonged. The diseases produced by these cardiac derangements are: dropsy, hæmoptysis, asthma, tubercles, phthisis, and asphyxia.

TREATMENT.

In treatment of hypertrophy of the whole or different portions of the heart, all stimulating articles of food and drink should be avoided, as also the use of tobacco. To lessen the action of the heart, and thereby prevent the abnormal supply of nutrition, is another essential element of the treatment. For this purpose a sufficient amount of *Tct. Veratrum Viride* may be given, say from five to ten drops three or four times a-day. The pulse should be maintained at about fifty-five or sixty by the use of the *Veratrum*. At the same time one teaspoonful of the solution of Iodide of Potassium should be taken three times a-day. If the disease proves persistent, and should not yield to this plan of treat-

ment, from one-eighth to one-fourth of a grain of Phytolaccin may be given every night at bed-time. The bowels should be moved once or twice a-week, with Podophyllin and Cream of Tartar, and the patient should avoid all mental and bodily excitement.

DILATATION, OR ENLARGEMENT OF THE CAVITIES OF THE HEART.

Dilatation may be confined to one cavity of the heart, or it may extend to all. The cause of this disease, says Dr. Bertin, is owing to some obstruction in the circulation of the blood, as diseases of the valves, &c., while Laennec attributes it to congenital disproportion in the parts of the heart. But what is a more common cause of the disease in this country is an impoverished state of the blood, producing a weak and lax state of the muscles, thus giving rise to dilatation.

SYMPTOMS.

The patient is often attacked with violent dyspnœa and palpitation, followed by a weak and feeble pulse; tendency to syncope, and in some cases nausea and vomiting. The bowels are mostly constipated, and there is frequently pain and præcordial pressure. According to Laennec, the most constant and characteristic sign of this disease is a swollen state of the jugular veins without pulsation.

TREATMENT.

The principal classes of medicines indicated in this disease are tonics and astringents, such as Hydrastin, Macrotin, Myricin, and Muriated Tincture of Iron. The diet should be full and nutritious, and the patient allowed to drink porter or ale once or twice a-day, with his meals. The Muriated Tincture of Iron should be taken in from

five to ten drop doses three or four times a day in a small quantity of beef tea or starch water. The Macrotin, Myricin, and Hydrastin, should be used in the form of a syrup two or three times a-day.

PHLEBITIS AND PHLEGMASIA DOLENS.

Phlebitis is inflammation of the inner membrane of a vein. It may occur as the effects of blood-letting, the application of ligatures, pressure upon some venous trunk, &c. The pathological effects of inflammation of the veins vary according to the extent and severity of the inflammation. In most cases the affected vein is swollen, thickened, and indurated to such a degree as to very much resemble an artery. A diffused swelling, connected with acute pain, coated tongue, scanty urine, constipated bowels, and pyrexia, are among the prominent symptoms of this disease. Upon examination, the adipose, cellular, and subcutaneous tissues are found to be filled with fluid; and when the parts are laid open, clots of blood and lymph are found adhering to the inner coats of the veins. If the inflammatory process continues, the clots of blood and lymph are converted into purulent matter, rupturing the vessels, and forming a deep phlegmonoid abscess in the adjacent tissue.

Phlegmasia Dolens is an inflammation of the veins of the leg, mostly caused by pressure of the gravid uterus, upon the iliac and other veins, generally making its appearance on the second or third week after delivery. It occurs for the most part in one leg, exhibiting to the touch numerous irregular prominences under the skin.

SYMPTOMS.

In the course of two or three weeks after confinement, pain and uneasiness are complained of in the hypogastric,

lumbar and inguinal regions. On examining the limb, it will be found tense, elastic and shining, mostly painful to the touch. It will also be flexed.

The skin will be hot, the pulse quick, with great thirst and restlessness. If the disease is allowed to advance, the tongue will be covered with a dark sordes, the respiration becomes hurried, and delirium, coma, and death, rapidly follow. Or the symptoms will continue in a mild form for weeks, or even months, and the patient recovers, but with a shattered constitution.

The above are the most ordinary symptoms, yet they vary exceedingly in different cases. Sometimes the pain commences in the knee, and is of a sharp darting character, extending to the groin. The limb is but slightly swollen, and cold, but has a peculiar glistening appearance. The secretions of milk will be interrupted, and the bowels irregular. At other times the disease will assume a decided periodic character. The symptoms, such as pain, redness and fever, will all become exceedingly aggravated, at a certain stated period, and remain so for a few hours, followed by a distinct remission; or the disease may be transferred to other organs, as the peritoneum, pleura, or lungs, producing extensive organic disease of those organs.

TREATMENT.

The treatment of phlebitis, when it is traumatic, consists in the application of warm emollient poultices, as slippery elm, saleratus and myrrh, kept moist with the Tinct. of Arnica, and the administration of brisk purgatives of Podophyllin and Cream of Tartar, or Cream of Tartar and antibilious physic, succeeded by a mixture as follows:

R Muriated Tinct. of Iron.....	ʒss.
Pure Water..	ʒvi.
Sulphate of Cinchonin.....	ʒss.

Mix, and give one teaspoonful five or six times a day. If there is fever, Aconite or Veratrum should be given to control it. The purgative should be repeated as often as indicated. After the swelling is subdued, the limb should be evenly bandaged, and kept wet with the Tinct. of Lobelia.

In Phlegmasia Dolens, the poultice should be applied with a bandage over it. A purgative should be given similar to that in traumatic phlebitis, succeeded by the following compound :

R Sulphate of Bebeerine.....	gr. xxx.
Caulophyllin	gr. xj.
White Sugar.....	gr. xxx.

Mix, triturate; divide into ten powders, and give one every three hours. Aconite may be given to control the fever, and the back, hips, and lower part of the bowels be bathed in a liniment prepared as follows :

R Oil of Turpentine.....	℥j.
Eggs.....	v.
Common Salt.....	℥ss.

Mix, and use two or three times a day. If the disease should assume a periodic character,

R Muriated Tinct. of Iron.....	℥ss.
Water	℥ij.
Quinine	gr. xx.

Give one teaspoonful every three or four hours. The surface should be thoroughly bathed, and if practicable, a spirit-sweat given once or twice a week. When the active stage of the disease has passed, small doses of Carbonate of Iron, with Euonymine, may be given three or four times a day. If there should be a chronic diseased condition of the vessels of the limb, the bandage should be continued, and kept moist by vegetable astringents. The patient

would also take Iodide of Potassium in connection with tonics. The diet should be full and nutritious, and entire rest should be enjoined.

CYANOSIS, MORBUS CÆRULEUS, OR BLUE SKIN DISEASE.

This disease is confined to infants. The symptoms are a peculiar livid or blue appearance of the skin, frequently extending to the mucous membrane of the mouth. There is constant cough, dyspnœa, and palpitation. In some cases the dyspnœa becomes so excessive, as to produce syncope and death.

The causes of these symptoms have been shown by Dr. Gintrae, to be as follows :

In 22 cases,	the aorta was found to arise from both ventricles.
“ 30 “	the foramen ovale was open.
“ 14 “	the ductus arteriosus was open.
“ 4 “	a single heart with one auricle and ventricle.
“ 5 “	the ventricular septum was imperfect.
“ 22 “	the pulmonary artery was contracted.
“ 5 “	the pulmonary artery was obliterated.
“ 1 “	the aorta was obliterated.
“ 4 “	the aorta arose from the right ventricle.

The above table shows that this disease is mostly dependent upon congenital deformities of the heart and its appendages.

TREATMENT.

But little can be done in the treatment of this disease, more than to give temporary relief. Where there is syncope, the child should be placed in a warm bath, and ammonia or camphor applied to its nostrils. After which it should be wiped dry, and wrapped in a warm flannel.

For the cough one or two drops of the Tinct. of Lobelia should be given in a teaspoonful of breast milk. The action of the heart may be regulated by Aconite, and in some cases, where the deformity is only partial, the child will gradually recover.

HEADACHE.

This is frequently a mere symptom of idiopathic disease, yet we often meet with cases where the difficulty constitutes the only perceptible ailment. Headache may be caused by a preternatural determination of blood to the brain, by the too frequent use of intoxicating liquors, by a disordered condition of the stomach and bowels, by a loss of balance between the venous and arterial circulation, by an injudicious use of tea and coffee, undue mental or bodily exertion, imperfect menstruation, and the too frequent use of purgative medicines. It is also a symptom of most Idiopathic fevers, as well as most other acute diseases.

TREATMENT.

When headache is dependent upon over-exertion of the mind or body, add one-half grain of Belladonna to one-half tumbler full of water, and give one teaspoonful every fifteen minutes, until the pain ceases. If dependent upon constipation of the bowels, mix one ounce of neutralizing mixture and one grain of Podophyllin, and take one or two teaspoonfuls a-day, or a quantity sufficient to keep the bowels in a soluble condition. If upon imperfect menstruation :

℞ Macrotin..... gr. vj.
 Vallet's ferruginous mass..... gr. xxx.

Mix, make twelve pills, and take one every night. Where the headache depends upon eating and drinking more than nature requires, this should be carefully corrected.

CONVULSIONS IN ADULTS AND CHILDREN.

When convulsions occur in adolescence, it may indicate inflammation of the brain, plethora, or anæmia, ossification of the arteries of the brain, growth of tumors on the inner table of the skull, &c. When they occur in children, although frequently arising from disease of the brain and spinal marrow, they are nevertheless produced, in a great majority of cases, from irritation, transmitted to these parts, from the digestive organs.

TREATMENT.

When the disease occurs in adults, the treatment depends principally upon the cause. Although during the convulsions, small doses of equal parts of the Tinct. of Lobelia and Scutellaria, should be frequently administered into the stomach, if practicable; otherwise mixed with starch water, and given in the form of an enema. The circulation should be equalized by hot baths, sinapisms to the calves of the legs, feet, &c.

When thus relieved, the patient should be treated according to the cause. Where children are seized with convulsions, the first object should be to evacuate the stomach and bowels. For this purpose, four or five drops of the compound Tinct. of Lobelia should be given, every five or ten minutes, until the stomach is thoroughly evacuated. At the same time, the bowels should be injected with equal parts of warm water, oil of olives, and molasses. The child should be placed in a warm bath during the action of the emetic and injection. When the child has been relieved by the above course, all irritating food should be carefully avoided, and a weak tea of Hydrastin and ginger, well sweetened, should be given occasionally for the purpose of giving tone to the stomach.

NEURALGIA.

Neuralgia has alternately been classified under the head of surgical and medical disease. But from the almost universal failure of surgical practice to relieve it, this disease is now almost generally treated as belonging to the medical department.

There is yet, however, some difference of opinion with respect to its pathology. Prof. Jones and others regard it as but a form of ague; while Craigie and others consider it to have its seat in an inflammation of the neurilema or covering of the nerve. Dr. McIntosh states that the cause of this disease may frequently be traced to a disordered state of the stomach, and alimentary canal. Dr. Elliotson in the 3d volume of the Cyclopedia of practical medicine, p. 388, states that the nature of neuralgic affections may be evident immediately, or, not till after a lapse of time; may become evident after death only, or, may never be discovered. He further states that inflammatory conditions of the nerves, and structural changes, as well as mechanical causes, may be detected during life, if the seat of these conditions is within the reach of observation; and symptoms may be induced, which clearly point out the inflammation or structural changes, even if those should be beyond our observation.

Occasionally, however, the seat and cause of the irritation is not only beyond our reach during life, though discoverable afterwards, but no symptoms are produced which indicate them. From the above remarks, and many other observations which might be made, we perceive that quite a diversity of opinion exists relative to its pathology. In order to harmonize the conflicting theories, resulting as they do from actual observation, we might conclude that occasionally it has its origin in inflammation of the membranes of the nerves, in spinal irritation, in derangement

of the stomach and bowels, and in affections of the kidneys ; also, that it frequently arises as one of the effects of miasm, and assumes a disguised remittent character.

SYMPTOMS.

In the most aggravated form the pain is lancinating or tearing, as the patient expresses it. It is sharper at some times than others, and in some instances the parts become red, and assume the appearance of inflammation, although this is not generally the case. When this disease attacks the nerves of the face, it is called *Tic Doloureux*.

All the soft tissues seem to be liable to this affection. The attacks are mostly sudden, and last from a few hours to several days. The constitutional symptoms connected with them are frequently very slight, although, in some cases, the pulse becomes quick, the urine scanty and high-colored ; a light brown coat will appear on the tongue, and there will be alternate fever and perspiration. In other cases the paroxysms will commence with rigors and chills, followed by fever and perspiration ; in short, manifesting all the essential symptoms of ague.

TREATMENT.

As this disease is decidedly of an intermittent character, where there is no obvious organic lesion or perceptible cause of the disease, the treatment should be commenced by giving full doses of antiperiodics, such as the following :

R Scutellarin	gr. x.
Cypripedin	gr. v.
Quinine	gr. x.
Prussiate of Iron.....	gr. xij.

Mix, triturate, divide into ten powders, and give one every two hours, till all are taken. At the same time the affected parts should be thoroughly bathed in a strong, hot solution

of Ferrocyanide of Potassium. These applications should be made in the form of fomentations, and changed as often as cold. When the antiperiodic powders are all taken, the bowels should be thoroughly evacuated by the use of antibilious physic and Leptandrin. If the above prescription be not sufficient to remove the disease, give the following :

R Tinct. of Gelsemium	ʒij.
“ Macrotys Racemosa	ʒj.
“ Iodine	ʒss.

Mix, and give three drops every three hours, until the symptoms yield. If there should be a tendency to a periodic return of the disease, the antiperiodic powders should be repeated from time to time. The bowels should be kept in a natural condition by the use of Neutralizing mixture, and as often as once or twice a week, the surface should be thoroughly bathed. Where the disease is dependent upon spinal irritation, in addition to the above mentioned causes, an irritating plaster should be placed along the spine, and remain until a free discharge ensues. Where there is derangement of the menses, Senecine and Bebeerine should also be used as circumstances seem to indicate.

HYSTERIA.

This is a disease of the nervous system, and almost wholly confined to females, although it is said that males are not exempt from it. The invasion of the disease is sudden and irregular, but in many cases decidedly periodical. In slight attacks the patient bursts into a fit of weeping, soon followed by convulsive laughter, which lasts for a longer or shorter time, and may be followed by comparative composure.

In more severe cases, the complaint is ushered in by a sharp pain in the abdomen or chest, which is soon followed

by a sense of suffocation and oppression at the Epigastrium. The bowels are tense and the surface is cold. The countenance varies; in some cases it is red and swollen, in others it is pale, and the features are contracted. In some very severe cases, there is a convulsive affection of the muscles, amounting to clonic spasms. The urine is mostly discharged in large quantities, and has a light limpid appearance.

CAUSES.

We seldom meet with this disease before puberty, or after the period of life when menstruation finally ceases, and as it mostly makes its appearance during the catamenial flow, it is supposed to have its origin mostly in deranged uterine action.

TREATMENT.

During the paroxysms, the feet should be placed in warm water, and a hot sinapism applied to the lower part of the abdomen. The patient should take equal parts of Cypripedin and Scutellarin, one grain every half hour until the paroxysms subside. If the above is not sufficient to control the disease, the compound ginger and Bayberry tea may be given freely, followed by ten or twenty of Beach's sudorific drops, or thirty or forty drops of the Tinct. of Castor, followed by a pill of assafœtida. After the paroxysm, the patient should take from five to ten grains of Bebeerine, and the same amount of phosphate of Iron, every day for two or three weeks.

To remove the uterine affection, Macrotin, Caulophyllin and Senecin should be used, as the nature of the case seems to indicate. When the disease is dependent upon indigestion and constipation of the bowels, tonics and laxatives are the remedies. If upon spinal irritation, the proper treatment will be found under that head.

MYELITIS, OR INFLAMMATION AND IRRITATION OF THE SPINAL MARROW.

The symptoms of this disease are a sharp pain up and down the back, rigors, fever, headache, and not unfrequently delirium and coma. In some cases dysuria occurs, in others retention of the urine. Rigidity of the muscles of the back and neck is almost a constant symptom. The body may be bent backwards, *opisthotonos*, or forwards, *emprosthotonos*, or there may be a simple rigid state of the muscles, and the decubitis normal. In other cases there may be tetanus, convulsions, or paralysis. The muscles of deglutition are often so affected as to occasion much difficulty of swallowing. The pulse is mostly hard and quick, the bowels are extremely constipated, and frequently there is nausea and vomiting. The respiration is slow and irregular, and occasionally death is suddenly produced by asphyxia.

PROGNOSIS.

The prognosis of this disease is usually favorable under the eclectic system, if it receives timely treatment.

TREATMENT.

A sinapism should be applied along the spine, and the feet should be placed in warm water. The patient placed upon the Tinct. of *Veratrum Viride*, if of a plethoric habit; if otherwise, *Aconite* should be given, and the following cathartic may be administered:

℞ Cream of Tartar.....	gr. xx.
Podophyllin	gr. ij.
Capsicum	gr. x.

Mix, triturate; divide into six powders, and give one every hour until a cathartic effect is produced. The powders

should be assisted in their action by warm stimulating enema. If the disease still proves persistent, a spirit-vapor bath should be given, followed by an emetic of the acetic tincture of Lobelia and Sanguinaria, also repeat the cathartic and continue the sinapism to the spine. If there should be muscular spasms, give the fluid extract of Lobelia, Cypripedin and Scutellaria, equal parts, from five to ten drops every half hour until that symptom subsides. After the active stage of the disease is passed, to prevent disorganization of the spinal marrow and its membranes, with its consequences, such as paralysis, &c., a full antiperiodic course of medicine should be given, followed by two or three drops of the Tinct. of Phosphorus once or twice a day. The bowels should be kept open, and the system supported by the liberal use of Hydrastin and Euonymine.

SPINAL IRRITATION.

This affection might be more properly designated as chronic inflammation of the spinal marrow, and its membranes. In fact the various morbid changes observable as the symptoms of what is usually designated spinal irritation, such as softening, effusion, hypertrophy, &c., all clearly indicate the previous existence of a latent inflammatory process.

SYMPTOMS.

Says Prof. J. G. Jones: "The proteian manifestations of spinal irritation, and the great liability that exists to mistake some of the numerous disturbances produced by disease seated in the spinal nerves, for other and more serious organic affections, remote from the source of trouble, renders the consideration of this subject scarcely less important to the student of medicine, than that of any other

topic connected with disease. Scarcely an organ in the body can be found that is not by turns made the scapegoat upon which these great nervous centres play off their fantastic representations of serious organic or functional disturbances, and thereby mislead the unsuspecting attendant, at the expense to the patient, of a severe course of medication directed to disease having its real seat far remote from the organ manifesting embarrassment and functional disturbance." It will be perceived by these remarks of Prof. Jones, that irritation of the spinal marrow assumes a great variety of symptoms, which is actually the case.

Not unfrequently females who are troubled with the latent form of spinal affection, exhibit symptoms of uterine derangement, heart disturbances, irritation of the lungs and bronchi, irregularity of the bowels, neuralgic pains, &c., succeeding each other in a rapid series of changes. The diagnosis must be made up, in these cases, by carefully examining each organ, thus sympathetically affected, by itself; and, in the absence of any serious organic disease, together with the extreme nervousness of the patient, it will enable us to arrive at the true source of the complaint. On pressure of the spinal processes, there will generally be found more or less tenderness, although I have seen quite a number of cases of evident spinal irritation where this symptom was not present.

TREATMENT.

In cases of spinal irritation, the irritating plaster should be applied along the diseased part of the spine, and caused to remain until a free discharge ensues, and the following tonic and alterative given :

R Phosphate of Iron	gr. xxx
Scutellarin.....	gr. xx.
Syrup of Iodide of Potassium	ʒij.
Port Wine	ʒj.

Mix, and give one tablespoonful three times a day. The surface should be bathed in warm or cold water, as indicated, twice or three times a week; and the bowels should be kept regular by the use of small doses of Neutralizing mixture. When the above course has been pursued for some time, and the disease is not removed, the following compound may be given:

R Valerianate of Quinine	gr. xx.
Cypripedin	gr. x.
Sanguinarin	gr. xx.
White Sugar	$\frac{3}{4}$ ss.

Mix, triturate, and give ten grains four or five times a day. Also, bathe the surface in a warm solution of Ferrocyanide of Potassium every morning. If there is Leucorrhœa connected with the spinal difficulty, Macrotin and Caulophyllin should be given in addition to the above.

HYPOCHONDRIASIS.

The symptoms of this disease are exceedingly various, and are both imaginary and real. The imaginary ones are numerous, such as want of sleep, constipation of the bowels, inability to sleep, &c. Nothing is more common than to hear the patient state that he has been unable to close his eyes in sleep for several nights, when the fact is that he has slept regularly. Or that the bowels have not moved for days, or even weeks, when they are perfectly regular. Or there may be a great variety of imaginary difficulties at the same time. The complaints of one individual that I treated for this disease will serve to illustrate the imaginary symptoms of this class of cases: The patient was a male about 45 years of age. He first complained of inability to walk, and accordingly took to his bed. He was soon unable to speak above a whisper, and imagined he was laboring under an attack of acute phthisis, and, as he

said, had excessive dyspnœa and violent cough, although he neither coughed nor apparently had any difficulty of breathing. He also complained of an entire loss of appetite, and inability to take food, yet he ate three hearty meals daily. At times he thought he was about to die from an extensive affection of the heart; and also, that his liver and kidneys were consumed. In short, he was composed of a congeries of all the ills that afflict the human family. He continued in this state for twelve years, only leaving his bed for a few minutes at a time, and then with great difficulty. During the whole time, he only spoke above a whisper, except when angry. He would then become very boisterous, and talk exceedingly loud, which in one or two instances lasted for several days. But when the fit passed off, he was as seemingly incapable of speech as before. On examination, no apparent disease existed further than the natural debility dependent upon so long confinement. By a proper course of mental and physical treatment, he soon recovered, and resumed his ordinary occupation, that of farming. And although it is now over ten years, he has enjoyed uninterrupted good health. Females who are afflicted with this diseased condition of the mind, often imagine they have some severe uterine derangement. And frequently the medical attendant being as ignorant of the cause of the disease as herself, subjects her to a very disastrous course of medication. Another class of patients afflicted with hypochondriasis have, in addition to the imaginary symptoms, some real organic affections which require especial treatment.

Hypochondriasis, no doubt, is induced by a want of harmonious action between the different organs of the brain.

TREATMENT.

The treatment of this malady should consist principally in quieting, as far as practicable, the already-excited facul

ties of the brain, and bringing other faculties into action. The mind should be constantly directed to other subjects than those to which it has been previously directed; and those subjects should be sufficiently exciting to arrest his former meditations. The head, should be frequently showered in cold, and the body, in tepid water. He should be induced to take as much exercise as his enfeebled condition will warrant. The bowels are to be regulated by mild aperients, and in some cases chalybeates and vegetable tonics will be required. If the disease is complicated with organic affections, it should be treated accordingly.

OPHTHALMIA, OR INFLAMMATION OF THE EYES.

The eye is one of the most delicate as well as one of the most complicated organs of the body.

Diseases of the eye have been until recently very imperfectly understood. Thus has the patient been duped, not only in a pecuniary point, but too often mourns the loss of that inestimable organ.

Ophthalmia is mostly described as a surgical disease, but considering that a large majority of cases of this class originate in some defect of the constitution, the propriety of treating upon them, in a work on practical medicine, will readily be perceived.

Inflammation of the eye may be divided into external, or inflammation of the conjunctiva, and deep-seated, or inflammation of the other tunics, including amaurosis, which is frequently produced by inflammation. This disease is again divided into acute and chronic.

INFLAMMATION OF THE CONJUNCTIVA.

The first symptom complained of, in this form of inflammation of the eye, is a sensation as if particles of sand had insinuated themselves beneath the lids, accompanied by heat, pain, and increased lachrymal secretion; also, intolerance of light. In severe cases there are headache, nausea, constipation of the bowels, anorexia, and more or less disposition to fever. The causes of this form of Ophthalmia are mostly local—as particles of sand, dust, or insects beneath the lids, inversion of eyelashes, &c.

TREATMENT.

The first object should be to remove the cause. If there is an irritating substance beneath the lid, the eye should be thoroughly bathed in cold water while the lid is held open. If the substance is not removed in this manner, a vial cork should be rubbed perfectly smooth with a dry flannel: the particle may then be removed by touching it lightly with the cork. Particles of iron or steel may be removed in this manner; also, by means of a small magnet. When the eye is thus relieved, it may be packed in cold water, and the patient's bowels moved by a dose of anti-bilious physic. If the injury be sufficient to cause inflammation of the eye, a mild diet may be adopted for a few days, and the packs changed as often as necessary to keep them cool.

CATARRHAL OPHTHALMIA.

SYMPTOMS.

After exposure to cold, the eyes are noticed to have a smarting or burning sensation, and the capillaries to be sufficiently dilated to admit of the red corpuscles, whereas

in a normal condition they only convey white ones. The dilated capillaries at first exhibit a radiated appearance, but soon become confluent, and the entire conjunctiva assumes a red and highly inflamed aspect. This condition of the eye is accompanied by chilliness, aching of the bones, and some degree of fever. There is also intolerance to light, and, when the disease has become established, a puriform discharge from the eyes.

TREATMENT.

As this form of inflammation of the eye is dependent upon exposure to cold; in other words, upon a contracted state of the superficial capillaries, and consequent congestion, or inflammation, of the deep capillaries,—the first indication of treatment is to relax the vessels of the surface, and thus unload the congested internal vessels. To effect this the surface should be thoroughly bathed in warm lye water, the patient placed in bed, and the following emetic given :

℞ Lobelia seed, pulverized gr. xx.
Ginger Tea Oj.

Add the Lobelia to the ginger tea while warm, and give one wine-glass full every fifteen minutes, until a thorough emetic effect is produced. The bowels should be opened by the liberal use of antibilious physic. During the action of the emetic and cathartic, the eyes should be kept packed in cold, soft water. If the disease has assumed a chronic form, the pack should be applied as warm as the patient will bear it, and an astringent wash used once or twice a day, such as one gr. of nitrate of silver added to one oz. of pure soft water, and a small quantity applied to the eye by means of a camel's hair pencil once or twice a-day; or the eye may be bathed in a strong decoction of Hydrastin every morning and evening. All irritating salves and eye-washes should be carefully avoided, as they always prove

injurious. If there should be fever, it should be controlled by the use of Aconite. The diet should be cool and bland, the eye precluded from light, and the patient kept quiet.

INFLAMMATION OF THE EYES OF INFANTS, OR PURULENT OPHTHALMIA.

SYMPTOMS.

The symptoms of purulent ophthalmia of children, are somewhat similar to those of catarrhal ophthalmia of adults. The eyes are kept constantly closed, the lids are red and swollen, and glued together by thick puriform matter becoming dry. The skin will be dry, and the bowels irregular. If this disease is neglected, it will result in ulceration of the cornea and loss of the organ. The cause of this disease is exposure to cold, damp clothing, and injuries in washing the child; also the introduction of acrid matter, which is upon the child, into the eye.

TREATMENT.

In the treatment of this affection, the eyes should be thoroughly bathed in a cold, weak solution of Hydrastin, four or five times a-day. They should be kept packed in cold soft water, to which is added a small amount of the Tinct. of Lobelia. The bowels should be kept open by the use of neutralizing mixture and Leptandrin, and from one-half to one drop of Aconite, given every four or five hours. Where the eye-lids become granulated, they should be inverted, and lightly touched with a camel's hair pencil, moistened with a solution of vegetable caustic, once or twice a-day; but much care should be taken that the caustic be all removed before the lids are closed. All poultices should be avoided. Where the disease is of a

scrofulous character, either in children or adults, Muriated Tinct. of Iron, Compound Syrup of Stillingia, Hydrastin, Scrophularia, Quinine, Iodide of Potassium, Iodide of Iron, and a generous diet, are the remedies.

AMAUROSIS.

The term amaurosis is used to denote a partial or total loss of vision, affecting one or both eyes. The causes of this affection are various. It may arise from the inflammation of the sclerotic coat, from inflammation of the iris, from inflammation of the retina, by congestion of the vessels of the retina, by congestion of the brain, by effusion into the base of the brain, by the too free use of ardent spirits, by gastro-intestinal irritation, by tuberculous affection of the optic nerve, by spermatorrhœa, internal use of mercury, exposure of the eye to too strong light, &c.

SYMPTOMS.

The symptoms of amaurosis very much depend upon the cause. Yet the following may be enumerated as generally present in cases of this kind: imperfect vision, pain in the eye, flashes of light, dark spots appearing before the eyes, and in some cases the pupil will be obviously dilated. The disease is mostly insidious, and its progress very slow, although in some cases it is rapid, destroying the vision almost at once.

TREATMENT.

If amaurosis is dependent upon any of the inflammatory affections, a thorough purgative should be given at once.

As,

℞ Podophyllin.....	gr. ij.
Jalapin	gr. j.
Cream of Tartar.....	gr. xxx.

Mix, divide into eight powders, and take one very hour until it operates. After which the patient should be put upon full doses of Tinct. of Veratrum, the pulse maintained at about fifty-five or sixty beats per minute, and the following diuretic or alterative given :

℞ Syrup of Marshmallow..... Oss.
 “ Iodide of Potassium..... ℥ij.

Mix; dose, one teaspoonful three or four times a-day. The eye should be kept constantly packed with cold water, the diet should be low, and the patient should avoid all exposure of the eyes to the light, and all mental and physical labor. If effusion of lymph has taken place within the tunics of the optic nerve, or any part of the eye, causing amaurosis, absorption can be produced by the following pill :

℞ Xanthoxylin gr. xx.
 Iridin..... gr. x.
 Podophyllin gr. iij.
 Iodide of Potassium..... gr. xxx.
 Ext. of Dandelion, in quantity sufficient
 to make a pill mass.

Make three-grain pills, and let three to six be taken per day. At the same time, the kidneys should be stimulated by the use of Cream of Tartar water and vegetable diuretics, as Queen of the Meadow, &c. Where there is loss of power in the nerve, bathing the forehead in strong Tinct. of Capsicum, three or four times a-day, will be very beneficial. The eyes should be well protected from strong light, and from three to five drops of Tct. Rhus Radicans given three times a day. If this remedy should fail to give relief in the course of a few weeks, the following mixture should be given :

℞ Hydrocyanic Acid..... gtt. viij.
 Quinine Sulph..... gr. xx.
 Aqua..... ℥ij.

Mix; dose, one teaspoonful four or five times a day. The bowels should be kept open by the occasional use of a stimulating purgative. Cold baths should be taken as often as every third day. Where the disease is of long standing, indicating paralysis of the optic nerve, the following may be used to advantage:

R Extract Macrotys.....	gr. xx.
“ Mux Vomica	gr. x.
“ Euonymine	gr. xxx.

Mix, and form a pill mass, and make two-grain pills. Dose, from one to three pills, three times a day. During the entire course of treatment, the anterior portion of the head should be frequently bathed with a stimulating preparation.

DISEASES OF THE SKIN.

HERPES, OR SALT RHEUM.

SYMPTOMS.

Small vesicles grouped together upon inflamed patches of skin; the vesicles contain a thin, light, transparent fluid, which is absorbed or evaporated, leaving a thin transparent scale. This desiccation will desquamate and leave the part, which will again become affected in the same manner. There are two other varieties of Herpes spoken of by writers, viz: Herpes Zoster or Shingles, and Herpes Circinatus or Ring-worm. The symptoms of Herpes Zoster are full and quick pulse, dry skin with fever, tenderness of the Epigastrium, constipation of the bowels; and the herpetic eruption which generally commences on the bowels, and spreading frequently, encircles the body. The appearance of the eruption, is almost identical with salt rheum: it is in fact the acute form of

it The symptoms of Herpes Circinatus are very simple; it being only what is known as a ring-worm, no farther description will be required.

TREATMENT.

As an external application, an ointment may be used made as follows :

R Iodide of Zinc.....	gr. xxx.
Ext. of Phytolacca Decandra.....	gr. xx.
“ Black Walnut Bark.....	gr. xxx.
“ Balsam Copaiba	ʒij.

Mix, and rub a small portion on the diseased part, morning and evening. Previously, the part should be well bathed in a strong decoction of Black Walnut buds or leaves. At the same time, the following compound should be taken internally :

R Juglandin.....	ʒj.
Irisin.....	ʒss.
Sac Alba	ʒij.

Mix, triturate, and give from ten to fifteen grains twice a day. Also give one teaspoonful of compound syrup of *Stillingia* three times a day. If there is tenderness in the parts after the disease seems to be removed, they should be protected by liquid collodion for a few months, to prevent a return. For Herpes Circinatus, or ring-worm, wash the parts in Saleratus water, and cover with Collodion.

In Herpes Zoster, or Shingles, the eruptive surface should be well bathed in a strong solution of zinc, after which apply a slippery elm poultice. A purgative of Juglandin and Cream of Tartar should be given, and repeated from time to time as long as the disease proves active. To control the fever, Aconite or Veratrum should be used, and the surface frequently bathed in lye water. If the disease is periodical, some of the antiperiodic medi-

cines should be given. The zinc wash should be repeated from time to time, until the active inflammation is subdued. Afterwards use the liquid Collodion instead.

ECZEMA.

This is another form of herpetic eruptive disease, and like all others, it is characterized by small blisters or vesicles. There are several varieties of this form of eruptive disease, such as Eczema of the face, or *crusta lactea*, Impetigo, or moist tetter, &c. The causes of these cutaneous eruptive diseases are as numerous as the varieties. They may arise from improper diet, exposure to cold, teething in children, intestinal irritations, &c. They are also hereditary. The symptoms depend very much upon the cause; but in all cases, where the disease is in any way severe, there is more or less constitutional disturbance, such as irregularity of the bowels, fever, quick pulse, scanty and high-colored urine, &c. The limits of this work will not allow of a minute description, of every form, of these eruptive diseases and their symptoms. But as the treatment varies only, as the causes are different, the descriptions and symptoms given will be found sufficiently minute for all practical purposes.

TREATMENT.

There is no class of remedies more efficacious in skin diseases, than the preparations of the *Juglans cinerea*; and the most efficient of these is the Juglandin. This should be used in connection with bitartrate of potassa, in sufficient quantities to produce a mild purgative effect. The best preparation of that kind is the following:

℞ Juglandin	gr. xxx.
Cream of Tartar	gr. xxx.
Pulv. Cubebs.....	gr. xx.

Mix, triturate, and divide into twenty powders, and give one every morning and evening.

The above may be given in connection with, or alternated with antiscrofulous syrup, or Iodide of Potassium. In some cases, iron and antiperiodics will be required. The external applications should be tar ointment, nitromuriatic acid, zinc ointment, ointment of Baptisin, acetic Tinct. of Bloodroot, astringent washes, slippery elm poultices, and Collodion. These different remedies may be used as the nature and character of the disease seem to indicate. In the active stage, the preparations of zinc are the best adapted to remove the disease, while the others are more efficient in the chronic stages.

ITCH, OR SCABIES.

This disease is caused by minute white insects, the *Acarus Scabiei*, or *Sarcoptes hominis*, which insinuate themselves beneath the cuticle, and travel over the different portions of the rete mucosum. It is said that these insects travel in pairs—male and female—and that the female is very much smaller. By the aid of the microscope, they are observed to have a large number of bristles upon the head or proboscis. When they find a soft and moist portion of skin, they burrow beneath a small dermoid scale, and luxuriate until a deposition of a small quantity of serum from the blood warns them, that unless they take their departure, a flood will soon overtake them. But before taking their final leave, the female deposits her eggs at the point of the vesicle; thus a nidus is formed for the complete development of the *acarii*.

SYMPTOMS.

A vesicular eruption makes its appearance between the fingers, and in other soft portions of the skin, accompanied by an intolerable itching. If the vesicle is opened, a small amount of sero-albuminous matter will escape, and if allowed to dry, will form a light brown scale.

TREATMENT.

The only remedy necessary in the treatment of this disease is sulphur, and the reason why this remedy is not more successful, is the inefficiency of its application. The entire surface of the patient should first be washed with soap and water; immediately afterwards, a strong decoction of sulphur should be applied to every portion of the body, and allowed to remain from one-half hour to an hour, when the whole surface should be wiped with a towel, wrung out of strong saleratus water. One application of the sulphur, used as directed above, will generally remove the disease; yet, it is advisable to renew the application several times. The sulphur, on coming in contact with the insect, immediately destroys it.

PUSTULOUS CUTANEOUS DISEASE.

All the diseases characterized by pustules, may be correctly classified under the above head. Willan and Bateman specify four varieties of this form of non-contagious disease, viz: phlyzadium, psudracium, achor, and favus.

SYMPTOMS.

A greater or less number of distinct tumefied eruptions, which gradually mature and become filled with a sero-purulent matter, and having an inflamed base. These may appear in small clusters, and disappear in a few days, or they may cover a considerable part of the hands, face, or other portions of the body, and be accompanied with extensive inflammation of the integument, and extending in some instances to the adjacent tissues, terminating in phlegmonoid abscess. Nearly all the forms of tetter come under this class, as do also impetigo and acne. In some cases, there are constitutional symptoms, as fever, quick

pulse, headache, loss of appetite, &c. The causes of this kind of cutaneous disease, are essentially the same as of the vesicular, but they are more apt to be connected with an impoverished condition of the blood.

TREATMENT.

If this disease appears on the head, it is called *porrigo*, or *scald head*. The hair should be shaved close to the scalp, and the head must be thoroughly washed with soap and water, after which the zinc and tar ointment must be alternately applied, morning and evening — the zinc in the morning, and the tar in the evening: the patient should likewise take a full dose of the alterative syrup three times a day. This course, if persisted in, will remove the disease. When the eruption appears on other parts of the body, the nitro-muriatic acid should be first applied, and be followed by the Tar ointment. A mild purgative of Juglandin and Cream of Tartar, also simple syrup of *Stillingia* and *Scrophularia*, equal parts, should be taken in small quantities during the application of the external remedies. When the pustular eruption is connected with extensive inflammation of the skin, a slippery elm poultice should follow the application of the ointment. Should the disease prove obstinate, equal parts of vegetable caustic and pulverized *Sanguinaria*, should be sprinkled over the parts before each application of the ointment. If there are constitutional symptoms, they should be treated according to their nature; in most cases, iron and vegetable tonics will be required. The diet should be nutritious, and the surface freely bathed once or twice a day. To remove the small pustules which appear on the face, apply a liniment made of equal parts of ammonia and sweet oil. Or, when they first appear, touch them with ammonia, and cover them with Collodion.

PURPURA.

There are several varieties of this disease: as simplex, or *petechial scurvy*, *purpura hemorrhagica*, *purpura nautica*, *purpura scarlatina*. By the term purpura, we understand a greater or less number of livid spots on the skin from extravasated blood. In purpura simplex, the effusion is confined to the skin and cellular tissue, mostly occurring on the arms, legs, and breasts. The spots at first are small, resembling flea-bites, and are frequently very numerous. The countenance is pale, and the patient complains of great debility, loss of appetite, irregularity of the bowels, and periodic fever. If the disease is allowed to progress, it will terminate in what is called purpura hemorrhagica, and is described by Dr. Bateman as follows:

“The petechiæ are often of a large size, and are interspersed with vibices, echymoses, or livid stripes and patches, resembling the marks left by the strokes of a whip, or violent bruises. They commonly appear first on the legs, and at uncertain periods afterwards, on the thighs, arms, and trunk of the body; the hands being more rarely spotted with them, and the face generally free. They are usually of a bright red color when they first appear, but soon become purple or livid; and when about to disappear, they change to a brown or yellowish hue; so that, as new eruptions arise, and the absorption of the old ones slowly proceeds, this variety of colors is commonly seen in the different spots at the same time. The cuticle over them appears smooth and shining, but it is not sensibly elevated; in a few cases, however, the cuticle has been seen raised into a sort of vesicles, containing black blood. This more frequently happens in the spots, which appear on the tongue, gums, palate, and inside of the cheeks and lips, where the cuticle is extremely thin,

and breaks from the slightest force, discharging the effused blood. The gentlest pressure on the skin, even such as is applied in feeling the pulse, will often produce a purple blotch, like that which is left after a severe bruise. The same state of the system which gives rise to these effusions under the cuticle, produces likewise copious discharges of blood, especially from the internal parts, which are defended by more delicate coverings. These hemorrhages are often very profuse and not easily restrained, and therefore sometimes prove suddenly fatal; but in other cases, they are less copious; sometimes returning every day at stated periods, and sometimes less frequently, and at irregular intervals; and sometimes there is a slow and almost incessant oozing of blood. The bleeding occurs from the gums, nostrils, throat, inside of the cheeks, tongue, lips, and sometimes from the lining membrane of the eyelids, the urethra and the external ear; and also from the internal cavities of the lungs, stomach, bowels, uterus, kidneys, and bladder. There is the greatest variety, however, in different instances as to the period of the disease, in which the hæmorrhages commence and cease, and as to the proportion which they bear to the cutaneous efflorescence.

“This singular disease is often preceded, for some weeks, by great lassitude, faintness, and pains in the limbs, which render the patient incapable of any exertion; but, not unfrequently, it appears suddenly in the midst of apparent good health. It is always accompanied by great debility and depression of spirits; the pulse is sometimes quickened; and heat, flushing, perspiration, and other symptoms of febrile irritation, recurring like the paroxysms of hectic, occasionally attend. In some patients, deep-seated pains have been felt about the precordia, and in the chest, loins, and abdomen; and in others, a considerable cough has accompanied the com-

plaint, or a tumor and tension of the epigastrium, right or left hypochondrium, with tenderness on pressure, and a constipated, or irregular state of the bowels. But in many cases, no febrile appearances have been noticed; and the functions of the intestines are often natural. In a few cases, frequent syncope has occurred. When the disease has continued for some time, the patient becomes sallow, or of a dirty complexion, with much emaciation, and some degree of œdema appears in the lower extremities, which afterwards extends to other parts. The disease is extremely uncertain in its duration; in some instances it has terminated in a few days, while in others it has continued not only for many months, but even for years."

When the disease runs a rapid course and terminates in death, it is generally dependent upon the occurrence of hemorrhage into some of the vital organs. Such is the disposition to hemorrhage in this stage of the disease, that although a patient may appear convalescent on retiring to bed in the evening, he may be suddenly seized with violent dyspnœa and orthopnœa, which rapidly increases until death ensues by asphyxia. In such a case, there has been a sudden effusion of blood into the pulmonary tissue, producing pulmonary apoplexy.

Or there may be acute hæmoptysis, caused by the escape of blood into the air passages. In this event, the hemorrhage may be controlled, and the patient recover under proper treatment. The hemorrhage may occur in other organs, as the brain, producing apoplexy and death; or, into the cavities of the chest and abdomen. It also occurs into the cellular tissue, producing extensive ecchymosis, inflammation, gangrene, and death; or the purple spot will gradually assume a yellow appearance, absorption of the effused blood occur, and the patient recover.

In purpura nautica, the purple spot mostly occurs at the roots of the hair, on the gums, and mucous membrane

of the mouth and pharynx. In this form of the disease, the gums become spongy and bleed upon the slightest injury, the teeth become loose, and frequently fall from the gums: there is great debility, a sallow countenance, irregular sleep, and night-sweats, followed by fever; the bowels are irritable, and there is mælena. This latter form of it, Prof. J. G. Jones has treated as a separate disease, under the head of Scurvy or Scorbutus; and considers it the same as various writers have described as sea-scurvy: although he does not favor the opinion, at one time very prevalent, that salt water causes the disease; but states, that the cause is generally more of a positive than a negative character, being the want of such articles of food as furnish the system through the medium of the blood, with certain elements indispensable to life and health. He is of the opinion that these deficiencies consist in the lack of vegetable acids.

On comparing the description of scurvy by Prof. Jones, McIntosh, Bateman, and others, with purpura, as it is described by various individuals, the only difference between what is known as sea-scurvy, and purpura, is the circumstances under which it makes its appearance; both evidently depend upon the same pathological condition of the system.

CAUSE.

The causes of the different varieties of this disease, seem to depend upon a deficiency of vegetable aliment, and long exposure to a damp atmosphere; also, a lack of due exercise, an unwholesome diet, and anything which tends to an impoverished state of the blood. The influence of improper diet, in developing purpura, has been remarkably exemplified within the past year. Owing to the failure of fruit, as well as the potato crop and other vegetables, bread, butter, and meats have been the principal articles of diet; and purpura, which was hardly known

in the country, has become a prevalent disease. So much so, that the most trifling complaints are attended frequently by active hemorrhage. On examining the blood, it is found to be deficient in fibrine, but feebly disposed to coagulate, and very abundant in serum.

TREATMENT.

When the disease first makes its appearance in the simple form, little more is necessary than a liberal diet of fresh vegetables, with out-door exercise, and a small amount of Muriated Tinct. of Iron, say from five to ten drops three times a day. Where the disease assumes a hemorrhagic character, the following may be given :

R Quinine.....	gr. xv.
Citrate of Iron.....	gr. xxx.
Capsicum.....	gr. xx.

Mix, triturate, divide into eleven powders, and take one every three hours. The patient should at the same time make a free use of lemonade, and take a free diet of green vegetables, salt meats, eggs, &c. After the powders are all taken, the following mixture should be given :

R Port Wine.....	Oj.
Phosphate of Lime.....	℥ss.
Carbonate of Iron.....	℥iij.

Mix, shake well, and take one tablespoonful, three or four times a day. If effusion has occurred into the cellular tissue of one of the limbs, it should be carefully banded, and kept constantly wet in a strong liniment of camphor, whiskey, and spirits of turpentine. The bowels should be moved once or twice a week, by the use of Antibilious physic and Cream of Tartar. The body should be frequently bathed in warm or cold water as indicated.

Should hemorrhage occur into the bowels, lungs, or any other organ, the oil of Erigeron may be given in five or

six drop doses every half hour. If there should be *mæna*, and the oil of *Erigeron* should fail to arrest it, the nitrate of silver pill may be given as directed under the head of typhoid fever. Or from five to ten grains of *Matico*, may be given every fifteen or twenty minutes, until the hemorrhage ceases. If there is much debility, porter, ale, or brandy, should be given in such quantities as the nature of the case may indicate. The patient should avoid all active exercise, and exposure to a damp, moist atmosphere; let him repeat the Quinine and Iron from time to time, until the disease is removed.

ISCHURIA, RETENTION OF URINE.

In this disease, the urine, accumulated in the bladder, cannot be evacuated without extreme difficulty, or without assistance; when it cannot be evacuated without assistance, the retention is said to be complete; and when it is evacuated without assistance, but with great difficulty, it is said to be incomplete.

CAUSES.

The causes of retention of urine are various; as inflammation of the bladder, small stones or gravel lodging in the urinary passages, hard *fæces* lying in the rectum, pregnancy, stricture of the neck of the bladder, swelling of the hemorrhoidal veins, paralysis of the bladder, prolapsus uteri, inflammation of the mucous surface of the urethra; it also occurs in female hysteria, and from inflammation of the meatus urinarius.

SYMPTOMS.

When the bladder becomes abnormally distended with urine, there will be a dull pain in the back, with sharp lancinating pains passing through the bladder. As the

accumulation of urine goes on, the pain increases until it becomes excruciating, the arterial system is much excited, and the pulse beats with increased frequency, rising to 100 or 140 beats per minute. The respiration is hurried, and the skin hot and dry. If the uric acid is allowed to be absorbed into the blood, the brain will sympathize with the other constitutional symptoms, producing delirium, and as I have seen in several cases, clonic spasms. Unless the bladder is evacuated, it will become perforated, producing death; or death may occur as the result of zymotic influence upon the blood and nerves.

TREATMENT.

When the retention is dependent upon inflammation of the bladder, kidneys, or urethra, the bladder should first be evacuated by means of a catheter; after which the disease should be treated, as directed under the head of inflammation of these parts. If it depends upon a stricture, it can generally be overcome by injecting into the urethra, a solution of the extract of Belladonna or Gelseminum:

℞ Extract of Belladonna..... gr. x.
 Warm Water..... ℥ij.

Dissolve the extract in the water, and inject one third into the urethra. If this is not soon followed by relief, it may be repeated every fifteen or twenty minutes. If, in a reasonable time, relief is not effected, the Ext. Gelseminum may be used in the same manner. In my hands this treatment in strictures of the urethra has proved efficacious in a large number of cases. Where the disease is occasioned by a gravelly deposit in the bladder,

℞ Ext. Eupurpurin..... gr. xxx.
 Cream of Tartar..... ℥j.
 Apocynin..... gr. xx.

Mix, triturate; divide into ten powders, and give one three times a day in one-teaspoonful of Syrup of Iodide of Potassium; the hypogastric and lumbar regions should be bathed every morning and evening in equal parts of sweet oil and spirits of turpentine. Where there is pressure on the neck of the bladder, by fæces lying in the rectum, by pregnancy, or other cause, it should be removed. And then, by the use of Marshmallow, Clivers or flaxseed tea, a cure may be effected. In females, where it is dependent upon irritation of the meatus urinarius, a warm elm poultice, applied to the vulva, and melon-seed tea, will generally effect a cure. If there should be debility of the bladder, with a tendency to paralysis, tonics, combined with Iron, should be used, and the nerves of the back gently stimulated by the application of the electro-magnetic current once or twice a day. During the treatment of retention of urine, whatever the cause may be, the bladder should be evacuated every day by the use of the catheter.

ENURESIS, INCONTINENCE OF URINE.

Incontinence of urine, like retention, is often associated with some constitutional weakness. In advanced life it is usually associated with disease of the neck of the bladder, prostate gland, or with paralysis. Incontinence of urine, in children, mostly occurs in the night only, while asleep; and, not unfrequently, in these cases the urine passes off involuntarily under the influence of a dream.

It is said that in such cases the acid property of the urine is the exciting cause, and that there is a strong tendency to gravelly deposits. In young people, where the urine passes off in the night involuntarily, it is usually retained, at any time, with much difficulty, and will be of a very pale color, and far less serous than is natural. In

old people, this difficulty arises from paralysis, produced by injuries of the spine, or over-distension of the bladder, injuries of the neck of the bladder, &c.

TREATMENT.

In children, where the disease depends upon a changed condition of the urine, the diet should be well regulated, and warm or cold baths given three or four times a week. A syrup of equal parts of *Hydrastus Canadensis* and *Aletris Farinosa* should be given in teaspoonful doses three times a day. Where it depends upon spinal irritation, the irritating plaster should be applied to the spine, and from five to ten drops of the oil of *Erigeron* given three times a day, with a free use of cold baths and friction.

If the bladder is in an irritable state, give the following :

℞ Dwarf Elder.....	ʒj.
Indian Hemp.....	ʒij.
Marshmallows.....	ʒj.

Make one pint of syrup, and add one half pint of gin. Dose, one teaspoonful three times a day. If there is an enlarged condition of the prostate gland, one drachm of Iodide of Potassium should be added to the syrup, and the same quantity taken.

HÆMATURIA, OR HEMORRHAGE FROM THE URINARY ORGANS.

This frequently occurs in certain epidemics of the malignant type, as in cholera and severe remittent and typhoid fever, in which the spleen and liver are implicated; also in Purpura, Scurvy, and all diseases in which the blood is in an impoverished state. The exciting cause of hæmaturia may be of a mechanical nature, that is, a cal-

culus concretion; or it may be from ulcerations of the bladder, kidneys, or their appendages. When the hemorrhage cannot be traced to some constitutional disturbance, it may be considered directly mechanical. This may depend upon a calculus, either causing irritation or wounding some blood-vessel; or the hemorrhage may occur from ulceration of the bladder, by the irritating effect of the urine itself.

DIAGNOSIS.

When the patient is laboring under no constitutional disease, that is usually accompanied by hemorrhage, or has not been afflicted with calculous affections, if he complains of pain in the urinary organs, and voids blood with the urine, mixed with mucus, and especially if mixed with purulent matter, a breach of surface must exist somewhere in the urinary apparatus. Having ascertained the cause of the hemorrhage, its seat should be sought for. When there are sharp twisting pains along the line of the ureter, darting to the urethra and testicles, accompanied with nausea and vomiting, it may be reasonably supposed that it depends upon the presence of calculus in the ureter or kidneys. On the other hand, when the hemorrhage comes on after exercise, and there is occasional retention, accompanied by a twinging pain in the penis, there can be but little doubt that the hemorrhage is caused by stone in the bladder. Where the hemorrhage is from the kidneys, the first urine that flows is generally clear, the blood mostly passing at the close of micturition.

TREATMENT.

The treatment of hæmaturia will depend upon the cause, the degree and locality.

Where the disease is dependent upon scurvy or purpura, it should be treated as directed under that head, with the addition of astringents, such as an injection of weak

solution of Matico into the bladder, and the oil of Erigeron taken internally. If occurring as melæna, the effect of obstruction of the liver and spleen, give the following :

R Muriated Tinct. of Iron.....	ʒij.
Quinine.....	gr. xx.
Water.....	ʒiij

Mix, and give one tablespoonful every four or five hours until the active stage of the disease is passed. After which, the following mixture :

R Gin.....	Oj.
Sugar.....	lbj.
Water.....	Oj.
Aletrin.....	ʒj.
Euonymine.....	ʒij.

Mix, and give one tablespoonful three or four times a day. The region of the liver and spleen should be bathed two or three times a day in a liniment composed of sweet oil and spirits of turpentine. Where hæmaturia is connected with a gouty diathesis, a free purgative of Podophyllin and Cream of Tartar may be given in the commencement of the treatment, followed by full doses of the oil of Erigeron, until the hæmorrhage ceases. After which, nitro-muriatic acid and Euonymine should be given. If calculus in the kidneys is the cause of the disease, a strong decoction of the Queen of the Meadow will dislodge it and arrest the hæmorrhage; after which, mucilaginous diuretics should be given, such as marshmallow, flaxseed, &c. When the cause of hæmaturia is seated in the bladder, it should be injected first with warm water, afterwards with a strong solution of Matico mixed with starch-water. The back and loins being thoroughly bathed with a liniment prepared as follows :

R Oil of Capsicum.....	gtt. x.
Alcohol.....	Oss.
Oil of Origanum.....	ʒiij.

Mix, and use as heretofore directed. If there is much inflammation of the bladder, scarify and cup over that region, and apply hot packs. At the same time give Aconite or Veratrum until the symptoms are controlled. If the bladder should become distended with a large amount of coagulated blood, recourse must be had to a large-sized catheter; and by the aid of an exhausting syringe and an occasional injection of the bladder with cold water, the coagula may be removed. Should the hemorrhage become active while thus evacuating the bladder, it may be arrested by injecting a solution of Matico into the rectum.

CONGESTION AND INFLAMMATION OF THE UTERUS.

This disease is but imperfectly understood; and more frequently than otherwise passes unobserved both by the patient and her medical attendant. In a great majority of cases it is treated by physicians as prolapsus uteri, amenorrhœa, dysmenorrhœa, menorrhagia, or leucorrhœa; the primary cause of the disease is overlooked, and the symptoms only receive attention. Hence it is that but little if any benefit is derived from the ordinary course of medication in this class of cases.

The hydropathists have acquired some reputation for treating this class of cases, and in many instances they have had superior success. Their success, however, is not dependent upon a more extensive knowledge of the affections so much as the remedy upon which they rely being better adapted to relieve this peculiar pathological condition of the uterus, than the remedies generally used for this purpose.

Congestion of the uterus, like congestion of other organs, is a disease of frequent occurrence, and is caused by the

accumulation of blood in the veins and capillaries. The congestion is generally combined with infiltration into the cellular tissue of the uterus, producing œdema of the uterus, and in some cases the œdema is very considerable.

SYMPTOMS.

On making a vaginal examination of the uterus, a complete congested appearance is manifest. The uterus is enlarged and vesicular, and in places the veins have a varicose appearance. In the incipient congestion of the uterus the appearance very much resembles that of early pregnancy. The uterus is tender upon pressure, and if the disease is of long standing, the broad ligaments and vagina also present a similar congested condition. In other cases there is excoriating granulations, or ulceration of the neck of the uterus and its lining membrane. Congestion of the uterus, like the congestion of other similar tissues, is followed by pathological changes, such as an increased afflux of blood to the part; a loaded condition of the capillaries, the blood circulating with less and less force until it finally ceases, and a complete barrier is formed to the further circulation of blood in the part. At this stage inflammation is said to commence. But where congestion assumes a chronic form, as it mostly does in the uterus, the vessels, after having been thus distended for some time, contract upon their own contents, forcing the more fluid portions of the blood out of the vessel into the adjacent areolar and cellular tissues; and in this way the parenchyma of the uterus becomes extensively infiltrated with the fluid portion of the blood. Where the congestion extends to the vagina and inner membrane of the uterus, a similar exosmosis occurs from the congested capillaries of the parts; instead of being retained in the parenchyma, it escapes into the cavity of the uterus and vagina, mixing with the mucus, and thus constituting what is known as the whites. In case

the blood is anæmic, and the patient of a scrofulous cachexia, the salts of the blood held in solution will make their escape with the serum, and, mingling with mucus, cause a mucopurulent or muco-serous discharge. If there is abrasion of the uterus or its appendages, the sanious secretion from the ulcer, mixed with the disintegrated tissues of the parts, often renders the discharge not only offensive but exceedingly irritating, denuding the vagina of its mucous surface and inducing either an acute or chronic inflammation. The constitutional symptoms are a sense of weakness, weight, or pain in the back; the patient complains of nervousness, pains in the head and shoulders, often changing to different parts of the body. The functions of the stomach and bowels become deranged; the countenance is sallow, and the skin has a dry and husky appearance; the lips lose their color, and the eyes their natural brilliancy; the feet and hands are mostly cold, although in some cases, and in some portions of the day, they are hot and burning. The menses are mostly irregular either in quantity, quality, or time of occurrence. I have observed all these symptoms in connection with congestion of the uterus. If the disease is allowed to advance, palpitation of the heart will occur, with cough, bronchial irritation and expectoration of mucus. At this stage of the disease, the increased weight of the uterus, together with the relaxed condition of the muscular tissue, causes the uterus to gravitate into the pelvis, resulting in what is usually known as prolapsus uteri. The lower floor of the abdominal cavity thus giving way, enables the whole contents of the abdomen and thorax to settle from their normal position. The bowels, stomach, liver, spleen, heart, and lungs, all being thus displaced, put the pneumogastric nerve and upper portion of the lung upon a stretch, producing a constant irritation and materially increasing the cough, which before was considerable. If this condition of things is allowed to continue, the blood

soon becomes impoverished, owing to a defective appetite, irregular respiration and leucorrhœa, and a tuberculous deposition occurs in the lungs. In cases where the uterus has become impregnated, the symptoms frequently somewhat abate, although in several cases I have known them to be very much aggravated, and maintain an uncommon obstinacy during the entire stage of gestation. Where the uterus remains thus congested during pregnancy, the disease is very liable to terminate in inflammation immediately after delivery, proving very obstinate, and, unless properly treated, disastrous to the patient. In these cases there is acute pain just above the pubes, quick pulse, hot skin, and retention of urine, either partial or complete. The tongue will soon be covered with a dark brown coat, and many times there are convulsions. The bowels are constipated, and in many cases there is nausea and vomiting.

If the disease is not controlled, delirium, coma, and death ensue. The inflammation may be less acute, extending to the peritoneum, causing a tympanitic condition of the bowels, suppression of the lochia and milk, with violent fever. There are other points of great interest connected with this form of uterine derangement, which the limits of this work will not allow me to consider.

CAUSES.

There are a variety of causes which may produce this condition of the uterus; such as the frequent use of emmenagogues, which contain mercury, exposure of the feet to the damp and cold earth by wearing thin shoes; the practice of dressing in such a manner as to compress the waist, thus preventing the return of the venous blood to the heart by the superficial veins, also obstructing the capillary circulation; hence the blood is forced through the deep capillaries, inducing congestion of the uterus. It may also be caused by repeated abortions, by excessive

venery, by cold and exposure; in short, anything which will induce it in any of the internal viscera, will produce it in the uterus.

TREATMENT.

In commencing the treatment of this disease, the cause should be constantly kept in view, and as far as possible be removed. To remove the congestion, a plaster should be applied to the abdomen over the uterus, composed of the following materials :

R Gum Galbanum.....	ʒij.
White Pine Gum.....	ʒj.
White Wax.....	ʒjss.

Melt the gums and wax together, add one drachm of pulverized blood-root, and stir until it becomes thickened; spread a coat of it upon a thin piece of leather, large enough to cover the uterus, and apply. It should be renewed from time to time until relief is effected. At the same time, give the following compound :

R Gelsemin.....	gr. ij.
Bebeerine.....	gr. xxx.
Caulophyllin.....	gr. x.
White Sugar.....	gr. xxx.

Mix, triturate, divide into twelve powders, and give one every six hours. During the administration of these powders, vaginal injections of the cold infusion of Cinchona should be used two or three times a day. During the early part of the treatment, a thorough hand-bath should be taken every morning as indicated; also an occasional sitz bath. The above treatment should be pursued for ten or fifteen days; the following may then be substituted :

R Carbonate of Iron.....	ʒj.
Pulv. Queen of the Meadow.....	ʒij.
Cream of Tartar.....	ʒj.

Port Wine	Oj.
Sugar	lbj.
Gin.....	Oj.

Dose, one tablespoonful three times a day. At the same time :

℞ Fol. Jugland Regiæ, or Fresh Walnut leaves. $\bar{\text{z}}$ vj.	
Port Wine	Oj.

Make a Tincture, and use a syringe full, as vaginal injection, once or twice a day. The plaster should be removed, and a wet girdle worn around the lower portion of the abdomen and back. During the entire course of treatment, the bowels should be regulated by the use of neutralizing mixture. If any of the symptoms, described as dependent upon this disease, should remain after using the above remedies for a reasonable length of time :

℞ Macrotin	gr. xx.
Senecio	gr. x.
Capsicum	gr. xx.
Vallet's Ferruginous Mass	$\bar{\text{z}}$ j.

Mix, and form a mass. Make three-grain pills, and let one be taken three times a day, alone, or in connection with other medicines as indicated. If there should be ulcers upon the vagina or uterus, the speculum should be introduced, and the vegetable caustic be applied, after which the ulcer should be covered with powdered slippery elm. Much care will be required in making this application, to prevent the caustic from coming in contact with parts not diseased. If there should be a scrofulous diathesis, connected with this disease, Stillingia and Iodide of Potassium may be used in connection with the other remedies. The diet in any case should be free and nutritious. In case the congestion should terminate in a latent form of inflammation, Muriated Tinct. of Iron, Veratrum, Cinchonine, and Cornine, in connection with the local applications, as directed under the head of congestion.

Where active inflammation ensues, a full cathartic of Podophyllin and Cream of Tartar should be given in the commencement, followed by cold packs to the bowels, and full doses of Muriated Tinct. of Iron and Quinine. If convulsions are connected with the inflammation, Gelsemin, Lobelin, and Belladonna, should be used in sufficient quantities until that symptom is relieved. During the inflammatory stage, the patient must be kept quiet, but in the congestive form of the disease, moderate exercise should be taken.

CESSATION OF THE MENSES.

At the period of life when the menses should cease, the discharge usually becomes irregular; sometimes being obstructed for two or three months or more. Among the symptoms of this period, are nausea and vomiting, swelling of the abdomen, tenderness of the breasts, &c. These symptoms are frequently mistaken for pregnancy; connected with the above, there are frequently uterine pains, with dragging sensation in the back and loins; at times there is fever, accompanied by violent headache, a full, strong pulse, a loaded tongue, and symptoms of indigestion. The nervous system generally sympathizes with the other affections, causing nervous headache, neuralgic pains, periodic diarrhœa, and costiveness. These symptoms may all be mitigated by a sudden return of the menses, which may last much longer than is natural, and also be more profuse; upon their cessation they may again return in an aggravated form.

This period in female life is truly designated the critical period; and, although this is necessarily the case, owing to the important physiological changes which occur at this time, yet it is frequently made much more so, from the abuse of quack medicines.

TREATMENT.

When the symptoms are slight, but little more will be necessary than to regulate the bowels and diet, bathe the surface, and occasionally to wear a pack on the lower portion of the bowels, wet with equal parts of water and whiskey; but, where the symptoms are severe, in addition to this, a purgative of anti-bilious physic should be taken, and afterward the following compound:

℞ Aletrin.....	gr. xxx.
Cypripedin	gr. xx.
Pterin.....	gr. xxx.
Carbonate of Iron.....	gr. xxx.
White Sugar.....	℥ij.

Mix, and add to one pint of Port-wine. Dose, one table-spoonful three times a day. Also,

℞ Irisin	gr. xxx.
Hyosciamin.....	gr. v.
Podophyllin	gr. ij.
Extract of Dandelion sufficient to make thirty pills. Let one be taken night and morning.	

If neuralgic pains should occur,

℞ Belladonna.....	gr. j.
Quinine.....	gr. xv.
White Sugar.....	gr. xx.

Mix, triturate, divide into eight powders, and take one three times a day. Constitutional symptoms of every variety manifesting themselves during the period, should be met with such remedies as are indicated.

DISEASES OF THE OVARIES.

The ovaries are subject to a number of diseases, as *dropsy*, *sarcoma*, *hypertrophy*, *atrophy*, &c. Among the most common is *dropsy*; hence, I shall confine this article mostly to that disease.

SYMPTOMS.

A slight fugitive pain will be felt in the region of the ovaries. The ovary will be found to be larger on one side than on the other. This tumor, which is but very small at first, gradually increases in size, until it finally presses upon the uterus and vagina, causing uterine and vaginal irritation, difficult micturition, and prolapsus ani. On examination, the tumor may be felt between the vagina and rectum. This is particularly the case before it becomes very much enlarged. Sometimes this tumor ascends into the cavity of the abdomen, and presents very much the appearance of the gravid uterus. The tumor may gradually increase until it becomes of an enormous size.

A specimen is now in the museum of the Medical College of Pennsylvania, of a tumor which grew to such an enormous size as to contain over three gallons of fluid. In some instances, the fluid becomes spontaneously absorbed. This occurred in a case which came under my observation, where the ovarian cyst was of a size sufficient to hold a gallon.

In other cases, inflammation occurs in the cyst, which may produce death. Sometimes the cyst adheres to the parietes of the abdomen, to the bowels, or vagina; in this event, occasionally, a fistulous opening occurs, and the fluid makes its escape; but as the internal membrane of the cyst is so organized as to constantly secrete this gelatinous fluid, a discharge will be maintained until death ensues from exhaustion.

TREATMENT.

I do not propose to speak of the surgical treatment of this disease, but to confine my remarks entirely to that form of medical treatment which has proved successful in my hands in removing the disease in its early stage.

In the commencement, a pad should be placed over the tumor, kept in its place and caused to make gentle pressure upon it, by a bandage passing around the body. The pad should be wet with the Tinct. of Iodine before applying it, and afterwards once or twice a day throughout the entire treatment. The bandage should be so adjusted as to maintain a constant pressure. The patient may also take the following syrup :

R Syrup of Iodide of Iron..... Oss.
Syrup of Stillingia..... Oss.

Dose, one teaspoonful four or five times a day. The bowels should be evacuated once or twice a week with Cream of Tartar and Podophyllin. When this course has been pursued for four or five weeks, substitute the following :

R Syrup of Marshmallow..... Oj.
Iodide of Potassium..... ʒij.

Mix, and give one teaspoonful four times a day, occasionally using the purgative as before.

This treatment persisted in, has in my hands proved successful in several cases of ovarian dropsy, and in some where it was considerably advanced. The pressure, in connection with the Iodine, acts as a constant stimulant to the absorbents, and by the alterative effect of the medicine, the cyst ceases to secrete the gelatinous fluid.

SCROFULA.

Scrofula, says Ericksen, is a peculiar constitutional condition, either hereditary or acquired, that leads to the formation of, and in its full development is characterized by the presence of tubercle. It is, however, only when fully developed that scrofula gives rise to the local deposit of tuberculous matter. The constitutional condition that tends to this is sufficiently characteristic; but although we may recognize its existence, and speak of the individual possessing such a constitution, as having a scrofulous tendency or diathesis, he can scarcely be considered to labor under the fully formed disease, unless tubercle be deposited in some of the tissues or organs. The scrofulous diathesis is a peculiar constitutional state that is often erroneously confounded with general debility. It may and often does co-exist with this, but is by no means synonymous with weakness of constitution. Debility often exists without any scrofulous tendency or taint, more particularly in individuals of the nervous temperament; many delicate people, though weak, being perfectly healthy, and showing no disposition to this peculiar affection; on the contrary, the scrofulous tendency is often conjoined with much muscular power and mental activity, no weakness being manifested in either of these respects. Scrofula is invariably conjoined with debility and a perversion of the nutritive functions of the organism. This is especially manifested in certain tissues, such as the mucous and cutaneous, and in those organs the vitality of which is low, as the lymphatic glands, the bones and joints. In these, scrofula is especially apt to influence the products of nutrition and of inflammation, more particularly during the earlier periods of life, when these actions are most energetic, in such a way as to render its existence evident to the surgeon. It is this tendency to the occurrence of particular

diseases, and to the engrafting of special characters on affections of certain tissues, that may be considered as specially indicative of the scrofulous diathesis, of that condition which, in its fulness of development, gives rise to deposits of tubercle in the organs and tissues.

The existence of this diathesis is marked by the presence of a peculiar temperament,—by special modifications of the seat, form, and products of inflammation, and, lastly, by the development of tubercle.

The scrofulous temperament assumes two distinct forms, and each of these presents two varieties. The most common is that which occurs in persons with fair, soft, and transparent skin, having clear blue eyes, with large pupils, light hair, tapering fingers, and clear white teeth; indeed, whose beauty is often striking, especially in early life, being dependent rather on roundness of outline, than grace of form; and whose growth is rapid and precocious. In these individuals the affections are strong, and the procreative powers considerable; the mental activity is great, and is usually characterized by much delicacy and softness of feeling, and vivacity of intellect. Indeed, it would appear that the nutritive, procreative, and mental powers are rapidly and energetically developed in early life, but become proportionably and prematurely exhausted. In another variety of the fair scrofulous temperament, we find a coarse skin, short and rounded features, light grey eyes, crisp and curling sandy hair, a short and somewhat ungainly stature, and clubbed fingers; but not uncommonly, as in the former variety, great and early mental activity, and occasionally much muscular strength.

In the dark form of the scrofulous temperament, we usually find a somewhat heavy, sullen, and forbidding appearance; a dark, coarse, sallow, greasy-looking skin; short, thick, and harsh curly hair; a small stature, but often a degree of torpor or languor of the mental faculties,

though the powers of intellect are sometimes remarkably developed. The other dark strumous temperament is characterized by clear, dark eyes, fine hair, a sallow skin, and by mental and physical organization that pretty closely resembles the first-described variety of the fair strumous diathesis.

In all these varieties of temperament, the digestive organs will be found to be weak and irritable. This condition, which I believe is invariably associated with struma, and the importance of which has been pointed out by Sir James Clark, must be regarded as one of the most essential conditions connected with scrofula, and as tending greatly to that impairment of nutrition which is so frequent in this state. This gastric irritability is especially characterized by the tongue, even in young children, being habitually coated towards the root with a thick white fur, through which elongated papillæ project, constituting the pipped or strawberry tongue; the edges and tip, as well as the lips, being of a bright-red color. This state of the tongue is aggravated by stimulants, high living, and the habitual use of purgatives. In the fair varieties, the bowels are usually somewhat loose; but in the dark forms of struma, there is a torpid condition of the intestinal canal. In all cases the action of the heart is feeble, the blood is thin and watery, and there is a tendency to coldness and often to clamminess of the extremities.

One of the most marked characteristics of struma, is certainly the peculiar modification that inflammation undergoes, whether we regard the course that it takes, the form that it assumes, its products, or its seat. The course of inflammation in strumous subjects is always slow, feeble, and ill-developed, the more active and sthenic conditions being rarely met with. In its form, it is either ulcerative, congestive, or suppurative, and in its products it is characterized by little tendency to adhesion, by the

production of thin, weak, blue, and ill-developed cicatrices, and by the formation of thin, curdy pus, with much shreddy corpuscular lymph.

The seat of strumous inflammation varies greatly; the peculiar modifications of its course, form, and products, are assumed, according to the part that it affects. The tissues implicated by it, are chiefly the skin and mucous membranes, the joints, and the bones; occasioning a great variety of special diseases, according as one or another of these structures is affected. It is as the result of, or in connection with, these local affections, that the general symptoms of struma become most marked. Whatever the temperament may be, the individual becomes emaciated, sallow, cachectic, and debilitated, and at length falls into a state of hectic or marasmus.

When affecting the skin, scrofula declares itself under a variety of cutaneous eruptions, especially the different forms of eczema of the scalp, and various ulcers on the surface, usually weak and largely granulating, with considerable swelling of surrounding parts, and a tendency to the formation of thin, blue, and glazed cicatrices.

The *mucous membranes* are commonly extensively affected, and often present the earlier forms of scrofulous disease in childhood; this is more especially the case with those of the eyelids and nose. The conjunctiva becomes chronically inflamed, with perhaps ulceration of the cornea; the mucous membrane of the eyelids may be permanently congested and irritated, with loss of eyelashes, constituting the different forms of psorophthalmia. The mucous membrane lining the nostrils becomes chronically congested, red, and swollen, giving rise to habitual sniffing of the nose, and to a sensation as of a constant cold. Occasionally the lining of the antrum becomes irritated, and may then occasion an enlargement of this cavity, or the discharge of unhealthy pus into the nostrils. The

tonsils are often found chronically enlarged and indurated, with occasional tendency to fresh inflammation; and the larynx may become the seat of various forms of aphonia, dependent on congestion of its lining membrane. The state of the gastro-intestinal mucous membrane, has already been described when speaking of the state of the tongue; and that of the genito-urinary organs is also marked by a tendency to debility and irritation, indicated by the occurrence of discharges from the urethra, under the influence of very slight exciting causes, and that are often very permanent in their character. The occurrence of calculus in the bladder, especially in children, may also occasionally be attributed to the scrofulous diathesis.

Perhaps the most important local diseases arising under the influence of this agency, are those of *the bones and joints*. The bones are liable to the occurrence of various forms of caries and necrosis; more especially those that are spongy in their texture, as the short bones of the foot, and the articular ends of the long bones. The joints are liable to that large class of affections that are commonly known as *white swellings*, and which consist of thickening, disorganization, ulceration, and suppuration of the synovial membranes and cartilages.

Lastly, some of the *glandular organs* are peculiarly prone to scrofulous disease. Enlargement of the lymphatic glands, more particularly those at the side of the neck, and the glands of the jaw, is of such frequent occurrence, and is usually so early a sign, that the surgeon, in determining whether an individual is scrofulous or not, commonly passes his hand over the glands in these situations, in order to ascertain their condition and size; these glandular enlargements are especially apt to run into unhealthy and chronic suppuration. The testes and the mammæ are occasionally affected; and other glandular

structures, though sometimes implicated, are by no means so commonly found diseased, as those just mentioned.

The occurrence of *tubercle* must be looked upon as the distinctive characteristic of scrofula, and when it occurs it may be considered a sure sign of this affection, which has then reached its ultimate development. In those cases in which the scrofulous diathesis exists without having given rise to this product, it must be considered as not having been called into full and active operation, having merely manifested itself in the minor forms of the disease, such as ulceration of the skin and mucous surfaces.

Tubercle, though sufficiently well marked by its appearances and progress, cannot be looked upon as a specific affection, but must be considered to be a perverted or unhealthy development of the nutritive materials, destined for the repair of the body and the restoration of the blood. According to Mr. Simon, it consists of the lymph or nascent blood. It is a "dead concretion," a "fibriniform product, insusceptible of development." "The scrofulous diathesis," says Mr. Simon, "consists in a peculiarity of blood development, under which the nascent blood tends to molecular death by superoxydation." According to Dr. Williams, tubercle is a degraded condition of the nutritive material from which the old textures are renewed, and the new ones formed, and it differs from fibrine or coagulable lymph, not in kind, but in degree of vitality and capacity of organization.

"Tubercle essentially occurs in two forms, as semi-transparent grey granulations, smooth and cartilaginous in look, somewhat hard, closely adherent, and accumulated in groups, often with a good deal of inflammatory action in the surrounding tissues. These grey granulations, usually about the size of a small pin's head, appear to consist of a modified exudation of matter. They have a tendency to run into masses, and to form the true yellow tubercle,

which is met with in opaque, firm, but friable concretions, of a dull whitish or yellowish color, homogeneous in structure, and without any appearance of vascularity.

The microscopic characters of tubercle present no very specific appearances. We find that this product presents under the lens, a homogeneous struma, which chiefly occurs in the grey granulations, a granular matter which is principally met with in yellow tubercles, drops of molecular oil, and, lastly, considerable quantities of imperfectly developed exudation cells, more or less disintegrated, stationary or degraded.

The progress of tubercle is most commonly to disintegration and liquefaction, at the same time that it gives rise, by its irritation, to inflammation and suppuration in the surrounding tissues; hence it commonly leads to abscesses, the pus of which is always curdy and shreddy. In some cases tubercle may become indurated, and undergo a species of calcification. The *causes* of scrofula, unless this be of an hereditary character, though very various in their nature, are usually such conditions as influence injuriously the nutrition of the body. The hereditary nature of scrofula is well known, both to the public and to the profession, for although the disease is not commonly connate, yet the tendency to it is, and the characteristic nature of the affection often manifests itself at an early period, notwithstanding every effort to prevent its development. That a parent may develop a tendency to malnutrition, to misdevelopment of the blood, just as he may a peculiar feature or mental condition, is undoubted. It is by the hereditary transmission of peculiar combinations and modifications of action in the organization, that hereditary diseases develop themselves at certain periods in the life of the offspring, when the injurious results of the morbid actions that have been transmitted, have had time to be produced. There are certain conditions which, though not scrofulous,

are supposed to have a tendency to develop this disease in the offspring to which they are transmitted; thus dyspeptic parents are said, and I believe with reason, to have strumous children; so, also, the offspring of very old or very young people, often exhibit a proneness to scrofulous affections. The influence of intermarriage is still a matter of doubt, though I believe it exerts but little influence in this respect, and it is commonly stated that the inhabitants of little communities, who intermarry closely, such as those in the isles of Portland and Man, are not more liable to scrofula than other individuals. The most potent cause of scrofula, and that which in civilized countries is likewise most frequent, is mal-nutrition, arising either from want of food, or the use of inferior food by the poorer classes, or from over-feeding, and over-stimulation of the digestive organs in the children of the wealthier orders of society, thus inducing chronic irritation of the mucous membrane of the stomach, interference with the digestive powers, and consequently with nutrition. The influence of food that is insufficient in quantity, or innutritious in quality, has been shown by Mr. Phillips, in his excellent treatise on scrofula, to be the more immediate cause of this disease; and when conjoined with the injurious atmosphere of large towns, of close and over-crowded rooms, and want of light and exercise, may be considered as sufficient to occasion the disease in those cases in which no predisposition to it exists, and greatly to develop any tendency to it in the system. It is to the conjoined influence of agencies such as these, that we must attribute the prevalence of scrofula amongst the lower orders of town and rural populations.

Scrofula is often called into immediate action by the debility induced by previous diseases, such as measles, scarlatina, hooping cough, &c. It usually develops itself at an early age, though seldom before the child has reached

its second year. It is most commonly about the period of the second dentition that the disease declares itself, and it is rare to meet with it, for the first time, after the ages of twenty-five or thirty-five.

According to Phillips, when it is fatal it generally proves so before the fifteenth year; 60 to 70 per cent. of the deaths occurring before this age. Sex does not appear materially to influence this disease, though according to the same authority, the deaths of males from scrofula, exceed those of females in this country by 20 per cent. If, however, we are to regard phthisis as an allied affection, people who are scrofulous in early life, often having phthisis developed at a later period, these numbers may require correction.

TREATMENT.

The treatment of Scrofula may be divided into preventive and curative. The preventive treatment consists in so regulating the diet, as to supply all deficiencies in the histogenic material of the different tissues. The digestive and assimilating organs should receive special attention, every possible effort being made to increase their tone. The surface should be bathed three or four times a week in warm or cold water, as best agrees with the constitution. A liberal amount of exercise in the open air should be taken, and the patient should avoid all excesses, both physically and mentally. When these means fail to arrest the tendency to scrofula, a moderate amount of stimulants, in combination with small quantities of Iron, may be taken before each meal. When the disease has become fully developed, whether in the skin, lungs, bones, liver, stomach, uterus, kidneys, or any other part of the system, the constitutional treatment should consist in a thorough tonic and alterative course. In case the disease appears in the form of herpes or pustules, the treatment has been fully described under that head. Or, if in the form of

phthisis, the treatment has already been given. When scrofula manifests itself in the form of ulcers, of an indolent or irritable character, the constitutional treatment should consist of the following remedies :

R Scrophularin	gr. xx.
Bitartrate of Iron	ʒij.
Chloride of Sodium	ʒj.
White Sugar	ʒiij.

Mix, triturate, and take one teaspoonful three times a day. The diet should consist of rich animal broths, ripe fruit, &c. ; and a wine-glass full of malt liquor should be drunk with each meal. The ulcer should be stimulated by the occasional application of a mild solution of sulphate of zinc, or vegetable caustic. The limb should be bandaged with moderate tightness, and the ulcer covered with a soft slippery elm poultice. After the above treatment has been pursued for about two weeks, it should be changed to the following :

R Compound Syrup of Stillingia	Oss.
Syrup of Apocynum	Oss.
Syrup of Iodide of Potassium	ʒij.

Mix ; dose, from one teaspoonful to one tablespoonful three times a day. This treatment should be pursued for two or three weeks, when it should be omitted, and the following substituted :

R Phosphate of Lime	ʒss.
Carbonate of Iron	ʒiij.
Phytolaccin	gr. xv.
White Sugar	lbj.

Mix, triturate and add to one pint of water, and one pint of best gin. Dose, one tablespoonful three times a day. If the ulcer should still prove indolent, it may be touched with caustic of potassa, followed by a poultice of slippery elm, wet with Tinct. of Arnica. Where the disease appears in the form of caries or necrosis of the bone, the dead por-

tion should be destroyed by the sulphate of zinc or caustic potassa. The sore should be stimulated as in ulcer of the soft parts, until it becomes healthy. After which, collodion or a mild ointment may be applied, until union takes place. In no case, however, in disease of the bones, should the ulcer be allowed to heal until the necrosed portion of bone has been entirely exfoliated, and the ulcer healthy in every respect.

Where scrofula attacks the glands of the axilla, groin, or breast, causing enlargement and irritability of these parts, absorption should be promoted, if practicable, by the use of Iodine ointment and moderate pressure; if this fails, suppuration may be induced by the application of a poultice of equal parts of gum-myrrh, capsicum and slippery elm. In such cases, Phytolaccin, Iodide of Potassium, Apocynin, in connection with the compound alterative syrup, are the remedies to be used. In the treatment of this disease, the surface should be frequently bathed, the diet should be nutritious, and consist of both vegetable and animal food. The sleeping apartments should be freely ventilated, and the habits of exercise well regulated.

PILES, OR HEMORRHOIDS.

A varicose condition of the hemorrhoidal veins, allowed to exist for a considerable length of time, causes a disease of its coats, and a consequent infiltration into the adjacent cellular tissue.

The blind piles are essentially the same, only occurring higher up in the rectum.

SYMPTOMS.

A greater or less number of dark purple or pulsating or erectile tumors around the margin of the anus, or within

the anus. They mostly cause much pain, and in some cases the œdema of the parts is so great that defæcation is almost impossible. In other cases there are constitutional symptoms, as fever, headache, loss of appetite, debility, &c. Where the patient is of a scrofulous diathesis, piles may terminate in fistula in ano.

CAUSES.

The causes of hemorrhoids are congestion of the liver, costiveness, ascarides, pregnancy, and all affections which tend to produce inflammation of the parts.

TREATMENT.

R Sulphur.....	gr. xxx.
Cream of Tartar	ʒj.
Cane Molasses	ʒj.
Best Gin.....	ʒj.

Mix; dose, from one teaspoonful to one tablespoonful three times a day. Shake the mixture well before taking. As an external application, an ointment may be used composed of the following ingredients:

R Tannin.....	ʒj.
Fresh Lard.....	ʒj.
Sulphate of Zinc.....	gr. vj.

Mix, form an ointment, and apply after each movement of the bowels. Where the hemorrhoids are confined to the upper portion of the rectum, and are accompanied with hemorrhage, from five to ten drops of the oil of Erigeron should be taken three or four times a day. If the first mixture should not be sufficient to maintain a soluble condition of the bowels, from one eighth to one fourth of a grain of Podophyllin should be taken every night on going to bed. When the piles first make their appearance, they can generally be removed by returning the pile tumor, and

afterwards rubbing gently with the finger which has been anointed with simple cerate, until the congested veins become emptied, and the tumor disappears.

FISTULA IN ANO.

This is an indolent ulcer, situated in the lax cellular tissue, adjacent to the rectum. This ulcer or sinus usually communicates externally with the sphincter muscle, by means of a small pipe, in which case it is called an open fistula. Occasionally it communicates with the intestine, without any external opening, in which case it is called a blind fistula.

CAUSES.

Fistula in Ano may be caused by piles, injuries of the part, or anything which will cause cellular inflammation in these parts.

SYMPTOMS.

These are often quite obscure, at other times a heavy dull pain will be felt in the region of the anus, extending at times to the back, accompanied by febrile reaction, scanty urine and accelerated pulse. Sooner or later a small tumor will make its appearance, and is usually mistaken for piles; but on opening, a small quantity of sanious matter will be discharged, which will continue until the disease is removed. Or if blind fistula, the pain and constitutional symptoms may be followed by a discharge from the bowels, through the communication between the intestine and the sinus, by the completion of the fistulous tube.

TREATMENT.

As this disease is usually connected with a scrofulous or tuberculous habit, a constitutional and local treatment

should be commenced at the same time. The patient should take Alterative Syrup, Iron, Quinine, and Iodide of Potassium, with such other remedies as the state of the disease may indicate. At the same time, the fistula should be injected with a strong solution of sulphate of zinc. The injection should be of sufficient strength to disorganize the walls of the sinus, and the fistulous tube. After the fistula has been injected, the parts should be brought as closely in contact as possible, by means of adhesive straps. The injection should be repeated from time to time, until the fistula is entirely cured. Or if, after disorganizing the tube with the zinc, the ulcer still proves obstinate, a strong solution of bayberry and golden seal will generally effect a cure.

If it is a blind fistula, an external opening should be made by means of the caustic potassa, and followed by an injection as before. Previous to injection of the zinc, where the opening communicates with the intestine, the rectum should be injected with slippery elm, to prevent the caustic from coming in contact with the bowels.

MERCURIAL DISEASE.

There is no disease more formidable in its attack upon the organic tissues than this; not only in its tendency to develop a great variety of pathological conditions, but in the peculiar obstinacy with which it resists the efforts of the physician to arrest its progress. Mercurial diseases manifest themselves in periodic rheumatic affections of the joints, in enlarged and indurated condition of the various glands of the body, in the form of dropsies, anæmia, phthisis, palpitation of the heart, dyspepsia, blindness, deafness, loss of teeth, convulsions; in fact, there is no form of disease that is not occasionally represented by

the disastrous influence of mercury. When once introduced into the system, the manner in which mercurial preparations affect the different tissues, is as yet a matter of some dispute. Although it is claimed by those who still persist in its use, that it possesses the power to change the morbid condition of the part affected into another morbid state, which is far less dangerous to the life of the patient than the primary affection; that it acts as a stimulant to the liver, and a purgative to the bowels; in short, it is claimed by those who still adhere to the dogmatism of allopathy, that it is essential to the successful treatment of nearly all inflammatory, as well as chronic diseases. But in what way it stimulates the liver, or how it arrests fever, or subdues inflammation, they are unable to tell us beyond mere conjecture.

It certainly cannot be owing to its power to increase the histogenetic material for the reparation of injured organs, nor to its tendency to reorganize the blood, or other fluids, as the most minute chemical analysis has failed to detect the least trace of mercury in the organic tissue, unless it had been first introduced into the stomach, and then always acting as a foreign agent, and in no way identified as an element of the human organism. The only way by which the *modus operandi* of mercurials upon the organic tissues can be explained, is that by which we explain the inability of all foreign agents to produce disorganization, unless the quantity be sufficient to overpower the *vis-vitæ* of the part with which it comes in contact. When a foreign body is introduced into the external soft tissue, the vitality of the part is at once summoned to remove the intruder, consequently a deposition of lymph occurs around the foreign body, which soon becomes organized in such a way as to cut off all communication between the foreign body and the adjacent tissues. Inflammation and suppuration are the agents used to

expel the body, so when mercury is introduced into the system, it acts as a foreign body to every tissue with which it comes in contact, and an effort is made to expel it. When mercury is combined with chlorine, as in calomel, it may entirely dissolve the tissues, such as the mucous membrane of the stomach, bowels, lungs, &c. But whether we are able or not to account for all the morbid conditions produced by this agent, we have the most positive assurance, that in the whole catalogue of predisposing causes to disease, there is none more prolific than this. Allopathists themselves are beginning to observe this fact, in confirmation of which, I will introduce the remarks of W. Porter, M. D., F. R. C. S. I., &c., as published in the Dublin Medical Press of Feb. 10, 1847.

Dr. Porter observes: "I think that mercurial diseases, properly so called, that is, such as arise from mercury alone, admit of subdivision into two classes, according as they seem to be products of a small or a large dose of the poison; when taken in small quantities, it appears to be determined to the tegumentary structure of the skin, the mucous membranes and analagous tissues, such as the conjunctiva of the eye, and therefore bowel complaints, cutaneous eruptions, and superficial inflammations are generally met with at an early period, and before the specific effects of the medicine ought to be expected to appear; when taken in large quantities, the nervous system is most likely to suffer, and that too where the specific effects have not been developed at all, which is the case most pregnant with danger, or that being present and in full operation, they have been suddenly checked, or otherwise interfered with, by improper or incautious exposure. Some few cases occur whilst patients are under complete salivation; but it is so difficult to say that such may not have been guilty of some irregularity, that they may be placed within the latter category, and at all events they

are of rare occurrence. Such is the arrangement I propose to follow in considering these affections; not, however, without being conscious of its imperfections, and that numerous diseases arise, or seem to arise, from the irritation of mercury, that run a wild and unbridled course, which it would be impossible in the present state of our knowledge to subject to this or almost any other classification. Persons, for instance, whilst taking mercury, become deranged: the examples of this which I have seen were all maniacal, and the symptoms such as might be expected from inflammation of the brain and its membranes; these patients all died. Whether such an event was the effect of too sudden exposure to wet or cold—whether it could be regarded as a kind of metastatic transfer of the mercurial irritation to the brain, or whether it had any direct connection with the mercury at all, I am unable to prove, but certainly at the time when each occurred, I could not help placing the mercury and the madness in the relation of cause and effect. Again, persons whilst taking mercury have become paralytic. When I was in college, a young friend of mine, slightly under the influence of the medicine, was exposed to an incessant shower of rain for nearly two hours; he went to bed, where he had a rigor, but fell asleep, and awoke perfectly paralytic on one side; he lived many years afterwards, but never recovered the use of his limbs. A young clergyman who had taken mercury for a liver complaint, and had apparently nearly recovered from its effects, incautiously fell asleep on the grass; he awoke paralytic, and never recovered, although he lived to more than middle age. Perhaps it may be said that these are not fair specimens of the morbid influence of mercury upon the nervous system; perhaps it may be doubted whether mercury had any relation to such cases at all, inasmuch as persons have become paralytic from exposure, who have never taken a

grain of the medicine. I know not how this may be. My opportunities of investigation have been too limited to enable me to speak with confidence on a matter of so much obscurity ; but my experience in many instances has led me to believe that mercury may prove eminently mischievous in this particular manner. But suppose we acknowledge that mercury may and does act injuriously on the nervous system in all its parts and in its various ways, how are we to account for its prejudicial influence on other systems and structures, particularly as to its production of an hemorrhagic tendency ? Several years ago, when investigating the pathology of aneurism, I remarked the frequency of that disease in persons who had been subjected to protracted courses of mercury, and I then hazarded an opinion that this fearful and dangerous affection might be occasionally thus induced ; since then, I have paid great attention to the subject, and have observed different kinds of hemorrhage so frequently ensue after mercury had been extensively used, that I feel convinced of its injurious influence in this respect. Almost all the aged people treated with mercury for syphilis, have, according to my observation, died shortly afterwards of hæmoptysis, or else of apoplexy ; nor are such casualties confined to the aged, for I have seen several instances of young persons under similar circumstances, being seized with spitting of blood, and dying rapidly of consumption. It may be imagined that I am presenting the possible injurious effects of mercury in too strong colors, and that my apprehensions on this subject, as being derived from the experience of a few cases, are little more than visionary ; be it so ; but having remarked the fact, I think it my duty to state it, and leave it to be established or contradicted by future experience.

• “The tendency of mercury to produce a hemorrhagic condition, is readily explicable by the effects of the mineral upon the fibrin of the blood.” W. H. Ranking, M. D.

Mercurial erythema is sometimes preceded by symptoms resembling those which usher in erysipelas, shivering, nausea, foul tongue, thirst, headache, cough, and pains about the præcordia, and these febrile symptoms, not only continue throughout, but in severe cases become daily aggravated; sometimes it occurs without any premonitory notice, except a harsh dryness of the skin; and I have known it to appear suddenly the day after the administration of three or four grains of calomel as a purge. It may be a consequence of administering mercury in any of its forms or preparations, but seems more frequently produced by its administration internally. I have, however, seen an exceedingly well marked case of it from dressing a sore with the red precipitate. It appears as a dark red blush at some of the folds of the body, the seat of the scrotum, the groin, axillæ, or anterior parts of the elbow, from which it spreads with a greater or less degree of rapidity, according to the severity of the case. This is distinguished from ordinary erysipelas, by its surface being slightly rough to the touch—by its edge not being distinctly defined—by its intolerable itching, which is the local inconvenience chiefly complained of in the first instance—and by its vesicular appearance when viewed through a magnifying glass. Whenever the surfaces of the body lie in opposite contact, such as in the perineum, the inside of the thighs, or between the folds of the nates, these vesicles break almost as soon as formed, the parts become abraded, and there is a constant oozing of a serous fluid, foul and abominably fetid. In modern times, the disease seldom progresses beyond this, which is termed the first stage; but suppose it neglected, and the use of mercury still persevered in, the febrile symptoms become exasperated, the eruption spreads, and may so extend as to occupy the entire body, and the vesications, or rather vesicles, run into each other and break. Where surfaces are opposed,

the discharge increases in quantity, assumes a puriform character, and becomes, if possible, still more offensive; when they do not, a branny scurf or scale is formed, which falls off, and is renewed so abundantly, that after the night, or even after a few hours, a great quantity may be found in the patient's bed. In general, this desquamation of the skin is attended with febrile symptoms, and the patient slowly recovers; but if otherwise, if the disease has been more than usually malignant, or if the medicine has been still persevered with, the parts engaged (and these may be the entire body) swell, apparently by the formation of thicker scabs or crusts, which are deeply cracked or fissured (not inaptly compared to the scored skin of roasted pork), discharging sometimes sanies, sometimes blood, and so sore and painful that the patient can scarcely bear to turn himself in bed. I am not quite sure that I ever saw a fatal case of mercurial erythema. About five years ago a poor Scotchman was brought into the hospital covered with a scurfy eruption, and in a miserable state of debility, who attributed his illness to having taken some medicine, which he believed to have been corrosive sublimate, for the cure of clap, in despite of the treatment, he died (as several thought) of this disease; but if it was so, there was a symptom here present not described hitherto as appertaining to it, namely: a discharge of purulent matter as foul and offensive as that from a glandered horse, from every mucous outlet of his body, mouth, nostrils, eyes, ears, anus and urethra. I know not, I say, whether this was a specimen of the disease or not; but without passing to such extremity, the description given by those who had witnessed the latter stages of the malignant erythema, is sufficiently appalling. The cough becomes very severe, and is accompanied by great soreness of the chest; the matter expectorated is sometimes highly tinged with blood, which is so coagulated as to threaten suffocation. The

pulse is frequent and irregular, the surface of the body is intensely hot and sore, the thirst becomes unquenchable, the tongue becomes parched and black in the centre, and the urine is high-colored, small in quantity, and without sediment. Wretched, indeed, is the situation of the patient in this stage of the disease; without the enjoyment of one moment's repose, afflicted in body with the most excruciating anguish, and depressed in mind to the lowest state of despair, he soon falls beneath these complications of wretchedness. Diarrhœa and low delirium speedily supervene, the pulse sinks, the body mortifies, and a state of insensibility at length announces the termination of a complaint that at once exhibits a distressing proof of the inefficiency of medicine, and the insufficiency of human skill."

Before I speak of the treatment, allow me to revert for a moment to the history of this disease. Alley states, "that before the nature of this disease was known, *it was considered as a more virulent form of Syphilis*. In proportion, therefore, as the disorder advanced, mercury in some form or other was exhibited in greater quantity; the fever, consequently, was soon found to be increased to an alarming degree, by the action of the mercury thus heaped upon an already overloaded system; and lest the patient should sink too rapidly under the oppression of this fever, recourse was had to tonics and stimulants. Among these the bark and wine were resorted to, without any regard to symptoms and appearances. It is almost unnecessary to add, that the disease was in almost every instance dreadfully aggravated, and that very few recovered." Now, recollect that all this happened in a Lock Hospital, and at a time when all cases of venereal disease were treated with mercury. The patient was surrounded by, and actually breathing a mercurial atmosphere, and you can easily understand why medicine and

medical skill were inefficacious and insufficient. It was useless to prescribe purgatives, and acids, and antimonials, and other cooling medicines, the cause of the fever remaining ever present; it was in vain to endeavor to support the strength by bark, and wine, and opium, while the tendency to putrescence was constantly on the increase. At present the disease is known to be mercurial.

Mercurial Erethismus. — Mr. Pearson tells us, that in the course of two or three years after his appointment to the Lock Hospital, he observed that in almost every year, one or two cases of sudden death occurred among the patients; that these could not be traced to any ostensible cause, and that the subjects were those who had nearly and sometimes entirely completed their mercurial course. He consulted Messrs. Bromfield and Williams on the subject, and they were unable to give him any information, more than that they had carefully examined the bodies of many who had thus died unexpectedly, without being able to discover any morbid appearances. On watching the effects of mercury on the patients, he ascertained that these deaths were attributable to the mineral acting as a poison on the system, and that its deleterious effects were neither in proportion to the inflammation of the mouth, nor to the actual quantity of mercury absorbed into the body.”

TREATMENT.

The treatment of mercurial disease is usually less successful than the treatment of most other diseases; although much good may frequently be done by a proper course of medication.

If mercurial disease is manifested in a mild form, the patient should be caused to take a gentle purge of Podophyllin, the surface should be freely bathed in salt water, a mild course of tonics should be commenced and pursued,

and a generous diet should be allowed. This course will frequently remove the most troublesome symptoms.

In more severe cases, as much of the mercury should be extracted from the system as possible, by recourse to the galvanic battery. After which, Compound Syrup of *Stillingia*, in connection with small doses of Sulphur, will be required. The surface should be frequently bathed in Saline water, and Iron and Hydrastin given in doses sufficient to maintain the patient's strength. Where the disease appears to confine its poisonous action chiefly to the skin, much benefit will frequently be derived from the use of an ointment made of equal parts of tar and sulphur.

IMPORTANCE OF CERTAIN SYMPTOMS IN DIAGNOSIS.

In order to form a correct opinion of the nature, character, and identity of disease, it is necessary to take a general survey of the physical characteristics of the patient: as his weight, height, temperament, age, whether his constitution is of a strumous or scrofulous diathesis, whether of temperate habits, and whether he has been subjected to a mercurial course of medication.

Every possible item of information relative to the disease, should be obtained from the patient and nurse, which will in the least assist in forming a correct diagnosis of the case. If the heart, lungs, liver, or spleen are implicated, auscultation, percussion, palpation, and mensuration, should be practised, for the purpose of forming a correct opinion of the true nature of the disease. Some of the special symptoms which should engross our attention, are the appearance of the tongue, the appetite, respiration, circulation, sleep, the skin and secretions, and state of the intellect. Pain is the result of some impression made upon the nerve, and transmitted to the brain; the pain may be remote from the impression, as in hip disease the pain is generally in the knee; the irritation

causing pain in the head, may be in the stomach; or pain in the shoulder may occur, as the result of congestion of the liver. The amount of pain suffered by different individuals from the same disease is various, owing to the different sensibilities of the persons, and dependent upon the temperament. Hence the amount of the pain experienced by the patient, is indicative of the amount of the disease, *ceteris paribus*. A dull heavy pain generally indicates congestion, effusion, or the pressure of some tumor; fugitive pain indicates a stretch of some part; lancinating pain is characteristic of cancer, rheumatism, pleuritis, or neuralgia; a heavy, throbbing pain, indicates the collection of pus; itching pain is mostly confined to the skin and mucous membrane; on the skin it is caused by eruptive diseases, and on the mucous surface by ascarides in the rectum, &c. When pain suddenly ceases, followed by cold clammy sweats, weak pulse, and sunken countenance, an attack of the affected part by gangrene is indicated.

The tongue affords many important indications of disease of the digestive organs. When the tongue is thickly furred, and of a white or brownish color, it indicates a derangement of the mucous membrane of the stomach. If, in addition to the above, it should have a red appearance at the end, it indicates the mucous membrane of the stomach to be in a high state of irritation or inflammation. A dry red tongue also indicates the same state of the stomach. A cracked and swollen tongue, indicates an extensive irritation of the nerves of the stomach, and also that the brain is involved. When the tongue is tremulous, great nervous prostration is indicated. A dry, furred, or red and tremulous tongue, is often present in typhoid fever. A light, flat tongue, is characteristic of most forms of intermittent fever. Much information, relative to disease, may be obtained by a thorough knowledge of the circulation, as indicated by the pulse. The conditions of

the pulse, indicative of disease, are various. The increased frequency of the pulse is one of its most common varieties, and may exist in a great many pathological conditions of the system. The number of beats per minute, constituting an increase of pulse, varies much in different individuals, and also at different periods of life. In infancy, the normal pulse is said to be from 78 to 180 per minute. Between the age of two and six months, from 100 to 120 per minute. Between the age of two and seven years, about 110 per minute. From seven years to twenty-five, from 80 to 85. From twenty-five to sixty-five years, the average pulse per minute is about 70 to 75. In females it will be found to be somewhat faster: the number of pulsations per minute is greater during the day than night; and more frequent just after a meal than before. From the above statement, it will be perceived that a great variety of circumstances must necessarily be considered, in order to derive much benefit from this condition of the circulation in diagnosis. When the pulse is slow, or much less than the usual number of beats per minute, it frequently indicates disease of the brain; it is also characteristic of other diseases. An intermittent pulse indicates either a disease of the brain, or extreme exhaustion of nervous energy. A weak and feeble pulse indicates anæmia and debility. Hope states, that when the pulse is jerking, quick, hard, and strong, and stops abruptly, it indicates a deficiency in the semilunar valves of the aorta. In inflammation of the peritoneum, the pulse is mostly small and quick, but quick and hard in inflammation of the lungs and pleura. When the pulse is easily compressed under the finger, it indicates a feeble condition of the heart. When the pulse ceases to be felt in the extremities, it indicates great danger, unless it is merely temporary. The appetite is another symptom of much importance to be observed in disease. In most

diseases, the appetite is defective, indicating inability of the stomach to digest food, and loss of assimilating power. Under these circumstances, food introduced into the stomach, acts as a foreign substance, and is the cause of much mischief. In some diseases the appetite is not defective; in these cases, the powers of the stomach, as well as the assimilating functions, remain unimpaired. In some forms of phthisis, the rapid exhaustion of the nutritive material increases the demand for food beyond its normal amount. In chlorosis, the appetite is frequently capricious, craving lime, clay, slate, stones, &c. This kind of appetite indicates a lack of proper histogenic material, as well as a deficiency in the salts of the blood. In children, the appetite frequently craves sugar, fats, &c., which indicates a deficiency of the combustive material, and a consequent loss of temperature.

There may also exist a variety of morbid appetites, such as a craving for stimulating liquors, opium, tobacco, ether, &c., all of which indicate a diseased condition of the stomach or brain. Respiration should also be carefully noticed in forming a diagnosis of disease. If respiration is increased in frequency, it denotes obstructed circulation through the pulmonary tissue. It may also indicate irritation of the lungs or bronchial tubes. There are a variety of conditions, which may tend to increase the functions of respiration. The respiration may be irregular and imperfect, as in tuberculous condition of one or both lungs, or from a valvular disease of the heart and inflammation of the pleura.

The menses are deranged in many diseases. They may be scanty or they may be profuse. In some instances they are entirely suppressed. They are at times changed in quality, and the period of their return may be irregular. When the catamenia is scanty, it either indicates a diseased condition of the ovaries or deficient nutrition. Suppression

of the menses may indicate a variety of opposite conditions. It may depend upon pregnancy, upon nursing, or upon age. It may exist in any of these cases without inducing disease. The menses may be suppressed by the extremely exhausted condition of the system, as in the last stage of phthisis, dropsy, &c. Or they may be suppressed by sudden exposure to cold or damp during the catamenial flow. The menses may also be vicarious, making their exit from the system through the lungs, stomach, bowels, &c. A change in the quality of the menses denotes disease of the uterus, or ovaries, or a scrofulous diathesis. Excess of the menses indicates a chronic inflammation of the lymphatic glands of the uterus, spermatorrhœa, &c.

SIGNS FROM THE URINE.

Healthy urine, when recently voided, has very nearly the temperature of the body; it is of a light yellow color, emits a peculiar aromatic odor, has a bitter saline and pungent taste, and a slight acid reaction; its specific gravity is about 1.018. From 90 to 93 parts to 100 of healthy urine is water, the remainder is made up of uric acid, saline and organic matter.

About $2\frac{1}{2}$ oz. of solid nitrogenized and uric matter is thrown off from the kidneys every twenty four hours. If the urine be acid, it will redden blue litmus paper; if it be alkaline, it will turn red litmus paper blue; if neutral, it will have no effect on the color of either. If the urine contains albumen, heat or nitric acid will cause it to coagulate, and give the urine a thick milky appearance. If the urine contains blood, heat or nitric acid will cause it to lose its transparency. If it contains bile, nitric acid will turn it green; if it contains uric acid, nitric acid will cause it to look dark, and precipitate a brownish sediment. If it contains sugar, it may be ascertained by evaporating a small quantity to the consistency of molasses, which will

have a sweet taste. A milky appearance may be caused by mucus, albumen, or ammonia. If it contains ammonia, nitric acid will cause a brisk effervescence; if it contains mucus or albumen, nitric acid will cause it to coagulate. Dr. Bird states, that if the sediment of morbid urine be white, and the urine acid, it consists mostly of urate of ammonia; but if it should disappear by heat, it is phosphate of ammonia. If a deposit be made of any color inclining to dark pink, or red, it is almost sure to be urate of ammonia, unless visibly crystalline, in which case it consists of uric acid. When the urine contains albumen, it indicates granular degeneration of the kidneys, or Bright's disease, unless it is connected with low forms of fevers, or in certain forms of heart disease. If the urine contains sugar, it indicates mal-assimilation or diabetes mellitus. A gritty sediment denotes a tendency to some of the forms of gravel. Mucus in the urine is usually owing to the enlargement of the prostate gland. Pus in the urine indicates abrasion of the bladder, kidneys, or urethra. Bile in the urine indicates a re-absorption of the bile from the liver, or that the liver fails to secrete the bile from the blood. This symptom is present in most forms of intermittent fever, jaundice, disease of the liver, &c.

THE FÆCES AS INDICATING DISEASE.

The inspection of alvine evacuations is of great importance in making up the diagnosis of disease. Where the bile is deficient, they are of a light ash color; if there is an excess, they are quite yellow. A red appearance of the stools indicates passive congestion; if red and thin, they indicate hyperæmia. If they are of a bloody mucous character, inflammation of the colon is indicated. When the stools are bloody in typhoid fever, they indicate ulceration of the glands of the bowels. When the fæces are very thin, and of a rice color, deep capillary congestion is indicated, as in cholera, cholérine, &c.

The condition of the mind should also be taken into consideration in diagnosis. To what extent the mind controls or influences the morbid tendencies of the body, is difficult to determine; but, that it has a powerful influence, not only in increasing the severity of morbid phenomena, but also of controlling it, is a fact too apparent to every observing physician to need comment. The conditions of mind, however, which contribute to the amelioration or increase of organic disease, are as yet but imperfectly understood. Kossuth stated, in one of his addresses before the American people, that while lying very low with fever, not having been out of bed for a considerable length of time, he received very important intelligence, upon which he arose, and entered at once upon active duties, without feeling any further embarrassment from his disease.

Instances are of almost daily occurrence, in which patients, who have for a long time labored under some low chronic disease, hear of a new remedy, which, if taken, is sure to remove it; and if taken at the time when the mind is most positive, for a time, at least, all the symptoms undergo improvement.

There are other instances of the most violent mental and physical agonies being relieved by the supposed virtue imparted to a glass of water or a bread-pill by a clairvoyant, or so-called spiritual medium, magnetic passes, &c. These things may appear to the novice in observation, absurd; yet they are living facts which must be met and should be investigated. This class of cures is not confined to the nervous and weak alone; but the athletic are frequently the passive subjects of these mysterious operations of the human mind. Even infants, whose minds are not susceptible of imaginary impressions, are said by the best of authority, to have disease controlled by the action of other minds. A circumstance was related to me to-day by a gentleman of undoubted veracity, of a child while laboring

under a protracted brain affection, being relieved in a few hours by one who claimed to be a spiritual medium. He magnetized a glass of water, as he stated, and by giving a teaspoonful every five minutes, the child was relieved. Another instance was related, of a similar glass of water acting as a cathartic in fifteen minutes, although there was obstinate costiveness at the time. Mental impressions, as affecting disease, have been noticed from the earliest history of medicine until the present time.

The mystic ceremonies of the Esculapians, the incantations of Galen, the rites and ceremonies of Avicenna, were another mode of producing the same results. The effects of Indian charms, the supposed power of the seventh son, of men born with a caul over the face, of touching a dead body for the cure of cancers, of taking water, in which sugar pills have been placed, are all examples of the effect of the mind over the diseases of the body.

While the mind may be thus beneficially directed upon diseased organs of the body, it frequently has an opposite tendency. It is a familiar fact, that nearly every disease that affects the human family, may be, and is occasionally induced by a perverted action of the mind upon the body. Fevers are frequently caused by a long continued exercise, or by powerful emotions, of the mind.

Phthisis is frequently induced in persons of a consumptive tendency, by constantly anticipating it. Cholera is not only induced, but its fatality increased, by the despondent mind. Disappointments cause loss of appetite, fever, changes of the urine, &c.; diarrhæa, pains in the head, &c., may be caused by mental impressions. One of the most remarkable instances of the influence of the mind over the body, in producing morbid changes, is related by Dr. Cheyne, of Col. Townsend, who could at any time produce all the phenomena of death, not only arrest-

ing circulation, respiration, &c., but would remain in this state for hours, and then by an effort of the will, be restored to his natural condition.

He carried his last experiment too far, and it resulted in actual death. The limits of this work will not allow me to enter further into the investigation of the subject. The above facts are sufficient to give some idea of the influence of the mind over matter, and the physician who would treat disease skilfully, must seek to investigate such facts, and as far as possible, to understand their cause and study their effects. The condition of the mind, whether diseased or healthy, with all its manifestations, should be taken into account. The condition of the skin, the temperature of the body, the temperament of the patient, his peculiar idiosyncrasies, together with his habits of living, occupation, external influences, &c., should be considered, before he assumes the responsibility of administering medicine, for the removal of disease.

INDEX OF THE MODUS OPERANDI OF MEDICINE.

In the treatment of disease there are now three principal notions as to the method in which medicine acts upon the system. The first is Allopathy, in which medicine is supposed to produce morbid or diseased conditions, differing from the affections which they are designed to cure. Thus diseases are thought to remove inflammation by producing an inflammatory action of a different character from that constituting the disease. Opium is believed to cure diseases of the nervous system by changing the action of the nervous force. Mercury and its compounds, as corrosive sublimate, &c., are supposed to cure diseases by establishing in the system disorders of a peculiar nature, and by thus overbalancing the morbidly to remove it. All other remedies are supposed to act in a similar manner. This system of practice is not followed at the present time by most advanced physicians.

PART II.

NEW SCHOOL REMEDIES:

THEIR

MEDICAL PROPERTIES AND USES.

INTRODUCTORY.

HINTS ON THE MODUS OPERANDI OF MEDICINE.

IN the treatment of diseases there are now three prevailing notions as to the method in which medicine acts upon the system. The first is Allopathy, in which medicine is supposed to produce morbid or diseased conditions, differing from the affections which they are designed to cure. Thus, blisters are thought to remove inflammation by producing an inflammatory action of a different character from that constituting the disease. Opium is believed to cure diseases of the nervous system by changing the action of the nervous forces. Mercury and its compounds, as corrosive sublimate, etc., are supposed to cure disease, by establishing in the system disorders of a peculiar nature, and by thus overbalancing the malady, to remove it. All other remedies are supposed to act in a similar manner. This system of practice is not followed at the present time by most educated physicians.

Homeopathy is a system of medicine founded upon the idea that remedies which cure a disease will also produce it. Hence the maxim, *Similia similibus curantur*.—(Like cures like.) Mercury will create and cure liver disease; it causes consumption and many other affections, and will likewise remove them. Opium will both produce and cure constipation of the bowels. Arsenic will induce dropsy, fever, dyspepsia, and many other derangements of the system, and, according to homeopathy, also cure them. The homeopathist uses the drug because he supposes it will produce a disease similar to the one he desires to cure; while the allopathist gives it because he thinks its effects are contrary to the one he designs to cure. Each asserts that his medicines produce disease, and the only dispute between them is as to the nature of the affection formed. All other systems of medicine, as the Eclectic, Thomsonian, Botanic, etc., etc., claim to remove disease upon one of these principles. They differ as to the medicine only.

The Physiological Theory is that no medicine should be introduced into the system unless it be susceptible of being digested, absorbed, and eliminated; and that all such remedies have a peculiar affinity to certain organs and tissues of the body, analogous to that of food. All alimentary substances when properly digested, are distributed to various parts of the system; certain portions go to support the bones, muscles, nerves, liver, bowels, skin, kidneys, etc., etc., each part of the economy receiving a portion of nutriment according to the adaptation of food to the various organs of the body. Thus, by introducing into the system proper food, all parts are nourished and supported. In disease some portion of the organism becomes affected; some part is either deprived or has an excess of nutrition; has an increase or is defective in function, etc.; the kidneys are over-active in diuresis; the bowels in diarrhœa;

the heart and blood-vessels in inflammation; the nerves in fever, etc. To remove these diseases, it is not essential to create other affections but simply to administer such remedies as act as sedatives or stimulants, and increase or diminish the nutrition of the organ or part disordered. If the disorder be one of the blood, there is a materies morbi producing it; then the disease should be treated with antidotal remedies, or medicines which neutralize the poisons. To accomplish these results, the new remedies have nearly revolutionized the practice of medicine. To find remedies, large draughts have been made upon the vegetable kingdom, and our labors have been crowned with ample success. We find that God has not only provided nutriment to nourish and regulate the human organism in health, but that in disease, also, He has made the same liberal preparation; and while He has planted in His garden every herb essential for food, He has also furnished medicinal plants full of healing balms to remove our ills; and it only requires research and scientific investigations to be enabled to adapt these to the purposes for which they were designed. This adaptation has been and is the labor of the Independent School of Physic. They have already discovered a large number of remedies, which are most wonderful in their power; and by prosecuting their labors they apprehend that a real scientific system of medicine will be established.

The Independent School of medicine differs also from all others, inasmuch as it does not believe it essential to create one disease in order to cure another; that all medicines have a specific action upon the various organs and tissues of the body; that when these are understood and applied they will remove all disorders without creating a medicinal disease; and that all those agents now used which create pathological conditions, should be superseded by such as are known to produce curative impressions

alone. The *Independent School* also differs from others in its estimate of the great importance of hygienic measures in the management of disease; especially in the use of baths, exercise, fresh air and dietetics. In the treatment of disease they do not claim to have discovered remedies to combat every morbid impression, nor are they prepared to dispense with many of the agents used by other schools of medicine, but believe it to be the duty of every physician to make use of any and every means which scientific investigation and sound experience have demonstrated to be of value in combating our various maladies.

CONCENTRATED MEDICINES AND NEW REMEDIES.

By concentrated medicines, we understand those articles which have been manufactured by pharmacutists and chemists, and are denominated essential tinctures, concentrated tinctures, active principles, proximate principles, etc. These medicines are principally manufactured from our indigenous plants. It is not my purpose to give a detailed account of the various modes of manufacturing them, nor to enter into a discussion of the importance of these modes, as this is the province of the pharmacist. The articles appearing under the name of concentrated remedies, will consist of solid and powdered extracts, powdered resins, crystallized alkaloids, oleo-resins, tinctures essential, concentrated, and saturated, and the proximate principle of the plant, which includes the resin, alkaloid, and neutral principles combined. These articles are manufactured by different pharmacutists, and each has its respective merits. In presenting these remedies for your consideration, I shall not adopt the old, stereotyped dogma of

arranging them under the head of alteratives, emetics, diuretics, cathartics, antacids, anthelmintics, etc., etc., but shall describe their medical and toxic influence upon the various tissues and organs of the body, both in health and disease. It has long appeared to me that this method of studying the influence and medical virtue of medicines possesses superior advantages over the old system. According to the old plan for arranging the materials used in the treatment of disease, we find a very large number of them, possessing vastly different properties, arranged under some particular head or classification. Take the remedies usually denominated alteratives; how diversified are their real properties! The mercurials are the great, and in the eye of the *alterative* branch of the *profession*, the most potent of them all; while all the lesser remedies, the medical properties and curative powers of which they are ignorant, are auxiliaries. Writers on *materia medica* seem to think they have fully explained every important fact relating to the curative power of a remedy if they have arranged it under the head of some specified caption, as alterative, cathartic, diaphoretic, etc. Thus, instead of studying the *modus operandi* of medicine, as it affects different tissues and organs of the body in health and disease, they have dealt in crude generalities, and so befogged the entire subject of therapeutics and *materia medica*, that the young practitioner will no sooner find himself at the bed-side of his patient, than he will discover that these vague and confused classifications of medicines do not enable him to apply any one of them to his special case with any degree of certainty. Hence, he is left to chalk out his own course; and if, after a long experience, he hits upon the remedy to produce the proper change in the tissue diseased, the patient will recover; otherwise nature must remove the disease, and at the same time counter-influence the toxic impression of the drug. It is not my

purpose to discuss this subject, further than to invite attention to a few of the reasons why I shall not adopt this antique and most miserable classification of remedies. I will add, before dismissing this subject, that this arrangement of the materia medica is based principally upon the more powerful influences of the drug upon the human organism; and what renders it of less value to the profession is, these influences are mostly the poisonous, and not the medical effects.

You may inquire whether we have any data upon which we can base our observations relative to the specific action of medicines upon special tissues? In answer to this inquiry, I think I can safely reply that we have abundance of admitted facts of this character. Especially is this the case relative to the toxic impressions of medicines. The alterations in the nervous and capillary structure of the cervical portion of the medulla spinalis; the effect of strychnine; the ruptured condition of the various muscular fibres of the uterus after full doses of the ergot; the varicose condition of the hemorrhoidal veins, and irritation of the mucous membrane of the rectum after the use of aloes; the ophthalmoplegia and ptosis after the use of gelseminum, and urethritis after the use of cantharides, together with a number of other admitted facts relative to the direct impression of medicines upon special tissues, most conclusively demonstrate that medicines do produce a specific influence on special tissues of the body. This being the case, it only remains for us to study these influences, to learn the precise tissues or organs upon which each remedy manifests its power, together with the character of the impressions, whether they increase or diminish the vitality of the part; whether they produce atrophy or hypertrophy, consolidation or softening. These facts having been acquired, if we fully understand all the pathological conditions of these organs and tissues in disease and

health, we can so apply remedies as to affect the tissues diseased, and correct such pathological conditions as constitute the basis of disordered action.

ALNUIN.

Alnuin is the active principle of *Alnus Rubra*, or *Swamp Alder*, *Tag Alder*, &c. I have previously informed you that the idea in regard to nearly all medicines is, they are alterative, tonic, resolvent, astringent, &c. Now, the manufacturers of these medicines have adopted the old notions, and apply to these new remedies the same properties that have been transmitted to the crude ones. In this way they have done much mischief in misguiding the profession, and bringing their medicines into disrepute. Mr. Keith says of alnuin, that it is an alterative, resolvent, tonic, and sub-astringent. Now who would know anything about the real medical power of this drug from these vague terms? or what physician would even guess the power of alnuin to cure disease from what he has said about it? Alnuin is a remedy which, like all other remedies, has a specific influence upon special tissues and organs of the body, both in health and disease—and the subject of our inquiries is, what are these effects, and how are the tissues influenced by the drug? If you introduce one or two grains of alnuin into the stomach in the normal state, one of the principal sensations that is experienced is that of hunger, and, if the drug be continued for a few hours without food, a peculiar burning sensation is felt. This symptom, however, soon disappears on taking small quantities of food. It has been found that the continued use of one or two grains of alnuin upon an empty stomach produces congestion of the gastric glands. This was demonstrated by the following experiments:—One half grain of alnuin was introduced into the stomach of a rabbit six weeks old every two hours for thirty-six hours,

the rabbit taking eighteen grains. No food was allowed. The rabbit did not manifest any unnatural symptoms; but upon killing it and examining the stomach, the gastric glands were found in a state of congestion, and the mucous membrane of a much redder hue than that of another rabbit of the same litter, that had not taken the alnuin. In the case of a lady afflicted with dry dyspepsia, where the quantity of gastric secretion was not adequate to dissolve half an ounce of rare beef in four hours, by the use of one-half grain of alnuin and one grain of pepsin taken fifteen minutes before the meal, an ounce of rare beef and two of bread and butter were readily digested without producing any pain, irritation or flatulency. It may be claimed that the benefit was derived from the pepsin, and to test this we administered the pepsin without the alnuin, but we did not obtain the satisfactory result. Upon administering the alnuin without the pepsin, a full sensation was experienced about the stomach, with pyrosis and tardy digestion, from which we inferred that although there was an abundance of gastric secretion, it was deficient in a solvent power which was supplied by the pepsin. I have had a large clinical experience with this drug for the last fifteen years, and am satisfied that it has the power to stimulate and increase the gastric secretion, as much so as buchu or other diuretics do that of the renal.

It is estimated that about fourteen pounds of gastric fluid must be secreted every twenty-four hours, in order to insure healthy digestion. Now if the gastric glands fail to furnish this supply, a species of dyspepsia is the result. This kind of dyspepsia we find prevalent in a large number of diseases, especially during convalescence.

It is in this class of cases that the profession has long felt the need of a remedy to stimulate those glands, and hasten those transformations essential to the production of gastric fluid and healthy digestion. The ordinary stom-

achies, while they produce a morbid appetite, do not increase the gastric secretion; hence they contribute to, rather than prevent this peculiar dyspeptic condition. Alnuin appears to supply this deficiency in the *materia medica*, and, according to my observations, it exerts a specific influence upon these organs. In the case of a patient under my charge, the symptoms were evidently those in which the quantity of gastric fluid was inadequate to digest food sufficiently to support healthy organization. The symptoms were a heavy and sleepy feeling after meals, together with gastrodynia, flatulency, alternate constipation and diarrhœa, and other evidences of indigestion. To test the effects of alnuin, I gave twenty grains of the triturated article one-half hour before and one-half hour after each meal. The beneficial influence of the remedy was manifested in a few days, and by the continuation of the treatment for a few weeks, the patient entirely recovered. I have also tried this remedy in similar cases, and in every instance either a marked improvement, or a radical cure was effected. From all that I can learn of alnuin, I have no doubt that in this class of dyspeptic cases it is by far the most reliable remedy ever introduced to the profession. But you must avoid falling into the old error of regarding remedies as removing all kinds of dyspepsia with equal facility. Dyspepsia means a difficulty of digestion, and it may depend upon a great variety of very opposite conditions of the digestive organs. In the use of alnuin I have alluded to an indigestion caused by a deficient secretion of gastric fluid, and a consequent deficient solution of the food. Now dyspepsia may be produced by ulceration of the mucous coat, by chronic inflammation of the stomach, by cancer, and a great many other causes; and if you should mistake any one of these forms for the one in which I have recommended alnuin, it is more than probable that your remedy would fail to give relief. Alnuin,

in addition to its specific influence on the gastric glands, appears to exert a tonic and invigorating influence on the lymphatics and blood glands generally. Hence, where there is debility and a feeble state of the blood, I am in the habit of using aluïn in combination with iron. A very convenient prescription in these cases is the following:—Take aluïn, one dram; carbonate of ferri, one and a half drams; simple syrup, six ounces. Mix. Dose—one tea-spoonful four times a day; one after each meal and on retiring.

The dose of aluïn, in ordinary cases, is from one to three grains of the crude article, or from ten to thirty grains of the triturated, three or four times during twenty-four hours. I always use these remedies triturated. One or two drams of the fluid extract may be used instead of the aluïn.

ACONITIN.

Aconitin is the active principle of *Aconitum Napellus*, a plant cultivated extensively in this country, but indigenous to *Europe*. It is prepared from the leaves and the root, and is composed of an alkaloid, a resinoid, and a neutral principle. These principles are supposed to be the active principle of the plant. Fifteen years ago, I published an article upon the use of the tincture of aconite leaves in the treatment of fevers. It was not used by new school physicians up to that time. Since then, however, it has become a general remedy, and there is now no new school physician who treats fever without it. Aconitin operates as an anæsthetic. It is a debilitating agent, and paralyzes every tissue. If you take the sixteenth portion of a grain, it will produce a tingling sensation through the nerves. If there be headache, which is dependent on increased sensibility of the nervous tissue, it will disappear. A lady had facial neuralgia. She had been leeches and blistered, and had taken all sorts of mixtures. I ordered the sixteenth por-

tion of a grain of aconitin at night, when she went to bed. The neuralgia ceased; she had none during the night, nor was she troubled with it at any subsequent period. In this case the aconitin operated simply as an *anæsthetic*. I recently used this article in a very peculiar case. I had a patient, a young man who had spermatorrhœa; he was troubled with nocturnal emissions. You will find a great many of these cases in practice. The spermatorrhœa was very persistent, and was affecting his intellect; he had great prostration and debility of the sexual organs. I gave him five powders, each containing one-sixteenth of a grain of aconitin. I wanted to try it in this affection. This gentleman stated he never had anything to relieve him so quickly and so thoroughly as the powders which I gave him. I have also used it in cases of chordee and gonorrhœa, and found it to operate admirably. I also used it in several cases of delirium tremens, where it, in connection with lobelin, soon put my patient into a quiet sleep. I also use it to diminish sensibility of the part. I have used a solution of it as a wash to indolent ulcers with benefit. I have applied an ointment of it for herpes, and a great variety of other cutaneous affections of a painful character. It benumbs the part, and gives ease, without producing constitutional disturbance or injury of any kind. There are several instances in which it may be used where morphia cannot be. All the preparations of opium produce active constipation of the bowels. Aconitin does not do this; it rather increases the peristaltic action of the bowels. I have given it in irritability of the bladder and sensibility of the vagina. I recently had a most remarkable case of prurigo of the vagina. This disease occurs in middle-aged females, and there is an exudation which becomes exceedingly irritating to the part, together with laceration, irritation, subacute inflammation, and itching. Aconitin will almost invariably relieve the pain at once. It should be

applied in the form of an ointment. I have also used this remedy in a large number of cases of neuralgia, with almost instant relief. In short, there is scarcely a painful condition of the body, dependent upon simple hyperæsthesia of the nervous system, in which I have not used aconitin with marked success. From these facts we conclude that its specific influence is upon the gray nerve matter of the sensitive nerves. We infer this from the fact, that while it produces almost immediate anæsthesia of sensibility, it does not interfere with the nerves of motion; nor does it, in doses sufficiently large to arrest pain, produce any observable impression upon the action of the heart and arteries. From all the observations I have made in the use of this article, I believe it is destined to fill a most important vacancy in our materia medica. It appears to possess the power of so modifying the sensibility of a diseased tissue, as to prevent the suffering without interfering with the functions of other organs and tissues of the body.

From these brief remarks relative to the use of this agent, you will observe that the range of the application of aconitin is great; that it may be used in all cases where there is hyperæsthesia, without interfering with other remedies, or their curative influence. The proper dose is from one twenty-fourth to one-eighth of a grain, repeated at intervals of half an hour or an hour, as the case requires. It should be thoroughly triturated in sugar, in the proportion of one grain of aconitin to sixty of sugar. As an external remedy, it may be applied as follows:—Mix ten grains of aconitin with one ounce of lard, and rub the painful parts with it four or five times a day. The aconitin should not be confounded with the alkaloid, aconitia, which is too powerful to be used internally.

AMPELOPSIN.

Ampelopsin is the active principle of *Ampelopsis Quin-*

quefolia. Ampelopsin is a remedy which appears to manifest its influence principally upon the lymphatic tissues, or vessels. The lymphatics are a class of vessels, which by anatomists are divided into external and internal. The external are situated in the subcutaneous cellular tissue, between the skin and the aponeurotic sheaths of the muscles, and accompanying the subcutaneous veins. The deep-seated layer of lymphatics is found chiefly in the interspaces, and along the course of the venal and arterial trunks. These vessels are exceedingly numerous, and converge from all portions of the body, and form large lymphatic trunks, which open into subclavie jugular veins, one on each side of the neck. The small branches of lymphatics pass through spherical bodies, which are termed lymphatic glands, or ganglions. It is to the disordered functions of these vessels that Cruikshank, Thomas White, Nudo, and others have ascribed nearly every morbid change of the human body. These assertions are no doubt extravagant; yet, according to more recent researches of M. Alard, there can hardly be a doubt that the lymphatic system, when diverted from its normal condition, contributes largely to a very important class of fatal maladies. In scrofulous affections, angioleucitis, or inflammation of the lymphatic vessels, is of common occurrence. It is to the existence of this form of inflammation that we ascribe the local determination of this disease in many instances. From the intimation I have given you of the extent and influence of the lymphatic system, you will anticipate the necessity of remedies which direct their energies upon these vessels, and exert a controlling influence upon the function of this very important class of organs. In ampelopsin we have this *remedy*.

But you will naturally inquire, how, and in what way, does this remedy influence or control the lymphatic system? In answer to this important inquiry, I would re-

mark, that, so far as I have been able to observe its effects, its influence gives tone and energy to these vessels. I have arrived at this conclusion after frequent and repeated trials of ampelopsin in nearly every condition of the lymphatics. We have a disease, which has been very accurately described by Professor Bennett as leucocythemia. The nature of this disease is that of a peculiar blood affection, in which the white blood corpuscles are in great excess, and the nutritive functions are so feeble as to fail to render the essential supplies to the various organs and tissues of the body. From an extensive observation in this disease, I have concluded that it is dependent upon an unhealthy condition of the lymphatic system. Accordingly, in my treatment, I have directed my remedies to this class of tissues, and have found the treatment most successful. The remedy principally depended upon is ampelopsin. It appears to increase the tone of these vessels, and so augment the nutritive functions as to restore the blood to its normal condition. Another class of diseases, in which I have regarded the lymphatics as mainly at fault, includes those affections so common in children, in which there is a tendency to enteric and gastric irritation, characterized by frequent attacks of diarrhœa and ephemeral fever, soft muscles, weak and feeble habits, together with other symptoms indicating deficient nutrition. In these cases ampelopsin appears to exert almost a specific influence in producing those salutary changes which impart vigor and health to the entire organism. There is still another class of affections, in which the lymphatic system appears to be at fault. I have reference to an affection which has been denominated by dermatologists, squama, or scale disease. There is a great variety of forms of this affection, which are most obstinate in their power to resist the impression of remedial agents. Ampelopsin manifests a most favorable influence in the disease, and numbers of cases have

yielded to this remedy after frequent unsuccessful efforts with other agents. Ampelopsin has also proven most serviceable in cases where the lymphatic system has been contaminated by syphilis, gonorrhœa, cancer, and other malignant affections. I have frequently prevented that form of angioleucitis, known as bubo, by the use of ampelopsin. I have also known inflammation and enlargement of the inguinal and axillary lymphatics, caused by other affections, to be prevented and cured by ampelopsin. From these very imperfect observations, you will notice that I regard the action of ampelopsin as almost exclusively confined to the lymphatic system, and that its principal influence is to give tone and energy to the vessels, so as to prevent the accumulation of morbid or effete matter within them. I have observed that ampelopsin also materially increases the quantity and changes the quality of urine. When it is continued for any length of time, in doses of from one-half of a grain to a grain, four or five times a day, it will slightly increase the alvine evacuations. It also increases the quantity of bile in the fœces. From this fact I have concluded that ampelopsin contributes to transformations in the liver. In that variety of leucorrhœa dependent upon chronic inflammation and weakness of the vaginal lymphatics, ampelopsin is a most valuable article. In short, ampelopsin is a remedy of immense value in all those cases where the lymphatic system is in a feeble state, and requires a gentle stimulant and support; hence, the range of its application is very great. The dose of ampelopsin is from five to ten grains of the triturated article, or from one half to one grain of the crude article, five or six times a day, taken immediately after each meal. Medicine given to affect the lymphatics will be more effectual after than before meals.

APOCYNIN

Is the alkaloid, resinoid and neutral principle of the *Apocynum Cannabinum*. There is much difference in the appearance of this article as manufactured by different pharmacutists. As prepared by Mr. Keith, of New York, it is a homogeneous powder of a mahogany color, very much resembling ground brown coffee, with a strong narcotic odor. By being exposed to light and heat, it partially deliquesces and loses much of its medical virtue. It is best preserved by triturating, or rubbing thoroughly, with two or three parts of finely pulverized white sugar, then place in a dark bottle, cork tightly and keep in a cool place. By the profession, the apocynum is regarded as emetic, cathartic, expectorant, diaphoretic, diuretic, alterative, tonic, and errhine. This phraseology, although time-honored, is of but little importance in a practical point of view, as, by examining the old works on materia medica, these, or similar properties, are ascribed to nearly every drug that is mentioned; besides, these violent operations are the poisonous or toxic influence, and not the medical. Again, the apocynin is a more reliable remedy than the crude article, and, in some respects, differs in medical virtue. A medical student who took one-eighth of a grain of apocynin three times a day, observed on the third day that it produced heavy alvine evacuations of a thin, watery character, accompanied by some pain, and a dull, heavy frontal headache. A Mr. R., thirty-five years of age, who had served in the army for three years, had been troubled with a chronic diarrhœa for two years, which was pronounced by several physicians consumption of the bowels. I placed this patient upon one-tenth of a grain of apocynin, three times a day, and a diet of soft boiled wheat and milk. No other remedy was given, and the patient rapidly recovered, so that at the expira-

tion of three months he was able to resume his ordinary diet, and has enjoyed good health for the last year. Apocynin also acts upon the uterine function as was illustrated in the following case: A lady of full habits, ordinary height, weighing one hundred and sixty pounds, was troubled with dyspnœa, or difficulty in breathing, œdema, or swelling of the lower extremities, and amenorrhœa, or imperfect menstruation; she was ordered one-fourth of a grain of apocynin four times a day, with a diet composed mostly of fruit, and bread and butter. In the course of five or six weeks the difficulty in breathing had disappeared, together with the dropsy of the extremities, and in the course of three months her menstrual flow had increased to quite its natural quantity.

The next, and what appear to be the secondary effects on the system, are its peculiar influences on the brain and nervous system. The first observable impression of the remedy on the brain is that of a sense of pressure around the head, as though a tight bandage were passed around it. Next, there will be vertigo, with a swimming sensation, the pupils of the eye slightly dilated, and a decided confusion of ideas. If the remedy be continued, a sense of nausea will soon follow, which will quickly be relieved by vomiting and purging. The heart beats slowly, and if the remedy be not discontinued, it becomes irregular in action. I have never seen this remedy carried beyond this point, but presume it might be pushed to produce serious consequences. From these observations relative to the action of apocynin on the healthy system, we infer that the specific tendency of the drug is to the kidneys and nervous system, and the use of the remedy in the diseased condition of these tissues fully confirms these conclusions.

The next part of our inquiry is to see if we can ascertain what that action is. Does it increase the function of

the kidneys, and thus hasten those transformations essential to the production of urine? Or does it, by hastening the liberation of the tissues and elements of which the urine is manufactured, furnish a greater quantity of these materials to the kidneys? Although we may not be able to demonstrate the latter theory, I think, from all the experience I have had in the use of the remedy, that I am warranted in assuming the conclusion that apocynin hastens disintegration, not only of the nitrogenous elements of the body, but also of the nerve tissue, especially liberating the phosphates, and probably other agents. Being in possession of these facts, we can now study the effects of the remedy in disease, and, if possible, ascertain in what peculiar affection or affections the remedy is indicated. The principal use I have found for this agent is to remove from the blood and other organs of the body excesses of the elements which the medicine eliminates. Hence, when the system is overloaded with those poisonous nitrogenous elements imperfectly converted into urine, this agent serves a valuable purpose. Take the case of a marsh fever, when the teeth are covered with sordes, the nerves paralyzed, and the brain intoxicated by the retention of uric acid in the system; one-fourth to one grain of apocynin, repeated at intervals of one or two hours, soon relieves the patient. Indeed, it matters not whether it be a fever or any other disease, if this condition of the system occur, apocynin will give relief. Again, apocynin, in connection with ampelopsin or menispermin, is an invaluable remedy to remove dropsical deposits in the various cavities of the body. Ampelopsin so excites the absorbents as to rapidly fill the blood with the fluids previously accumulated in the cavities of the body, and apocynin soon converts the dropsical fluid into products to be eliminated through the kidneys. Apocynin is also valuable in disease of the kidneys, especially in con-

gestion and granulation, which give rise to albuminuria. In this affection I have used it with more marked effect. It is also a valuable remedy in many conditions of the brain and nervous system, especially in cases of induration and hardening of the nervous structure. The dose of apocynin is one-eighth of a grain to one grain before trituration, or from two to twenty of the triturated article, repeated at suitable intervals.

ATROPIN.

Atropin is the active principle of *Atropa Belladonna*, or *Deadly Nightshade*. This article, we infer, exerts its principal influence upon the skin and mucous tissue, and increases elimination from the skin—hence its use is principally confined to exanthematous fevers, and other eruptive diseases. In scarlatina and rubeola, when the eruption does not appear on the skin, one-half grain of atropin, triturated in sixty grains of sugar, and added to one tumbler of water, given in doses of one teaspoonful of the solution, proves most effectual.

Dr. Hempel states of atropa belladonna, of which the atropin is a concentrated agent, that it seems to act primarily on the cerebro-spinal system of nerves, and to affect the vascular system secondarily. The most characteristic symptoms of poisoning by belladonna are: dryness of the mouth and fauces, difficulty of swallowing, constrictive spasms of the fauces, inflammation of the fauces, dilatation of the pupils, (midriasis,) presbyopia or long-sightedness, with obscurity of vision, as amaurosis; optical illusions, (phantasms,) suffused eyes, numbness of the face, giddiness, delirium and intoxication, sopor, and scarlet eruption of the skin.

Dr. Pereira reports seven cases of poisoning with belladonna, two of which proved fatal: they occurred in the

London hospital. The following symptoms attracted the Doctor's special attention :

1. *Dryness of the fauces*, causing excessive difficulty in swallowing, and alteration of the voice. 2. Scarlet eruption in the arms and legs. 3. *Midriasis* and presbyopia. According to Dr. Pereira, the amaurotic weakness, which belladonna is said to produce, is owing to presbyopia. The delirium was of the cheerful or wild sort, amounting in some cases to actual frenzy. In some of the patients it subsided into a sort of sleep, attended with pleasant dreams which provoked laughter. The delirium was attended with phantasms, and in this respect resembled that caused by alcohol, but the mind did not run on cats, rats, and mice, as in the case of drunkards. Sometimes the phantasms appeared to be in the air, and various attempts were made to catch them, or chase them with the hand ; at other times they were supposed to be on the bed. One patient (a woman) fancied the sheets were covered with cucumbers.

In most of the cases the power of the will over the muscles was so far disordered, that the muscular movements were somewhat irregular, causing a kind of staggering or jerking ; but actual convulsions were not general. There was sopor, which terminated in coma, with a weakened or paralytic condition of the muscles.

Dr. Stille states of the sulphate of atropia—which is the alkaloid of the belladonna, and far more powerful than the atropin,—that “the singular energy of the active principle of belladonna, *atropia*, is shown by the following examples:—Brandes tasted a minute quantity of sulphate of atropia, which he found more saline than bitter. He was seized with uneasiness in the head, trembling of the limbs, alternate chills and flushes of heat, and a violent and suffocative constriction of the chest. The pulse grew feeble, and the action of the heart almost imperceptible.

The principal symptoms went off in about half an hour. Fifteen milligrammes, or about one-sixth of a grain of atropia, applied to a freshly blistered surface, excite an acute pain, followed in from fifteen to thirty minutes, by dryness of the mouth and fauces, inability to swallow, dilatation of the pupils, winking of the eyes, and heaviness of the head. To these symptoms succeed giddiness, confusion of sight and ideas, and a peculiar inability to steady the mind, or to utter words corresponding with the thoughts; a sort of imbecile or loquacious delirium follows, the field of vision is filled with colored phantasms, and external objects appear yellow. The power of locomotion is sometimes lost, and the limbs feel as if asleep. General sensibility is impaired or destroyed, the respiration and circulation become slow, and the extremities are cold. Meanwhile, consciousness may be perfect, although the inability to move is complete."

The following were observed by Schroff as the effects of five milligrammes, or seventy-seven thousandths of a grain: Headache in fifteen minutes; in thirty minutes a slight dilatation of the pupils; in forty minutes dry and hot hands, and general formication; dryness of the fauces, so as to impede deglutition. At first the pulse fell ten strokes, but soon rose, and in an hour and a half gained forty beats. The muscular movements were sluggish, the limbs tremulous, the gait unsteady. After an hour and a half the brain became excited, the movements were sudden and spasmodic; and the two experimenters, who were very peaceful persons, fell to wrestling and boxing. For three days afterwards the pupils remained dilated, the limbs weary, with a great disinclination to mental exertions, and a sense of chilliness; the appetite and digestion were unimpaired. One drop of a solution, which contained the thirtieth of a milligramme of atropia, (one five-thousandth of a grain,) introduced into the eye, occasioned a momentary burning,

but no vascular injection. At the end of twenty or twenty-five minutes the pupils began rapidly to dilate, and in forty minutes scarcely any of the iris remained visible. At the end of forty-eight hours, it had not entirely resumed its normal size. The sight of the eye, especially for near objects, was almost totally lost, but its irritability to light was increased. The opposite eye and the brain were entirely unaffected.

Dr. Bethune reports that the greater number of these symptoms have ensued upon the application to the eye of a few drops of a solution, containing two grains of atropia to a dram of liquid. A portion of it was doubtless absorbed through the nasal duct.

Another example of this effect occurred in England. The local action of belladonna, when applied to the denuded cutis, is that of a simple irritant. It excites severe burning, and smarting pain, and delays the healing of the skin.

The mode in which this medicine produces its effects, is altogether unknown. Post-mortem inspection in some of the comparatively few cases of death resulting from its use, has revealed nothing which tends to throw light upon the subject. They have usually been cases of children poisoned by eating belladonna berries. Mr. Taylor reports the case of a man who was found dead in bed after taking two grains of atropia. His limbs were rigid and contracted, and a little brown matter issued from his mouth. Congestion of the cerebral blood-vessels, fluidity of the blood itself, bloody effusion into the ventricles, accumulation of blood into the lungs and heart, some reddish patches upon the mucous membrane of the pharynx and stomach, these are the only lesions which have been discovered after death, and are evidently inadequate to explain the symptoms produced by belladonna. Bocker, indeed, describes its operation as chiefly a moulting, or increased waste, of

the blood corpuscles and of the nervous centres; but of these processes we possess very indistinct ideas.

The belladonna, and its active principles, have been employed in a great variety of diseases. At one time it enjoyed a high reputation for the care of cancer. Dr. Bailey regards it as a most reliable remedy in neuralgia, and all other painful nervous affections. It is also highly recommended for incontinence of urine, in spermatorrhœa, in spasms of the sphincter ani and urethra, in dysmenorrhœa, whooping-cough, epilepsy, tetanus, nervous vomiting in pregnancy, asthma, disease of the eye, in arresting mammary secretion; and as a prophylactic against scarlatina the remedy is a most powerful one, and the field for investigation, as to its true nature, most extensive. The dose of the fluid extract of belladonna is from one to five drops; of the solid extract, from one-fourth to one-half grain. The dose of the sulphate of atropia, is from one-five-hundredth to one-four-hundredth of a grain, largely triturated in sugar, or use with a hypodermic syringe. The dose of the atropin is from one-sixtieth to one-thirtieth of a grain. These agents may also be rubbed in lard, and applied endermically.

ASCLEPIN

Is the active principle of the *Asclepias Tuberosa*, *White Root*, &c. This article manifests its curative power upon the serous tissue. You are aware that we have a class of membranes which, from their color, have been denominated diaphanous; and from the peculiarly thin or serous fluid with which they are moistened, they are called serous. A knowledge of the extent and distribution of this peculiar membrane is indispensable to the full appreciation of the character and vital importance of those morbid changes which occur in this tissue when inflamed by disease. A peculiarity of this membrane is, that it is a

hollow sac, everywhere closed ; hence, it has been denominated a shut sac, *sacci occlusi*. This membrane is also so arranged that one portion is doubled within the other. The outer surface is applied over the walls of the regions which the serous membrane lines, while the other surface is applied over the organ or organs contained in that region. From this arrangement you observe that each organ is covered with a portion of the serous membrane ; not that these organs are enclosed within this membrane, as I have sometimes heard described, but they are on the outside, the main portion of which is covered by a reflected portion of the diaphanous tissue. Thus the lungs are on the outer surface of the pleura, the heart on the outside of the pericardium. The stomach, intestines, liver, spleen and pancreas, are on the outside of the peritoneum. You will also notice from this arrangement that the portions of these organs at which the nerves and vessels enter are left unprotected. I have stated to you that this membrane was a shut sac. The only exception to this is in the peritoneum of the female, where the membrane is perforated at the upper extremity of the Fallopian tubes. The serous membranes are the seat of various morbid processes. These changes mostly occur as the result of inflammation, which, as it attacks various portions of the serous tissue, has been denominated pericarditis, peritonitis, pleuritis, orchitis, meningitis ; and when the viscera which the serous tissue covers are involved, we have gastritis, enteritis, colitis, mesenteritis, epiploitis, cystitis, hepatitis, lienitis, hysteritis. Be the result of the inflammation of this membrane either acute or chronic, we have empyema ; hydrocephalus, ascites, hydrocele, empyocele, and hydropericardium, together with all the alterations of structure and morbid growths which are produced by the metamorphosed exudations, such as fibroma, lipoma, cystoma, adenoma, epithelioma, enchondroma, carcinoma, &c. All

these diseases, and many more, are but the result of those morbid changes which occur in connexion with the serous tissue: and when I tell you that asclepin manifests a most specific healing power over this very important and vital organ, you will fully appreciate its utility as one of the articles of the *materia medica*. There is, perhaps, no remedy which exerts a more specific influence over the diseased condition of the serous membrane than does asclepin. In cases of pleuritis, after the stomach and bowels have been thoroughly cleansed by an emetic and a mild purge, the skin cleansed by a bath of warm water and soap, and a hot pack applied over the seat of the inflammation, then, by adding twenty or thirty grains of triturated asclepin to a tumbler of water, and giving one tea-spoonful of the solution every ten or fifteen minutes, all traces of the pleuritis will disappear, provided it be given in the early stage of the disease, and the system has been properly prepared for it. The length of time required to remove common pleuritis with asclepin does not, under ordinary circumstances, exceed four or five hours. In cases, however, where the heart's action is violent, and the system of full habit, the cure will be facilitated by alternating the asclepin with five or ten drops of the tincture *veratrum viride*, until the heart's action is reduced, and slight nausea is produced. But asclepin is not confined to the removal of inflammation from the pleura. It exerts its salutary influence on all portions of the serous tissue with almost equal power. In peritonitis, carditis, and acute inflammation of other portions of this membrane; I have noticed the same specific effects and speedy cures performed by asclepin. From five to ten drops of the essential tincture, or the same amount of fluid extract, may be substituted for one grain of the asclepin. The dose of the latter is from one half to one grain: it should be triturated.

BAPTISIN.

The next article to which I have to invite your attention is Baptisin. This is the active principle of wild Indigo, or *Baptisia Tinctoria*. Baptisin is an article which possesses rare and valuable medical properties. It does not, like many other medicines, appear to direct its influence upon special tissues, but it manifests its peculiar power over all the tissues and organs of the body. What is this influence, then, is our first inquiry? If we take one or two grains of baptisin for several days, when in a state of health, the urine will be diminished, perspiration checked, and the quantity of carbonic acid gas expelled from the lungs materially lessened. As the result of these diminished exhalations from the lungs, skin, and kidneys, the blood becomes loaded with *debris*, and the whole function of the economy impaired. Baptisin exerts a different influence upon the system from that usually ascribed to it, and experiments have fully confirmed these views. The medical properties of baptisin, then, consist in its power to prevent decomposition of the tissues; hence its great value.

In phthisis, scrofula, and in fact most chronic affections, the disordered action consists in a too active secondary digestion and deficient primary; that is, disintegration and waste of the tissues occur more rapidly than digestion, and progressive metamorphoses supply the organ with newly-formed tissues; hence, the soft and thin muscles, the emaciation, expectoration, colliquative perspiration, diarrhoea, chills, and hectic fever. All these, and many more of the distressing symptoms connected with chronic diseases, are but the result of rapid retrograde metamorphoses. It is in this condition of the system that baptisin manifests its most wonderful curative power. You can hardly imagine my delight in witnessing the magic power of this medicine over this heretofore uncontrollable condition of

the system. When the conservative powers of the system have lost their influence, and the chemical forces are hastening that decomposition which always renders the perpetuity of the human organism impossible, baptisin, with its magic influence, arrests this activity of secondary digestion, and restores the equilibrium of the disordered organism. But I anticipate the inquiry:—What are the properties of the medicine? Is it alterative, diuretic, diaphoretic, &c., &c.? I have too frequently alluded to these terms, and similar unmeaning phraseology and lumber of the profession, to occupy your attention with them at this time. I merely reiterate what I have so frequently said, that these terms, as they are generally used and applied to medicines, are vague generalities, and have a powerful influence to embarrass and misguide the student in his researches into the real nature and properties of medicine. The inquiry, and the only one of importance at this time, is, What influence does this drug manifest over disease, and in what diseases can we rely upon it? I have already stated that the power of baptisin to arrest disorganization has been amply demonstrated, not only in disease, but on the healthy tissue, and it would appear as though all that is required to understand its use is to have a full and complete knowledge of the condition of the system in health and disease. And here I would remind you that it matters but little how well you may be versed in therapeutics; in order to be successful in the treatment of disease, you must have a full and critical knowledge of every organ and tissue, with a minute understanding of all the structural, chemical, and vital changes which occur during the progress of disease. As I have already intimated, in chronic affections nearly all the leading pathological changes consist in the melting up of the tissues by the chemical forces of the body, and the most essential medical interference consists in the arrest of this rapid

waste. Baptisin will do this. In phthisis, where great emaciation and debility exist, one or two grains of baptisin administered two or three times a day, in connexion with a nutritious diet and a moderate quantity of cod liver oil, produce a magical influence.

You may inquire whether the cod liver oil and nutritious diet, administered without baptisin, would not produce the same result? In answer to this inquiry, I can positively assure you it will not, in the majority of cases. Allow me to refer you to one case as an illustration. Mr. E. G., a young man of a strong phthisical habit, contracted a violent cold, and the disease became fully developed. He applied to his physician who prescribed the ordinary Allopathic treatment, together with cod liver oil. He grew rapidly worse, and in the course of six weeks the disease became so far advanced that hectic fever, night sweats, and œdematous extremities, indicated a near approaching dissolution. Upon consulting me, I prescribed one-half grain of baptisin four times a day, and the cod liver oil and diet to be continued. As the result, the night sweats, hectic fever, and other distressing symptoms, gradually disappeared; and by the use of baptisin, in connexion with other proper remedies, the young man has entirely recovered. I might refer you to many other similar cases, but this must suffice.

I can assure you that you will find in baptisin a most valuable auxiliary in the treatment of phthisis. It is always indicated when there is great debility, connected with much expectoration; or when there are night sweats, copious discharges from the bowels, and debilitating perspiration, it will be found most beneficial. It is also of great value in the same condition of the system, connected with scrofulous affections. One of the most fatal mistakes made by medical practitioners, is the administration of alteratives, or such remedies as hasten retrograde metamorphoses of the tissues in phthisis and scrofula. The

essential nature of these affections consists in a deficient nutrition and accelerated decomposition. In the treatment of scrofula, then, instead of giving stillingia, corydalin, iodide of potassa, &c., baptisin, hydrastin, cod liver oil, caulophyllin, chimaphilin, and the active principles of cinchona, are the remedies.

Another important influence manifested by baptisin, is its power to arrest gangrene and mortification. A case which recently occurred in my practice, was that of a young man with acute gastritis. He had been treated by one of the Old School physicians, and his treatment was *secundum artem*; hence, the vital powers succumbed to the disease and the remedies, and the gangrene of the small intestine was about terminating his career. The symptoms of the gangrene were unmistakable. In this condition I was called, and advised the use of baptisin, in doses of one-fourth of a grain every half hour, in connexion with cloths wrung from hot whisky, applied to the bowels. The effect was salutary. The vomiting of dark green matter soon ceased; and the pulse, which was scarcely perceptible, soon became more full and regular, and by the use of proper auxiliary remedies the patient recovered. I have in many cases observed like effects from the timely use of baptisin in early gangrene. Hence, in all cases where there is acute inflammation, which threatens to terminate in the dissolution of the structure of the part, baptisin may be used with good effects. Not only is baptisin a valuable internal remedy, but it may be used externally with equally good results. In chronic ulcers, where a constant solution of the continuity of the tissue prevents a union, baptisin sprinkled over the sore, followed by a stimulating lotion, is most effectual. I have also used it with happy effects in indolent chancre. I have also used a solution of baptisin as a topical application in diphtheritis and scarlatina anginosa with most pleasing results.

From what I have said relative to the medical properties of baptisin, you may infer that it has a wide range of application, and in this you are correct. I can assure you, after an extensive use of it in a very large number of cases, I have the greatest confidence in its power over disease, when properly administered. The dose is from two to five grains of the triturated article, and from one-eighth to one grain of it in the crude state. From ten to twenty drops of the essential tincture or fluid extract, may be substituted for the baptisin.

BAROSMIN.

Barosmin is the active principle of the *Barosma Crenata*, or *Buchu*. There are but few medicines which possess the power to eliminate fluids from the system, without producing injuries to the healthy organism. Barosmin, however, appears to be free from these objections; as, while it possesses the power to produce most extensive elimination of urine, it does not appear to produce other essential changes.

The diseases for which we have found barosmin most beneficial are simple dropsical deposits; such as ascites, hydrothorax, œdema, anasarca, &c., &c. It must be remembered, however, in the treatment of these and all similar affections, that the dropsical deposit is a mere symptom of some primary disease, which produces those changes upon which exudation and dropsical changes depend. Hence, it must not be inferred that a remedy which removes excessive accumulations of fluid from the body will produce radical cures, as in the treatment of dropsical diseases, two indications are to be fulfilled: first, to remove the dropsical deposit; second, to remove those pathological conditions upon which the dropsical accumulations depend. Barosmin, when properly administered, will fulfil the first indication, while other appropriate remedies will be required for the second. Barosmin, then, as a physiological remedy, is one which may be regarded as hastening those

transformations essential to the elimination of fluid from the body, without producing other pathological or physiological changes.

The amount of fluid eliminated from the system by barosmin, under favorable circumstances, is frequently most extensive and rapid. A case which occurred in my practice, was that of a lady afflicted with anasarca. The entire cellular tissue was distended to its utmost capacity, notwithstanding the frequent attempts to remove the fluid by means of drastic purgatives and the ordinary diuretics. In this case I administered ten grains of triturated barosmin, in one-half teacupful of tepid water, every hour, and kept the surface cool by frequent spongings with cold water. The effect was most salutary, as the entire cellular tissue was emptied of its fluid contents in about seventy-two hours. Then by the use of proper remedies to remove the chronic peritonitis, upon which the general dropsy depended, the patient was entirely cured. Many other cases might be cited, as illustrating the specific power of this remedy over dropsical diseases.

The crude article, or buchu, is used for the same diseases by forming a solution, decoction, and saturated tincture. The fluid extract is also used; but the concentrated article is not only more convenient, but more active. It is claimed that the barosmin is a stimulant to the uterus and ovaries, and cases are reported where uterine inertia and sterility have been cured by its use. It certainly has a stimulating influence upon the mucous membrane of the stomach and bowels, and in several cases of dyspepsia produced by a deficiency of gastric secretion, I have known the barosmin to be followed by beneficial results. A very favorite prescription of mine is the following:—Take, liquid pepsin, two ounces; fluid ext. buchu, one ounce; elixir of bismuth, three ounces. Mix. Dose—a tea-spoonful every two or three hours. The dose of the barosmin for dropsical dis-

eases is from one to ten grains every hour or two; of the fluid extract, from one to two fluid-drams, and the infusion or decoction to be drunk freely.

CAULOPHYLLIN.

The Caulophyllin is the active principle of the *Caulophyllum Thalictroides*, common name, *Blue Cohosh*. The caulophyllum is indigenous to all parts of the United States. The root is the officinal portion, and should be collected in August or September, dried in the shade, and preserved in stone jars in a cool place. It is used in the form of tincture, fluid and solid extracts, infusion, powdered root, and the active or concentrated principle, caulophyllin. The dose of the tincture is from five to twenty drops; of the fluid extract, from two to ten drops; of the solid extract, one-fourth to one-half grain; of the concentrated principle, from one-tenth to one grain. According to the old classification of drugs, it is an anti-spasmodic, emmenagogue, diaphoretic, parturient, anthelmintic, diuretic, &c. Dr. Burt, as published by Dr. Hale in his *New Remedies*, states that according to homeopathic provings its specific tendency is to the urinary organs and the generative organs of women, and the universal testimony is, that it is a remedy of great value in prolapsus uteri, leucorrhœa, vaginitis, sterility, lumbago, piles, prolapsus ani, incontinence of urine, &c. The caulophyllin is the article best adapted for use.

There is a great difference between caulophyllin and macrotin. Caulophyllin is a much more valuable article for females than for males, although you will find it of great value in some diseases of the latter. This article acts specifically upon the mucous membrane of the vagina and urethra; a very important medicine, and valuable in acute and subacute vaginitis. Where we have inflammation of the vagina, it is one of the most valuable medicines

we possess. It is adapted to all diseases connected with the vagina, dependent upon inflammation. Inflammation of the vagina is followed by a simple exudation from the mucous membrane; or an escape of the liquor sanguinis, which is converted into pus corpuscles, and constitutes what is called vaginal leucorrhœa. You will find this a common disease in females of all ages. Caulophyllin is very useful in those cases also where there is inflammation of the mucous membrane of the urethra; of which there are a great number of cases. It is brought about by improper practices. Young men have it from masturbation. It is also a sequel of spermatorrhœa. Caulophyllin is well adapted to these cases. It seems to stimulate the mucous membrane, and remove local irritation and inflammation. I have also administered it in chronic bronchitis with good effect. From the very numerous experiments I have made with this article, I am satisfied that its principal influence is exerted upon the mucous membrane of the utero-genital organs, and gives tone and energy to them. In cases of vaginitis, I have found caulophyllin, in connection with other appropriate remedies, to be most valuable. In numerous cases of periodical vaginal leucorrhœa I have used from five to ten grains of the triturated caulophyllin, and had it followed by almost immediate relief without any other remedies. You will observe, in the treatment of female diseases, that most physicians are in the habit of presenting a great variety of promiscuous compounds, without any idea of the specification of any one of the remedies used. This exceedingly unscientific method of prescribing is but seldom followed with good results. The only reliable method of treating disease consists in carefully studying the specific action of remedies upon special tissues, and then apply those remedies for the removal of the morbid action. The article that I am now presenting to you, is one to which a great variety

of medical properties has been ascribed. Upon careful observation, however, I am satisfied that most of the supposed virtues of the remedy are merely its toxic influence on the system itself, and not its real power to remove disease. I have already intimated that caulophyllin was a valuable remedy in spermatorrhœa. This is especially the case where the disease is dependent upon chronic irritability of the urethral mucous membrane. The dose of caulophyllin is from three to five grains of the triturated article, to be repeated as often as indicated; or from one-half to one grain of the crude article. The fluid extract and essential tincture have been used in doses of from five to twenty drops, instead of the caulophyllin.

CERASEIN.

Cerasein is the active principle of *Cerasius Virginiana*, or *Choke Cherry*. Cerasein appears to exert its influence mainly upon the erectile tissue. The influence which it exerts upon this tissue is that of a stimulant; as, after a full dose of cerasein, the circulation through the capillaries may be observed more active, and in case these tissues be disordered, the capillaries over-distended with blood, as occurs in all intermittent and remittent diseases, as well as most scrofulous affections, cerasein will lessen their caliber, and restore the circulation to its normal condition. You may not be aware that this erectile, or spongy tissue, is the seat of many of the most essential morbid changes in all intermittents, and some other diseases. This is especially the case in ague and spermatorrhœa. During the cold stage of ague we observe the spleen to generally enlarge; until, in the majority of cases, the enlargement is so extensive as to encroach upon the stomach, and press the diaphragm against the base of the lungs and heart, thus most essentially interfering with the circulation and respiration. After the cold stage is past we observe the

spleen to gradually diminish in size ; until, by the expiration of the entire paroxysm, in ordinary cases, it resumes its normal condition. From this circumstance we have inferred that any remedy which would prevent this periodical hyperæmia, or congestion, would prevent these paroxysms of ague, and repeated experiments have proved this hypothesis to be correct. Cerasein is one of the remedies that we have observed to produce this effect in a remarkable degree. The spleen being composed almost exclusively of elastic erectile tissue, and cerasein exerting such a specific influence upon it, we inferred that its principal power was manifested upon this tissue. Hence the great value of cerasein, as a remedial agent consists in its power to control those periodical pathological changes, which are so prominent in a large class of affections peculiar to this country. In intermittent and remittent fevers, cerasein, either alone or in combination with quinine, is a most valuable remedy to arrest the periodicity of the disease. A dose of cerasein, requisite to arrest the periodicity of these fevers, is from ten to sixty grains, divided into proper doses, and given at suitable intervals during the most intermittent or remittent portion of the paroxysms. In most cases of mild form, in intermittents and remittents, we have found cerasein to act as an anti-periodic with as much certainty as quinine ; but in the malignant forms of the affection, there is no remedy known to the profession, on which we can place so much reliance as an antiperiodic, as on the sulphate of quinine. The value of cerasein, however, does not cease with its uses in miasmatic fevers, but it is a valuable remedy in marsh dysentery, periodical leucorrhœa, hysteria, and spermatorrhœa. In the latter disease I have known cerasein to manifest most marked curative power, when all other ordinary remedies had failed. The dose of cerasein is from one to ten grains of the crude article, or from ten to twenty grains of the

trituated, repeated at proper intervals. The fluid extract in half-dram or dram doses is used for the same purposes.

CHELONIN

Is the active principle of *Chelone Glabra*, or *Balmony*. Chelonin manifests its most prominent influence upon the mucous membrane of the stomach and bowels, and as a general tonic it is one of those agents that we can trace through all its medicinal impressions upon the living tissues. Chelonin, when introduced into the stomach, in its normal state, in doses of one or two grains every two or three hours, produces a warm and pungent feeling, which is followed by slight nausea, if the remedy be continued for ten or twelve hours. In dram doses it produces nausea, vomiting, and purging. In one-half to one grain doses, given two or three times a day, it increases the appetite and promotes digestion, without producing any other sensible impression.

In disease the power of chelonin is still more marked than in health. In all cases where the dynamic power of the stomach is interfered with, either by some specific disorder, or by some remote affection, chelonin manifests a most specific power to restore the stomach to its original condition. In cases of dyspepsia, where the indigestion is dependent upon a feeble condition of the muscles, mucous membranes, and glands of the stomach, chelonin is most valuable. In cases where patients are laboring under what they denominate a bilious habit, but which in reality is imperfect digestion, chelonin, given in one or two grain doses, not only removes the present difficulty, but entirely restores the digestive organs to their natural condition. Chelonin is only well adapted to restore the energies of the stomach after fever and other acute diseases; especially is this the case when the patient is of a strumous or phthisical habit. I have frequently prescribed

small doses of chelonin during the convalescent stage of disease with the most happy effect. In chronic affections, such as phthisis, scrofula, and other debilitating diseases dependent upon imperfect digestion and mal-assimilation chelonin is of eminent service. In numbers of cases of phthisis I have seen patients improve most rapidly under the influence of chelonin, in combination with iron and cod liver oil. In the case of a lady who came under my notice, where cod liver oil could not be tolerated, I advised it to be used in conjunction with chelonin. The effect was most salutary, as the chelonin enabled the stomach to digest and appropriate the oil to the nutrition of the body. In a case of diabetes I gave chelonin, in combination with helonin; and although the case had been under the most approved forms of treatment for a long time without benefit, these remedies afforded almost immediate relief. The remedy had not been used ten days before the quantity of saccharine matter in the urine had perceptibly diminished. It resulted in entire restoration to health.

Another quality manifested by chelonin, is its power to remove parasites from the intestinal canal. I have frequently observed the almost specific effects of this remedy as an anthelmintic. In the case of a girl affected with chorea, where a large variety of remedies had failed to produce a cure, I gave chelonin. It expelled from the alimentary tract a large number of ascarides lumbricoides, which produced a cure of the chorea. I have also combined chelonin with santonin with the most happy effect. Chelonin may be given alone, or in combination with other medicines. A very good method of preparing it, is to add the desired quantity of the medicine to simple syrup, and triturate until a complete mixture is formed. As a vermifuge I have frequently added thirty grains of chelonin, and five grains of santonin to four ounces of

neutralizing mixture, triturating them until thoroughly mixed. Dose, one tea-spoonful of the mixture every two or three hours until it acts upon the bowels. Where chelonin is given alone, one or two grains is a dose, repeated at proper intervals. Like most of the concentrated medicines, you will find chelonin to produce the best effects when thoroughly triturated with sugar.

Chelone Glabra, or Balmony is used for the same diseases as the concentrated remedy, in the form of tincture and fluid extract. The dose of the tincture is from five to ten drops, five or six times a day, and from three to five drops of the fluid extract. A very valuable tonic syrup for feeble and dyspeptic patients is to take one ounce of fluid extract of balmony, six ounces of syrup of sugar, and one dram of carbonate of iron. Mix. Dose—one tea-spoonful four times a day. If the stomach ferments and acid forms, one dram of carbonate of soda may be added.

CHIMAPHILIN.

Chimaphilin is a concentrated remedy, derived from the *Chimaphila Umbellata*. Its common names are *Prince's Pine*, *Pipsissewa*, *Winter-green*, *Pyrola*, *Ground Holly*, etc.; and the part used is *the plant*. Its special influence is on the *lymphatic tissues*. It is a very valuable remedy, therefore, in many diseases, such as *cholera infantum*; in diseases of the lymphatics; in puerperal peritonitis; and in leucorrhœa, which originates in lymphatic diseases; in tumors about the neck; in enlargement of the mammæ; and also in *chronic ulcers*, where aqueous and serous discharges are excreted. To use chimaphilin aright, however, it is necessary to understand thoroughly its "modus operandi" upon these glands. If taken for a length of time—by a female, for instance—the mammæ gradually become absorbed, and atrophy is the result,—the mammæ are softened, and, as it were, flattened. In the male it

causes atrophy of the testicles. If one dram be given three or four times per day, the urine will be found thickened. It does not act as a direct diuretic; no uneasiness about the stomach is felt, but there is a marked increase in the solidity of the urine. If continued for a longer period, there is a thinning of the constituency of the blood, producing œdema, leucocythemia, etc. It is not an article of food, making a healthy person more healthy; although it may be used for the removal of disease. In certain maladies the lymphatic system becomes loaded with effete matter, and is thus made the reservoir and source of violent constitutional disturbance. An opinion is gaining ground that the lymphatics are vessels employed for the manufacturing of blood; and that, consequently, the health of the blood, in a great measure, depends upon the condition of the lymphatics. When they are in an unhealthy state, the glands of the neck become enlarged, and the result is a permanent enlargement of a scrofulous or tuberculous character. In scrofula the tonsils become loaded with effete matter, and throw out a cheesy substance called tubercles; whilst a bubo is the product of a venereal poison, generated and terminating in another form of lymphatic affection. In such cases, chimaphilin, operating as a stimulant, removes the effete matter, and assists the process of elimination. It prepares material for the kidneys to work up and work out the diseased matter of the body, first as uric acid, and next as urate of ammonia. But the kidneys cannot thus act and manufacture urine, until the old effete matter is carried to them; and the carrier (so to speak) is chimaphilin. I was recently called to see a child, said by its attendant to have the bowel complaint. I found the lymphatics loaded with effete matter, and while so loaded a cure was a moral impossibility,—the necessary changes for digestion could not occur. For the two previous months it had been under

old treatment, and dosed with opium. As a specific for this difficulty, I gave the child chimaphilin, and it proved a very valuable remedy. Whenever the lymphatics are inactive, causing, as a result, a difficulty in the lungs, the stomach, the bowels, etc., etc., and producing bronchitis, pneumonia, etc., they must be unloaded by the administration of chimaphilin. As a diuretic, however, chimaphilin only moderately increases the quantity of urine. It is not to be supposed that chimaphilin will remove all the diseases to which the lymphatics are subject; but it obviously and invariably exercises a special and efficient influence (which no other remedy can do) in diseases of a scrofulous, tuberculous, and dropsical character.

Chimaphilin, it may also be observed, will increase exhalations from the skin, stimulate the liver to manufacture bile, and produce alvine evacuations, as well as purge the system and drive out impure lymph through the kidneys. In a measure, too, it will check the ravages of phthisis, prevent the advance of cancer; and while thus acting on the lymphatic glands, it will not, like iodine and potash, break up the red corpuscles, produce irritability, and disturb the organic action of the body generally. The dose varies according to the nature of the case and the constitution of the patient; ordinarily one, two, or three grains, (trituated with sugar, to avoid local irritation, and to diffuse it more readily into the system, and this applies to all "concentrated medicines,") may be given three or four times per day. This plan I adopted not long ago, in order to cure a bubo. The patient had been mercurialized, but in a week, or ten days, I discharged him fully recovered; at least so far as the appearance or the existence of a bubo was concerned; but when a man (and that for months) is mercurialized, he is never again in perfect health, but ever predisposed to a variety of aches, pains, &c. Ten trituated grains (that is, one grain of chimaphilin, and

nine of white powdered sugar) is a sufficient quantity to be administered at one time to a child. The fluid extract may be used in all cases as a substitute for the chimaphilin, in doses of from two to ten drops, four or five times a day, prepared in syrup of sugar. The dried herb may be used by adding one ounce to a pint of water; make a tea and drink during the day. The herb should be gathered in September, dried in the shade, and kept in dark jars or crocks.

COLLINSONIN.

Collinsonin is the active principle of the *Collinsonia Canadensis*, sometimes termed *Hardhack*, *Stone-root*, *Ox Balm*, *Knob-root*, *Heal-all*, *Richweed*, &c., &c. This remedy acts especially, and most beneficially, on the valves of the heart, though its worth and influence are not limited to these. All the serous tissues and structures of the body are subservient to its therapeutic power. These serous tissues possess small capillaries, which, when disordered and dilated, suffer fluids to ooze out; and this exudation becomes organized, as in inflammation of the pleura, the endocardium, the pericardium, &c.

Collinsonin removes the exuded organized matter, and causes the abnormal condition to disappear. I, not long since, had a patient, who was so much oppressed with a valvular disease of the heart, that his friends were obliged to carry him up-stairs. He, however, gradually recovered under the influence of collinsonin, and is now attending to his business. Heretofore physicians knew of no remedy for the removal of so distressing and so dangerous a malady. With them it was all *guess-work*, and it fearfully warned the afflicted that death was near at hand. Collinsonin unquestionably affords relief in such cases, and in most instances effects a cure: it, however, must be administered very cautiously. An ordinary dose is from one to two grains, three or four times per day. I have given ten

grains five times per day; in one case, thirty grains; but this course is only justifiable under extraordinary circumstances. One dose, I may add, should always be administered at night. Collinsonin also acts with efficiency in cases of chronic peritonitis, especially in those cases which are accompanied with dropsical accumulation in the abdomen. In a case of persistent ascites, where the ordinary remedies failed to afford more than a temporary relief, collinsonin produced a permanent cure. The cure, in this case, I attributed to the influence of the remedy in removing the chronic inflammation of the peritoneum, which was the cause of the difficulty. I have known this remedy also to act with much efficiency in removing chronic inflammation in other portions of the serous tissue. I stated that the collinsonin acted most specifically upon the tissues of the heart, and especially the valves; and, I might add, the entire endocardium. During the progress of inflammatory fever, and especially that of a rheumatic character, we frequently notice the patient manifesting great oppression at the præcordial region; is restless and anxious; has a small, feeble, and intermittent pulse, oppressive dyspnoea, jactitation, and syncope. If we listen to the heart, we detect a soft bellows murmur, together with mitral regurgitation, and pulmonary, systolic, and diastolic murmurs, according to the nature of the alterations connected with the disease. These symptoms plainly indicate the existence of inflammation of the inner structure of the heart; and from the prompt relief afforded by a few doses of collinsonin, its specific character has been demonstrated. In the chronic form of endocarditis, where the symptoms are not so active, but the disease still characterized by its insidious changes, the collinsonin, although acting more slowly, is equally efficacious. The fluid extract of the *collinsonia canadensis* will produce similar effects to the concentrated medicines, and may be used in

all cases in the absence of the former. The dose of the fluid extract is from one to five drops, every two or three hours; or from ten to fifteen drops may be added to a tumblerful of water, and one teaspoonful be given every half hour or hour.

COLOCYNTHIN

Is a concentrated remedy derived from *Cucumis Colocynthis*, and is commonly called *Bitter Cucumber*. It is a *hydragogue cathartic*, and, as the term implies, produces watery evacuations. Its effect is peculiar, and it may be regarded as a *substitute for the lancet*; for, by its administration, a patient is virtually bled without any venesection, (*that debilitating system of mal-practice*), by acting as a stimulant to the serous tissues. It is serviceable in the treatment of dropsy. Colocynthin, however, must be cautiously administered, for I have known the twentieth portion of a grain to cause violent purging and cramps. Hence, in large doses, it is a hazardous remedy, producing, for the most part, inflammation of the pleura, the peritoneum, &c. It is, moreover, apt to bring on nausea, causing the patient to vomit serous matter, and occasionally generates symptoms of cholera by engendering a diseased condition of the serous capillaries, as is indeed the usual consequence of all drastic medicines. But, in small doses, colocynth has no drastic effect, and is found essentially useful in gouty and rheumatic disorders. In chronic inflammation of the serous tissues, as chronic peritonitis, pleuritis, pericarditis, &c., from the one-tenth to the one-twentieth of a grain, administered three or four times a day, has the effect not only of breaking up any newly-formed adhesions, but so stimulates the diseased capillaries as to restore the tissue to its normal condition. In the case of a lady, where the uterine reflection of the peritoneum was chronically inflamed, producing tenderness of

the abdomen, with weight and pressure in the hypogastrium, and most distressing dysmenorrhœa, one-tenth of a grain of colocynthin, administered twice a day, afforded prompt relief. In numerous cases, where portions of the serous tissue had become debilitated and altered in structure as the result of inflammation, I have found small doses of colocynthin to act as a decided tonic in restoring the structure to a healthy condition. In the case of a gentleman afflicted with rheumatic pericarditis of long standing, associated with pain and dropsical tendencies, I gave the one-fortieth of a grain of colocynthin every three or four hours, with a mush and milk diet; the effect was, it removed all symptoms of the disease in four weeks. I have also used the colocynthin in several cases of chronic diarrhœa with much benefit. In rheumatic inflammation of the synovial membranes, the one-fortieth or fiftieth portion of a grain given every two or three hours, in connection with small doses of quinine, is almost a certain remedy; in pleurisy it has also proved a remedy of much value. It should be borne in mind that while the colocynthin is administered as a stimulant to serous tissues, it should be given in very small doses; the fluid extract may be used as a substitute in doses of one or two drops, and the resin colocynth in one-tenth to one-twentieth portion of a grain; a dose of the colocynthin is from one-twentieth to one-hundredth of a grain.

CORNIN

Is derived from *Cornus Florida*; the common names, *Dogwood*, *Boxwood*, *Flowering Cornel*, &c. It is an astringent and antiperiodic, and as such is often used as a substitute for quinine, to which, in some cases, it is preferable, owing to a tonic property which the latter does not possess. It is specially adapted to certain classes of diseases, in which erectile tissues are involved; hence it is useful in

neuralgia, epileptic convulsions, hysteria, intermittent, remittent, and congestive fevers.

Like other antiperiodics, the great power of cornin is its influence over vegetable malaria. The most casual observer in medicine can hardly fail to notice the extensive maladies produced by this *materies morbi* when introduced into the blood. Not only intermittent and remittent fevers, but neuralgia, periodical headache, epilepsy, spermatorrhœa, rheumatism, dysentery, &c., &c., frequently have their origin in the existence of malarial poison in the blood. Medicines that eliminate this poison through the emunctories of the body may prove of great service in removing them; but the most direct method of combating marsh malarial maladies, is to introduce into the system remedies that are known to neutralize this poison. The active principles of the cinchonia and the cornus Florida possess this power; and although the cornin, as now prepared, is far from possessing that potent influence over malarial diseases peculiar to the sulphate of quinine, yet it is of sufficient importance to warrant a most careful investigation. I have used it in nearly every form of periodical disease with the most happy effect. In periodical dyspepsia I have found it, in doses of one or two grains four or five times a day, a most valuable remedy, differing from quinine, inasmuch as it neutralizes the malarial poisoning without producing congestion of the tissues. A most remarkable case of spermatorrhœa, connected with great debility and prostration, was cured by taking one grain of cornin four times a day, in combination with one grain of hypophosphite of iron. I have also used this remedy, in combination with gelsemin, in dysmenorrhœa, with most happy effect. During the convalescence of intermittent and remittent fevers, after quinine has interrupted the most prominent features of the disease, one or two grains of cornin, three or four times a day, either alone or in

combination with leptandrin, euonymin, leontodin, or iron, as the case may require, is most valuable. In epilepsy, it also promises good results. In two cases which I have treated with this medicine, an entire cure has been effected; and again it has mitigated the symptoms. The dose of cornin varies from one to sixty grains, repeated at intervals adapted to the case. An ordinary dose for an intermittent fever is ten grains, administered every two hours during the intermission. For epilepsy, and other chronic intermitting and remitting diseases, from two to five grains, four or five times a day. The fluid extract of cornus Florida may be used in all cases as a substitute for the cornin, and sometimes it is even more potent than the concentrated article. An elixir of the extract may be prepared in combination with iron, strychnine, &c., in the same manner as the various kinds of cinchonia. The flowers of the cornus Florida used in the form of a decoction or saturated tincture, are nearly a specific for the various forms of leucorrhœa. Dose of the fluid extract, one dram; the decoction may be used freely.

CORYDALIN.

Corydalin is the active principle of *Corydalis Formosa*, *Turkey Pea*, etc. Corydalin manifests its greatest power as an anti-syphilitic remedy. There is no fact better established than that corydalin, judiciously administered, has the power to remove this malady from the system. Within the last few years I have had most ample opportunity of testing the virtue of a great variety of remedies in the cure of syphilis. The entire inefficiency of the old practice, besides the destructive tendency of the remedies employed, has rendered an inquiry into the therapeutic power of innocent drugs over this disease of signal importance. It was with these considerations that I determined to make a most thorough test of the curative power of our

concentrated remedies; and after repeated and extensive trials of corydalin in every form of the affection, both alone and in combination with other agents, I have demonstrated, beyond the possibility of a doubt, that corydalin removes secondary syphilis with much efficiency and certainty. A case which recently came under my notice, was that of a young man who had been treated in one of the army hospitals for secondary syphilis for four or five months, with all the ordinary remedies, such as iodide of mercury, iodide of potassium, mercurial ointment, etc., etc., all to no purpose. When he came under my charge he had a large chancre, involving almost the entire *corona glandis*, and his body was covered with syphilitic lichens. I placed him upon one grain of corydalin, and one-half grain of the sulphate of quinine every two hours, ordered a hot bath every morning, and a wash, composed of ten grains of muriate of hydrastin, to four ounces of water for the chancre. After continuing this treatment for a time, during which the patient improved rapidly, I omitted the quinine, but continued the corydalin, and in eight weeks the cure was complete. Other cases of secondary syphilis I have treated with the corydalin alone, with the most happy results.

Although I do not claim for corydalin that it is an entire antidote to the poison of syphilis, still I have had sufficient experience in its uses to know that it acts most beneficially, and in many cases will effect an entire cure. The corydalin appears to manifest a tonic influence over the eliminating emunctories, such as the skin, kidneys, liver, lungs, bowels, etc.; and in syphilis, as in all other diseases dependent upon the presence of a *materies morbi* in the blood, the eliminating apparatus is defective. Hence, the corydalin may be used in all diseases of this character. In syphilis, I have found that the sulphate of quinine contributes much to its efficiency. Much caution is required

in the treatment of syphilis, to prevent exhausting the system, and not unfrequently iron and other tonics are required. The dose of corydalin is from one to ten grains, repeated five or six times a day.

Dr. Coe recommends the corydalin as valuable in cases of scrofula, dropsy, diseases of the kidneys, bladder and liver. In a case of albuminuria associated with glandular degeneration of the kidneys, and extensive debility of the stomach, I gave one table-spoonful of the brandy tincture of the corydalis formosa, and one tea-spoonful of cod liver oil, four times a day, in connection with almost an exclusive milk diet. The patient improved rapidly, and in the course of a few months nearly all traces of albumen disappeared from the urine, digestion improved, and the patient enjoyed his usual health. It has now been some eight years since I first treated this case, and although he has had several attacks within that time, yet they have always yielded to the same treatment, and the patient now is enjoying good health. The fluid extract may be used in all cases as a substitute for the concentrated article, and often it is quite as effectual. A powder of the crude root in doses of from two to three grains four or five times a day, has been used quite successfully in many forms of skin disease, but according to our own experience, it has but little virtue unless the cutaneous affection be associated with syphilitic contamination. The dose of the fluid extract is from one-half to one dram three or four times a day.

CYPRIPEDIN.

Cypripedin is the active principle of the *Cypripedium Pubescens*, or *Yellow Lady Slipper*. The crude root has long been used as a tonic, anti-spasmodic, nervine, diaphoretic, and stimulant; hence, it is used in hysteria, neuralgia, nervous headache, etc., etc. Previously to obtaining the medical virtues of this plant in the form of cypripedin,

it was used in that of an infusion, extract, and tincture. As none of these preparations contain the active medical virtues of the remedy to any considerable degree, but little benefit has been derived from their use; consequently, the medicine has become nearly obsolete. This want of success with these imperfect preparations, has prevented many of our physicians from investigating the medical virtues of the cypripedin, and it has become a habit with most of our writers to speak of the concentrated medicines as representing the medical virtue of crude articles as previously understood, only in a more convenient form. Nothing is further from the truth than this, as many of the concentrated remedies, in their influence upon the system, have no resemblance to our previous notions of the medical properties of the drugs from which they are obtained. This is most remarkably the case with cypripedin, as it is in nowise adapted to fulfil the indications for which the crude plant has been prescribed. One or two grains of the cypripedin, taken every two or three hours, and continued for three or four days, produces at first an exhilarating effect upon the mind and nervous system. After thirty or forty grains have been taken, this feeling of mental elasticity gradually yields to a sense of quietude, and in some cases a feeling of intellectual fatigue. The influence upon the stomach is not perceptible, nor does it seem to exert any particular impression upon the bowels. In several cases where we experimented with its use in healthy persons, the specific gravity of the urine was diminished from two to five degrees after taking twenty or thirty grains for three or four consecutive days. Upon my own person, on taking one dram every day for five days, I found that at first it produced a stimulating influence upon the brain and nervous system; but on the third, fourth, and fifth day, a sense of weight and oppression upon the mind, with a slight disposition to drowsi-

ness, as if I were more under the influence of a sedative than a narcotic. This has been the effect upon a large number of cases upon whom I have experimented in a state of health. In disease, I have found that it manifested its principal power in cases where the gray nerve tissue was disordered, either as the result of over-mental exertion, reflex nervous excitement, or of some specific poison, as alcohol, vegetable and animal malaria, etc. In several cases of epilepsy, where I believe the disease was produced by reflex nervous irritation, I have found two or three grains, administered three or four times a day, to exert a most beneficial influence; although in no case, have I succeeded in entirely curing the disease with it. In a case of spermatorrhœa, accompanied with great nervous prostration and dejection of spirits, I administered one grain every two hours, for ten or twelve consecutive days, with the most happy effects, as it not only removed the mental despondency, but seemed to impart new tone and vigor to the nervous system. In many cases of chorea, in which the disease was caused by exhaustion of the nervous forces, I have found cypripedin, in doses of one grain, in connection with one or two grains of carbonate of iron, administered every two or three hours, for several weeks, to produce perfect cures. In a case of amenorrhœa, connected with hysteria, great nervous debility, and mental despondency, I effected an entire cure in about twenty days, by giving one grain, and one of iron per hydrogen, every three hours during the day. In typhus and typhoid fevers, where the cerebro-spinal forces have become exhausted, as indicated by typhomania and general prostration, I have found from one-half to one grain, administered every one or two hours, to be followed by an immediate mitigation of the symptoms, and a permanent improvement of the patient. In delirium tremens I have found this remedy most valuable, and in connection

with lupulin, have succeeded in effecting most astonishingly favorable results. In cases where dyspepsia, or other disordered conditions of the stomach and bowels, is the result of over-mental exertion, anxiety, or grief, one or two grains, taken four or five times a day, will afford entire relief.

From a most extensive use of this article in diseases connected with the nervous tissue, especially those in which there is a want of nerve power, the cypripedin fills a vacancy which has long existed in the *materia medica*. With it, wakefulness may be converted into quietude and sleep, mental anxiety into calmness, enfeebled and exhausted nerve force into tone and vigor. The method of administering it consists in triturating it with sugar in the proportion of one part to ten or twenty, and giving four or five grains of the mixture every two or three hours. Where there is much debility and a weak state of the blood, by adding one or two grains of carbonate of iron to each dose, and administering it in a table-spoonful of cream, it will prove still more efficacious. One of the difficulties with the cypripedin is, that upon exposure to light it deliquesces. To prevent this it can be triturated with sugar of milk, and kept in a green bottle closely corked. The fluid extract, when well prepared and fresh, may be used in most cases as a substitute for the active principle, by adding one dram to two ounces of glycerine, and giving one teaspoonful four or five times a day. In typhus and typhoid fever, I have witnessed the happiest effects from the following:—Take, fluid extract of cypripedium pubescens, one fluid dram; glycerine, two ounces; carbonate of iron, one-half dram. Mix. Dose—a teaspoonful every two hours. In a case of a young lady afflicted with intermittent chorea, I gave the following:—Take, elixir of cinchona et ferri, two ounces; fluid extract of cypripedium, one ounce. Mix. Dose—a tea-

spoonful four times a day. The one prescription produced a radical cure. In combination with the fluid extract of *ictodes fœtida*, or skunk cabbage, in the proportion of one part of the former to two of the latter, in doses of from ten to forty drops, it is almost a specific for whooping-cough. The fresh root has also been used in combination with equal parts of *helonias dioica*, or unicorn root, tinctured in brandy, for Bright's disease of the kidneys: one ounce of the *cypripedium*; two ounces of *helonias*; added to one quart of the best French brandy, and a table-spoonful taken four times a day. In the case of a gentleman, forty-five years of age, where the disease had terminated in general dropsy a cure was effected with the above prescription in connection with a proper regimen.

DIGITALIN

Is the active principle of the *Digitalis Purpurea*. This remedy appears to manifest its influence upon the heart, arteries, and urinary apparatus, although its toxical impression is principally manifested upon the cerebro-spinal system. In medical doses, it is found to reduce the action of the heart, and impair nervous energy. Previously to the introduction of *veratrum viride*, digitalin was extensively used in fevers and inflammations as an arterial sedative; but it was found, that while it lessened the action of the heart, it also impaired the integrity of the nervous system to such an extent that in adynamic forms of fever it produced too great exhaustion. Since *veratrin* produces all the sedative effects peculiar to the digitalin without exhausting the nerve force, it is now almost universally used in its stead. Digitalin, however, is not without its use, as it is found to act specifically upon the reproductive organs, and has been used extensively as an antiphrodisiac, especially in spermatorrhœa. I have myself treated a large number of cases of spermatorrhœa, de-

pending upon excessive venery, with this agent, with the most happy effect. My method of administering it is, one-twentieth to one-sixteenth of a grain, every night upon retiring. I have also used this agent with remarkable success in several cases of obstinate nymphomania. It seems also to have a controlling influence over the muscles and nerves of the urethra, as I have found it most beneficial in several cases of incontinence of urine.

CASE.—A boy, aged ten, who had been under treatment for some three or four months, where belladonna and gelsemin had failed, together with other remedies in common use for this disease, was entirely cured in two weeks by administering one-thirtieth of a grain of digitalin every night upon retiring.

A medical friend related to me, a few days since, that he had successfully treated a number of cases of dropsy with this agent, and that he had found it also a remedy of great value in congestion of the kidneys and albuminuria. I have also used it in several cases of hysteria and nervous irritability as an anæsthetic; and although it is far inferior to aconitin, in doses of from one-tenth to one-eighth of a grain I have found it to lessen sensibility, and in some cases to produce almost entire anæsthesia; hence, it may be used with advantage in cases of neuralgia, and increased sensibility of the nervous system originating from chronic diseases. I have tried the remedy extensively in epilepsy, owing to the remarkable success of Professor Oldshue in the treatment of these affections, with a decoction of digitalis. He claims that by administering full doses of the decoction, three or four times a day, to epileptic patients, he found it to be almost a panacea. Apprehending that the digitalin was the active principle of the digitalis purpurea, I selected several marked cases. In that of a young man, aged sixteen, who had been epileptic from youth, I succeeded in producing

a decided intermission of the epileptic paroxysms, which, however, returned in a few months, and upon renewing the remedy it had no impression upon the disease.

Another case was that of a girl, aged thirteen, who had been epileptic some four or five years. Although it was a marked case of epilepsy, the paroxysms were not severe, and the system had been very favorably impressed with medicines previously to the commencement of the use of the digitalin. I commenced, however, to administer, one-eighth of a grain three times a day, and continued it until a slight vertigo ensued; then omitted the digitalin, and gave two grain doses of sulphate of quinine every two hours for two consecutive days, after which I resumed the use of digitalin, and continued for some six or seven weeks this treatment, together with mild purges, well-regulated diet, and other hygienic measures, entirely cured this case.

The other case did not prove successful. The digitalin does not appear to manifest the accumulative power that is attributed to the crude article, and in this respect it may be used with more safety than the infusion, decoction, or tincture of the digitalis. I have not discovered any peculiar property of digitalin that is not attributed to the crude article; however, future experiments with this very active agent may develop some power that is not yet known. The dose of the digitalin is from one-fortieth to one-sixteenth of a grain, triturated with sugar, and repeated two or three times during the day. The fluid extract of the digitalis may be substituted for the digitalin in all cases, in doses of from two to ten drops. A remarkable case of dropsy of the heart was successfully treated by giving ten drops of the fluid extract every two hours.

DIOSCORIN.

Dioscorin is the active principle of the *Dioscorea Villosa*, or *Wild Yam*. For a long time the crude plant has been

known to possess most peculiar medical virtues, especially in nervous diseases, and more particularly in bilious colic; but only recently the concentrated article has been introduced into general use. As prepared by our pharmacutists, it is the active principle of the plant, combined in its natural proportion; hence, it is supposed that it represents its real medical virtues. The experiments made with the dioscorin were first directed to its influence over bilious colic, owing to the reputed power of the crude article over that disease. The first instance in which I used this remedy, was in the case of a lady, about forty years of age, who had been laboring under a severe form of the affection for three days, in spite of the usual remedies taken to relieve her. I ordered two grains to be given every fifteen minutes, followed by a small draught of hot water. The second dose relieved the violence of the paroxysm, and in the course of two hours the vomiting and pain had been entirely controlled, although there was gastric and enteric inflammation for several days, which yielded, however, to hot packs, aconite, and veratrum. Subsequently I used the remedy in a number of cases under more favorable circumstances, and in each instance immediate relief was the result, and in no case in which I have used the dioscorin previously to the use of other remedies, have I found inflammatory symptoms developed; hence, I have every reason to believe that they would occur very rarely in bilious colic, if they were not produced by pernicious medication. On consulting with my medical friends, I learn that their experience is similar to mine; and knowing that what is understood as bilious colic was simply a hyperæsthesia of the umbilical plexus of nerves, or one of the forms of neuralgia, I determined to try it in other nervous affections; consequently, I have used it in nearly every form of painful neuralgia, and have found it equally valuable. In facial neuralgia, hy-

peræsthesia of the spine, brain, uterus, and other portions of the nervous system, its power is most marked, and in nearly every instance relief has been afforded. Of course, the causes, predisposing and exciting, received their due attention and appropriate treatment, as well as other complications.

As to the extent to which I have used the drug, I would remark, that although I have not kept a detailed account of all the cases, yet I have prescribed it constantly for five or six years, and with almost uniform success. My experience with it, as well as such information as I could obtain from others, leads me to believe that it possesses more power over painful nervous affections than any other remedy in the materia medica. Its influence on the system appears to be of a more specific character than otherwise, as it relieves the pain, without producing any remarkable constitutional symptoms; for, after taking one or two grains every two hours for a few days, the system appears to re-act, and the pain and paroxysm disappear, the appetite becomes natural, and the bowels and kidneys, together with all the emunctories of the body, assume their natural functions. In most chronic nervous affections, I combine the dioscorin with some preparation of iron, and use such other adjunct remedies as the nature of the case demands. In malarial districts, I use it with sulphate of quinine. The ordinary dose, in bilious colic, is ten or twenty grains of the triturated remedy, every ten or fifteen minutes, followed by a draught of warm water; in other nervous affections, from five to ten grains, every two or three hours. As to its influence on the healthy constitution, I will give the experience of two of my former students, each testing the drug when in a perfect state of health, and each being ignorant of the effect experienced by the other:—

Philadelphia, January 4th, 1865.

I commenced taking dioscorin, in half-grain doses, three times a day. Soon after taking the first dose, I experienced considerable pain in the abdomen, which was soon followed by a slight diarrhœa. I continued using the drug until I had taken twenty-five doses, but did not observe any further effects. I then increased the dose to one grain, and was again seized with abdominal pains, as well as diarrhœa, which soon passed off; and although I continued its use until I had taken twelve one-grain doses, no other effects were perceptible. I then discontinued its use for three days, when I again commenced with the dose increased to two grains; and after taking four doses, was seized with such a severe griping pain in the abdomen, that I was obliged to abandon the experiment. Since I commenced the experiment, I find that my appetite is very much increased.

HENRY A. SUMMERS.

January 16th, 1865.

I commenced taking one-half grain of dioscorin, with the following effects:—First dose caused a slight feeling of fulness in the head, with an increase of saliva, and an agreeable sweetish taste. Symptoms continued three hours. The dose was taken three times per day, on the 7th and 8th, with like effects. On the 9th, the dose was doubled in the morning, which caused a slight continued pain in the abdomen, as if the point of a finger were placed upon the umbilicus, and pressed upward and backward. At noon the dose was tripled, with an increase of the severity of the symptoms, and defecation, which is uncommon at that period. In the evening the dose was quadrupled, but I fell asleep before its action commenced, and remained undisturbed about four hours, when I woke in a horrible dream, feeling much pain in the abdomen; but it soon

subsided, and I again fell asleep, awoke soon, and found myself sore upon pressure. I now took five doses in one, or three grains. In one-half hour there was fulness in the head, speedily followed by severe pain in the abdomen, more spasmodic than heretofore. During the intermissions there was a burning sensation, which lasted three hours. I now thought it the part of prudence to discontinue the experiment. The soreness lasted two days.

J. C. MICHENER.

I would remark, as to these tests, that I have the experience of others, and they all testify to the same results. I have also tried the remedy upon my own person, and witnessed almost the same effects as those of my students. More recently, owing to the difficulty of obtaining a reliable quality of dioscorin, I have been using the fluid extract, in doses of ten or fifteen drops, with very good success, but not as good as with the dioscorin prepared by Mr. Keith.

EUONYMIN.

This is the active principle of the *Euonymus Atropurpureus*, or *Burning Bush*. In the healthy person, given every two or three hours, for twenty-four hours, it will produce cholera morbus; if continued still longer, there will be nausea, and lastly, vomiting of a bilious character. I have taken one-half dram and felt no nausea, but at the expiration of twelve hours I have had nausea, vomiting, and purging, with bilious discharges from the bowels. If the liver be engorged, there will be discharged quantities of bile. In weak and debilitated persons it will cause uneasiness of the bowels and abdomen, but no vomiting.

To a lady, a patient of mine, who was very weak and feeble, on whom I tried many of our most valuable remedies without success, and knowing that her digestion was

impaired, I gave small doses of euonymin, one-half grain in pill every night. She took these for a week, when she had free evacuations of the bowels. It does not stimulate the vascular system, but acts as a stimulant to the liver, causing proper action of the bowels, improving digestion, affecting the tissues generally, and bringing on a healthy condition of the whole system.

Within the last few years, we have had ample opportunity to test the therapeutic properties of the euonymin in the University clinics. In the case of a man who was examined by Prof. Duffee, and pronounced as having cirrhosis, or gin-liver, we commenced the treatment by giving one grain of euonymin night and morning, in connection with a diet exclusively of corn mush and milk. At the expiration of ten days, the evacuations, which were previously clay-colored, became more natural, and the patient generally improved. It was now ordered that the dose be increased to two grains night and morning, and continued for ten days. On the third day the patient returned, stating that the medicine was operating too violently, as it produced four or five evacuations a day, accompanied with pain and nausea, with a loss of appetite. The quantity was then reduced to the former dose—two grains a day—when the bowels became natural, the appetite improved, and at the expiration of three months, the patient was discharged cured.

The euonymin has also been extensively used in nearly every form of hepatic difficulty, and in no instance has it failed to be followed by beneficial results. We have also prescribed it extensively in secondary and tertiary syphilis with decided benefit. In many cases where mercurials had been extensively used without producing relief, we gave the euonymin and obtained beneficial results. In one instance, that of a woman who had syphilitic nodes and violent neuralgia, we gave one grain of euonymin and two

grains of sulphate of quinine three times a day, and in the course of a week it was followed by permanent relief, although previously to coming under our treatment she had taken quinine, blue pill, and bichloride of mercury at intervals for several months without benefit. The euonymin improves the appetite and acts as a general tonic at the same time that it exerts its alterative influence over the glandular system. In chronic rheumatism it also proves highly serviceable, and in combination with sulphite of soda we have successfully treated several cases which had resisted the ordinary form of treatment. In hemorrhoids and constipation of the bowels, resulting from hepatic inertia, one-half grain taken at bed-time is a very effectual remedy. The fluid extract of the euonymus atropurpureus, as prepared by Mr. Hance, of Philadelphia, in doses of thirty to forty drops, proves quite as efficacious as the euonymin. A very convenient prescription for torpid liver and constipated bowels with weak digestion is, to take one ounce of the fluid extract of euonymus, and four ounces of simple syrup. Mix. Dose—a teaspoonful twice a day.

EUPHORBIN.

Euphorbin is the active principle of the *Euphorbia Corollata*; common name, *Bowman's Root*, *American Ipecacuanha*, &c. The euphorbin, in two or three grain doses, is emetocathartic; and in one-sixteenth to one-tenth grain doses, it is diaphoretic, and increases the action of the skin; it also acts slightly as an arterial sedative and as an alterative. By continuing the use of this remedy for two or three days, in one-tenth to one-eighth grain doses, every three hours, the alvine evacuations are increased, and in cases of congestion of the liver much benefit is frequently produced. I have used this remedy quite extensively to maintain gentle diaphoresis in fevers; and from its influence to excite the secretions, and stimulate the emunctories of the

body, where the fever is of the sthenic form, it is a very valuable remedy. I have also used this remedy in syphilis, in combination with phytolaccin and corydalin; and it is of great value in obstinate constipation of the bowels dependent upon inactivity of the liver. It is also of service as an emetic. Although its action is prompt, it is far inferior to lobelia, as it is more liable to debilitate the digestive organs, and produce permanent derangement of the system. In malarial fevers, however, where the liver and digestive organs are so much involved, and the power of the disease will tolerate a drastic remedy, a free emeto-cathartic operation from this drug frequently produces most happy effects; indeed, I have known some obstinate cases of intermitting and remitting fevers entirely interrupted by the ordinary emeto-cathartic operation of the euphorbin. I have also used this remedy in glandular enlargements, for the purpose of producing absorption, and found it, in combination with menispermin and iodide of potash, in the proportion of one grain of the latter to two grains of the former, and one-tenth of a grain of euphorbin, administered every two or three hours, a most effectual remedy. A case, which was pronounced cancer of the mammæ by several physicians, was treated with this remedy by a medical friend, and, by the aid of a simple cold compress, the tumor was entirely absorbed. I have also used this remedy, in combination with helonin, in Bright's disease of the kidney; and, in one case, where, after the continued use of the helonin for several weeks, the albumen in the urine remained undiminished, by the addition of one-sixteenth of a grain of euphorbin to two grains of helonin, administered every two hours, the quantity of albumen soon became diminished, and, by the aid of cod liver oil, quinine, and iron, the patient was entirely cured. I have also used small doses in cases of colliquative sweats, in hectic, and in other debilities of the system.

In this case I have used it as a tonic to the sudoriferous glands; and a very obstinate case of night sweats, connected with phthisis, was entirely removed by giving the twentieth part of a grain of euphorbin every night, upon retiring. Usually, one or two doses of this remedy per day, in these cases, is followed by great relief. As an emetic, as I have previously remarked, the euphorbin is active and prompt in evacuating the stomach. Hence it may be used in cases of poisoning, where an active and prompt emetic is required, as it is equally efficacious and effectual as sulphate of zinc or sulphate of copper, and may prove far less injurious to the tissues of the stomach. The dose of the euphorbin as an emetic, is from two to ten grains, administered in a little warm water; as an hepatic or alterative, from one-tenth to one-fourth of a grain, four or five times a day; as a stimulant to the surface, to prevent perspiration, from one-thirtieth to one-fifth of a grain, two or three times a day. The fluid extract may be used in all cases as a substitute for the concentrated article, and, in the majority of cases, with equal success. The dose is from twenty to thirty drops.

EUPURPURINE.

Eupurpurine is the active principle of the *Eupatorium Purpurium*; common name, *Queen of the Meadow*. The eupurpurine is a genuine uterine tonic. There is, perhaps, no remedy of the materia medica that exerts a more powerful tonic impression upon the uterus than does the eupurpurine. When taken in doses of five to ten grains, it has the effect to stimulate uterine contractions; and in cases of pregnancy, it has been known to produce abortion, by inducing premature labor. Hence, it has great value in cases of uterine inertia during labor, or where there is much debility and feeble uterine contractions. It may be used in all cases where ergot has been

prescribed, with equal certainty of effect in producing labor, or restoring or causing permanent uterine contractions, without effecting any disastrous impressions upon the blood, so peculiar to large doses of ergot. I have administered this in a large number of cases of complete uterine inertia, in combination with capsicum and other stimulants, and have found most happy and immediate effects.

In cases of debility of the uterus, it is a remedy of remarkable value. In the large number of cases of uterine leucorrhœa, caused by exhaustion of the uterus and chronic metritis, the eupurpurine, administered in doses of one-half to one grain, four or five times a day, affords almost immediate relief. In cases of prolapsus uteri, and in retroversion of the uterus, and, in fact, in all cases where there is debility of this organ and its appendages, the eupurpurine can be relied upon as a tonic and stimulant to these parts.

A case which recently came under my charge, was that of a lady, who had had four or five miscarriages, and had never succeeded in carrying a child to its full period. She had been under the treatment of several of the most eminent physicians of the city; and, although the most rigid hygienic and medical treatment had been instituted, all her efforts to mature her period of gestation had been abortive. She was in the third month of pregnancy, and within two or three weeks of her usual period to abort, when she came under my charge. I commenced her treatment by giving one grain of the eupurpurine, in combination with one-half grain of iron per hydrogen, three times a day. I ordered a cold sitz bath with friction, once a day. This treatment I continued, with the addition of occasional light purges, for two or three months, when iron was omitted, and the sitz bath, with the eupurpurine, was continued until full term, at which time she was delivered of a fine healthy daughter.

Another case was that of a lady who had been married fourteen years, and had been constantly troubled with amenorrhœa, leucorrhœa, and dysmenorrhœa; and although she was exceedingly anxious to have a family, to her knowledge had never been *enciente*. I commenced the treatment with one grain of eupurpurine, and one-half grain of hypophosphite of iron, three times a day, and also administered small doses of leptandrin and euonymin at bedtime, as she was also laboring under hepatic difficulties. I continued this treatment for some four or five months, together with the use of vaginal injections, of decoctions of cinchona and hydrastis Canadensis. Her health very much improved, her courses became regular, leucorrhœa disappeared, and in seven months from the time of the commencement of her treatment she had the satisfaction of realizing her long anticipations and wishes. During the treatment I administered helonin and eupurpurine, in the proportion of one-tenth of a grain of the former to one-fourth of a grain of the latter, three times a day. She matured a healthy child. Other cases of a similar character have been treated with this remedy, and with like results. I have also used this remedy in several cases of impotency.

A gentleman, who had been impotent for about four years, has been under my charge for the last six months. For the first two months I prescribed all the usual remedies in this disease, without effect. I then employed the eupurpurine. For the last four months he has been taking from one to five grains, three or four times a day; and although not yet entirely well, he has so far recovered by the use of this remedy, as to demonstrate its value in these diseases. I have used it also in other cases of a similar character, and with most satisfactory effects. From the experience I have had with the eupurpurine, I am satisfied that it is a great tonic to the reproductive apparatus of

both male and female; and in all those diseases where the organs have become exhausted, either by sympathy with other diseases, or from abuses, this remedy, judiciously administered, will serve a most valuable purpose.

The dose of the eupurpurine, to resuscitate exhausted labor, to restore tone and vigor to the uterus, and to hasten uterine action in cases of uterine inactivity, is from one to five grains, administered every half hour, until thirty or forty grains have been given; as a general uterine tonic, from one to three grains, taken four times a day, either in combination with iron, cod liver oil, hydrastin, or other tonics, or alone, is the ordinary dose. In cases of impotency, from one to five grains may be administered three or four times a day. The fluid extract may be used as substitute in doses of from twenty to thirty drops.

EUPATORIN.

Eupatorin is the active principle of the *Eupatorium Perfoliatum*. This remedy, when administered in doses of from five to ten grains, acts as an emeto-cathartic; but, in medical doses, it appears to manifest a tonic influence over the digestive apparatus. This is especially the case as to its influence upon the stomach. One-eighth to one-fourth of a grain, administered four or five times a day, increases the tone and vigor of the stomach, improves the appetite, and renders digestion more complete; in doses of from half a grain to one grain, it appears to extend its influence to the liver, increasing the secretion of the bile, and imparting a healthy tone to that organ. Hence it is a remedy of much value in all forms of dyspepsia, dependent upon a debilitated state of the stomach, and torpid and inactive liver. It also manifests more or less antiperiodic properties. Two or three grains, every two or three hours during the aggression of remittent and intermittent fever, has the effect to interrupt its periodicity, and in

cases where there is a vitiated condition of the stomach, or a loaded condition of the liver, this remedy may be used with the greatest advantage, especially in combination with small doses of quinine. I have frequently administered, in obstinate remittent fevers, from one-half to one grain of eupatorin, in combination with one or two grains of sulphate of quinine, with the happiest effects. I have also used this remedy with decided advantage in obstinate constipation of the bowels, dependent upon general inactivity. This remedy has also been highly recommended for its tonic influence over the uterus; but although I have administered it frequently, I have never found it to act as a direct uterine tonic; indirectly, it may benefit uterine diseases, by restoring the general integrity of the system. The great use of this remedy so far as known, is in debility of the stomach, torpidity of the liver, and in intermittent and remittent diseases. Eupatorin may be compounded with other concentrated remedies to decided advantage,—as eupatorin, in combination with leontodin, for diseases of the liver; eupatorin with frazerin, for debility of the stomach. It may also be compounded with chalybeates, where there is an exhausted state of the blood.

The dose of the eupatorin for a debilitated state of the stomach, is from one-eighth to one-fourth of a grain; as a mild stimulant and tonic to the liver, from one-fourth to one grain; in intermittent fevers, from one to two grains every two or three hours. The fluid extract, which can always be used as a reliable substitute, may be employed in doses of from ten drops to one dram.

FRAZERIN.

Frazerin is the active medical principle of the *Frazeria Carolinensis*, or *American Columbo*. The American columbo has long been used in various forms of disease, but

mostly as a tonic, antiseptic, and febrifuge. Dr. Beach recommends it in dyspepsia, jaundice, and general debility. It has also been used as a mild purge in constipation and hepatic difficulties. Dr. King, in his American Dispensatory, remarks that the fresh root causes nausea and vomiting, but the dried root is a mild tonic. He does not mention the frazerin, which is the active principle of the plant, and has been in use for several years. When taken in five or ten grain doses, if the person be free from disease, it produces mild catharsis, with slight nausea, and in dram doses causing vomiting and purging. In small doses it increases the appetite, and gives additional vigor to the digestive organs. In disease it appears to direct its medicinal efforts principally to the mucous membrane of the stomach and bowels. It also appears to exert a tonic influence on the liver, and in indigestion which is dependent upon congestion of the gastric capillaries or softening of the mucous membrane, it exerts a most decided tonic effect in giving vigor to the tissues, and producing a healthy action. In congestion of the mucous capillaries, it relieves the condition by giving tone to the parts. It also produces equally healthy conditions of the mucous membrane of the bowels, and is especially adapted to remove that ulcerated condition of the mucous surface, which is so frequently the sequel of typhus, typhoid fever and dysentery. In feeble and debilitated habits, where a gentle tonic, mild aperient, and diuretic are indicated, we have no article in the materia medica which fulfills these indications so perfectly as frazerin. It not only increases the alvine evacuations, but augments the renal secretions. I have also found it of great value in chronic vaginitis and leucorrhœa. In spermatorrhœa, connected with constipation and derangement of the digestive organs, it is also valuable. In chronic inactivity of the liver, connected with congestion of the hepatic capillaries, in doses

of two or three grains twice or three times per day, it produces a tonic impression, and restores the hepatic secretion. The dose is from one-half to one grain, three or four times a day; and of the fluid extract from ten to thirty drops. A valuable mixture for mucous dyspepsia, is, to take one ounce of the fluid extract of *frazera carolinensis*, and two ounces of the elixir *cinchonæ, ferri et strychniæ*. Dose—a teaspoonful three or four times a day.

GELSEMIN.

Gelsemin is the active principle of the *Gelseminum Sem-pervirens*; *Yellow Jessamine*. There are but few remedies connected with our concentrated materia medica that appear to possess the power, and manifest the medical virtues that are peculiar to the gelsemin. The toxical impression of the gelsemin is manifested upon the cerebro-spinal system, as it produces vertigo, tremor, and paralysis. A student of mine, who, by mistake, swallowed two grains of gelsemin, experienced the following symptoms:—Two or three minutes after taking the gelsemin, he felt a strange sensation in his head, and an involuntary closure of the eyelids took place. In two or three minutes this paralysis appeared to extend to all portions of the body. He attempted to walk, but fell immediately upon the floor; whenever he tried to move, he felt a peculiar, strange sensation in his head; and upon lying perfectly quiet, although he was almost entirely powerless, he was perfectly conscious of everything that was going on around him. He had neither nausea nor vomiting, nor was there any disturbed condition of the stomach or bowels. His respiration was at first hard, but in a few moments it became slow and somewhat difficult. His circulation was sluggish, and the pulse exceedingly feeble; his extremities became cold, and in the course of fifteen or twenty minutes the surface was completely immersed in

a cold perspiration. He was restored by the use of half grain doses of camphor, large doses of brandy, and an emetic of sulphate of zinc. After his partial recovery, he experienced, for several days, a feeble, languid, debilitated state of the muscular system; he also passed large quantities of urine, and was troubled with tenesmus, and some bloody discharges from the bowels. Writers have attributed different properties to the gelsemin. By some it has been supposed to manifest peculiar power over fevers; and in the western and southern sections of the country it has been quite extensively used in nearly all forms, especially in intermittents and remittents. It is even supposed by some to possess antiperiodic powers, and others have claimed it to be a substitute for cinchona. It has been variously used as an arterial sedative, to control the action of the heart; and, in fact, there are but few affections in which this remedy has not been recommended.

As I have frequently remarked relative to the *modus operandi* of medicines, we can form but feeble ideas of the real medical virtues of any remedy by its toxical impression, when administered in large doses. The poisonous influence of the remedy upon the system is one thing, and the medical power or virtue is another. Many writers on therapeutics suppose that because a remedy produces a drastic and powerful influence upon the system, it is capable of curing diseases of a similar character to those which it creates. Although this may prove true in some instances, yet, in a great variety of cases, this is not the case. Upon carefully watching the therapeutic action of the gelsemin, we find that it has a specific influence on certain organs and tissues; for instance, the twentieth of a grain of gelsemin produces a peculiar effect upon the small muscles of the eye; the eyelids become paralyzed, and I have found the fortieth of a grain to produce complete ptosis.

Another peculiar impression I have noticed is its influ-

ence upon the capillary circulation of the mucous membrane, in cases of congestion and inflammation. It appears to have the effect of controlling these vessels, and lessening the hyperæmia, removing the engorgement peculiar to that tissue, preventing exudation, and thus controlling a very important class of maladies. It was from the peculiar effect of this remedy upon the mucous surfaces in ozæna, bronchorrhœa, leucorrhœa, catarrhal affections of the bladder, stomach, and bowels, that first led me to use it in dysentery. Regarding this as a specific form of catarrh of the colon, I commenced the use of the gelsemin in these diseases, and for the last ten or fifteen years I have had a most remarkable opportunity of testing its virtues in nearly every form and variety of this affection, and I am most confident that there is no remedy that possesses equal power and influence over this form of catarrh of the bowels as the gelsemin. I do not claim that the gelsemin will cure every form of dysentery, without the aid of other remedies; but I do claim that it possesses the power of arresting the inflammatory action, and that most promptly. In small doses, it affects the inflammatory condition of the tissues, controlling the inflammation, and arresting the exudation. It has an anæsthetic influence upon the nervous system, and completely relieves the tormina and tenesmus.

Some years since, during an epidemic of dysentery, I had an opportunity of testing the virtues of this remedy, after the ordinary means had failed. There were three cases in one family; two small boys, and one little girl. They had been prostrated by the disease from one to two weeks. Astringents, opiates, quinine, counter-irritation, and all the ordinary resources of the profession had been applied in vain. They were regarded by their attendant physicians as hopeless cases. It was deemed by the practitioner that these were proper cases for the power and

virtues of gelsemin. I took these cases under my charge, in the presence of several physicians, for the purpose of testing the virtues of this article in the most prominent degree. Having first evacuated the stomach by lobelia, and bathed the surface in tepid water, I commenced the use of the gelsemin in doses of one-sixteenth of a grain, on each of the cases, every half hour. The oldest was ten, the next seven, the other four years of age. I did not deem age as requiring any change in the quantity of the remedy. I repeated the gelsemin until I had administered half a grain. This was accomplished in the course of twelve hours. At the expiration of this period the tormina, which had been most harassing, and the tenesmus, which was most exhausting, had entirely disappeared. The discharges were essentially controlled; and although the system was extensively prostrated, and there was general exhaustion, still, so far as the active character of the disease was concerned, it was materially controlled. I then resorted to small doses of quinine and hypophosphite of iron, every hour, for twenty-four hours, together with milk punch and animal broths. At the termination of this period the tormina and tenesmus slightly returned, together with the dysenteric discharges; but, upon the administration of two or three doses of the sixteenth of a grain of gelsemin, they were relieved. Thus, by administering the remedy two or three times a day, or as often as the symptoms manifested themselves, together with the proper hygienic measures, these cases recovered. During this epidemic, gelsemin was administered to between seventy and eighty cases, with almost uniform success. Indeed, so successful was this treatment, that in seventy cases, I lost only two; whereas, in the former treatment the mortality had been quite large.

I have also tested this remedy in other most severe epidemics, and have found it quite as much of a specific for

dysentery as is the sulphate of quinine for intermittent and remittent fevers. There are some of our practitioners, who do not regard this remedy as possessing all the powers claimed for it. During the last five or six years, they say, they have tested the remedy, and it has not succeeded. It must be borne in mind that dysentery may depend upon a variety of causes; and, previously to its administration, the causes, so far as practicable, should be removed. One of the most common causes in marshy countries, is animal malaria. In these cases the gelsemin should first be administered, to overcome the inflammatory excitement in the mucous tissues—quinine to be used for the purpose of removing the periodicity. Where dysentery is dependent upon vitiated ingesta, this should be removed. Where it is caused by zymotic poisons, constantly introduced into the system, in the form of innocuous gases from the decomposition of animal matter, as in camp dysentery, the cause should be removed before the disease can be completely cured; and even in these cases gelsemin will remove the inflammatory action, and control the discharges. A student of mine, who has recently been through all the more important campaigns of the late war, and who has had most remarkable opportunities for testing the power of gelsemin, states that not in a single case has it failed to produce the most happy effects. In camp dysentery and diarrhœa, he has found this remedy alone adequate to meet the most severe indications, and while his co-laborers of the medical staff were perplexed, and met with ill success in the treatment of this form of disease, he was most triumphantly successful with the use of gelsemin. One difficulty, he states, which he labored under, was, that it was not on the supply table. He remedied it by furnishing his own.

It must be borne in mind that the gelsemin is a most powerful remedy; and while it possesses the most active

remedial properties, it is capable of producing disastrous consequences. Large doses of gelsemin are sure to be followed by most fatal effects; therefore the necessity for using it with great caution, especially in cases of debility.

The gelsemin has been used successfully, not only in dysentery, but in diarrhœa, and especially that caused by an exhausted and debilitated state, or by inflammation and congestion of the mucous surface; and it is more than probable that the gelsemin will be found a remedy of equal value in cases of cholera. I have long since administered this remedy in cases of cholera morbus, in combination with the compound syrup of potassa and rhubarb, and with the most happy effects. This remedy, as I have intimated, extends its influence to the entire mucous tissue, and is capable of controlling all inflammatory diseases; consequently, it is a remedy of great value in bronchitis. It is equally valuable in cases of ozœna, in bronchorrhœa, in chronic inflammation of the stomach, colon, ileum, jejunum, and the rectum. It is also a remedy of great value in chronic catarrh of the bladder and urethra. Many of the cases of supposed spermatorrhœa, are merely the result of chronic urethritis. These cases I have known to be immediately relieved by the use of small doses of gelsemin, and even spermatorrhœa itself has been controlled by the use of this remedy. In cases of vaginal and uterine leucorrhœa, I have also found this remedy of great value. It must be remembered that it is not designed to remove all the pathological conditions of the system that may exist in these diseases; but that its influence is specific, so far as known, upon the mucous membrane, having a direct tendency to relieve the capillary congestion, and to restore these vessels to their normal condition; consequently, where there are complications, it can be administered with other remedies; as, for instance, in dysentery, where there

are hepatic complications, it may be given with leontodin. In case it is complicated with marsh fevers, in combination with quinine; or in a diseased condition of the blood, in combination with iron; or in an exhausted state of the nervous system, in combination with iron and phosphorus. In diseases of the bronchia, it may be administered in combination with stillingin; and in cases of diseases of the bladder, it may be used with helonin. Thus it may be compounded with other remedies, according to the complication, and with the most happy effects. Not only has it a peculiar specific influence over the capillary structure of the mucous surface, but it seems to manifest an anæsthetic power over the nervous system, and has been used with advantage in hyperæsthesia, especially of the umbilical plexus, in combination with dioscorin. This combination of dioscorin with gelsemin, has been found to be almost a specific for this disease. It is also used for other forms,—neuralgia and hysteria, and hysterical affections. But its medicinal influence upon the nervous system will require farther investigation.

The ordinary dose of gelsemin, for dysentery, is from one-thirtieth to one-sixteenth of a grain, administered every fifteen minutes, half hour, or hour, according to the severity of the case and the age of the patient; and for nervous affections, from one-sixteenth to one-tenth of a grain. One-tenth is rather a large dose. In ordinary cases of chronic inflammation of the mucous membranes, I have often used one-fiftieth and one-hundredth of a grain, with most decided advantage. The gelsemin should be thoroughly triturated, either with lactic acid or sugar; and the most convenient form is to add a few grains of the triturated article to a tumbler of water, and administer in teaspoonful doses, as the patient may require it.

GERANIN.

Geranin is the active principle of the *Geranium Macula-*

tum; common name, *Geranium*, or *Crane's Bill*. The essential principle of the article is the tannic acid which it contains. Nearly all bitter herbs contain a greater or less quantity of this acid. Mr. Merrell's preparation of geranin is almost entirely tannic acid. The medical properties of the geranin, so far as we have been able to discover, consist in its power to stimulate and contract the caliber of the capillary vessels, more especially those of mucous surfaces. Hence it has been used as an astringent, to interrupt exudation in catarrhal affections, and chronic inflammatory diseases of the mucous membrane generally. Its main benefit, so far as we have been able to ascertain, consists in its power to arrest active hemorrhage from the mucous membrane. Hence, in fifteen or twenty grain doses, it may be used in hæmoptysis, uterine hemorrhage, hemorrhage from the bowels which occurs in fevers; and it may be compounded with gelsemin, and other remedies, which operate specifically upon the mucous tissues, to impart tone and vigor to this structure. Although it is a remedy of considerable value, yet I have not found it to act specifically in curing any very important disease. Future experiments with it may develop some property with which we are not yet acquainted. It has also been used with considerable benefit in indolent ulcers and open cancers. The method of applying it in such cases is to sprinkle the powder on the parts two or three times a day. An ointment made of two drams of geranin and one-half dram of mecca oil, has proved highly serviceable for piles. It should be applied two or three times a day. It is also used in debility of the stomach with benefit.

The dose of the geranin, as an astringent to the mucous surfaces, is from two to three grains; as an active astringent, in cases of hemorrhage, from ten grains to a dram.

It has been claimed by some, that it possesses antiperiodic power; and for this object I have given dram doses, every

two or three hours during the apyrexia of fevers; and in a few cases, I think I have derived benefit from it. The fluid extract may be used in all cases as a substitute, in doses of from ten to sixty drops.

GOSSYPIIN.

Gossypiin is the active principle of the *Gossypium Herbaceum*, or *Cotton Root*. The medical virtues of the gossypiin first attracted the attention of the profession by the slave women of the South using it as an abortant. They are in the habit of making a strong decoction of the fresh bark, and drinking from a gill to a pint; and it is said that it has a wonderful power over the uterus, and seldom fails to produce abortion. From this peculiar effect it was supposed that this remedy might be used with decided advantage in uterine affections, and accordingly it has been recommended, and largely experimented with. The gossypiin represents, to a very great extent, the medical virtues of the crude article, and it is used in the place of the ergot for the purpose of producing uterine contractions in tardy labor, and has served a valuable purpose. Although it may not possess the same power that is manifested by the ergot or caulophyllin, still it exerts a decidedly stimulating and exciting influence over the contractile muscles of the uterus. I have used this remedy in a large number of cases of tardy labor, in doses of from two to five grains, and I have found it to give tone and vigor to the uterus, without causing a disordered condition of the system generally, or in any way interfering with labor, only to increase its progress. I have also used this remedy in diseases of the uterus, such as amenorrhœa and dysmenorrhœa, and have found it to act very beneficially, especially in combination with caulophyllin, iron, and other remedies, as they might be indicated by the complication.

The gossypiin acts also as a diuretic, increasing the

activity of the kidneys, and hence it has been used by some practitioners quite extensively in a disordered condition of these organs, with decided advantage. It has also been used, in combination with sulphate of potassa, for various pathological conditions of the uterus, such as cauliflower, concretions and ulcerations of the uterus, and cancerous degenerations of the uterine structure, with success. But, I apprehend, that the essential benefit derived was from the use of the potassa, and not from the gossypiin. In cases of dysmenorrhœa, in combination with iron by hydrogen, I have found it a remedy of decided value, in the proportion of one grain of the gossypiin to two grains of the iron, five or six times a day. To stimulate the uterus in tardy labor, from three to five grains may be administered every half hour, or hour; and for a debilitated and exhausted condition of the uterus, one or two grains, three or four times a day, may be found of value. The fluid extract contains all the essential properties of the plant, and may be used in all cases as a substitute, the dose being from five to sixty drops repeated as indicated.

HAMAMELIN.

Hamamelin is the active principle of the *Hamamelis Virginica*, or *Witch Hazel*. The hamamelin appears to have a specific influence upon the mucous membrane of the vagina, uterus, urethra, bladder, and ureters. Although it unquestionably affects other portions of the mucous surface, still it manifests itself with more particular power over the mucous membrane of the vagina and urethra than on other parts of mucous surfaces. In ten to fifteen grain doses, repeated three or four times a day, I have known it to produce violent contractions of the vagina, and a smarting, burning sensation, followed by prurigo; in the same doses, administered in the male, I have known it to produce irritation of the urethra, followed by a dis-

charge and ardor urinæ, both in the male and female. In medical doses, it operates most beneficially upon these organs, when they are in a state of disease or debility. Hence, the remedy is of great value in vaginal leucorrhœa, and in urethral irritation. I have a vast number of cases of ardor urinæ in the female, and urethral irritability, and this remedy, in doses of one or two grains, three or four times a day, affords almost immediate relief; and in cases of vaginal leucorrhœa, in doses of one-eighth to one-fourth of a grain, three or four times a day, this is a most prompt remedy.

A lady came under my charge, not long since, who had been treated for vaginal leucorrhœa, for several years, by a very prominent physician of this city, without obtaining any relief. She was decidedly opposed to taking strong medicines. I gave her one grain of the triturated hamamelin, four times a day, together with tepid vaginal injections, sponge baths in the morning, and a nutritious diet. The result was, that the vaginitis was controlled in the course of a week or ten days, and the leucorrhœa was entirely cured in the course of a few weeks.

I have used this remedy in a great many cases of similar character, and found it equally efficacious. I have also used it in a great many cases of catarrh of the urethra, in connection with diseases of the prostate gland, and have found it, in doses of from one-fourth to one-half grain, a most serviceable remedy. I have also used this article with decided benefit in catarrh of the uterus and bladder, in combination with gelsemin, and have found it to be a most prompt remedy.

A gentleman, who came under my charge not long since, who had been troubled with catarrh of the bladder for several years, was entirely relieved in the course of ten days, by the use of one-sixteenth of a grain of gelsemin, and one-eighth of a grain of the hamamelin, every three hours.

A lady, who had been treated by several physicians, for disease of the bladder, with injections of the nitrate of silver, and other caustics, and the case pronounced a cancerous affection of the bladder, was entirely cured by the use of hamamelin and gelsemin, in the course of four or five months. I have also used this remedy with decided advantage in cases of *brucorrhœa* and *ozæna*; and, in combination with stillingin, I have found it of benefit in bronchitis. It has also been extensively used in hemorrhage, uterine and other forms, and is regarded as a very reliable remedy.

The dose of hamamelin is from one-sixteenth to one-half of a grain, repeated at intervals of several hours, for chronic disease of the urethra, uterus, bladder, and vagina; and for hemorrhage, especially if it be of the active character, from two to three grains may be administered every two or three hours. The hamamelin, like other remedies of this class, may be triturated with lactin or sugar, or it may be mixed, first with sugar, and then triturated with simple syrup.

HELONIN.

Helonin is the active principle of the *Helonias Dioica*, or *Unicorn Root*, *Starwort*, &c. The helonin, when taken in doses of from five to fifteen grains, acts as an emetocathartic, producing a griping, burning sensation in the epigastrium, and great activity of the salivary glands. Indeed, I have known most perfect salivation to follow the use of large doses of helonin. In doses of from one to five grains, it produces an irritability of the stomach, and slight purging, with a burning sensation of the bowels, irritation of the urethra, pain in the kidneys, which is followed by albuminuria, indicating congestion, and large discharges of urine, with slightly increased specific gravity. In medical doses of from one-half to one grain, it appears to exert its power principally over the kidneys, bladder,

ureters, urethra, uterus, and vagina, and the assimilating organs. The disease which is most promptly influenced by this remedy is diabetes, for which it has been used extensively, and with most happy effects. I have myself treated a large number of cases of diabetes with this drug, and have invariably found it to diminish the quantity of saccharine matter in the urine in the course of a very few days; and by the continued use of it, in combination with cod liver oil, iron, and quinine, I have been most successful in curing many bad cases of this affection.

A case recently came under my treatment of a young man, aged twenty-six, who had been troubled with diabetes for several years. His urine had been analyzed by several of the best chemists in the city, and large quantities of saccharine matter detected. By allowing the urine to evaporate in the sun under glass, crystals of sugar would appear in a few moments, and the presence of sugar in the urine was detected by all the ordinary chemical tests. I commenced the treatment of this case for the purpose of testing the specific power of the helonin in this affection. I gave him one-half of a grain of helonin every two hours during the day, for sixteen consecutive days. The quantity of saccharine matter gradually disappeared, so that at the termination of the sixteen days very small traces of sugar could be detected in the urine. His general health had been reduced by the disease; and, for the purpose of restoring it, I gave him quinine and cod liver oil, in the proportion of one grain of quinine and one tea-spoonful of cod liver oil, every three hours, for three days, when I again resorted to the helonin, and continued it for fourteen days. By this time all traces of saccharine matter had disappeared. I then resorted again to cod liver oil and quinine for four or five days, then gave him small doses of helonin and iron, and a nutritious diet. By this, and other hygienic measures, I succeeded in entirely cur-

ing the case in four months. Several other marked cases have been treated in a similar way, and with the same result.

Another disease, which seems to be controlled by this remedy, is granulated kidneys, or Bright's disease, or albuminuria.

A gentleman, about sixty-five, who had been afflicted with Bright's disease for several years, and treated by prominent physicians in this city, applied to me. I commenced the treatment by administering one-fourth grain doses of helonin, four times a day, in one tea-spoonful of the best French brandy. I continued this treatment for some three or four weeks. The albumen gradually diminished, his appetite improved, his bowels became more regular, and the general condition of the system was greatly improved. I then added to the helonin one-half grain of chelonin, and one grain of iron by hydrogen, or the ferri redactum. Of this compound I administered one dose every two or three hours. I also applied an irritating plaster over the region of the kidneys, recommended an alkaline bath, nutritious diet, and out-door exercise. The patient improved rapidly for several weeks, when he was seized with intermittent fever. I then omitted the remedies, and gave quinine and iron, together with aconite, and such other agents as are used to control a fever. Upon recovering from his attack of fever, the albumen re-appeared in the urine in large quantities, but by the use of the helonin it soon diminished. The helonin, chelonin, iron, and cod liver oil, were then used, in combination and alternation, for five or six months, together with some general tonics, which resulted in a permanent cure. I mention this case, not because it is the only one I have treated with this agent, but because it is a marked one of degeneration of the kidneys in its worst form.

I have treated a large number of cases of albuminuria,

following scarlatina, and other exanthematous fevers, with helonin, and have found it to operate with almost uniform success.

The helonin also operates as a direct tonic and stimulant to the bladder, urethra, vagina, and uterus; hence, in cases where there is uterine, vaginal, or urethral debility, the helonin, either alone or in combination with other remedies, will prove of great value. It is also a remedy of great power to stimulate the assimilating organs; hence, in many forms of dyspepsia, and other diseases of mal-assimilation, not connected with diabetes or degeneration of the kidneys, it may be used with great advantage. I have frequently prescribed this remedy, in combination with others, in phthisis and scrofulous affections, and have almost uniformly found that it improved the appetite, and gave power and tone to the digestive apparatus, thereby aiding the use of other remedies in the cure of these diseases. It has also been used as a general tonic for atrophy of the muscles and the system generally; and I have found it beneficial in some cases, with a combination of hydrastin and iron. The most direct effect and permanent influence of this remedy are manifested on diseases of the stomach and kidneys, as I have previously mentioned.

Helonin is said to possess vermifuge properties, and hence it has been used in combination with chelonin and santonin, to remove parasites from the alimentary canal.

The dose of the helonin, in ordinary cases, is from one-half to one and a half grains, every two or three hours, or two or three times a day, as the case may seem to indicate. As I have previously stated, it may be compounded with other remedies. It can be triturated in sugar, and in simple syrup, and made more palatable in that way. The fluid extract may be used in from ten to thirty drop doses as a substitute.

HYDRASTIN, HYDRASTIA, AND MURIATE OF
HYDRASTIA.

These are the concentrated principles of the *Hydrastis Canadensis*, or *Golden Seal*. The hydrastin acts almost specifically and purely as a tonic to the muscles, while the muriate of hydrastia operates more directly as a tonic to the mucous tissue. Hydrastia appears to operate as a general tonic; and like helonin, stimulates the assimilating organs, having a most powerful influence in a weak, debilitated condition of the limbs. I have a large number of cases that are usually denominated rheumatism indicated by a painful condition of the muscles. This is especially the case in phthisical or scrofulous patients. Nothing is more common than to have patients apply, with pain of the pectoral, deltoid, or clavicular muscles. Sometimes this pain extends to the muscles of the limbs, and it is almost uniformly pronounced by physicians to be a species of rheumatism or neuralgia, and is most unsuccessfully treated. This painful condition of the muscles is a very different affection from that of rheumatism, and is not associated in any way with that disease, nor is it amenable to the same form of treatment.

Myalgia, or a painful condition of the muscles, almost always occurs, where the muscles are thin, feeble, and exhausted by over-exertion. Hence, during a paroxysm of coughing, in phthisical cases, the respiratory muscles become exhausted and painful. Thus pain in the chest is the result. The muscles of the back and limbs may also become fatigued. Owing to this feeble state, they will not tolerate much exercise; and not unfrequently the patient is still farther debilitated, and the disease very much aggravated by this painful condition of the muscles. We have, in the hydrastin, almost a specific. It appears to manifest its power directly upon the muscular fibres, giving tone, vigor, and energy to these organs, thereby relieving

their hyperæsthesia. I have found hydrastin to operate more beneficially, however, in combination with iron, iron by hydrogen, hypophosphite of iron, or the simple carbonate of iron, which frequently aid the power of hydrastin to overcome this painful affection.

The dose of the hydrastin, for this disease, is from one to two grains, administered every two or three hours during the day, for two or three weeks.

The muriate of hydrastia, which is another preparation of the *hydrastis Canadensis*, is a remedy of great value, from its peculiar tonic influence on the mucous membrane. Hence, in all cases where there is a debilitated condition of the mucous tissues, or where there is a complication of diseases, producing an exhausted and enfeebled condition of the tissue itself, the muriate of hydrastia is a most potent remedy as in exanthematous fevers, scarlatina, diphtheritis, and rubeola. The muriate of hydrastia is an invaluable remedy, as it prevents a solution of the continuity of this structure, which is one of the most prominent features of these diseases, and restores the integrity of the tissue when it has been destroyed by them. It is also a remedy of great value in chronic inflammation of the mucous tissue; in chronic gastritis, for instance. In enteritis, chronic inflammation of the vagina, uterus, and urethra, it serves a most valuable purpose. In chronic ophthalmia, it is almost a specific.

The dose of the muriate of hydrastia, is from one-eighth to one grain, triturated in sugar, and administered every two or three hours. Like other remedies of this class, it may be administered alone, or in combination with such drugs as the nature of the case may appear to indicate.

The hydrastia, as I have previously remarked, is a general tonic, and may be used in dyspepsia, and in all cases where there is general debility, in combination with iron,

cod liver oil, and other tonics, or alone, as the case may seem to indicate.

The hydrastia also possesses diuretic properties; hence, it has been used in diseases of the kidneys, where there appears to be nausea, or general debility of the organs, with decided advantage.

The dose of the hydrastia, is from one-half to one grain, repeated at proper intervals.

HYOSCYAMIN.

Hyoscyamin is the active principle of the *Hyoscyamus Niger*, or *Henbane*. Hyoscyamin is one of those anæsthetics which operates in a most peculiar manner upon the brain and nervous system. Alone, it possesses the power to relieve pain, or hyperæsthesia of the nervous system produced by disease, at the same time causing some peculiar sensations, particularly upon the nerves of special sense. There are many interesting cases of the effect of this remedy upon the nervous system, when taken in poisonous doses. It is related that two French soldiers after eating a quantity of the fresh shoots of the plant, became in a very short time quite giddy, stupid, and speechless. The pupils were dilated, eyes insensible to light, pulse small and intermittent, breathing difficult, jaws locked, and the mouth distorted. Sensibility was extinct. The limbs were cold, the lower extremities palsied, the arms convulsed, and there were delirium and coma. They were cured, however by active emetics, purges, and vinegar. According to Vicat, a man and his wife ate of the root, and soon experienced much difficulty in swallowing, stupor, and inflammation of the brain. Cases of impotence are reported, resulting from the use of this drug.

The Hyoscyamin represents very closely the medical virtues of the hyoscyamus, only in a far more concentrated form. The most important property displayed by the

hyoscyamin, is its power to stimulate the brain and ganglionic system in low forms of fever, and in other diseases in which there is great prostration.

I had recently a case of typhoid fever, in which there were strong indications of ramolissement of the cerebellum, manifested by typhomania, partial paralysis of the lower extremities, and great muscular relaxation. These symptoms were relieved by the use of one-sixteenth of a grain of hyoscyamin, one-eighth of a grain of cypripedin, and one grain of the hypophosphite of soda, every two or three hours. In other cases of low, muttering delirium, connected with fever, I have found that from one-sixteenth to one-thirtieth of a grain of hyoscyamin, administered every two or three hours, has a most beneficial effect.

The hyoscyamin, like the hyoscyamus, possesses slight purgative and diuretic properties, so that in cases where there is intense pain, as in rheumatism, peritonitis, and pleuritis, the hyoscyamin may be compounded with asclepin, or other remedies influencing these tissues, to a decided advantage, as it will afford temporary relief, by alleviating the painful condition of the part, and at the same time have a stimulating influence upon the liver and kidneys, thus relieving the system of any *materiæ morbi* which may exist in the blood as an excitant of these inflammatory conditions. I have also used the hyoscyamin in neuralgic affections, and in neuralgia dependent upon a malarial influence. In combination with quinine and iron, it is a valuable remedy. It may be used largely as a substitute for the sulphate of morphia, and in some instances it is far preferable, as it will produce anæsthesia, without causing constipation; or, in other words, impairing the secretions. Much care should, however, be observed in its use in cases of debility, as, while it may serve a valuable purpose in many nervous affections, it may, if continued for any great length of time,

produce great exhaustion, and sometimes prostration of an alarming character. I have known the one-sixteenth of a grain, administered at repeated intervals of every two or three hours in the course of a day, to be followed by the toxical impression of the drug. In some nervous affections, as in cases of deafness, I have compounded it with small doses of strychnin, in the proportion of one-tenth of a grain of the former, to one-thirtieth of a grain of the latter, administered two or three times a day, and have found it a most valuable remedy. It is also of much benefit in cases of amaurosis, in combination with strychnine and the tincture of rhus radicans. The dose of the hyoscyamin will average from the one-sixteenth to the one-thirtieth of a grain, repeated two or three times a day, in ordinary cases; and, in very severe ones, the one-tenth or one-fifth of a grain may be given every two or three hours, until the painful condition of the diseased part be relieved.

IRISIN.

Irisin is the active principle of the *Iris Versicolor* or *Blue Flag*. The usual properties ascribed to the irisin, as well as the crude article, are that of alterative, diuretic, purgative, anthelmintic, hydragogue, etc. Now, as I have previously stated, these terms, as used in medicine, are mere vagaries, as they do not represent any definite ideas as to the real nature and character of the drug. By examining our materia medica, you will find these properties ascribed to nine-tenths of all the drugs; and we would suppose, that by referring to them, most of them might be used to fulfil all these indications. Now, it is not true that all our remedies possess these qualities, or that they act so indiscriminately upon the human organism. *Iris versicolor*, or the irisin, has a peculiar influence upon certain organs and tissues of the body, and either directly or indirectly may excite and influence all. But when we

ascribe to the irisin almost identically the same properties that writers attribute to podophyllin, leptandrin, euonymin, and leontodin, it must necessarily leave the student of medicine and the practitioner in great doubt as to the real nature and character of the drug. Now, when we administer it in doses of ten or fifteen grains in health, it produces slight nausea; and if the dose be repeated every two or three hours, it will be followed by vomiting and drastic purging; but in small doses of one or two grains, given two or three times a day, it excites the alvine evacuations and stimulates the lymphatics, as well as that of the skin and kidneys. It will also be observed that there is an increased quantity of bile with the fæces, that this bilious matter undergoes no particular modifications, as in the use of mercurials; consequently, it is inferred that the irisin operates as a stimulant to the liver, increasing its functions and power to secrete and manufacture bile, without producing any medicinal pathological conditions. Hence, this remedy has proved of great service in the treatment of almost all forms of hepatic difficulties, depending upon inactivity and inertia, acting as it does as a general stimulant and excitant to the organ. As a matter of course, it should not be administered in cases where there is hyperæmia, or increased vascularity of these vessels. It also acts as a stimulant to the absorbents and lymphatics; and, from this fact, it has been largely used in diseases of the glandular system dependent upon the presence of some morbid matter in the blood, as syphilis. In combination with phytolaccin, podophyllin, or corydalin, it forms a most valuable remedy in these diseases. It has been remarked by some practitioners, that syphilitic affections could not be cured without the use of mercurials. From the experience I have had in this disease for the last twenty-five years, and the last ten in a very extensive practice, I have not used a single grain of any mercurial preparation

in the treatment of these diseases, and have been most uniformly successful, having used the irisin with great benefit.

Irisin has always been used extensively in diseases of the kidneys, especially where there is any inactivity of the organ; hence, when the kidneys are largely taxed by the excessive use of rich, nutritious food, or where there is a strong rheumatic constitution, this remedy may be used with great advantage in removing these poisons which accumulate in the blood and lymphatics. I have used the irisin, combined with colchicum, in rheumatic affections, dependent upon an inactivity or want of proper function performed on the part of the kidney, with the most happy effect. It has also a stimulating effect upon the uterus; hence, in malignant affections of this organ, it may be used with decided benefit. It has also been used in indurated, and in inflammatory conditions of the glandular system. In enlargements of the axilla, mammary and inguinal glands, irisin is a very serviceable remedy.

The dose, as an anti-syphilitic, is from two to three grains, administered three or four times a day; as an excitant and stimulant to the liver and kidneys, one or two grains, given two or three times a day. In cases of induration of the lymphatics, from one-half to one grain, administered four or five times a day, in combination with iron, cod liver oil, and ether, (remedies which act specifically upon this tissue,) will be a sufficient dose.

JALAPIN.

Jalapin is the active principle of the *Ipomœa Jalapa*, or *Jalap*. Jalapin may truly be said to be a hydragogue cathartic, and manifests its power especially upon the serous tissues; hence it may be used to great advantage as an evacuant, as in cases of dropsy. In inflammation of the serous tissues exudation occurs, that is, liquor san-

guinis escapes into the cavities, producing various forms of dropsy. It frequently becomes necessary to remove these fluids. This can be done by evacnants, remedies which stimulate the capillaries of the serous membrane causing them to pour out large quantities of serum, thus emptying the blood-vessels, and refilling the absorbents. The only way to use the jalapin to evacuate the various cavities, is to administer about one-eighth or one-fourth of a grain every two or three hours, until free hydragogue catharsis is produced. If the system be overcharged with the remedy, it produces a drastic influence, nausea, and vomiting. We should carefully guard against this, except when we use the remedy mechanically, for the purpose of evacuating cavities. Medicinally, this drug may be used with decided advantage in inflammations of the serous tissue, as in small doses it acts as a stimulant and excitant to the capillaries of the serous tissue, without producing a purgative influence; hence, when the serous capillaries become debilitated, as in chronic inflammation, either of the peritoneum, pleura, pericardium, or any other portion of this structure, it should be used only in doses of the one-thirtieth part of a grain. I have used this remedy largely in the treatment of cerebro-spinal meningitis, in combination with other remedies. To prevent effusion and extensive exudation, which are so liable to occur in inflammation of the meninges of the brain and spinal cord, I have found it most serviceable. In several cases under my treatment, in which I have administered the jalapin, in combination with quinine, iron, aconite, veratrum, and such other remedies as the case indicated, I found it to serve a most valuable purpose, in preventing effusion, either into the cavities or substance of the brain, or spinal column. I have also used it in cases of chronic synovitis, in one-sixteenth or one-twentieth grain doses, repeated two or three times a day, and to evacuate the

fluids in the abdomen, as in cases of ascites. In case of ovarian tumor where other remedies had failed to produce a favorable impression, I dissolved ten grains of jalapin in four ounces of glycerine and applied it to the abdomen with brisk friction, following each application with gentle currents of galvanism for half an hour. The result was quite favorable, as it reduced the size of the tumor, and maintained a liberal action of the bowels. Jalapin may be used successfully in rheumatic arthritis in combination with pyrophosphate of iron. The dose, then, of jalapin, as a purge, is from one-fourth to one grain; and as an excitant or stimulant, from one-twentieth to one-thirtieth of a grain, repeated every two or three hours.

JUGLANDIN.

Juglandin is the active principle of the *Juglans Cinerea*, or *Butternut*. In doses of from one to two grains, the juglandin acts as a drastic purge, producing irritation and inflammation of the mucous membrane of the bowels; if continued, it is followed by a peculiar exanthematous eruption very much resembling the flush of scarlatina. In medicinal doses, it acts specifically as a tonic to the mucous membrane and dermoid tissue; hence its great value in exanthematous fevers and chronic cutaneous affections. I have used this article extensively in skin diseases, in combination with antiperiodics. The idea of combining antiperiodics with remedies which act upon the skin for cutaneous affections, was first suggested to me by the beneficial influence derived from arsenical preparations. Having for a long time used arsenic as an antiperiodic, I was led to suppose that the beneficial influence of the drug in skin diseases was dependent upon its antiperiodic properties; and in this I have been fully confirmed by the extensive use of antiperiodics, in combination with remedies that operate specifically upon the skin. The

great objection to the use of the arsenical preparations, is their peculiar influence upon the blood, producing degeneration of this fluid to such an extent as to develop a most serious, and frequently fatal pathological change. The juglandin, as I have previously remarked, acts as a direct stimulant and tonic to the cutaneous surfaces; hence, I have used it in chronic eczema, herpes, pemphigus, rupia, acne, impetigo, ecthyma, lichen, prurigo, ichthyosis, molluscum, and in all other forms of cutaneous diseases, and found it to act with more certainty in these affections than any other preparation or single drug used. In chronic herpes and eczema I have found this remedy, combined with quinine, almost a specific. My usual method of administering it in these affections, is one-sixteenth of a grain of juglandin, and one-half grain of sulphate of quinine, four or five times a day. In some cases I have found that a large dose of the juglandin would operate beneficially, while in others a much smaller portion is all that is required. In the acute forms of cutaneous diseases, the juglandin appears rather too exciting and stimulating. A very convenient form of preparing this remedy is to triturate one or two drams with sugar, and then add a suitable portion of simple syrup, and administer it alone, or in combination with quinine, as the case may indicate. Juglandin is also used as an excitant to the mucous membrane, in cases of chronic constipation. It also increases slightly the action of the kidneys, and has been used in small doses to correct urinal difficulties. It has been of much value in ozena and catarrhal affections. But the greatest benefit derived from the use of this drug, is in chronic inflammation of the derma. More recently I have used it with marked success in chronic hepatitis and other forms of liver diseases. As I have previously remarked, the dose is from one-twentieth to one-half of a grain, repeated at proper intervals.

LEONTODIN.

Leontodin is the active principle of the *Taraxacum Leontodin*, or *Dandelion*. There are few remedies that possess a more direct influence over the liver, in imparting tone, and hastening its production of bile, than the leontodin. It has long been desired that some remedy could be found to exert a stimulating, alterative, and tonic influence upon the liver, and fulfil the various indications that are claimed for mercury. It is known to every practitioner that the mercurials possess most disastrous medical and toxic powers. Notwithstanding this, it is claimed that it produces a specific influence over the liver, and other glands of the body. It is also acknowledged that it possesses the power of producing degeneration of these tissues, as well as of other organs and tissues of the body, thus establishing in the system a pathological condition quite as disastrous to the patient as the liver affection, or other glandular diseases for which they are administered. In the leontodin we have this remedy. To be sure, it does not act with the same power that is peculiar to the mercurials; but when administered in a proper form, and in suitable quantities, it produces most decided stimulating, tonic, and invigorating effects upon this very important organ. Ten to twenty grains, administered three or four times a day, increases the alvine evacuations, and produces large and free discharges of bilious stools, indicating a decidedly increased activity of the liver. In those diseases where there is a torpid state of this organ, clay-colored stools, and other indications of the absence of bile, if the system be in a condition for the production of bile by this organ, then the leontodin seems to hasten the transformation and development of bilious matter, and causes the liver to generate an increased quantity of this fluid. It also possesses a decided influence over the glandular system generally and may be used in those cases where

alteratives are supposed to be necessary. In marsh malarial districts, and in warm climates, there is a decided indication for the leontodin. In the majority of fevers, it may be compounded with quinine, iron, and other agents. While the quinine will control the periodicity, and neutralize the malarial poison, iron may restore the integrity of the blood, and the leontodin will excite the glandular system to secrete and eliminate, and thus bring about those healthy physiological conditions which have been interrupted by the influence of the malarial poisons, and the effects of the disease generally. In cases of hypertrophy of the liver, and degeneration of the structure, while it may not possess the power to produce changes always most favorable, it invigorates, and in many instances interrupts, or prevents farther degeneration, and restores this organ to its normal condition. It is also a most valuable remedy in dysentery, especially of malarial character. Combined with gelsemin and quinine, it proves most valuable in the various forms of typhus, typhoid, and other fevers. It is also serviceable as an excitant to the glandular system, preventing that inactivity of the glandular apparatus which is so characteristic of this disease. I have known cases where the tongue was parched, sordes accumulated on the teeth, and every indication of congestion of the liver. to be relieved by a few grains of leontodin. Leontodin may be used in all those cases where mercurials are supposed to be indicated, and it can be relied upon as a most decided hepatic excitant and tonic, and that, too, without producing any morbid or pathological condition which would be injurious to the patient. The dose of the leontodin, as a mild alterative and stimulant, is from one-half to one grain, administered every two or three hours. Where the direct impression is required, from ten to fifteen, and even twenty grains, are frequently indicated; and if it be desired that a purge should be added, then give small

doses, from the one-sixth to the one-tenth of a grain of podophyllin, and four or five grains of leontodin. I have also administered it, when I desired a common purge, in combination with jalapin, adding one-half grain of jalapin to five or ten grains of the leontodin. Frequently, in congestion, marsh malarial fevers, and where there is congestion of the portal circulation, most speedy relief will follow its use. It has been employed in syphilitic affections; and although inferior to other remedies, still it can be used in some cases with advantage. I have compounded leontodin with euonymin, corydalin, phytolaccin, and other remedies of this class, and in the tertiary and secondary forms found it sometimes of benefit, and have used it quite extensively in combination with sulphate of soda, in the proportion of two grains of the former to one-half grain of the latter, with success.

LEPTANDRIN.

Leptandrin is the active principle of the *Leptandra Virginica*, *Culver's Physic*, or *Black Root*. As the leptandrin was formerly prepared, it very feebly represented the active principle of the plant; but now our pharmacutists have so far perfected their manipulations as to obtain all the essential virtues of the leptandra *Virginica* in the form of leptandrin. Its specific influence appears to consist in stimulating the digestive apparatus, especially the stomach, bowels, and liver. In large doses it is an active cathartic, and in small quantities an alterative to the mucous tissue, liver, and glandular system. Generally, the great influence of this article is seen in chronic diseases. In the treatment of dyspepsia, where there is inactivity of the stomach, or want of proper digestion, or where there is a torpid state of the liver, or inactivity of the bowels connected with constipation, small doses of leptandrin, combined with frazerin, xanthoxylin, hydrastin, or other remedies which may be indicated, prove of the greatest value.

In chronic diarrhœa and dysentery, especially when connected with pulmonary derangement, combined with the muriate of hydrastia, it is almost a specific. A large number of cases of chronic diarrhœa occurring among our returned soldiers, have been promptly cured by this remedy; and that, too, after a most extensive use of nitrate of silver, mercurials, and astringents, by the Old School practitioners. A case came under my charge, of a soldier troubled with chronic diarrhœa and congestion of the liver for several months, terminating in degeneration of the blood, resulting from the use of mercurials, dropsical effusion into the cellular tissue, extensive debility, and a strong tendency to tuberculous inflammation of the lungs. This case was promptly relieved by means of iron per hydrogen, leptandrin, and the muriate of hydrastia. I have frequently used leptandrin in connection with gelsemin, in the proportion of one-sixteenth or one-twentieth of a grain of the former to two of the latter, four or five times a day, in cases of dysentery, and other diseases of the bowels. It has a most beneficial influence upon the digestive organs. I have in a very large number of cases of inveterate dyspepsia, entirely relieved the symptoms in a few days, by the use of leptandrin and frazerin. As a mild alterative, and excitant to the liver, it may be used in combination with leontodin, modifying the leontodin, by slightly increasing its purgative power, and imparting more vigor and tone to the digestive organs, whilst it aids in stimulating and exciting the liver. I have known doses of leontodin and leptandrin, one grain of the former to two of the latter, to be followed by copious bilious discharges, and the distressing pains relieved promptly. It is also of benefit in glandular affections. It may serve a valuable purpose, like the leontodin, in syphilis. As an eliminating agent, it increases the powers of the emunctories of the body. The purgative dose is four or five grains, given until the

desired effect is produced. As it is a mild hepatic purge, it operates freely, without producing any constitutional disturbance, or in any way impairing the general integrity of the constitution, or debilitating the stomach or bowels. As a mild excitant and alterative, from one-half to one grain, given every two or three hours, in ordinary cases, is the dose; but in more severe forms of chronic disease, from one to three grains may be given. Leptandrin, like all other agents of this class, should be triturated in lactic acid or sugar, and afterwards mixed with simple syrup, and administered in any form that is most palatable.

LOBELIN.

Lobelin is the active principle of the *Lobelia Inflata*. It represents closely the emetic, antispasmodic, and diaphoretic properties of the lobelia inflata, and is used in all cases where it is recommended. There is, perhaps, no remedy introduced into the materia medica within the last quarter of a century, that occupies so prominent a position, and serves such a valuable purpose, as that of the lobelia inflata and its active principles. Although it does not seem to possess specific powers over any direct tissue of the body, yet its general influence over the entire organization is such as to render it of vast importance. In doses of from one to five grains, it is an efficient emetic, and may be given where they are indicated. The best method is to give one or two grains, every five minutes, in a little warm ginger tea, until free emesis is produced. It is of great value in asthma, especially when combined with sulphate of quinine. From one-fourth to one-half grain of the former, with one or two grains of the latter, given four or five times a day, is almost a specific for this troublesome affection. It is of much service in bronchitis, to produce expectoration. In pneumonia, it is almost a specific, when given every two or three hours, in doses of from one-six-

teenth to one-eighth of a grain, triturated in sugar. It is also of much benefit in catarrhal affections; and in all those diseases where an emetic, antispasmodic, diaphoretic, or nauseant, is required, the lobelin serves a most valuable purpose. It is quick and energetic in its emetic powers to relieve a vitiated stomach, reduces the action of the heart, and produces a general relaxation of the entire system; hence, it may be employed in a great variety of diseases, either alone, or in combination with other remedies.

LUPULIN.

Lupulin is the active principle of the *Humulus Lupulus*, or *Hops*. It should not be confounded with the lupuline, the pollen of the hops. The lupulin manifests a direct tonic, sedative, and anæsthetic effect upon the nervous system, possessing in its anæsthetic properties influences similar to that of the sulphate of morphia, while at the same time producing tonic impressions, imparting tone and vigor to the nervous system, and relieving the hyperæsthesia, or increased sensibility. The lupulin is most successfully used in delirium tremens, debility of the nervous system, in low forms of fevers, and spermatorrhœa. I have used it, combined with cypripedin, with most decided advantage, in a large number of cases of mania-a-potu. A case recently came under my charge, of a man laboring under this difficulty, who had been treated by two very prominent physicians, with the ordinary remedies, without success. I commenced the treatment by giving a full emetic of lobelia; after which I gave two grains of lupulin, and one of cypripedin, every half hour, and applied a mustard paste to the spine and abdomen. The object, in giving the lupulin and cypripedin, was to check the vomiting, increase the general tone of the circulation, and produce a calm condition of the nervous system. After using this remedy for twenty-four hours, the bowels were opened by

means of an enema of warm water and citrate of magnesia. I then administered the lupulin alone for several days, and until the patient was able to be about the room, then gave hypophosphite of iron, in connection with the lupulin, in the proportion of one grain of the former to two of the latter, every three hours, and under this treatment he recovered in the course of ten days. It also may be used successfully in combination with capsicum. The lupulin is of great value in typhus fever, especially in the latter stage of the disease. Typhomania has frequently been relieved, in a very short time, by its use, combined with cypripedin. It is of much value as a nervine to females laboring under general debility of the nervous system, from dyspepsia, uterine diseases, and other affections producing nervous prostration. The lupulin also possesses antiperiodic properties, and has been successfully used in hysteria, epilepsy, intermittent and remittent fevers, and other periodic affections. I have interrupted the paroxysm of remittent fever, by administering ten grains of lupulin, every two hours, until two drachms were taken, and have also cured some bad cases of hysteria with this remedy, and found it to afford great relief in epilepsy. It is one of the most valuable remedies we possess in the treatment of spermatorrhœa. From five to ten grains, taken at night, together with proper hygienic and dietetic measures, have cured quite a number of inveterate cases. It is of much benefit in abnormal excitability of the brain, produced by excessive mental anxiety.

The dose, as an antiperiodic, is from ten to fifteen grains, every two or three hours; as a stimulant to the nervous system, from one to two grains; as a remedy for spermatorrhœa, from three to five grains, taken once or twice a day. Compounded with iron, much benefit may be derived in most nervous affections.

LYCOPIN.

Lycopin is the active principle of the *Lycopus Virginicus*. The lycopin acts as a tonic, stimulant, and astringent to the mucous membrane, especially that of the bronchia; hence, it is of great value in bronchorrhœa, chronic bronchitis, inflammation of the fauces, etc. It acts with great promptness in hæmoptysis, in doses of from five to ten grains. In a number of cases, I have uniformly found the lycopin to afford prompt relief, arresting at once the hemorrhage, and if continued either alone, or in combination with stillingin, to relieve the cough and irritation. In cases of chronic bronchitis, where there is a softened state of the mucous membrane, and constant exudation of the liquor sanguinis, which accumulates in these tubes, great benefit will be experienced by giving from one to three grains every two or three hours. It arrests the expectoration, by preventing the exudation, and cures the disease, without producing other pathological conditions. It is of value in chronic diarrhœa, and some forms of dyspepsia, as it extends its influence to all portions of the mucous membrane, imparting vigor and tone to that tissue, whenever it is exhausted or debilitated. In leucorrhœa, I have employed it with decided advantage. It may be compounded with the syrup of hypophosphites, cod liver oil, iron, stillingin, or any other remedy indicated in the disease. The dose, to arrest hæmoptysis, or hemorrhage from any other portion of the mucous membrane, is from five to ten grains, given every ten or fifteen minutes, until the hemorrhage ceases. As a gentle tonic to the mucous membrane of the bronchi, from one-half to one grain, may be administered three or four times a day. About the same quantity is indicated for leucorrhœa and chronic diarrhœa.

MACROTIN.

Macroton is the active principle of the *Macrotis Race-*

mosa, or *Cimicifuga Racemosa*. This remedy possesses great power over exanthematous fevers, and what the sulphate of quinia is to intermittent and remittent fevers, the macrotin is to the eruptive forms. There is no remedy known that possesses the same power, or metastatic properties, as the macrotin. Exanthematous fevers mostly at first manifest their influence on the mucous tissues, but are afterwards transferred by the *vis a tergo* to the skin, and the poison is eliminated by the transfer. The vitality of this disease depends much upon the influence upon the mucous membrane, and the inability of the system to transfer this influence to the cutaneous surfaces; hence the great importance of the macrotin to assist in accomplishing the metastasis of the disease. Every practitioner is aware that scarlatina, rubeola, lichen, and other exanthematous fevers, only manifest their disastrous influence when they are confined to the mucous membrane; and it is only in cases where they are transferred to the surface, and recede again to the mucous tissue, that an alarming and fatal class of symptoms arises. The macrotin possesses the power to transfer this disease to the surface in a remarkable degree. I have treated many cases of measles, scarlatina, and other exanthematous fevers with this remedy, and by the administration of a few doses, have succeeded in re-establishing the cutaneous eruption, thus removing a very malignant class of symptoms.

Recent investigations have demonstrated that typhoid fever belongs to the class of exanthemata; that it is connected with a peculiar eruption, which, if maintained upon the surface, will prevent the disorganizing tendency of the mucous membrane; hence, macrotin enters largely into the treatment of this disease, and if the drug be used prudently, maintaining the eruption on the surface, the glandular disorganization of the bowels may be entirely prevented. In small-pox, this article is of great power, and

I have tried it in not less than fifteen or sixteen hundred cases, and with uniform success in those cases where there were typhoid symptoms produced by the accumulation of zymotic poison upon the mucous membrane, and its retention in the blood. As I have previously remarked, what quinine is in marsh and malarial fevers, macrotin is in zymotic or exanthematous fevers, and it may be employed in all these affections with the utmost confidence and most marked success. Macrocin not only possesses the power to transfer these eruptive diseases to the skin, but has a decided influence upon the nervous system, giving tone and energy to the nerve tissue, and contributing largely to the generation of nerve force or power; hence, in low forms of fever, where there is a tendency to prostration, or where there are indications of great exhaustion of the nervous tissue, especially where disintegration of the nervous tissue is indicated, it may be used with entire confidence as a remedy to prevent or interrupt the morbid condition. Macrocin has been used as a tonic to the digestive organs, uterus, and mucous membrane; but from our experience of its use, its stimulating and tonic influence upon the digestive organs is a secondary impression; that is, it is the result of the stimulating and invigorating influence of the medicine upon the nervous system. The dose, for measles or scarlatina, is from one-tenth to one-twentieth of a grain, every half hour, according to the nature of the case. My method is to add ten or twenty grains of the triturated article to a tumbler half full of water, and administer one table-spoonful in alternation with aconite, every hour or two, where there is any fever. In small-pox, it is not usually advisable to administer the macrocin until the system has been thoroughly purged, bathed, and the eruption appears upon the surface, yet I have used it in many cases during the premonitory symptoms; and although it brings out the erup-

tion early, I have not found it to produce the confluent form, nor in any way increase the liability to erysipelatous inflammation, but, on the contrary, have thought that by its free use I was more liable to maintain the distinct form and character of the disease. In all cases where the eruption has appeared, my plan is to give from one-fourth to one-half a grain, three or four times a day, with such other treatment as the nature of the case indicates. In scarlatina and diphtheritis, it has manifested a marked influence, producing upon the surface a complete scarlatina blush, and in most cases maintaining it to the great relief of other symptoms, and frequently to the entire disappearance of the pseudo-membranous formations upon the mucous tissue. As a general tonic to the nervous tissue, in low forms of fevers, from one-eighth to one-fourth of a grain should be given every three hours. The macrotin may be used alone, or combined with such other remedies as the nature of the case indicates. In typhoid fever, I use it in the very early stages, and continue it during the entire progress of the affection; and where it is employed, have seldom seen a case terminate in ulceration of the bowels, or diarrhœa of an obstinate character. In fact, I have known most obstinate cases of diarrhœa, that could not be controlled by astringents or anodynes, to be relieved by macrotin in a very short time. I have employed it in cutaneous affections, and in some cases experienced decided benefit. I have used it alone, and in combination with juglandin; and although my experience has not been sufficient to determine its precise power over these diseases, yet from benefit derived in some cases I apprehend the drug may prove of service. The ordinary dose is from the one-sixteenth to one grain. It should be triturated with sugar or lactin, and given, either dissolved in water or simple syrup, or in powder.

MENISPERMIN.

Menispermin is the active principle of the *Menispermum Canadense* or *Yellow Parilla*. It exerts its influence principally upon the gastric and salivary glands. If administered in two or three grain doses every three or four hours for several consecutive days, it produces excessive discharges of saliva, œdema of the fauces, with some inflammatory tendency, together with slight purgative influence and an increased flow of urine. In combination with muriate of ammonia and xanthoxylin, it produces violent ptyalism, resembling the action of mercury in this respect, and manifesting a decided exciting impression upon the liver; hence it has been used in obstinate diseases of this organ, especially in chronic hypertrophy, consolidation, cirrhosis, and, in fact, in nearly all conditions of the liver, produced by chronic inflammation, with decided benefit. I have treated several cases of hypertrophy of the liver where granular degeneration of this tissue was suspected with great success by the use of these remedies. The menispermin is also very valuable as a solvent in chronic adhesions, as in adhesions of the pleura in pleuritis, and the peritoneum in peritonitis, etc. It is of great benefit in many cases of chronic gastritis, especially where there is induration or change of structure of the gastric follicles. In connection with alumin I have used it with great advantage. It has also been used in syphilis, especially in the tertiary form, in combination with tonics, and proved of much value. As a stimulant and excitant to the liver, it may be compounded with leptandrin, euonymin, or irisin. The dose as an alterative to the glandular system, is from one-half to one grain, administered every two or three hours.

MYRICIN.

Myricin is the active principle of the *Myrica Cerifera*, or

Bayberry. This remedy possesses great power over the mucous membrane, imparting tone and vigor, and may be relied upon as one of its very best tonics and stimulants, especially where there is any tendency to softening or glandular degeneration, as in inflammatory fevers, and in most forms of dysentery and chronic diarrhœa, also in the latter stages of phthisis and scrofulous affections. The myricin exerts a most wonderfully curative power. I have relieved some very obstinate cases of chronic diarrhœa by administering from one-half to one grain four or five times a day. It has also arrested chronic bronchitis by the use of one grain in a teaspoonful of cod liver oil, every two or three hours, for three or four days. In cases of great debility, I have given the myricin and oleum morrhuæ in a tea-spoonful of gin. It is also of much value in chronic leucorrhœa, dependent upon softening of the mucous membrane of the vagina. In scarlatina, diphtheritis, and other affections of this class, where there is ulceration and vegetation of the mucous surface, it is a prompt remedy. In aphthous and follicular stomatitis, it is almost a specific, when combined with general tonics and alternated with small doses of ferri chloridum. In chronic gonorrhœa it is very serviceable, and I have been most successful in treating this complaint, and especially gleet, by giving small doses every two or three hours. I have used it in solution as an injection to the urethra and vagina, with decided benefit. The dose as a gentle tonic to the mucous membrane, and to relieve aphthous ulceration of the surface, is from one to two grains every two or three hours, either alone or in combination with other remedies, as the case indicates. For chronic diarrhœa, especially that form connected with phthisis and scrofula, it may be used in larger doses, from two to four grains, until the diarrhœa is controlled. I generally triturate myricin in simple syrup or glycerine, except in bronchitis and phthisis, in which

diseases I triturate it in oleum morrhuæ, and give it in wine or some valuable alcoholic mixture.

PHYTOLACCIN.

Phytolaccin is the active principle of the *Phytolacca Decandria*, common names, *Poke Root*, *Garget*, *Snake Root*, etc. This remedy, when taken by a healthy person in half-grain or grain doses every two or three hours, for two or three consecutive days, produces a burning sensation of the stomach, with tenderness of the bowels, and peculiar heat in the rectum, soon followed by tenesmus, and mucous and bloody discharges. If continued, it produces permanent hemorrhoids, and sometimes dysentery. It will be observed from this, that the specific influence of the phytolaccin is manifested upon the mucous membrane of the stomach, bowels, and rectum, especially upon the latter, and in small or medicinal doses is a most reliable remedy for chronic affections of this portion of the alimentary canal. I have treated a large number of cases of ulceration of the rectum with remarkable success. A physician of note, who had treated himself and had been treated by others, with all the ordinary remedies for what was pronounced a cancerous affection of the rectum, applied to me, and I placed him upon one-half grain doses of phytolaccin every two or three hours, together with a nutritious diet, and one teaspoonful of the pile electuary, (as published in this work,) every night, and an enema of warm water once a day. This treatment was continued for two or three months, and resulted in a complete cure. Another bad case of fissure of the rectum, was cured by similar treatment, and it has also been very successful in prolapsus ani and hemorrhoids. Phytolaccin is also of great value as an antisymphilitic; and when given in connection with sulphate of quinia and oleum morrhuæ, is the most beneficial remedy for tertiary syphilis that I have ever used. I

have observed most favorable changes in a very short time, by the use of this remedy, in connection with corydalin; in fact, have treated a large number of cases, that had previously been under the influence of mercurial treatment for years without benefit, which were immediately relieved by these remedies. It is of much service in secondary syphilis, combined with podophyllin and irisin. In cases of induration, and hypertrophy and consolidation of the spleen, liver, and granulations of the kidneys, it is of great value. Where there is specific poisoning of the lymphatics, as in bubo, either from syphilis or gonorrhœa, it is of much service. I have used this remedy in some cases of chancre as an external application, and found it most valuable. By applying ten or fifteen grains, triturated in a dram of glycerine, to the sore, a favorable change will soon be effected. Combined with muriate of hydrastia and sulphate of zinc, it is of service in chronic ulcers. It has also been employed extensively in obstinate diseases of the liver, compounded with menispermin. The dose, for diseases of the rectum, is from one-half to one grain, given every two or three hours, or twice a day, as the case indicates; as an anti-syphilitic, from two to ten grains, three or four times a day; and in combination with corydalin and oleum morrhœæ, as an alterative to the glandular apparatus, especially in the tertiary form of syphilis, from one-fourth to one-half grain, three or four times a day.

PODOPHYLLIN.

Podophyllin is the active principle of the *Podophyllum Peltatum*; common names, *May Apple*, *Mandrake*. The podophyllin is a drastic purge; and in two or three grain doses, an emeto-cathartic, producing nausea, vomiting, and drastic purging of bilious matter. It also excites the glandular system, producing ptyalism, and in this respect resembles the action claimed for the mercurials, for which

it is used as a substitute by many practitioners. By this effect the podophyllin has been brought into disrepute, as in doses sufficiently large to produce a cathartic influence, it is liable to cause gastric irritation and mucous disturbance of an unpleasant character. By those who understand its *modus operandi*, it is seldom, if ever, used as a purge, but is resorted to as a mild excitant to the glandular system, especially to the liver, and is given in small doses, from the one-sixteenth to the one-twenty-fifth of a grain, four or five times a day. It also excites the salivary, gastric, and enteric glands; hence, it relieves constipation of the bowels, and facilitates the elimination of the morbid matter from the blood through the mucous surface. From this peculiar influence, it has been most successfully used in syphilis to eliminate the virus from the system; and by its continued use at the same time supporting the constitution by means of tonics and a generous diet, the secondary and tertiary forms may be cured. One great advantage that this article has over the mercurials, is that while it eliminates the syphilitic poison from the system with equal certainty, it does not produce the constitutional disorders peculiar to them. It is also used extensively as a solvent, especially in recent adhesions, resulting from inflammation of the pleura, peritoneum, pericardium, etc., combined with muriate of ammonia, in the proportion of one-eighth of a grain of the former to one of the latter. It is of much benefit in defibrinizing the blood, as in inflammatory rheumatism, where there is an excess of fibrin. The dose is one-half grain, every two or three hours. By some it has been recommended as an alterative in scrofulous and tuberculous diseases; but our experience is, that in these affections, alteratives or remedies that contribute to the more rapid disintegration of tissue are injurious, and should not be employed. In cases of obstinate and protracted diseases of the liver, as hypertrophy and cir-

rheosis, it should be given twice a day, in one-eighth or one-tenth grain doses, followed by a five or ten grain dose of leptandrin, or a compound vegetable cathartic pill. Where an active purge is required, and it is important to excite the hepatic secretion at the same time, or to eliminate some *materies morbi* from the blood, it may be compounded with jalapin or colocynthin. To impart the active character to these remedies, aromatics, as pulverized peppermint herb, or caraway seed, may be added. Another favorite method of administering this article, as a gentle excitant and alterative in obstinate diseases of the liver, syphilis, etc., is to add five grains to two ounces of the compound syrup of rhei et potassa, and two of the fluid extract of leptandra Virginia, and give a table-spoonful of the mixture two or three times a day. Its action may be very much increased by compounding it with the iodide of ammonia and phytolaccin, in the proportion of one-fourth of a grain of the podophyllin to one grain of ammonia, and one of phytolaccin. It may also be used as a stimulant to the absorbents, in case of glandular enlargement. In goitre, I have been successful by triturating five grains of the drug with one hundred grains of sugar, and ten drops of tincture of iodine, and have given five grains, three times a day, with the most happy effects. I have also prevented the development of buboes, and absorbed induration of the lymphatics by its use. In bilious fever, it may be compounded with antiperiodics to decided advantage. Two or three grains of sulphate of quinia, and one-sixteenth of a grain of podophyllin, during the apyrexia, frequently constitutes a most valuable prescription. It should never be administered without first being thoroughly triturated, either with sugar or lacticin, in the proportion of one to ten, and by the addition of a few grains of bicarbonate of soda, the drastic influence is very much lessened. The average dose is from one-twelfth to one-

fourth of a grain, although frequently much smaller ones are desirable, and prove quite efficacious.

POPULIN.

Populin is the active principle of the *Populus Tremuloides*, or *Quaking Aspen*, *American Poplar*, etc. As prepared by our pharmacutists, it represents the entire virtues of the *populus tremuloides*, and possesses most remarkable medical virtues. In doses of from five to ten grains, in a healthy person, it produces a warm, pungent sensation in the stomach, followed by a glow of heat over the entire surface, and copious discharges of urine; and if repeated every two hours, until forty or fifty grains are taken, it causes nausea, vomiting, and slight purging of bilious matter, with fierce, burning sensation in the stomach, copious urinal discharges, irritation of the bladder and urethra, with a slight fulness about the head, and general nervous excitement. In medicinal doses of one or two grains, administered three or four times a day, it acts as a direct tonic to the stomach, bladder, urethra, and bowels, more especially upon the bladder; and it is in diseases of the bladder, urethra, and prostate, that I have found the greatest benefit from this article. In several most inveterate cases of catarrh of the bladder, I have found that two or three grains, administered four or five times a day, produced a most favorable impression. In the case of an old gentleman, who had been troubled with this affection, together with ardor urinæ and chronic enlargement of the prostate for many years, and who was not able to obtain benefit from any of the ordinary remedies, relief was promptly given by the use of two grains of populin, four times a day. He continued it for four or five months, together with alterative doses of podophyllin, in combination with sulphate of potassa, and it resulted in a perfect cure. I have used the populin with great suc-

cess in chronic gleet; and in several cases, where other remedies had failed, have succeeded in entirely removing the disease by its use for several consecutive weeks. It is also of much value in chronic debility of the gastric mucous membrane; hence, in dyspepsia arising from this cause, from one-half to one grain, taken three or four times a day, will afford decided relief. Combined with helonin, it has been used with much success in granular degeneration of the kidneys; in fact, it seems to exert a healing and tonic influence on the mucous membrane generally. I have used the populin in phthisis, where the bronchial mucous membrane was involved, in combination with prunin and stillingin, with most beneficial results. The populin also possesses vermifuge properties, and is one of the principal ingredients of the anthelmintic mixture. One-half grain of populin, one-fourth of santonin, and one-eighth of podophyllin, triturated with sugar, and administered to a child at bed-time, is one of the most efficient vermifuge mixtures. I have employed it as an antiperiodic and febrifuge in intermittent and remittent fevers, and in several marked cases have succeeded, not only in interrupting the fever, but also the paroxysms, by giving two or three grains, every two or three hours, for thirty-six or forty-eight hours. In several cases of malignant forms of these fevers, given in combination with quinine, it modified the action of the quinine, thus rendering it much more efficient. This is especially the case in its influence upon the brain, as by combining the sulphate of quinia and populin, in the proportion of two parts of the former to one of the latter, and administering it in these fevers, it increases the antiperiodic power of the quinine, and lessens its tendency to produce cerebral congestion. As a stimulant to the kidneys, it may be used in all forms of disease where such a remedy is indicated. This article, if it be exposed to light for any length of time, solidifies,

and becomes converted into a solid resinous mass, and being insoluble in alcohol, and not easily triturated, it is very inconvenient for use. I obviate this by triturating the populin with calcined magnesia, in the proportion of two parts of the former to one of the latter, which maintains the article in the powdered form, without interfering essentially with its medical virtues. Some use the populin in the form of pills; but this is of all methods the most unsuccessful, as when it is formed into pill mass, it becomes solid, hard, and insoluble, and the powers of the stomach in all ordinary diseases are too feeble to dissolve it, hence it remains as an irritable substance to the stomach and bowels. This is the case, not only with the populin, but many other concentrated remedies: hence I have stated that they should all be thoroughly triturated, either with lactic or sugar, the former being preferable; then they will maintain their powdered condition, and are easily dissolved by the digestive powers of the stomach, and appropriated to the various tissues upon which they are designed to manifest their medical power. Populin has also been highly recommended and extensively used in many chronic diseases of the uterus and vagina, especially in prurigo, an aphthous condition of the mucous membrane of the vagina, and an irritable state of the lining membrane of the uterus. The medicinal dose of the populin is from one-half of a grain to two grains, administered three or four times a day; in acute cases, however, it may be given more frequently. As a febrifuge and antiperiodic, in intermittent and remittent fevers, from five to ten grains may be given, every two or three hours.

PRUNIN.

Prunin is the active principle of the *Prunus Virginiana*, or *Wild Cherry*. The prunin is manufactured in a most convenient form, and is a remedy of rare virtue, directing

its influence principally upon the pulmonary apparatus. It approximates more nearly to a specific for phthisis, and other pulmonary affections of a chronic character, than any remedy that we possess. It not only acts as a sedative to the pulmonary circulation, reducing congestion, and subduing inflammation of the pulmonary organs, but also as a direct tonic to the tissue, giving tone and energy to this structure, and preventing any effusion of tuberculous matter or degeneration. In early phthisis, where there is a tendency to tuberculous infiltration, one or two grains, administered three or four times a day, combined with one grain of hypophosphite of soda, will arrest the tendency almost immediately; and if the disease be owing to a constitutional debility of the lungs or pulmonary apparatus (which is seldom the case, as these affections primarily arise in the digestive apparatus) they will, if administered judiciously, operate almost as a specific. Nervous and spasmodic actions produced by tuberculous accumulation in the pulmonary tissue, are very promptly relieved by the use of prunin, in the following manner:—Take ten grains, triturate them thoroughly in ninety grains of sugar or lactin, add to these two ounces of syrup of sugar, ten grains of hypophosphite of soda, and five drops of prussic acid. One table-spoonful of this mixture, taken two or three times a day, relieves most promptly the cough, and irritation of the lungs and bronchia connected with phthisis. In chronic pneumonia and bronchial irritation, most speedy relief will follow, by taking one or two grains of the triturated prunin, every two or three hours. I have frequently added, for catarrh of the lungs, ten grains of the triturated article, in a tumbler half full of water, and ordered my patient to take a tea-spoonful every fifteen or twenty minutes, and found it most beneficial. I have treated many cases of typhoid pneumonia, in the latter stages of the disease, entirely with prunin alone, in doses

of from one to two grains of the triturated preparation, with the most happy effect. It also acts as a gentle stimulant and tonic to the nervous system, and may be used with decided advantage in nervous debility; hence its great value in all pulmonary diseases connected with general debility of the nervous system. The ordinary dose of the prunin is from one-tenth to one grain, administered every two or three hours; and, as I have stated previously, it may be compounded with iron, quinine, populin, or other remedies, and taken in the form of powder, or dissolved in water, or prepared in syrup, by first triturating it with lactin, and adding the syrup, which is a most convenient way of taking it, especially in chronic phthisis.

PTELIN.

Ptelin is the active principle of the *Ptelin Trifoliata*, or *Swamp Dogwood*. This remedy has been largely used as a tonic to the kidneys, stomach, and bowels. It is also a stimulant; and when taken in doses of ten or fifteen grains produces heat, burning sensations of the stomach, with ardor urinæ, high-colored and scanty urine; and if continued for any length of time, albuminuria and cutaneous erythema. From these effects, and the observations made of its use, it has been discovered that in medicinal doses it manifests its powers directly as a tonic and stimulant to the kidneys, bladder, skin, and mucous membrane, besides exciting a stimulating effect upon the glandular apparatus generally; hence, it has been used successfully in scrofulous diseases, in early phthisis, chronic degeneration of the liver, spleen, pancreas, kidneys, glands of the bowels, etc. In chronic diarrhœa, it is of much benefit. A case which came under my practice, was that of a soldier, who had been troubled with chronic diarrhœa for several months, and treated by the ordinary remedies, but without benefit. His condition was of most critical character, as there was not

only a heavy, profuse serous diarrhœa, but indications of ulceration of the bowels, with dropsical effusion. I gave ptelin, in grain doses, every two hours. It increased the appetite, and interrupted the discharges to a certain extent. I then added one-sixteenth of a grain of gelsemin to every grain of ptelin, and administered the compound, thoroughly triturated with sugar, every two hours. I continued this treatment for a week or ten days, which afforded entire relief; and by the use of tonics and a nutritious diet, the patient recovered. I have also used this remedy, combined with hydrastia and hydrastin, in the latter stage of typhoid fever, where there was ulceration of the bowels, with most happy results. I have found, in all cases where there was organic lesion of the mucous tissue, resulting from acute diseases as fevers, or acute inflammations, in connection with great prostration, that the ptelin is a prompt medicine, as it not only exerts a tonic and restoring influence to these tissues, but, acting as a stimulant, it seems to afford temporary relief to the system, and contributes largely to overcome the debility. I have used it in low forms of fevers, with carbonate of ammonia, where there was a tendency to degeneration of the mucous membrane of the stomach, bowels, and other organs, and have found it to operate most beneficially in this form. It increases the quantity of urine, has a stimulating influence over the liver, and a most healthful impression upon the bowels. The ammonia greatly contributes to its stimulating virtues. In chronic dyspepsia, connected with great debility, I have found the ptelin, in combination with frazerin, a most serviceable remedy, in the proportion of one-half grain of the former, and one grain of the latter, triturated, given three or four times a day. It also exerts a most beneficial influence in secondary syphilis. One case was that of the tertiary form, where the disease had produced almost the entire destruction of the soft palate

and fauces, which had been treated with stillingin, iodide of potassium, and mercurialized, without benefit. I administered ten grains every two hours, combined with one grain of hypophosphite of iron, together with a gargle of muriate of hydrastia to two ounces of water. This treatment was continued for five or six weeks, resulting in the healing of the ulcers, and a decided improvement of the general health of the patient. I have tried this remedy in other chronic syphilitic disorders; and so far as my experience goes, found it to act most beneficially. The ptelin can be prepared by trituration in powder, and then, by adding simple syrup, may be compounded with other remedies, or administered alone. In the form of syrup, the dose is from one-fourth of a grain to three grains, every two or three hours.

RHUSIN.

Rhusin is the active principle of the *Rhus Glabra*, or *Upland Sumach*. This remedy exerts a most healthful influence upon the blood and digestive organs. It has been largely and most beneficially used, in combination with iron, and mineral and vegetable acids, as in purpura, scurvy, zymotic dysentery, typhoid fever, and other malignant affections. As an agent, rhusin has constituted one of my most valuable remedies to combat the general scorbutic tendency, which has been so prevalent the last year or two in this city. The proportion consists in taking two drams of triturated rhusin, four ounces of simple syrup, and one-half dram nitric acid,—from one-half to one dram, administered three or four times a day. In many cases of obstinate diarrhoea, where the gums are spongy, the tissues soft, appetite vitiated, belly prominent, and other symptoms of a strong scorbutic diathesis, it has been most beneficial. Many cases of cholera infantum have been relieved most promptly, within the last few months, by the use of this mixture. It was suggested by a medical friend, that the

sulphuric acid mixture would accomplish this purpose without rhusin. This I tried previously without the drug, but was unsuccessful. In combination with vegetable acids, I used it in a large number of cases. A case came under my charge, not long since, of sea scurvy, of a most malignant character. I gave ten grains of the triturated article, in connection with one-half grain of carbonate of iron, every three hours, and allowed my patient to take, after each dose, one tea-spoonful of lemon syrup. This treatment was followed by prompt relief, and in a very short time resulted in a permanent cure. In dysentery, resulting from the presence of zymotic poison, as hospital and camp dysentery, I have been in the habit of compounding rhusin, in the proportion of one or two grains, the one-twentieth or sixteenth of a grain of gelsemin, and one of quinine, and found it to add greatly to the efficacy of the quinine and gelsemin. In many cases of chronic ulceration of the bowels, and disorganization of the tissues, resulting from typhus and typhoid fevers, I have compounded the rhusin with ptelin and sulphate of potassa, and found it most valuable. Externally, it serves as one of the most valuable applications we possess in violent ulcerations and hemorrhoids. Ten grains, triturated in one ounce of glycerine, forms a most valuable ointment. I have also used this mixture in an aphthous condition of the mouth, ulceration of the throat following scarlatina and diphtheria, and in chancres and syphilitic ulcers, with decided advantage. The rhusin not only possesses tonic properties, but is also an antiseptic; hence, it may be administered with baptisin, where there is a tendency to gangrene and mortification. The dose is from one to five grains, administered every two or three hours.

RUMIN.

Rumin is the active principle of the *Rumex Crispus*, or

Yellow Dock. Although not a remedy of very active character, it possesses most decided medical virtues, manifesting itself more particularly on the lymphatic and glandular system, and hastening transformations so essential to the removal of the detritus of the body. It is one of those tonics to the secondary digestive process, which assists in the conversion of the effete matter of the body into the products to be eliminated; hence, it is a great remedy in scrofulous, consumptive, and cancerous cases, as in these diseases the malignant character depends largely upon the retention of morbid matters in the system, which should be eliminated; but owing to a weak and feeble condition of the emunctories, they accumulate and finally degenerate into tuberculous and scrofulous matter, thus poisoning and disorganizing the blood, and contaminating and altering the character of the tissues of all the organs of the body. The rumin acts as a tonic to these emunctories, stimulating the glands, and hastening those transformations so essential to the normal condition of the human organism: hence, it is of great value in these affections, especially if combined with oleum morrhue, iron, stimulants, baths, out-door exercise, and a generous diet. It is of equal importance in early phthisis, as it will correct the general phthisical and scrofulous habit of the body, improve the appetite, increase the quantity of bile secreted, gastric fluid generated, urine formed, and establish healthy eliminations from the surface. I have used it very extensively in nearly every form of constitutional debility and feeble habit, in combination with cod-liver oil, iron, general tonics, and hypophosphites, and found that in all cases it contributed largely towards bringing about those healthy changes so necessary in these diseases. It is, in fact, almost the only remedy properly termed an alterative to the glandular system, that can be used in these debilitating and exhausting diseases. I have accom-

plished more with it in counteracting the tendency to phthisis and scrofula, than, perhaps, with any other drug of our materia medica. It should, however, be given with iron, and where the stomach will tolerate it, with cod-liver oil, or else in milk or cream. In many feeble children, born of phthisical parents, I have changed their diathesis by administering rumin, in combination with equal parts of iron, and one or two drams of cream. It must be borne in mind, that notwithstanding cod-liver is a valuable remedy in these diseases, yet it cannot be tolerated in cases of great debility, especially of the digestive organs; hence, cream should be substituted. A case which came under my charge, was that of a child of a strong phthisical habit, inherited from the scrofulous or consumptive constitution of the parents. A most eminent physician had been consulted, and prognosed a fatal issue to the case in a very few months. I commenced the treatment by giving one grain of rumin, and one-fourth of a grain of hypophosphite of iron, in one teaspoonful of cream, every four hours, ordered friction, and as much general nourishment as the child would tolerate, in conjunction with outdoor exercise. The friction was applied to the entire surface daily; but no baths ordered, as I considered them too debilitating. The patient improved slowly at first; but in the course of a few weeks the change was decidedly marked, and by the continued use of the treatment, and such other general remedies as were occasionally demanded, the constitutional tendency to phthisis was entirely removed, and now the child presents all the appearances of being healthy, and is pronounced by its former physician entirely free from any phthisical tendency. From these experiments, and those of my medical friends with the rumin, I believe that it is very valuable, and should be used by all the members of the profession in all cases where a general excitant to the transforming apparatus is

indicated. The average dose is from one to three grains.

SANGUINARIN.

Sanguinarin is the active principle of the *Sanguinaria Canadensis*, or *Blood Root*. There are but few remedies that have occupied the attention of the profession more than that of the *sanguinaria Canadensis*. At times it has been highly extolled by various practitioners, as possessing remarkable medical virtues, and then, again, has relapsed into complete disuse; but it is only since the introduction of the active principles of the plant, that its real merits have been appreciated. The sanguinarin, when taken in doses of from one to five grains, produces nausea and vomiting, followed by mild purging of bilious matter, with slight giddiness and fulness in the region of the temples and whole anterior part of the head. In some persons, upon whom I have experimented, I have known the sanguinarin to produce stupor, and manifest a decidedly narcotic influence; but it is difficult to carry its use to any great extent, as in large doses it is an active emeto-cathartic, and will be rejected immediately. The first impression of a large dose of this medicine, is the influence over the circulation, increasing the action of the heart, and the force with which the blood traverses the arteries. Its secondary influence, however, appears to be that of an arterial sedative, producing more or less action of the skin, and slightly increasing the flow of urine. In medicinal doses of five to ten grains, it is a valuable emeto-cathartic, and may be used in all cases where active emesis, with purging, is required. I have used this remedy quite extensively in typhus fever, and find it to act beneficially. In one-half grain or grain doses, it produces nausea, and excites the action of the liver, causing alvine evacuations, acting on some patients as a severe purge; and if continued for several days, resulting in irritation of the mucous membrane

of the trachea and bronchia, followed by gastric disturbance and tenderness of the bowels. In special diseases, as pseudo-membranous croup, scarlatina, and diphtheritis, it has proved to be quite a specific, as it not only relieves the peculiar inflammation of the fauces, but also dissolves the adventitious formation. In pseudo-membranous croup, I have given it a most thorough and extensive trial. In many cases, in which the membrane had become permanently organized, and the capacity of the trachea so diminished as to threaten almost immediate suffocation, I have, by the use of the acetic syrup of sanguinaria, produced almost instant relief. The sanguinarin, when introduced into the system, appears to disorganize this membranous formation; and in many cases, after using it for a day or two, the membrane becomes entirely disorganized, and is ejected in large masses. For the last ten years I have relied exclusively upon these remedies in this affection; and although I had a very large number of cases, I have not lost one. The method of administering it is to add one dram to one pint of the syrup of vinegar, and to triturate this so as to form a mixture, and give from ten drops to a tea-spoonful every fifteen or thirty minutes, according to the age of the patient and the urgency of the case. It should never be given in these diseases in doses sufficient to produce nausea or vomiting, as when carried to this extent, it is less beneficial. In this way I have treated a large number of cases, and in addition, hot packs to the throat, and in many instances where all the ordinary remedies had failed, and the patient pronounced entirely hopeless, I have been successful with this remedy. I have also depended entirely upon it, prepared in the same way, in scarlatina and diphtheritis. In connection with other remedies, it has proved itself of equal value. In many cases of diphtheria I have compounded it with quinine, chlorate of potassa, and other remedies that appeared

to be indicated, as small doses of sanguinarin, capsicum, and quinine, a prescription which has proved of remarkable efficacy. It has also been used very extensively in hepatic difficulties, chronic hypertrophy of the liver, and granular degeneration of the structure. In combination with leptandrin, podophyllin, irisin, and other remedies of this class, it has proved of much value. In malignant affections of the stomach, mucous membrane, bowels, and rectum, it is of great service. A case under my charge, of a man who had been pronounced by several Old School physicians as having cancer of the rectum, was entirely cured by the administration of one-fourth of a grain of sanguinarin, and one-half grain of phytolaccin, every two or three hours during the day, together with tonics, proper regimen, etc. It also possesses decidedly exciting and stimulating influences over the uterus, and I have known several cases of abortion produced by the use of drastic purges of the sanguinarin. A lady, who was afflicted with hemorrhoids and chronic inflammation of the liver, was ordered one-half grain doses of sanguinarin three times a day. Abortion was produced, after taking it three days. It has also been used as an antiperiodic, with considerable success, by several practitioners. The dose is from the one-sixteenth to four or five grains, given as frequently as the case requires, bearing in mind that the average quantity is from the one-fourth to a half grain, and that from one to five grains act as an emetic, and sometimes as an emeto-cathartic.

SULPHATE OF SANGUINARIA.

The sulphate of sanguinaria is a very valuable remedy, and has been used principally as an external application. As an escharotic, it has but few, if any, superiors, especially when applied to chancres, cancers, and other malignant disorders. A New School physician wrote me a

short time since that he had cured a bad case of cauliflower concretion of the os uteri, by applying an ointment composed of glycerine and the sulphate of sanguinaria. I have used this remedy for cutaneous affections, in the form of an ointment, and also by sprinkling the dry powder upon the cancerous ulceration, with the most happy effect. It is also of great value in indolent ulcerations, and in chancres it produces a healthy action almost immediately. Internally, it has been used for a variety of affections. It is a very powerful agent; but I have not had sufficient experience with the drug to determine its precise value, yet from its active influence upon the stomach and bowels, am satisfied that it is capable of manifesting most decidedly medical virtues. The dose of this remedy is from the one-twentieth to the one-eighteenth of a grain, given every two or three hours. Externally, it may be applied in the form of an ointment, or in the powdered state, or may be formed into a solution, by mixing it with glycerine.

SCUTELLARIN.

Scutellarin is the active principle of the *Scutellaria Lateriflora*, or *Skull-Cap*. It is one of the most valuable nerve tonics and antispasmodics with which we are acquainted. It appears to manifest itself more particularly upon the gray nerve tissue, hence it exerts most wonderful medical power in most of the difficulties which originate in a pathological condition of this structure. All forms of chorea are most 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 most wonderful power. It is of great virtue in fevers, and other affections where the gray nerve tissue has undergone partial degeneration and disintegra-

tion, or where the nerve force is impaired by this peculiar pathological change. Thus, in subsultus tendinum, following fevers in delirium tremens, and other spasmodic affections, as epilepsy, catalepsy, hysteria, etc., 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, find 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 hypophosphite 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 yielded 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 carbonate of iron, every two or three hours, in connection with baths, friction, and a well-regulated diet, promptly relieves; and where it is judiciously administered, results in a permanent cure. This remedy has also been very extensively used as a nervine, to allay general nervous irritability, and I have frequently prescribed, when either a want of sleep or restlessness was manifested on the part of the patient, one or two grains of the scutellarin, at bed-time, combined with one or two grains of the prussiate of iron, and find it to manifest quite as soothing an influence as opium or mor-

phia. It can be given in the form of powder, triturated as other remedies, or prepared in syrup.

SENECIN.

The Senecin is the active principle of the *Senecio Gracilis*, or *Life Root*. It is one of those uterine tonics that has been most successfully used in nearly all the pathological conditions of the uterus, ovaries, and vagina, dependent upon debility. It is especially adapted to the defective uterine function, arising from a vitiated state of the system. In scrofulous and phthisical patients, I administer the senecin in doses of from one-half to one grain, combined with one or two grains of the carbonate of iron, four or five times a day. There is, perhaps, no emunctory of the body that exerts a more powerful influence over scrofulous and consumptive patients, than the uterus. Among the first indications of this disease, is that of imperfect uterine action. A vitiated condition of the catamenia manifests itself in the early stages of phthisis and scrofula in the form of dysmenorrhœa, leucorrhœa, and uterine and vaginal irritability. The senecin possesses the power to correct this condition to a very remarkable extent, hence, it has been denominated by many practitioners as "the female regulator," as where there is an excess or deficient catamenia arising from these causes, it restores the function to its normal condition, by establishing a healthy menstruation in these diseases, though it usually manifests its influence more favorably in combination with iron, eupurpurin, hydrastin, quinine, cod liver oil, and such other remedies as have a general tonic and invigorating impression upon the entire system. In cases of weak habit where the catamenial period is protracted, and the blood appears to be poisoned or contaminated by the retention of the zymotic catamenial poison, hastening the development of scrofula or phthisis, senecin in the pro-

portion of one grain to one-half grain of eupurpurin and one or two grains of hypophosphite of iron, taken four or five times a day, is a most valuable remedy. It also gives tone and vigor to the uterus, and I have used it in many cases of sterility and general inertia of this organ, with most decided benefit. In amenorrhœa and dysmenorrhœa, the dose is one or two grains given four or five times a day, in connection with hot sitz baths, and such other remedies as are indicated by the complications of the affection. The senecin has also a decided tonic influence upon the pulmonary tissue, hence, it has been largely used in phthisical cases, but we apprehend its main value consists in its uterine tonic properties, thus relieving the pulmonary difficulty by restoring to the uterus its normal function. A very convenient form of administering it is to add one dram to two ounces of the syrup of hypophosphites, and the same quantity of oleum morrhuæ, and give a tea-spoonful every two or three hours. This mixture in scrofulous and phthisical patients, connected with a derangement of the uterine function, proves most serviceable. The ordinary dose is from one-half to two grains every two or three hours.

STILLINGIN.

Stillingin is the active principle of the *Stillingia Sylvatica*. This preparation has been used within the last few years. It exerts a most direct, stimulating, and exciting influence upon the frœces, trachea, and bronchia; hence it is used in laryngitis, tracheitis, and bronchitis. In bronchitis I have found the most benefit derived from the stillingin, in doses of one-sixteenth or one-eighteenth of a grain. It relieves the dyspnœa, and rapid and extensive exudation, by controlling the cough, and removing a most distressing class of symptoms. It acts as a direct stimulant to the bronchial mucons capillaries, relieving the

congestion and unloading the vessels. It may be given in this disease combined with sanguinarin, in the proportion of one grain of the former to one-half grain of the latter triturated in one dram of sugar, divided into sixteen powders, taken every half hour. It has also been used in chronic pneumonia, and although it has a beneficial influence upon the pulmonary tissue in exciting and stimulating this structure, yet it is far less active upon the substance of the lungs than upon the bronchia. It is of great value in chronic gleet. It has also been employed as an alterative to the liver, kidneys, and stomach. From the repeated effect of the stillingin in syphilis, it has been tried in these diseases, and although it appears to possess but feeble powers over this affection, yet in mercurial disease it has manifested considerable influence, and I have known mercurial erythema to be much relieved by taking from one-fourth to one grain three or four times a day. In chronic bronchitis, I have sometimes triturated the stillingin in glycerine, in the proportion of ten grains of the former to four ounces of the latter, and given a teaspoonful of this mixture every two or three hours. Where there is a vitiated state of the blood, and imperfect digestion, alnain and iron may be added to decided advantage.

STRYCHNIN.

Strychnin is the active principle of *Nux Vomica*, and should not be confounded with the alkaloid strychnia, which is so frequently prescribed, and in some respects possesses similar medicinal properties to that of the strychnin. It appears to affect the white nerve tissue, and differs from the scutellarin in this respect, that while the latter appears to regulate the molecular arrangement of the gray nerve matter, and control the distribution of nerve force, by regulating the development of the forces of the gray nerve matter, it restores and excites the white

nerve tissue, so as to enable it to distribute the forces sent to it from the gray nerve matter, to the different organs and tissues of the body. Strychnin is given in those diseases where there is an irregular distribution of nerve power dependent upon a disordered condition of the conducting force: hence, in cases of paralysis, caused by either sanguineous or serous apoplexy, or by an inflammation of the neurilemma and solidification of the structure, it is a remedy of great value; but where there is an altered pathological condition of the white nerve tissue, and the paralysis is owing to a deficiency of nerve power generated by the gray nerve matter, then it not only fails to cure, but absolutely aggravates it by exhausting the deficient nerve force. It also acts as a general tonic and stimulant to the nervous system in low forms of fevers, therefore, while the digestive and assimilating organs are paralyzed, either by congestion of the organs themselves, or by the accumulation of some narcotic poison, as malaria, etc., the strychnin is of value, as it stimulates these organs, giving them tone and vigor; thus overcoming the sedative influence produced by these various noxious agents which have created the disease. It is of the greatest value in low forms of typhus and typhoid fevers. I have known cases of the latter disease where sordes had accumulated upon the teeth, and the secretions were entirely suspended, indicating an entire want of action on the part of the stomach and eliminating organs of the body, where there were typhomania, subsultus tendinum, and great prostration, to be immediately relieved by the prudent and judicious administration of strychnin. The method is to give from one-sixteenth to one-twentieth of a grain every half hour, followed by some kind of nutriment, as beef tea, milk punch, etc. In many forms of dysentery, combined with gelsemin, it is of great value. I have treated the most malignant form exclusively by the use of gelsemin and

strychnin, in the proportion of the one-sixteenth of a grain of the former to one-twentieth of the latter. It is of much benefit in phthisical and scrofulous patients, restoring the digestive organs and promoting assimilation in many cases where cod liver oil and other tonics fail to nourish the system. In nervous affections, such as hysteria, catalepsy, depending upon general debility, and want of sufficient nutriment, or digestive power, I have had much success in the use of this drug. It is also an antiperiodic of very superior quality: hence, it can be used in all cases of periodicity, and is most beneficial with the sulphate of quinine, in arresting the progress of malignant intermittent, remittent fevers, and other diseases of this class. I have used a preparation of strychnin and xanthoxylin most successfully in some malignant cases of cholera morbus. I have no doubt that the remedy will prove of great value in the treatment of cholera, when combined with xanthoxylin, as it imparts vigor and tone to the entire organism, without exhausting the nervous influence. It is also very valuable in constipation of the bowels, caused by insufficient peristaltic motion or general inertia. In spermatorrhœa, combined with gelsemin, it is almost a specific. The one-twentieth of a grain with one-sixteenth of a grain of the gelsemin, taken at night, together with a well regulated diet, is almost a sovereign remedy for this very troublesome affection. In malignant scarlatina, diphtheria, as well as other low forms of fevers and diseases of great prostration, it is of much service. The ordinary dose is from the one-sixteenth to the one-twentieth of a grain, and may be compounded with iron, xanthoxylin, or such other remedies as the case may require.

TRILLIN.

Trillin is obtained from the *Trillium Pendulum*, or *Beth Root*. This remedy is an astringent to the mucous mem-

brane, and has been used mostly in diseases of this structure. It is in many respects closely allied to tannin, and I apprehend that its main virtues are dependent upon the tannic acid which it contains; hence it has been used in hemorrhage and chronic exudations from the mucous membrane, as leucorrhœa, bronchorrhœa, and chronic diarrhœa, to considerable advantage. By some practitioners it is regarded as almost a specific in uterine hemorrhage; but I have tried it extensively in these diseases and have not found it as reliable as many other agents; yet in passive uterine hemorrhage, it may be given, in two or three grain doses, to advantage. It has also been extensively used in leucorrhœa and prolapsus uteri. It is claimed by some that it possesses direct tonic influence upon the broad ligaments, and will prevent displacement of the uterus. Many cures have been reported by the use of this agent in these diseases; and almost every one who has employed it extensively, claims that it is a valuable remedy. In spermatocele, and diseases of the spermatic cord, it is used with decided advantage. In combination with quinine and hydrastin, it is serviceable in chronic diarrhœa. I once cured a very inveterate case of chronic diarrhœa by this treatment, and attribute it to the use of the quinine and hydrastin as much as to the trillin, as I have tried the latter alone without very marked success. The trillin has been used as a gargle in an aphthous condition of the mouth, and in many cases served a good purpose. I have used it as a gargle in diphtheria, and found that it possessed antiseptic properties, and may be employed with advantage. It is also slightly diuretic, and in some cases of chronic catarrh of the bladder may be used very beneficially. It is rather one of those mild tonic astringents, and is better adapted to diseases of the mucous membrane of children, and patients of feeble habit, than for adults, or those who have a more vigorous constitution. The dose of the trillin is

from two to five grains, administered every two or three hours. Like other concentrated remedies, it may be triturated in sugar, prepared in simple syrup or glycerine, as the case indicates.

VERATRIN.

Veratrin is the active principle of the *Veratrum Viride*, or *Black Hellebore*, *Swamp Hellebore*, etc. In doses of from one-eighth to one-fourth of a grain, it is an active emetocathartic and a powerful arterial sedative. If several doses be repeated, there are vomiting, drastic purging, great prostration, weak, feeble pulse, cold, clammy perspiration, mental anxiety, burning in the epigastrium, with great thirst and delirium; and although I have never known the remedy to be carried to a fatal issue, yet from the symptoms that I have seen manifested as the result of large doses, I have no doubt but that it will produce death, if the remedy be continued. In medicinal doses it is of great value as an arterial sedative, alterative, diaphoretic, diuretic, and expectorant, and is used to control inflammatory disease with more certainty than any other remedy ever introduced into the materia medica. The one-hundredth part of a grain, given in active inflammation of the serous tissue, where there are a full, bounding pulse, hot skin, and other violent symptoms, produces moisture of the surface, and controls the inflammatory action with great certainty, so that in all inflammatory diseases it is an indispensable agent, and is now most extensively used by the entire New School of medicine. In fevers, especially of an active type, and where there is a strong inflammatory symptom, the veratrin controls the fever, and reduces the inflammation with great promptness. In typhus fever, or what has been denominated cerebro-spinal meningitis, veratrin acts almost as a specific, controlling the inflammatory condition immediately, producing moisture of the surface, subduing the action of the heart, and at the same

time stimulating the emunctories of the body, so as to remove from the blood the *materies morbi* which produce the disease, and if not removed, perpetuate it. It is of much service in typhoid fever, in connection with other remedies. It is also employed beneficially in dysentery and pneumonia. This drug has, perhaps, almost entirely superseded the use of the lancet, tartar emetic, and other remedial agents of this class, physicians now having no excuse for venesection, as they can control the circulation more effectually with this agent, and at the same time retain in the system the blood which is so essential to a healthy condition of the organism. Many practitioners prefer the tincture of the *veratrum viride* to the *veratrin*. This I apprehend is more from habit than otherwise, as the *veratrin* operates with equal certainty, and is a much more convenient form to use. The ordinary dose is from the one-hundredth to the one-sixtieth part of a grain. I triturate one grain of *veratrin* in ninety-nine grains of lactic acid, or pure white sugar, and administered one to one and a half grains. In acute rheumatism, I have found that one grain of the triturated article, combined with one or two grains of the sulphate of potassa, given four or five times a day, is almost a specific. In pneumonia I have compounded this remedy with *lobelia*; in intermittent and remittent fevers, with sulphate of quinine; in dysentery, with quinine and *gelsemin*, or in connection with such other agents as the case may indicate.

VIBURNIN.

Viburnin is the active principle of the *Viburnum Oxy-cocum*, or *High Cranberry*. It is a remedy of great value, and manifests its influence principally upon the nervous system, acting as a direct tonic and stimulant. In many respects the *viburnin* resembles in this influence the preparations of *nucis vomica*, although in a far milder de-

gree. It appears to act as a general tonic to the nervous system: hence, in all cases of nervous debility, whether it be connected with acute or chronic diseases, it can be used to great advantage. In cases of paralysis, I have employed it very successfully. A case came under my charge of amaurosis, where I employed the viburnin most advantageously. I have also used it in many cases of general paralysis, as hemiplegia, paraplegia, with marked benefit. In fevers, especially of an adynamic character, where there is great debility, the viburnin is useful, as it gives tone and vigor to the nervous system, without producing any constitutional disturbance. In pneumonia, especially of the typhoid form, it has been used successfully. It appears to have a stimulating effect upon the pulmonary apparatus, independently of its peculiar power over the nervous system; and I have in many instances relieved dyspepsia and orthopnœa, by giving a few doses when other remedies had failed. Combined with iron, it has cured some most inveterate cases of neuralgia. In female diseases, especially where there are prostration of the nervous system, caused by long-protracted uterine affections, leucorrhœa, and other diseases of this class, the viburnin serves a most valuable purpose in giving tone and energy to the nervous system. Viburnin, like most other nerve tonics, operates more beneficially when compounded with iron. I have also used this article with marked success in many forms of dyspepsia, constipation of the bowels, and in incontinence of urine. One case, which I had previously treated with belladonna and gelsemin without success, was entirely cured in the course of a few weeks by the administration of one grain of viburnin, every morning and evening. The dose is from one to five grains, given every two or three hours during the day, according to the nature of the case.

XANTHOXYLIN.

Xanthoxylin is the active principle of the *Xanthoxylin Fraxineum*. It is one of the most active diffusible stimulants known to the profession, when administered in doses of from one to two grains. In a healthy person, it produces a warm glow through the entire system, and a slightly tickling sensation of the nerves, as though gentle shocks of electricity were passing through the body; hence, in low forms of fever and other diseases where there is great prostration, it may be compounded with other remedies, and used for the purpose of producing an immediate excitement and establishing reaction. In exanthematous fevers, especially diphtheria and malignant scarlatina, I have found that the xanthoxylin combined with macrotin, produces a reaction and transfers the disease to the cutaneous surface, with most happy effect. Combined with capsicum, it is valuable in cholera, in a collapsed state of the disease, in the proportion of one grain of the former to one or two of the latter, and serves as a most powerful stimulant to establish reaction. It is of great value in phthisis and scrofula. I am in the habit of compounding xanthoxylin with cod liver oil and viburnin, for the purpose of energizing the digestive apparatus, and thus increase the nutritive functions of the body. I have used this remedy very extensively in the low stage of typhus and typhoid fevers, especially where there was periodicity, and antiperiodics were indicated, as very frequently in these diseases, remedies introduced into the system fail to be assimilated, or produce any impression upon the system, owing to the exhausted and debilitated condition of the digestive organs. Xanthoxylin will stimulate these organs, promoting the absorbing of the other remedies, and at the same time maintain a healthy and exciting influence upon the system generally, until other agents can remove the disease. I have also used it very

successfully in many cases of paralysis, combined with strychnin and viburnin. I cured a case of hemiplegia of long standing, by the use of small doses of strychnin and xanthoxylin, in the proportion of one grain of the latter to one-sixteenth of a grain of the former, four times a day. The patient had previously taken strychnin without any effect, but by adding the xanthoxylin it soon manifested its power. I have also combined it with gelsemin in many forms of dysentery, with most decided benefit, and, in fact, in all cases where a diffusible stimulant is required, the xanthoxylin can be relied upon with certainty, to produce a temporary excitement and stimulating influence upon all the organs and tissues. The dose is from one-half of a grain to two or three grains administered every half hour, or used according to the emergency of the case. It can be triturated and used as other concentrated remedies.

PANDURATIN.

Panduratin is the active principle of the *Convolvulus Panduratus*, *Wild Potato*, *Wild Jalap*, *Man in the ground*, etc. In doses of from three to five grains it acts as a mild cathartic, at the same time producing an increased secretion of urine, gentle diaphoresis, and exciting the mucous membrane generally. It has been employed for the purpose of increasing the quantity of urine in dropsical diseases, and as a mild excitant to the liver, kidneys, and other emunctories of the body. It has also been very extensively used in small doses as a stimulant and tonic to the pulmonary tissues, and by some practitioners has enjoyed a high reputation for the cure of pulmonary consumption. I have used it to a considerable extent in pulmonary diseases, and although I have not observed any specific influence over them, yet so far as it contributed in exciting the eliminating organs of the body, it proved beneficial, especially in the early stages of diseases of the

mucous membrane. It may be used in all cases where a gentle excitant and stimulant are required. The ordinary dose is from one-half of a grain to two grains, repeated three or four times a day. It should be triturated, and may be prepared in glycerine or simple syrup, as other concentrated remedies.

RHEIN.

Rhein is the active principle of the *Rheum Palmatum* or *Rhubarb Root*. It possesses nearly the same properties as the rhubarb, only in a far more concentrated form, and may be employed in all cases where the crude article has been used advantageously. I have prescribed the rhein very successfully in chronic diarrhœa, and in irritation of the mucous membrane of the stomach and bowels. I recently had a case of follicular stomatitis, in which I prescribed rhein and rhusin most beneficially. In some cases of dysentery, I have compounded the gelsemin and rhein to advantage. Rhein, in doses of from one-half to one grain, is a mild tonic and stimulating purge, and may be used in nearly all diseases where they are required. In a case of jaundice, I administered the rhein combined with small doses of the carbonate of iron, and found it produced a most beneficial influence. The dose is from one-fourth of a grain to two grains. One-fourth of a grain repeated three times a day, is the average dose, as a mild excitant to the mucous membrane of the stomach and bowels, producing a slight increase of the alvine evacuations. As a purge, from two to three grains should be administered. In large doses it is likely to operate somewhat drastically, hence, it has been compounded with some aromatic. I have used it triturated with a few drops of *oleum monardæ* or *oleum piperitæ*.

SMILACIN.

Smilacin is the active principle of the *Smilax Sarsapa-*

rilla or *Officinalis*. In doses of from two to five grains, administered three or four times a day, it operates as a gentle excitant to the glandular apparatus and lymphatics generally. I have been in the habit of using it in many cases of scrofulous and venereal diseases, with decided advantage, and have compounded it with phytolaccin and corydalin, and in secondary and tertiary syphilis, have thought it increased their anti-syphilitic power. I have also used it in an indurated condition of the inguinal glands from a scrofulous diathesis, and found it to act very beneficially. A very convenient and most serviceable preparation is to take four ounces of the compound syrup of stillingia, and add two or three drams of the triturated smilacin. It increases the alterative and excitant influences of the stillingin, and in indurations of the lymphatics as buboes, mercurial and syphilitic affections, acts to a good advantage. It is not, however, a remedy of any very remarkable power, but as a mild alterative may be used in nearly all diseases where such a remedy is required. The dose is from two to five grains.

COPAIVIN.

Copaivin is the active principle of the *Copaifera Officinalis*, *Copaiba*. The only difficulty with this drug is, that it is always troublesome to maintain it in a powdered form. This can be done, however, by triturating it with equal parts of calcined magnesia, and keeping it in a dark bottle in a cool place. It really possesses all the properties of the copaiba, and in doses of from one-fourth of a grain to one grain, is an active stimulating cathartic and diuretic, exerting a special influence upon the mucous tissue of the kidneys, ureters, bladder, and urethra; hence it has been extensively used in all diseases of these organs. In all cases where there is an exhausted and debilitated condition of the urethral mucous membrane of the urinal

apparatus, it proves a most serviceable remedy. The practice of using it in acute gonorrhœa is not only unsuccessful, but most pernicious, as it is liable to produce a hypertrophied condition of the mucous membrane of the urethra, which results in a stricture, or if not, degenerates into the chronic form and remains with the patient for a long time, as a troublesome gleet, one of the most obstinate diseases to manage. But in gonorrhœa, when the active inflammation is removed by the proper treatment, from one-fourth to one-half grain of copaivin administered once or twice a day, frequently proves most serviceable. It is also a remedy of great value in bronchitis and bronchorrhœa, combined with stillingin. In many forms of bronchial irritation, especially when not associated with a phthisical habit, the copaivin and stillingin compound forms almost a panacea. It may be employed in some forms of dyspepsia to advantage. I have given it when dependent upon a weak and feeble state of the mucous membrane, and found it to act very beneficially. The ordinary dose is from one-eighth to one-half grain, given at suitable intervals. As I have previously stated, the copaivin may be triturated with magnesia, and in this form will remain in a powdered condition, and if it be necessary to use it, a still better plan is to have it prepared in the form of sugar-coated pills. It may also be triturated in simple syrup, and in this form is not only palatable, but is equally efficacious as that of its administration either in a powder or pill.

VERBENIN.

Verbenin is the active principle of the *Verbena Hastata* or *Vervain*, *Wild Hyssop*, or *Simpler's Joy*. In doses of from one-half to one grain, it is an active emetic, producing considerable nausea, vomiting, and active sudorific influences, as after taking the medicine and vomiting, it

is usually followed by copious and free perspiration. It is also an arterial sedative, reducing the action of the heart and arteries, and acting in this respect upon the system similar to the veratrin. In larger doses, it operates as an emeto-cathartic, producing sometimes a decided impression. I administered five or six grains to a patient, and it was immediately followed by vomiting and purging. In doses of from one-eighth to one-fourth of a grain, it is a gentle diuretic, and has a tendency to stimulate the action of the skin: hence, it may be used in all cases where there is a hot and pungent surface, to produce moisture. In the commencement of marsh fevers, it may serve a valuable purpose, in doses sufficiently large to evacuate the stomach, and at the same time maintain a sudorific action upon the cutaneous surface. My experience has not been extensive with this drug; but from the use I have made, I am satisfied that it possesses active febrifuge, alterative, and diuretic properties, and is capable of fulfilling very important indications in the management of febrile and inflammatory diseases. The dose is from one-eighth to one grain, one-eighth grain being the ordinary sudorific portion; whilst two grains, repeated if required, operate as an emetic, and produce slight cathartic influences.

SARRACENIA.

Sarracenia is the active principle of the *Sarracenia Purpurea*. This remedy has attracted much attention within the last few years, owing to its reputed prophylactic power over variola. Although I have not had an opportunity to test this article in very many cases, it is certainly a very active agent, producing a most decidedly diuretic and diaphoretic influence upon the system, increasing the alvine evacuations and the quantity of urine voided, and at the same time maintaining a gentle diaphoresis. I have only tried the remedy in one or two cases of small-pox, and then

not under very favorable circumstances. From the reputed success of the crude article, and the unquestionable representations of the active principle of the plant in the concentrated medicine, it is worthy of further investigation. The dose is from one-eighth to one-half grain, repeated every two or three hours. As a prophylactic against small-pox, it should be given three or four times a day, and continued for some length of time. As a curative agent to this disease, it should be administered in one-fourth grain doses, every two or three hours. A medical friend, who has tried this agent, states that he has succeeded in arresting the progress of the disease, by the use of one-fourth of a grain every two or three hours.

PYRUSCIN.

Pyruscin is the active principle of the *Pyrus Malus*, or *Apple Tree*. This remedy has been manufactured by some of our pharmacutists, and I have experimented with a sample. From my observations of the effects of this article, it possesses decided antiperiodic properties. I have administered it in several cases of intermittent fever in doses of five grains, every two or three hours, and it produced complete interruption of the paroxysms. I have also employed it quite successfully in neuralgia, periodical diarrhoea, and dyspepsia, and found the remedy of great value. As a topical application, I have used it very advantageously in ophthalmia, and in the experience I have had, it operated very much like the muriate of hydrastia, acting as a decided tonic and stimulant to the mucous surface. Future investigation may prove the further value of this article, and I have confidence to believe that it will occupy a prominent position among the active antiperiodics of the New School materia medica. It differs essentially from the phloridzin, or the alkaloid of the *pyrus malus*, as prepared by Dr. Koninck, and other French and German

chemists. The phloridzin, however, is an agent of considerable value. The dose of the pyruscin is from two to ten grains, administered during the apyrexia, as an anti-periodic; and from one to two grains, every two or three hours, in neuralgia, and other less active periodical diseases. As a topical application for ophthalmia, it may be triturated with glycerine, and used as an ointment, three or four times a day.

PYRUSCIN.

Pyruscin is the active principle of the Pyrus Malus, or Apple Tree. This remedy has been manufactured by some of our pharmacists, and I have experimented with it a great deal. From my observations of the effects of this remedy in various cases of intermitting fevers, I have concluded that it is a valuable anti-periodic. I have administered it in several cases of intermitting fever in doses of five grains every two or three hours, and it produced a complete remission of the paroxysms. I have also employed it quite successfully in neuralgia, periodical diarrhoea, and dyspepsia, and found the remedy of great value. As a topical application, I have used it very advantageously in ophthalmia, and in the experience I have had it operated very much like the extract of hyacinth, acting as a decided tonic and stimulant to the mucous surface. Further investigation may prove the further value of this article, and I have confidence to believe that it will occupy a prominent position among the active anti-periodics of the Materia Medica. It differs essentially from the phloridzin, or the alkaloid of the pyrus malus, as given by Dr. Kalmus and other French and German

APPENDIX,

CONTAINING

AN OUTLINE OF REGULAR PHARMACY AND MEDICAL PREPARATIONS, TO BE USED IN DOMESTIC PRACTICE.

EVERY family should obtain a case of concentrated medicines, in order to make their own prescriptions when medical aid is indicated, unless the nature of the case is such that it can only be understood by a physician well versed in his profession. The non-professional individual, before attempting to prescribe for a patient, should carefully observe all the symptoms present, and as carefully compare them with those described in this work, or by other reliable authors; for unless the indications to be fulfilled are fully understood, it is far better to leave the disease to the unaided efforts of nature, than to attempt medical interference, bearing in mind that unskilful medication always lessens the chances of recovery. The next duty is to fully understand the properties of the remedy to be used, and its preparation for administration. In the use of the concentrated remedies described in this work, they should be triturated with sugar, by adding ten grains of the article to be used to one hundred of pure white sugar. Place both in a wedge-wood mortar, and triturate for thirty or forty minutes, or until every particle of the medicine is thoroughly incorporated with the sugar. The doses recommended in this work mostly have reference to the triturated article. It will be noticed, that where the medicine is thus prepared, a much less quantity is required than when given in a crude state; besides, when the articles are taken into the stomach in a crude state, they produce local irritation, frequently causing rejection, or producing constitutional symptoms, which very much lessen their curative powers.

The quantity to be administered must depend altogether upon the age, temperament, constitution, &c. of the patient. For the proportionate doses of different ages, the reader is referred to the table

of doses, as modified by age, in another part of this work. The time required for an ordinary dose of triturated medicine to pass into the circulation is from one to two hours; consequently, if the first dose is not sufficient to accomplish the object for which it was given, it may be repeated every one or two hours until the desired effect is produced. Pure soft water is the best material in which to mix the medicine for administration; all jams and jellies should be carefully avoided, as they frequently entirely neutralize the medicinal properties of the article. If the medicine is a tincture, as aconite or veratrum, it may be largely diluted in soft water, as one half dram of the tincture may be added to one half tumbler of water, and one tablespoonful given every fifteen or twenty minutes until the requisite quantity has been taken. All the tinctures may be taken in this way. In acute diseases, but one kind should be given at once, unless there is a marked indication for some other remedy which is compatible with the one being taken; or, unless the medicines possess the same properties, and one be mixed with the other to modify its action; as quinine and cornin, both being antiperiodics, when combined, one facilitates the action of the other; so with many other remedies. But, in domestic practice, unless the prescriptions are followed as laid down in connection with each separate disease, the remedies had better be used one at a time. The best method of using crude articles of medicine is in the form of an infusion or syrup.

To make an infusion of any article of medicine. Take one pint of warm or cold water, for one ounce of the remedy, much care being taken to prevent boiling or overheating, as this frequently destroys the virtue of the remedy.

Syrup.

In chronic diseases, syrup is often the best form of administering medicine, as much benefit is derived from the sugar it contains; frequently the sugar is more beneficial than the medicine.

Sugar serves the purpose of combustion in the lungs and extreme capillaries, thereby increasing the animal temperature, promoting secretion, excretion, &c. It is stated, upon good authority, that the negroes on the sugar plantations become very fat and free from disease during sugar boiling. And, as I have already stated, in the treatment of Consumption, sugar is of great value. The best method of preparing syrup for domestic practice is to add one pound to one pint of strong infusion.

Tinctures.

The method of preparing tinctures for domestic practice is to add two ounces of the green vegetable to one pint of good pure whiskey, and let it stand fourteen days, when it should be strained and bottled for use.

Pills.

The most uncertain method of using medicines is in the form of pills, as they frequently become dry and hard, requiring a long time to digest; they also frequently lose their strength by standing. Yet it is sometimes advisable to use some of the extracts in the form of a pill. They may be made by rolling in pure starch or pulverized liquorice, and only as fast as used.

Purgatives.

Purgative medicines are those which increase the alvine evacuations, or increase the peristaltic action of the bowels. This class of medicines, although of great service in many diseases, is also capable of producing very bad effects.

The constant use of purgative medicines has a tendency to irritate and derange the action of the bowels. They are mostly useful in case of obstinate constipation; in most brain affections; in inflammation of the peritoneum; and in some other diseases; but in typhoid fever, inflammation of the stomach and bowels, and in all cases of great debility they are utterly inadmissible. Among the best purgatives, are Euonymine, Podophyllin, Iridin, Neutralizing Cordial, and Anti-bilious Physic.

Emetics.

Emetics are those remedies which evacuate the stomach. They are serviceable in the commencement of many fevers, also in some chronic diseases, and always when the stomach is loaded with some foreign substance. The best medicines for emetics are Lobelia, Blood-root, and Ipecac.

Before administering an emetic, the patient should drink a moderate quantity of some warm tea, as chamomile, catnip, ginger, or Thomson's composition. If lobelia is given, from one half to one teaspoonful of the tincture may be taken every five or ten minutes, until it operates as desired. The tincture of blood-root and ipecac may be used in larger quantities, say in teaspoonful doses. The pulverized seed of lobelia may be given, by adding one half tea-

spoonful to one teacupful of warm water, and, after steeping ten or fifteen minutes, one tablespoonful may be taken every ten minutes until the desired effect is produced. Thirty grains of pulverized ipecac, and sixty grains of pulverized blood-root may be used in the same way.

Diuretics.

Diuretics increase the secretion and flow of urine. These remedies are often of great value in the treatment of disease. They operate with the greatest efficiency when largely diluted with warm water, and the surface is kept cool. Among the best diuretics are Marsh-mallow, Clivers, Indian Hemp, Queen of the Meadow, and Dwarf Elder.

Diaphoretics.

These are medicines which lessen the heat, by increasing the moisture of the surface of the body. They are serviceable in all cases of fevers. Aconite and Veratrum are among the best diaphoretics.

Expectorants.

Expectorants increase the discharge from the mucous membrane of the bronchi and lungs. They are valuable in some cases of acute and chronic affection of these organs. But in all cases of true phthisis they are very injurious. Among the best expectorants are Lobelin, Sanguinarin, and Eupatorin.

Sinapisms, or Mustard Poultices.

These are prepared by adding one tablespoonful of mustard to three of flour, mixing with equal parts of vinegar and water. They are beneficially used to attract the blood from the deep-seated to the superficial capillaries. They are also applied to the spine and nape of the neck in inflammation of the brain.

Cataplasms, or Poultices,

May be made by moistening bread-crumbs with milk. They may also be made of flaxseed. Roasted onions, snake-root, &c., may be used for poultices. They are useful in nearly all cases of local inflammations.

Clysters, or Injections.

When these are used merely to act upon the bowels, warm water or flaxseed water may be used. Any medicine may be thus administered when the stomach will not tolerate them.

Fomentations.

Cloths wrung out of hot water, or an infusion of any medicinal substance, are applied for local congestion or inflammation. In these applications, the adjacent clothing should be protected from moisture by oil-silk.

Plasters.

These are made by compounding medicines with gums, resins, &c.

The Irritating Plaster.

This is made by using boiled tar, one pound; Burgundy pitch, one-half ounce; White gum turpentine, one ounce; Rosin, two ounces. Melt the tar, rosin, and gum, together, remove from the fire, and add finely pulverized mandrake root, bloodroot, pokeroor, indian turnip, each one ounce. This plaster is used extensively in all cases where counter-irritation and revulsives are indicated; as in rheumatism, neuralgia, and chronic affections of the liver and lungs. By Eclectic physicians, this is used in many cases where blisters are used by the "old school," and experience has shown it to be far superior.

Adhesive or Strengthening Plaster.

Take of Rosin, one pound; Beeswax, one ounce; Burgundy Pitch, one ounce; Mutton Tallow, one ounce. Melt them together, and add, Olive Oil, Pulverized Camphor, and Sassafras Oil, of each one-sixth of an ounce; West India Rum, one fluid ounce. Stir well together, pour into cold water, and form it into rolls with the hands. This is an excellent plaster in weakness of the joints, rheumatism, weak back, weak chest, ulcers, &c.

Ointments.

An ointment for the cure of burns may be made as follows: take fresh butter, one-half pound; Yellow Dock root, cut in small pieces, one ounce; fresh Raspberry leaves, one-half ounce; White Wax, one ounce. Melt the butter and wax together, add the Raspberry leaves and Dock root, simmer fifteen or twenty minutes, and strain while warm. This is an excellent ointment for burns and scalds.

Domestic Treatment for Diseases of Common Occurrence.

For Burns and Scalds, wrap the part immediately in cloths, wet in cold water; change as often as necessary to keep them cool; apply until the pain entirely ceases. After which, spread the ointment,

for burns and scalds, upon a piece of cloth, and apply to the abraded surface. Change and wash as often as indicated. If the patient is drowsy or sleepy after the burn, a stimulating cordial should be given; as a little whiskey-slipg, or tincture of capsicum.

Convulsions in Children.

The feet should be placed immediately in warm water, a weak mustard poultice applied to the stomach, friction to the spine, a cold cloth to the head, and give from five to ten drops of the tincture of lobelia, until relieved. If the child is unable to swallow, the lobelia should be mixed with starch-water, and given as an injection. Unless relief is immediately effected, place the child in a warm bath. As soon as the convulsion is relieved, the cause should be ascertained and removed; as otherwise, it might assume an epileptic character.

For Children troubled with Worms.

Take ten grains of Santonine, and one hundred grains of sugar, triturate well together. For a child five years old, one tenth of it is a dose every other night on going to bed. If the worms are not expelled, continue this until the whole is taken. If the child has fever, one or two drops of the Tincture of Aconite may be given two or three times a day. If the worms are not expelled when the medicine is all given, a mild purge may be administered. This seldom fails to remove worms from the alimentary canal in any case.

For Piles in Children or Adults.

A few drops of the oil of fire-weed, made into an ointment, with fresh butter, and applied externally. Take also, one or two drops of the oil internally, once or twice a day. This will effect a cure.

Tooth-ache.

Take two grains of the extract of Belladonna; one grain of the extract of Cicuta; one-half ounce of Chloroform. Dissolve the extracts in the chloroform, wet a little lint, and apply to the tooth. This affords instant relief.

For Diarrhœa.

The most valuable remedy for this, is the neutralizing cordial, which no family should be without. It is made as follows: One half pound of rhubarb; of cinnamon and cloves, each one-fourth of a pound; peppermint and saleratus, each one-half pound. Add

to one gallon of water. Steep for one-half hour. Strain, add two pounds of white sugar. Simmer fifteen minutes; when cool, add one pint of brandy, and bottle for use. Dose for children, one teaspoonful; for adults, one tablespoonful.

Chilblains.

The best method for curing chilblains, is to bathe them in warm turpentine, once or twice a day, wearing cotton next the feet.

Warts.

For their removal, rub every day with the juice of garden parsley.

For Bites of Insects.

Bathe with the tincture of pennyroyal. This gives immediate relief.

Chronic Dyspepsia.

Drink freely of cold water, with a little salt in it, every morning on rising. This, and the avoidance of strong medicine, will generally give relief.

Croup.

Syrup of Bloodroot, as directed in another part of this work, is a sure remedy.

Flatulency, or Wind-Colic in Children.

Give one or two drops of equal parts of Gelsemium and peppermint essence, which will afford immediate relief.

Sore Nipples.

Bathe in strong infusion of bayberry bark, two or three times a day; and wash well with soap and water after nursing.

Food and Drink for the Sick.

The best drink is pure cold water, which should be allowed under all ordinary circumstances, in liberal quantities.

Frequently, but little food is demanded in acute diseases. When it is given, it should be in the form of broths, gruel, &c. Beef-tea, prepared as under the head of typhoid fever, is an excellent article, and may be given in all cases of fever where food is required. Bread, water, rice-water, rice, coffee, &c., may also be given. Those who have charge of the sick, should carefully avoid urging them to take food against their inclination, as much mischief may be done, by crowding the stomach with food which it is not able to digest.

Ventilation.

The apartment of the sick should be thoroughly ventilated, by allowing a free circulation of fresh air to pass through the room, in such a manner as not to come directly in contact with the head of the patient. All the excretions from the bowels and bladder should be removed immediately, and the room purified, by a free ingress of fresh air, instead of still further vitiating it by fumes of vinegar, sugar, &c.

Bathing the Sick.

In all cases of acute disease, the surface should be thoroughly bathed, as often as once or twice a day. The sick room should be always kept quiet, and the linen of the bed and person changed every twenty-four hours.

NEW SCHOOL COMPOUNDS.

Blood, Stomach and Liver Tonic.

THIS article is composed of pepsin, eupatorium purpureum, scutellaria latifolia, anthemis nobilis, guaiacum ligni, ferri sub-carb., and the best pure California grape wine.

For diseases of the blood, stomach, liver, and the whole digestive apparatus, there is nothing that can surpass this compound. It has proved for years one of the most powerful tonics for weak constitutions, spring diseases, and for all sexes and ages, of anything I ever tried in my long and successful practice. When used in connection with the *catarrh vapor* it exerts a most wonderful power to cure consumption in all its stages, as well as dyspepsia, nervous debility, and every other disease in which great tone and vigor is required. It makes the blood rich, and all who take it testify that it is the most powerful stomach tonic they ever took.

Dose: a table-spoonful, three or four times a day.

Anti-periodic Pills.

These are composed of the active principles of the cinchona officinalis, iron, senna, jalap, ginger, acidum hydrocyanicum dilutum, and euonymin. The above pills are for the cure of fever and ague, or intermittent and remittent fever, and other periodical diseases.

My very long experience in treating this class of diseases in all portions of this country, and especially in the South and West, has enabled me to make a compound adapted to all kinds of malarial diseases. In *chills and fever* they are a sure cure without leaving any bad effects. In chronic liver, stomach and kidney diseases in malarial districts, they are the best known remedy. In *neuralgia* they are equally beneficial. I have used this compound for more than thirty years in all forms of disease dependent upon the protean symptoms of malarial poison, and the astonishing result of my practice is as wide as the civilized world. All who feel dull and languid, with bad taste in the mouth, with chilly sensations at times, are immediately cured by these pills. All who have rheumatism, soreness, and fugitive pains, or sallow and dingy complexion, should use them. They not only remove poison dependent upon malaria, but remove the disordered conditions caused by it. To remove periodical diseases, one pill should be taken every hour until twenty-five are taken. To effect a permanent cure, they should be repeated every seven days, for three or four weeks. For neuralgia, rheumatism, dyspepsia and liver disease, one, four times a day, before each meal, and on retiring. We confidently assert that they cover a wider range of indications, and cure a larger number of diseases than any other compound. In the treatment of consumption, catarrh, scrofula, dysentery, diphtheria, croup, etc., a few rounds of these pills never fail to prove a valuable adjunct. They will produce a laxative influence upon the bowels without purging.

Catarrh Vapor.

This preparation is the result of great labor and many experiments in compounding medicine. It is composed of calcium, iodine, bromine, chlorine, aluminum, alcohol, ether, creasote, phenic acid, etc., and possesses the power to destroy and neutralize all animal and malarial fetors or bad smells arising from decomposition, old sores, and putrid matter. It kills all noxious vapors in the sick room, and is a sure protection against small-pox, diphtheria, cholera, dysentery, yellow fever, and other contagious diseases. When inhaled as per directions on the bottle it is by far the most positive cure for *catarrh*, *bronchitis*, *consumption*, *scrofula*, and *nervous* diseases ever discovered. Such are the wonderful results of this vapor that, although it is no patent or secret medicine, it requires a wide-spread circulation. It is not poisonous, nor will it do harm in any case; and for the cure of *catarrh*, *bronchitis*, and *consumption*, when used in connection with the *Blood*, *Stomach*, and *Liver Tonic*, and *Liver Renovating Pills*, produces most magical and astounding results. The *vapor* immediately enters the blood, and may be detected in the secretions in less than five minutes after it is inhaled. It purifies the blood, gives great tone to the stomach, and strengthens the nerves; it produces refreshing sleep, relieves all aches, pains, and soreness, and thousands of people who have used it are unbounded in their admiration of its great power to cure diseases that no other remedy can relieve.

To disinfect sick rooms, and destroy poisonous vapors, a tablespoonful may be poured upon a sponge and be placed upon a table or in any part of a room. To purify sinks, water-closets, etc., three or four ounces may be mixed with a quart of water and be poured into the place desired to be purified. To cure *bronchitis*, *consumption*,

serofula, catarrh, measles, whooping-cough, croup, and other diseases caused by the existence of microscopic parasites and spores in the system, a tablespoonful should be poured upon a napkin or sponge, and be inhaled. It may be repeated four or five times a day. One teaspoonful will not evaporate entirely in less than half an hour. A very convenient way is to keep a handkerchief constantly moistened with it and to wear it about the neck. In this manner it is constantly introduced into the blood, and although possessing but little odor, its power to cure disease is most magical. A case of cancer of the uterus has been cured by a lady adding a half a teaspoonful to four ounces of water, and using as a female injection three times a day. A lady who had syphilitic catarrh so bad that the bones of the nose were entirely destroyed, reports herself cured by taking the antiperiodic pills, one four times a day, and wearing a handkerchief saturated with it around her neck, for four or five weeks. Every day we are receiving astonishing accounts of the curative power of this compound.

Leucorrhœa Pills.

These are composed of hamamelin, lycopodium, muriate of ammonia, nymphæ odorata, etc.

For more than a quarter of a century I have devoted much of my leisure time to discover some remedy that would prevent and cure this national calamity to American women. It makes the young woman lose all her freshness, and the middle-aged a class of wretched, nervous, irritable dyspeptics, terminating in consumption and premature death. To cure these female maladies, I have at last discovered the potent compound. It is not taken into the stomach, but is applied directly to the diseased parts, and will produce a speedy cure of leucorrhœa, prolapsus uteri, monthly irregularity, bearing down pains in the back, hips, and bowels, etc., giving great tone and vigor to the parts.

Cathartic Syrup.

Take the fluid extract of leptandrin vir., four ounces; euonymus atrop., and senna, of each two ounces; iris versicolor, and jalap, one ounce each; tincture cardamom, cubébs, and caraway, of each half a dram; simple syrup, half a gallon; ess. peppermint, half a dram. Mix. Dose, a teaspoonful every half hour, or hour, until it purges.

This is a valuable compound in all bilious, dyspeptic, and gastric diseases, when the bowels are constipated, and may be used with all other forms of treatment.

Brandy and Egg Mixture

Take twelve eggs; phosphate of lime, one ounce; chloride of sodium, one half ounce; iron per hydrogen, one dram; best French brandy, one pint; sugar, one pound. Mix. Shake well. Dose, a tablespoonful three or four times a day.

This is a most valuable remedy for consumption and scrofulous cases, and has been known to cure alone some very bad cases of consumption.

Acetic Syrup of Sanguinaria, or Bloodroot.

Take rad. sanguin., pulv., one dram; acid. aceti, dil., (cider vinegar,) eight ounces; aquæ font., eight ounces. Mix the above, and let them steep for twelve or twenty-four hours; or two hours will answer, if the mixture be kept at a high temperature; then strain or filter, and add two pounds of white sugar. Simmer a short time to form a syrup, and remove the scum, if any arise. This is the specific remedy for pseudo-membranous croup, in doses of one-half or one teaspoonful, every half hour, till relieved. It is also valuable in infantile pneumonia and bronchitis.

Cough Syrup.

Take syr. gum acaciæ, one pint; tr. pruni Virgin., two

ounces; tr. opii, one dram; acet. syr. sanguin., six ounces; Mix. Dose, one teaspoonful every two or three hours for an adult.

Neutralizing Cordial, or Compound Syrup of Rhubarb and Potassa.

Take rad. rhei, (contused,) one pound; alcoholis, one gallon. Macerate for two days; then filter, and add to the drug (rhei) one and a half gallons of water, and evaporate down to one gallon; then strain, and express by pressure. To this watery extract, add—of potass. bicarb., one pound; sacchari alb., six pounds. Heat until the potassa and sugar are dissolved. When cool, add six ounces of officinal essence of peppermint, and the alcoholic tincture of rhubarb, as above made. Dose, one tablespoonful as indicated, for acid stomach, nausea or vomiting, diarrhœa, etc., etc. This cordial is of very extensive application, and very valuable.

Dysentery Syrup.

Take rad. rhei, pulv., leptandrin, sod. bicarb., of each two drams; sacchar. alb., white sugar, one pound; aquæ bullientis, one pint. Triturate well together. Add, ess. menth. piperitæ, ess. gaultheriæ, ess. anisi, of each two drams; tr. catechu, four drams. Mix. Dose, one teaspoonful every half hour, or as indicated.

Compound Leontodin Granules.

Take podophyllin, one dram; leontodin, one dram; jalapin, two drams; capsicum, thirty grains; hyosciamin, ten grains. Mix. Make four hundred and eighty granules. Dose, from two to four as a purge.

Sudorific and Anodyne Tincture.

Take ipecacuanha, one ounce; rad. serpentaria, one ounce; saffron, half an ounce; gum camphoræ, four drams;

gin, diluted alcohol, or spirits, one quart. Digest fourteen days, and filter. Dose, fifteen to thirty drops in warm catnip or balm tea, as a diaphoretic and hypnotic. In severe pain, a teaspoonful may be given.

Valuable Emetic Powder.—No. 1.

Take lobelia, pulv., two drams; sanguinaria, do., one dram; ictodes foet., do., one dram; ipecacuanha, two drams; capsicum, half an ounce. Mix, and give a teaspoonful in warm herb tea. Boneset or eupatorium is the best.

Emetic Powder.—No. 2.

Take pulv. lobelia fol., do. lobelia sem., do., eupatorium perfol., equal parts. Mix, and give a teaspoonful in warm water, and repeat every twenty minutes, if required.

Emetic Drops.

Take fluid ext. lobelia, one ounce: fluid ext. ipecac, and sanguinaria, of each, half an ounce. Mix. Dose, a teaspoonful every ten minutes, in catnip, ginger, or composition tea.

Antibilious Physic.

Take senna pulv., one pound; jalap pulv., half a pound; ginger pulv., one ounce. Mix. This forms one of the most valuable purgatives in use. It is mild, yet efficient, and is well adapted to evacuate the stomach and bowels whenever there is such an indication. Dose, for an adult, from half a dram to one dram, or a heaping teaspoonful, in hot water, every three hours until it operates.

Tonic Syrup.

Take fluid ext. helonias dioica, two ounces; fluid ext. euonymus atrop., one ounce; bromide of potassium, two ounces; pyrophosphate of iron, four ounces; simple syrup, one gallon; alcohol, one pint. Mix. Dose, a teaspoonful five or six times a day.

This is a valuable tonic in all cases of a debilitated state of the system, especially those of scrofulous or kidney affections.

Uterine Syrup.

Take fluid ext. hamamelis vir., two ounces; fluid ext. helonias dioica, and euonymus atrop., of each, one ounce; pyrophosphate of iron, two drams; simple syrup, one half gallon. Mix. Dose, a teaspoonful three or four times a day.

For Sore Lips.

Melt a lump of sugar in one and a half tablespoonfuls of water; mix it with two tablespoonfuls of sweet oil; a piece of spermaceti half as large as an English walnut; simmer the whole, and turn into boxes. Use three or four times a day.

For Spasms.

A teaspoonful of lobelia seeds in a gill of good spirits or cider vinegar. Tincture ten days. Dose, thirty drops every three hours for children.

Cholera Mixture.

Take tincture of prickly ash berries, eight ounces; gum guaiacum, eight ounces; neutralizing cordial, one pint; paregoric elixir, one ounce. Mix. Dose, a teaspoonful every ten or fifteen minutes. *As a preventive*, a teaspoonful three or four times a day.

Hot Drops, or "No. 6."

Take alcohol, one gallon; pulverized gum myrrh, one pound; capsicum, one ounce. Let all stand for a week, shaking twice daily, and then filter. Dose, one teaspoonful in hot sweetened water. Useful to remove pain, prevent mortification, stimulate old sores, &c.

Paine's Pile Electuary.

Take cream of tartar, electuary of senna, flower of sul-

phur, one ounce each; leptandrin, one dram; euonymin, two drams; simple syrup, one pint. Dose, tablespoonful morning and evening. It is almost a specific for all forms of prolapsus ani and piles.

Stimulating Liniment.

Take compound tincture of myrrh, or "No. 6," one pint; oil of origanum, two ounces; oil hemlock, three ounces; oil turpentine, four ounces; cayenne pepper, one ounce. Mix, and shake well. Use in cases of rheumatism, stiff joints, sore throat, lungs, &c. A blister will form if a mullen leaf be applied to the surface where this liniment has been applied.

Compound Syrup of Stillingia.

Take stillingia root, root of Turkey corn, each two pounds; blue flag root, elder flowers, and pipsissewa leaves, each one pound. Grind and mix together, then macerate in one gallon seventy-six per cent. alcohol for three days. Then put into a displacement apparatus, add gradually of hot water till four pints are obtained, which set aside. Continue to displace, by adding water, till the solution is almost tasteless, and till the whole will make twenty-four pints. Then add thirty-two pounds of refined sugar, dissolve by heat, remove the scum, and finally strain.

Spirits of Mindererus.

Take vinegar, one pint; carbonate of potassa, q. s. to neutralize the acidity of the vinegar. Dose, a tablespoonful every three or four hours, in fevers.

Compound Spirits of Lavender.

Take lavender flowers, nutmeg, mace, cloves, cinnamon, of each two drams; pulverize, and add a quart of spirits. Digest for one week, and filter. A very pleasant aromatic stomachic, in doses of one or two teaspoonfuls.

Tonic Tea.

Take chamomile, skull cap, and queen of the meadow, equal parts. Mix. *Preparation.*—Add half a pint of boiling water to a teaspoonful of the mixture, and drink freely, when cold.

Compound Syrup of Helianthus.

Take helianthus seed, five pounds; water q. s. to macerate. After five days transfer to a displacer, the mass boiling hot, and to this liquor strained, add three gallons best gin, and twenty-four pounds loaf sugar. Then take marsh mallow, two pounds; pulv. hydrastis Canadensis, two ounces; peach kernels, eight ounces; water one gallon. Boil and strain, and add the gin and sugar. Then boil all together.

Balsam of Honey.

Take balsam of tolu, two ounces; balsam of fir, two ounces; opium, two ounces. Dissolve all in one quart of alcohol. Used in teaspoonful doses, for pulmonary affections.

Spiced Bitters.

Take poplar bark, ten pounds; bayberry bark, balmony bark, two pounds each; golden seal and cloves, one pound each; Cayenne pepper, half a pound; loaf sugar (fine), sixteen pounds. Pulverize, and thoroughly mix. Dose, one teaspoonful, with one of sugar, in a cup of hot water. An excellent tonic.

Antispasmodic Drops.

Take saturated tincture capsicum, do. do. lobelia, do. do. skunk cabbage root, equal parts. Useful in cramps, spasms, convulsions, &c., in half to one teaspoonful doses, repeated as occasion may require.

Bronchitis Drops.

Take fl. ext. rumex crisp., do. rhus glabra, do. hyoscy-

mus, do. uvularia perfol., do. cypripedium, equal parts. Mix well. Dose, five to ten drops, repeated as indicated.

Diuretic Drops.

Take sweet spts. nitre, two ounces; balsam copaiva, one ounce; tinct. kino, half an ounce: spts. turpentine, half an ounce. Mix well, and add one scruple gum camphor. Dose, one teaspoonful, in mucilage of gum Arabic, three times a day, in scalding of urine, gonorrhœa, &c.

Black Plaster, or Healing Salve.

Take olive oil, three quarts; common resin, two ounces; bees-wax, three ounces. Melt together, and raise the heat to the boiling point; then add, gradually, of fine red lead, two and a quarter to two and a half pounds. When the lead is taken up, and the mixture becomes brown, remove from the fire, and when nearly cold, add half an ounce of pulverized camphor.

Irritating Plaster.

Take Burgundy pitch, half an ounce; white gum turpentine, one ounce; rosin, two ounces. Melt these together, remove from the fire, and add; pulverized poke-root, bloodroot, mandrake, and Indian turnip, one ounce each. This plaster is used in the place of blisters in chronic affections, and is far superior.

Composition Powders.

Take bayberry, ginger, poplar bark, and hemlock bark, all powdered, one pound each; cayenne pepper, three ounces; cloves, two ounces. Pulverize, and mix well. Dose, for colds and sore throat, a teaspoonful in hot water and milk sweetened.

Tapioca and Cod Liver.

Boil a quarter of a pound of tapioca, till tender, in two

quarts of water; drain it in a colander, then put it in the pan; season with a little salt and pepper, add half a pint of milk, and put over one pound of fresh cod liver, cut into eight pieces. Set the pan near the fire to simmer slowly for half an hour or a little more, till the liver is quite cooked. Press on it with a spoon, so as to get as much of the oil into the tapioca as possible. After taking away the liver, mix the tapioca. If too thick add a little milk.

Iceland Moss and Quinine Jelly.

Take of Iceland moss and Irish moss, of each, one ounce. Boil slowly, for three-quarters of an hour, in a pint and a half of milk, strain through muslin, and add three ounces of white sugar dissolved in one ounce of the compound tincture of quinine, (equal to eight grains of the salt.)

Eggs, Cream and Extract of Beef.

Mash two ounces of the best pearl sago, until the water poured from it is clear. Then stew the sago in half a pint of water until it is quite tender, and very thick. Mix with it half a pint of good boiling cream, and the yolks of four fresh eggs, and mingle the whole carefully with one quart of good beef tea, which should be boiling. This nourishing broth is very useful in many cases of lingering convalescence after acute disease.

Tar Ointment.

This ointment is much extolled for removing tettery eruptions, and for the cure of scald head. It is prepared by melting equal parts of tar and mutton suet, and then straining through coarse linen.

Poultice to allay Inflammation.

Take of hop yeast and good porter, thicken with wheat bran to the consistency of a poultice, and apply to the inflamed surfaces.

Pinus Canadensis, or Hemlock.

S. H. Kennedy, of New York, has prepared a concentrated extract from the fresh bark, that possesses many valuable therapeutical properties. In addition to the ordinary medical virtues of tannin, it possesses alterative and antiseptic properties of considerable value. In nasal catarrh, I have found it highly serviceable in combination with equal parts of glycerine, when inhaled through a steam atomizer. It is also of value in doses of from ten to twenty drops in diarrhœa, dysentery, and other diseases of the mucous membrane, in which an adynamic form of inflammation exists. In leucorrhœa, one dram dissolved in four ounces of water, and injected into the vagina three or four times a day, has proved very serviceable. In mucous dyspepsia, twenty or thirty drops taken four or five times a day is also valuable. It has also been successfully employed in gonorrhœa and gleet.

Solution of Iodo-Bromide of Calcium Compound.

This compound contains bromine, iodine, chlorine, calcium, magnesium, sodium and potassium, prepared by Tilden & Co., and is principally recommended as an external remedy for the itch and syphilitic ulcers. It is highly serviceable in many forms of skin affections by adding ten drops to one ounce of glycerine. I have also used it with marked success internally in scrofula, phthisis, dyspepsia, cancer, and other diseases, where an alterative, disinfectant and tonic are required. One dram of the compound may be added to a pint of simple syrup, and one teaspoonful taken five or six times a day. It is also valuable in catarrh and consumption. A gentleman in the last stage of consumption, with vomice in each lung, hectic fever, night sweats and diarrhœa, has been so far restored by the frequent inhalation of this remedy that all his unpleasant symptoms have disappeared, and he is enjoying a

passable state of health. The cavities rapidly contracted, expectoration diminished, appetite improved, and in three months' time he gained twenty-seven pounds in weight. Many other remarkable cures, in which this agent was the principal one used, have recently come under my notice. In cases of bronchitis I have not found it beneficial; but always in tuberculous consumption it has proved of great value. In a case of Bright's Disease, I gave three drops in a tumbler of water four times a day for six weeks, at the expiration of which the albumen in the urine had entirely disappeared, as well as other symptoms of the disease. I have never known any injurious effect from its use.

Tilden has prepared an elixir of the iodo-bromide of calcium compound that can be used in all cases as a substitute; but in my practice I have not found it as beneficial as the solution, although in many cases it has proved highly serviceable.

Bromo Chloralum.

This is also prepared by Tilden & Co., and is without doubt the best disinfectant and antiseptic known, hence its use in all places and cases where a disinfectant is required. In cholera, and contagious diseases generally, rooms, and water-closets may be completely disinfected by allowing small portions to evaporate in the room, or by sprinkling and saturating with it. It is also valuable as an internal remedy in many diseases, such as cancer, scrofula, gonorrhœa, syphilis, cholera, diphtheria, scarlatina and other putrid and malignant affections. My method of using it is to add five or ten drops to a wine-glassful of lemonade and allowing the patient to drink it four or five times a day.

Lime-water and Milk.

Take sweet lime-water, from one to four fluid drams; milk, one gill. Mix. This will sometimes be retained on

the stomach when all other food is ejected. As a variety, milk and soda water in equal proportions may also be ordered. It may be well to remember that the addition of fifteen grains of the bicarbonate of soda to one quart of milk, not only prevents it from souring, but renders it more digestible.

Mecca Oil Ointment.

Take Mecca oil, one pint; white wax, one pound; rosin, one-half pound. Melt together by means of a sand bath, or very slow fire. This is one of the most healing ointments that can be used for cuts, bruises, burns and ulcers.

Asparagus.

An active principle from the root of the asparagus has been prepared by a chemist of this city, called asparagin. In one grain doses it acts as a diuretic, and is said to be valuable in diseases of the kidneys, bladder and urethra.

Common Water Cress.

When used freely with salt and vinegar, is an antidote to the influence of tobacco. A strong decoction will destroy the poisonous effects of narcotine.

Wheat.

To boil wheat, steep in hot water for twenty-four hours, and then boil for three hours. Eat with molasses, sugar, pepper and salt. It will cure constipation, dyspepsia, diseases of the liver, and nervous debility, when used as an exclusive diet.

PART III.

ANATOMY, PHYSIOLOGY AND SURGERY.

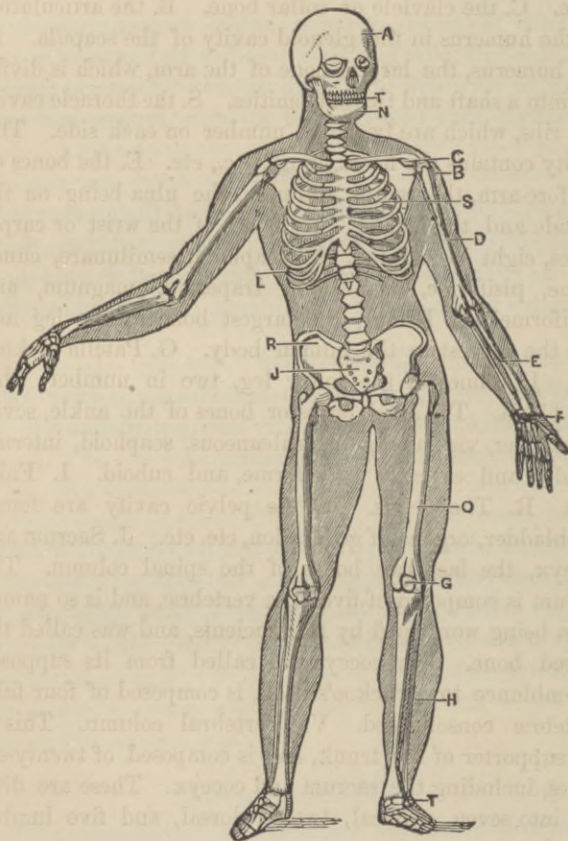


Fig. 1.

Fig. I. represents the framework of the human system,

consisting of the bones which support the muscles and tissues of the human organism. A. represents the head, the bones of which are eight in number. T. represents the teeth which are, in adults, thirty-two in number, and are divided into, four incisors, two canine, and six molars in each jaw. N. represents the inferior maxillary or lower jaw bone. C. the clavicle or collar bone. B. the articulation of the humerus in the glenoid cavity of the scapula. D. the humerus, the largest bone of the arm, which is divisible into a shaft and two extremities. S. the thoracic cavity and ribs, which are twelve in number on each side. This cavity contains the heart, lungs, etc., etc. E. the bones of the fore-arm, the radius and ulna, the ulna being on the outside and the largest. K. bones of the wrist or carpal bones, eight in number, viz., scaphoid, semilunare, cuneiforme, pisiforme, trapezium, trapezoid, magnum, and unciforme. O. Femur, the largest bone in the leg and also the largest in the human body. G. Patella or knee cap. H. Bones of the lower leg, two in number, tibia and fibula. T. Tarsal bones or bones of the ankle, seven in number, viz., astragalus, calcaneous, scaphoid, internal middle and external cuneiforme, and cuboid. I. False ribs. R. The pelvis. In the pelvic cavity are found the bladder, organs of generation, etc. etc. J. Sacrum and coccyx, the last two bones of the spinal column. The sacrum is composed of five false vertebræ, and is so named from being worshiped by the ancients, and was called the sacred bone. The coccyx, so called from its supposed resemblance to a cuckoo's beak, is composed of four false vertebræ consolidated. V. Vertebral column. This is the supporter of the trunk, and is composed of twenty-six bones, including the sacrum and coccyx. These are divided into seven cervical, twelve dorsal, and five lumbar vertebræ.

Fig. 2 represents the arterial circulation of the blood,



Fig. 2.

and it will be seen at once how varied are its ramifications. A. Arch of the aorta. B. Humeral artery. S. Abdominal aorta, which enters the abdomen through the diaphragm and distributes arterial blood to that region. I. Iliac artery. F. Femoral artery, which supplies blood to the upper part of the leg. T. Tibial artery, which descends along the tibia and supplies the lower leg with blood.

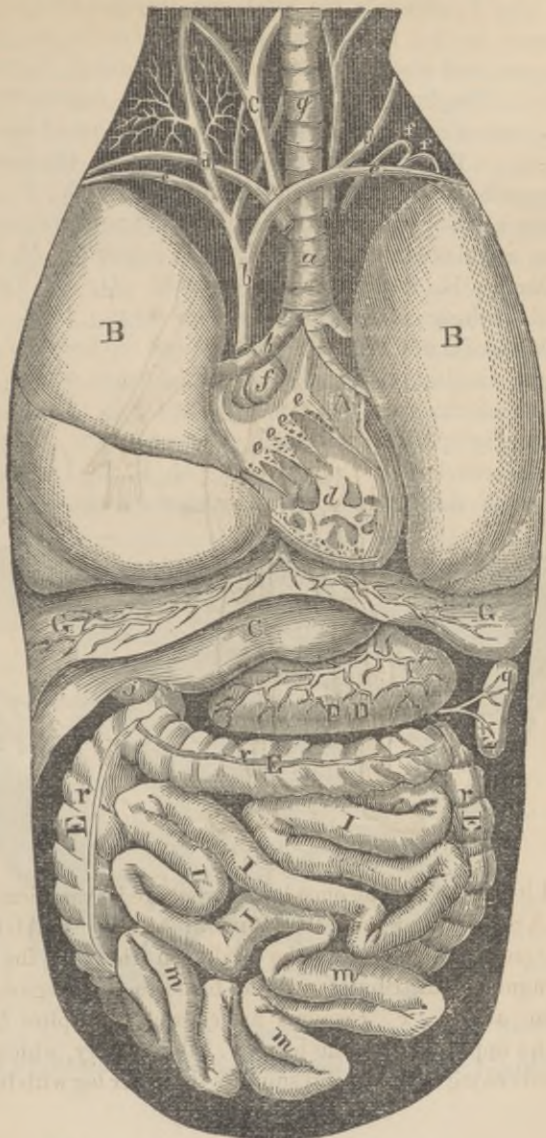


Fig. 3 represents the vital and digestive organs of the human body. B. B. Lungs. These are the respiratory organs, and receive the air as it enters through the trachea. G. G. Diaphragm. This muscle, by its contraction and expansion, assists the stomach in the digestion of food. C. Liver. This is the organ which secretes the bile and separates impurities from the venous blood. It is the largest organ of the body. E. E. E. Transverse, ascending, and descending colon. I. I. I. Jejunum. M. M. M. Illium. E. D. Subclavian arteries. G. A. Trachea. This is the great air passage to the lungs. E. E. E. E. Valves of the heart. D. Ventricle of the heart, of which there are two, right and left. F. Auricle of the heart of which there are also two, right and left. H. bronchia, correctly speaking, a branch of the trachea. F. Spleen. Q. a branch of the portal vein. R. R. R. Ligamentous fibres of the ascending, transverse and descending colon.

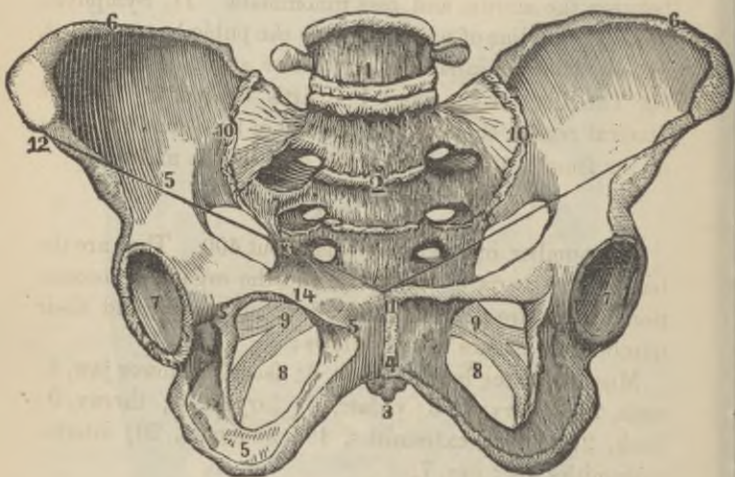


Fig. 4.

Fig. 4 represents that portion of the framework of the

body which has been denominated the pelvis. The pelvis is composed of four bones, viz.: two ossa innominata, sacrum, and coccyx. The ossa innominata are each composed of three bones: ilium, ischium, and pubis, which are, however, united during foetal life. 1. The last lumbar vertebra in its articulation with the sacrum. 2. Sacrum. This bone is at first composed of five rudimentary vertebrae, which, however, are consolidated. 3. Small end of coccyx. This is also formed of four rudimentary vertebrae. 4. Arch of the pubis. 5. 5. 5. Ossa innominata, or nameless bones. It will be noticed that there is one on each side. 6. 6. The crest of the ilia. These afford attachment to muscles. 7, 7. The acetabula. These are the articulating depressions for the reception of the head of the femur. 8. 8. The foramina ovale. 9. 9. Sacro-sciatic ligaments and their two fascicula. 10. 10. Sacro-iliac symphysis, or synchondrosis. This is the line of junction between the sacrum and ossa innominata. 11. Symphysis pubis, or the line of union between the pubic bones. 12. A line showing the inferior and superior straits of the pelvis. 13. The iliac region, and Poupart's ligament. 14. The femoral region, showing the passage of the round ligament of the female, and the spermatic cord of the male.

MUSCLES.

The number of the muscles is about 400. They are the lean, fleshy parts of the body, and the organs of locomotion. They are generally described in groups, and their number and classes are as follows:

Muscles of the head, 1; ear, 6; face, 15; lower jaw, 5; neck, 21; pharynx, 3; palate, 5; larynx, 6; thorax, 9; back, 21; upper extremities, 45; abdomen, 20; inferior extremities, 54; eye, 7.

The blood circulates through the muscles by means of small hair-like, or capillary vessels. To maintain a healthy

circulation, these muscles must be kept in active operation not less than six hours in twenty-four, as by means of their contraction and relaxation the blood is driven from the arteries to the veins through the lungs and round of circulation, to be purified, and to nourish the body; hence lazy people are always sick.

FIG. 5. Represents foetal circulation, the peculiarities of which consist in the existence of the ductus venosus, and foramen ovale, which afford a passage for the blood through the liver and umbilicus, directly from the heart, so as to enable it to be decarbonized and aerated without passing through the lungs.

1. Placenta. 2. Umbilical vein. 3. Hepatic branches. 4. Vena portarum. 5. Ductus venosus. 6. Vena cava. 7. Small branches of the vena porta. 8. Vena cava superior. 9. Heart. 10. Aorta. 11. Left subclavian artery. 12. Ductus arteriosus. 13. Right internal jugular and subclavian veins. 14. Brachiocephalic trunk. 15. Left primitive carotid artery. 16. Abdominal vena cava. 17. Primitive iliac arteries. 18. Umbilical arteries. 19. External iliac arteries. 20. Brachiocephalic trunk. 21. Lobulo spigelii. 22. Right lung. 23. Left lung. 24. Kidney. 25. Liver. 26. Bladder. 27. Womb. 28. Upper extremity of the rectum. 29. Renal arteries and veins. 30. Spleen. 31. Splenic artery. 32. Kidney.

DIGESTION.

Digestion is the process by which food is made fit to be added to the blood, for the production of heat and the formation and repair of the tissues of the body. The organs by which this process is carried on are the mouth, teeth, salivary glands, pharynx, œsophagus, stomach, intestines, lacteals, thoracic duct, liver and pancreas. The first change to which food is subjected takes place in the cavity of the mouth. The solid articles are here divided and

FŒTAL CIRCULATION.

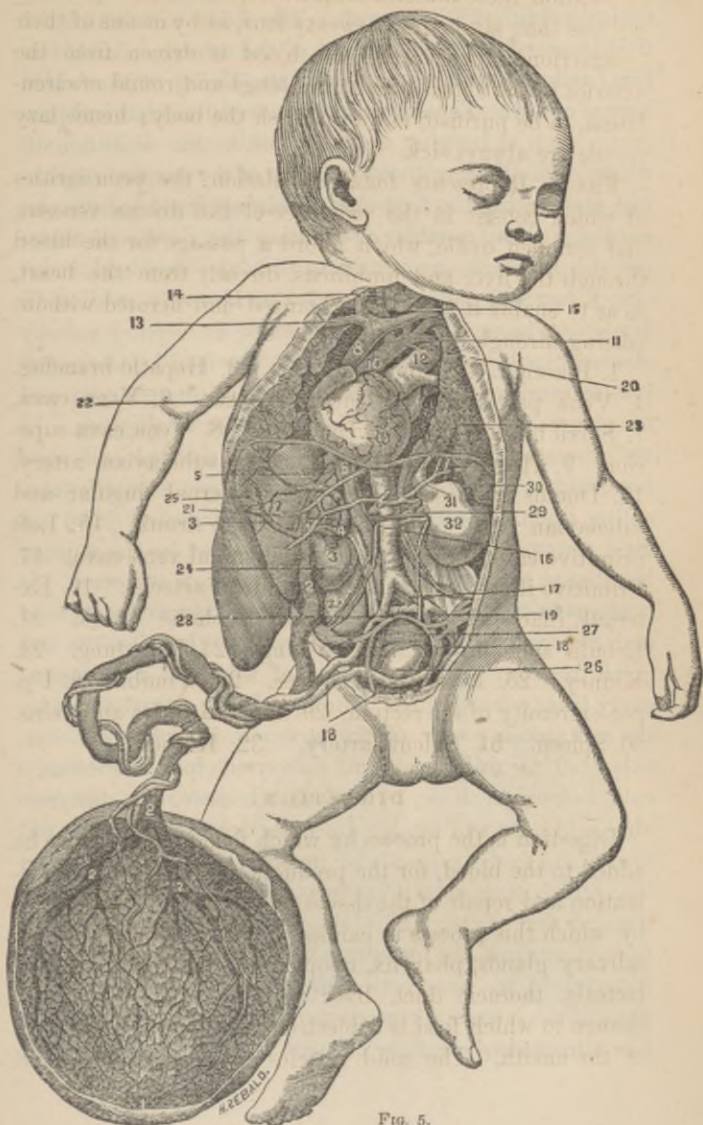


FIG. 5.

crushed by the teeth, and are, at the same time, mixed with the fluids of the mouth. The fluids with which the food is mixed are the secretions of the salivary glands (saliva) and the mucus secreted by the lining of the whole buccal cavity. The saliva serves several mechanical purposes; such as keeping the mouth in a due condition of moisture, facilitating the movements of the tongue in speaking, masticating the food and dissolving sapid substances, rendering them capable of exciting the nerves of taste; but the principal one is mixing with the food and reducing it to a soft pulpy mass that can be easily swallowed. It also produces a catalytic influence, converting starchy elements into grape sugar. When the food is masticated, it is transmitted to the stomach through the pharynx and œsophagus by the act of deglutition or swallowing. In the stomach, the food undergoes its principal and most important changes which are effected by the gastric juice acting upon it and dissolving it. The gastric juice is a fluid secreted by minute glands imbedded in the mucous membrane and composing nearly its whole structure. It contains salts of lime, soda, potash and magnesia, an acid and an organic matter called pepsine. In a healthy stomach from ten to fifteen pints of this fluid are secreted every twenty-four hours. The food being moved about by the contractile power of the stomach, is, every part of it, subjected to this fluid and converted into a substance called chyme, a thick, pultaceous substance, of a disagreeable acid odor and taste. Its color depends upon the nature of the food or upon the presence of yellow or green bile, which may pass into the stomach even in a healthy state of that organ. This chyme is discharged through the pylorus into the intestines, where it is subjected to the influence of the pancreatic juice, the bile and the secretions of the intestinal mucous membrane, which convert the non-nitrogenized or fatty element into an emulsion and

complete the process of digestion of the starch elements so as to render them fit for absorption. The action of the juice of the pancreas is upon the starch, while that of the bile is upon the fat, a healthy condition of both of the organs giving off these secretions, being essential to a completion of the digestive process.

The intestines are divided into the large and small. (See Fig. 3.) The small intestines are divided into the duodenum, the jejunum and the ilium. The large intestines are divided into the cæcum, the colon and the rectum. The pancreas is situated in the cavity formed by the duodenum into which organ it discharges the pancreatic fluid. Bile is formed in the hepatic cells of the liver from materials supplied to that organ from venous blood carried to it through the portal vein. From seventeen to twenty-four ounces of this fluid are discharged every twenty-four hours through the conjoint duct from the gall-bladder and the pancreas (ductus communis choledochus.)

RESPIRATION.

Respiration is performed conjointly by the lungs and the muscles surrounding them.

The lungs are divided into two parts, situated one on each side of the chest, rising in a conical form towards either shoulder. The right lung is the larger, though the shorter one, and is divided into three lobes. The left has but

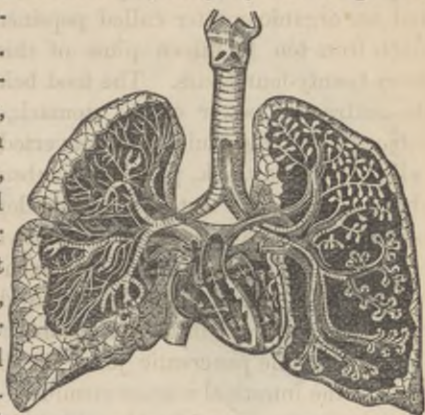


Fig. 6.

two lobes, and is smaller than the right on account of the inclination of the heart to that side. The lungs are composed of ramifications of the bronchial tubes, the pulmonary artery and veins, bronchial arteries and veins, lymphatics and nerves, and the whole being held together by fibrous tissue. Fig. 6 represents the lungs cut open, showing the air-cells, tubes, bronchial vessels, and heart.

In the act of breathing, *inhalation*, or drawing in of the air, is performed by the contraction of the muscles bounding or attached to the outside of the chest, while expiration, or expelling the air from the lungs, is performed mainly by the elastic contraction of the lungs and walls of the chest. The air, passing in at the mouth or nose, passes through the trachea, or windpipe, divides, part going into each bronchia, then rapidly dividing until the little cells, so numerous in every part of the lungs, are filled. Around these cells the venous, or impure blood, passes, and is brought in contact with the oxygen of the air, by which it is changed into bright red, arterial blood for the support of the body. The expired air is not like that taken in, as any one can easily tell, by covering the head for a few



Fig. 7.

moments and trying to breathe the air several times. Oxygen is absorbed during its passage through the lungs, and carbonic acid gas is given off; the presence of this gas is the reason why air cannot be breathed repeatedly. Thus life is kept up and good health maintained, just in proportion as pure respiration is carried on.

CIRCULATION.

The circulation is conducted

by the heart (see fig. 7), commencing at the left ventricle. The blood is driven into the aorta, and from thence into all the small arteries of the body. From the arteries it passes through the small vessels, called capillaries, into the veins; from the veins, into the vena cava, or large vein; from the vena cava, into the right auricle; from the right auricle, into the right ventricle; from the right ventricle, into the pulmonary artery and its branches through the lungs; from the lungs, into the left auricle; from the left auricle, into the left ventricle, where we started. This completes the round of circulation in the adult.

A subordinate kind of circulation is that termed the portal, which is carried on by the vena porta or portal vein. This vein and its branches arise from the stomach, pancreas, liver, spleen, mesenteries, and large and small intestines, and convey the blood to the liver, emptying it into the small venous capillaries, from whence it is conveyed into the vena cava, where it is mingled with the general circulating fluid.



Fig. 8.

Fig. 8 represents the method of applying a bandage to the lower extremities. It should be held firmly at the end on the foot until one or two turns have been made, then carry the turns up the limb. As the leg grows larger the

turns become uneven, but may be kept straight by turning the bandage on itself, as seen in the upper part of the cut. Bandaging, or what is better the lace-stocking, is very useful in enlargement of the veins, dropsical swellings, and chronic ulcers of the limbs.

AMPUTATIONS.—There are two kinds of amputations—one called the circular operation, the other the flap.

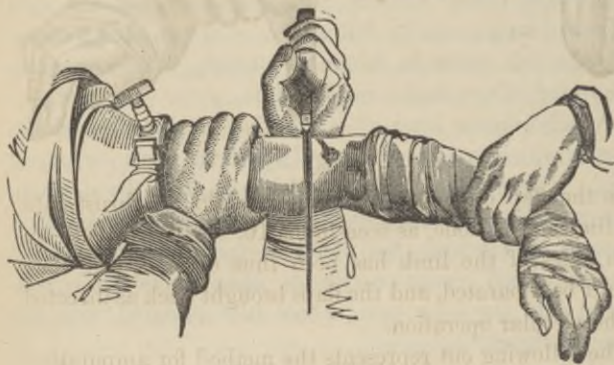


Fig. 9.

Fig. 9 represents the circular operation. First fix the tourniquet on the main artery a little distance above the place of operation, sufficiently tight to arrest circulation. The surgeon should pass his hand and knife under the arm, as represented in the cut, severing the skin with one stroke of the knife. The skin and fascia should be loosened up the arm for two or three inches, when all the muscles should be separated to the bone, and the bone severed with a saw in a careful manner. The main artery should be tied, and the tourniquet removed, and all the small arteries also secured. After cleansing with cold water, the flap of skin should be carefully drawn down over the stump, and be securely fastened with adhesive strips.

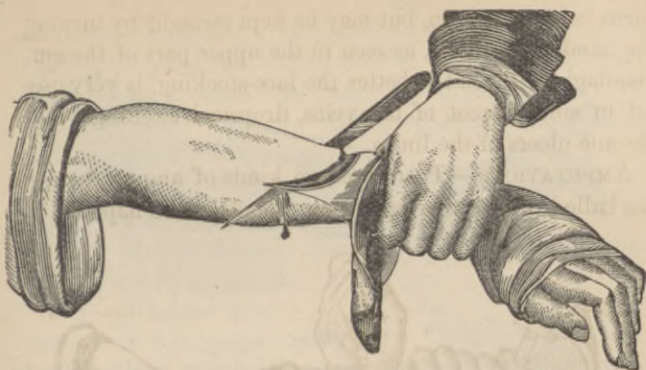


Fig. 10.

In the flap operation, the knife should be thrust into the limb to the bone, as seen in fig. 10. After the flesh on both sides of the limb has been thus divided, the bone should be separated, and the flaps brought back as directed in the circular operation.

The following cut represents the method for amputation at the wrist.

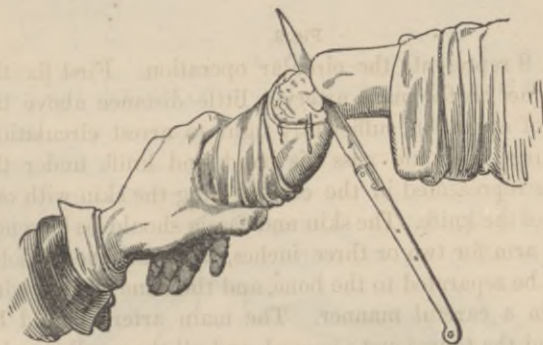


Fig. 11.

Oval Amputation through the Calf.—An oval incision is made in the direction shown in the cut (fig. 12) through the

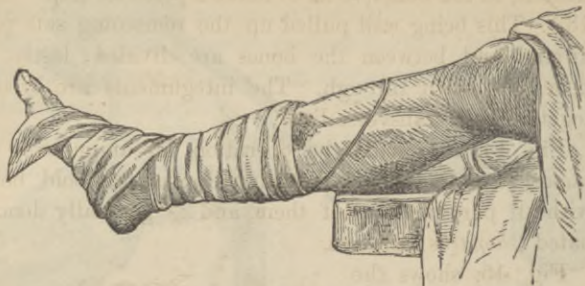


Fig. 12.

skin and fat ; these are thoroughly drawn back. The in-

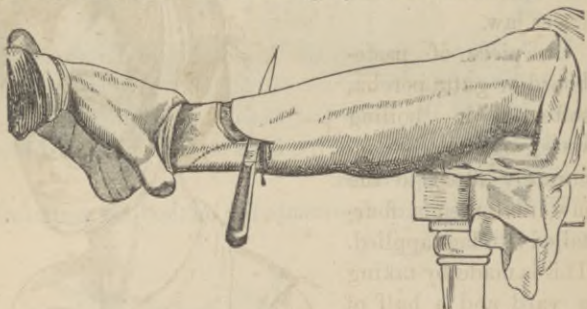


Fig. 13.

cision is carried upwards, obliquely, through the gastroc-

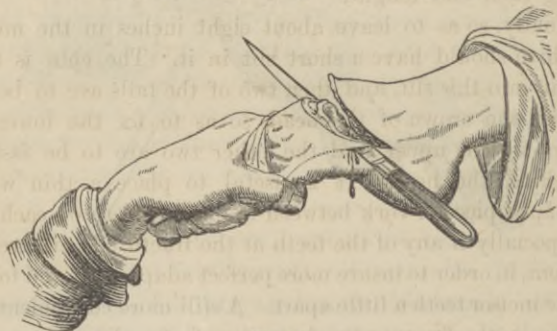


Fig. 14.

nemius, to the bones, so as to make a posterior flap. (Fig. 13.) This being well pulled up, the remaining soft parts around and between the bones are divided; lastly, the bones are sawn through. The integuments are brought together in a transverse line.

Fig. 14, represents the operation for amputating the tarsus, so as to remove the navicular and cuboid bones, with all parts in front of them, and is generally denominated *Chopart's operation*.

Fig. 15, shows the method of bandaging in fractures of the lower jaw.

A piece of paste-board or gutta percha, softened in boiling water, should be accurately fitted to the jaw, and then a four-tailed bandage applied. This is made by taking a yard and a half of wide roller, and tearing each end longitu-



Fig. 15.

dinally, so as to leave about eight inches in the middle, which should have a short slit in it. The chin is to be put into this slit, and then two of the tails are to be tied over the crown of the head, so as to fix the lower jaw against the upper, and the other two are to be fastened behind the head. It is useful to place a thin wedge-shaped piece of cork between the molar teeth on each side, especially if any of the teeth at the fractured part are deficient, in order to insure more perfect adaptation, and to keep the incisor teeth a little apart. A still more convenient bandage is the fracture bandage manufactured by the author.



Fig. 16.

oblique fracture above the condyles, which usually happens to children. The radius and ulna, with the lower fragments, are drawn upwards and backwards as in dislocation; but the natural appearance of the parts is restored by extension.



Fig. 17.

Fig. 16, gives a good idea of the arrangement necessary in fractures of the clavicle, or collar bone. The wedge under the arm, and the method of securing it are well delineated.

Fractures of the neck of the humerus may be known, by the ability of the surgeon to move the elbow in all directions while the head of the bone remains in its cavity motionless. The point of fracture is seen in Fig. 17.

Fractures of the lower extremity of the humerus may present many varieties. 1. There may be an

2. Either *condyle* may be broken off, and the fracture may or may not extend into the joint. (Fig. 19). 3. There may be one fracture *between the two condyles*, and another separating them *from the shaft*. All these injuries may be distinguished from dislocation of the elbow by noticing that the motions of the joint are free, and are attended with crepitus above the elbow, and that the length of

the forearm, measured between the extremities of the upper and lower extremities of the radius and ulna, is the



Fig. 18.

same as on the sound side. The patient should be warned that it is very difficult to avoid all deformity and loss of motion.



Fig. 19.

The fore and upper arm should be bandaged, and a piece of pasteboard, gummed sheeting, or leather softened in water, cut to a right angle, like the letter L, so as to fit the elbow when bent, and applied on the inner and outer sides, and retained by another bandage. Besides this, an *angular splint* may be employed. It is composed of two pieces joined at a right angle, one of which is placed behind the upper arm, and the other below the forearm. But if the injury were attended with much violence, the patient must be confined to his bed for some days with the arm on a pillow, and cold water be employed to reduce the inflammation and swelling.

Fractures of the forearm.—Fractures of the olecranon



Fig. 20.

(fig. 20), may be caused by direct force, or by violent action of the triceps muscles.

The patient easily bends his limb, but has great pain and inability in straightening it. A hollow is felt at the back of the joint, because the broken part is drawn from half an inch to two inches up the arm; but sometimes, when the ligaments are not torn through, this displacement may be very trifling, or altogether absent.

The limb should be placed in a straight position. Then the forearm having been bandaged, the olecranon should be drawn down as much as possible, and the roller, continued from the forearm, should be passed round above it, and then back again about the elbow in the figure-of-8 form. Then the whole upper arm should be rolled, in order to prevent contraction of the triceps; and a splint must be placed in front, so as to keep the arm straight. The patient may be allowed to move the part gently in three weeks. Union will be ligamentous, unless the parts are in the closest apposition.

If there is much inflammation, it must be subdued by rest and leeches, before any tight apparatus is put on. M. Malgaigne's hooks have been applied, in order to insure apposition.

Compound fracture of the olecranon is far from an uncommon consequence of violent blows or falls on the elbow; and it is followed by protracted disease of the joint. The part must be bathed and fomented; any loose fragments of bone be extracted; the wound be closed with bloody lint, or collodion, if the skin can be neatly brought together; the elbow must be kept straight and motionless

with a splint; leeches and fomentations be used to reduce inflammation; and when the wound is healed, and the joint free from active disease, gentle exercise must be employed to restore it to its proper uses. If the bones are so excessively comminuted as to render it probable that the process of reparation will be tedious and exhausting, excision of the joint should be performed; unless, indeed, the injury is so very severe as to render amputation indispensable.

Fracture of the lower extremity of the radius, (fig. 21,) from half an inch to an inch above the



Fig. 21.

wrist, is now commonly called *Collis's fracture*, from the name of the eminent surgeon who first accurately described it.

The fracture is easily reduced by extension from the wrist and elbow. Then the elbow being bent, and the forearm placed in a position intermediate between pronation and supination, (that is to say, with the thumb uppermost;) one splint should be applied to the flexor side, from the inner condyle of the humerus to the fingers' ends, and another from the outer condyle of the humerus to the back of the wrist. Both splints should be wide enough, and should be well padded along their middle, so that they may prevent the bones from being pressed together. The hand should be kept in a line with the forearm. The cure is generally complete in a month or six weeks.

Fracture of that part of the femur external to the capsular ligament (fig. 22).

Fracture external to the capsular ligament is caused by direct violence, such as falls or blows on the hip, by which



Fig. 22.

the neck of the femur is broken off, and driven into the cancellous structure of the great trochanter; and at the same time one or both trochanters are split through likewise. If the cervix be firmly impacted, and the trochanters are still adhering by untorn periosteum, the diagnosis of this fracture presents obvious difficulties, for there is no crepitus; the limb is shortened, but yet cannot be brought to its natural length by any justifiable amount of extension, and is not so everted nor powerless as is usual in fracture, yet if the distance of the trochanter from the anterior superior iliac spine be measured, it will be found shorter than on the opposite side. If, however, this fracture be so comminuted, that the cervix is not impacted in the shaft, the shortening and eversion are well marked, and crepitus can be produced on extension and rotation.



Fig 23.

Impact fracture of the neck of the femur. (Fig. 23.) This accident may occur at any period of life, and is attended with the following symptoms:—The limb is everted, but very little shortened, and the shaft of the bone can

be felt widely separated from the trochanter. This fracture unites readily by bone; and the treatment required consists of extension of the limb by the long splint, and a circular girth with a pad, to support the upper extremity of the shaft, and keep the broken surface in apposition.



Fig. 24.

Fracture of the shaft of the femur (Fig. 24.) This fracture requires no particular description, as it shows sufficiently plain for itself.

For all cases of fractured thigh, including those of fracture of the cervix, in which the patient's strength admits of a reasonable effort to procure union, the *long splint* is the best instrument. The common long splint, known as Liston's, is a narrow dial board, of a hand's breadth for an adult, but narrower and slighter for a young person. It should be long enough to reach from below the axilla to four or five inches below the foot. At its upper end it has two holes, and at its lower end two deep notches, with a hollow for the outer ankle.

First, the splint should be thoroughly well padded with layers of blanket. Then the limb should be evenly banded from the toes upwards, and gently extended to its proper length and shape. Next, one fixed point of extension is made by passing a bandage repeatedly around the instep and ankle, and through the notches at the lower end of the splint. Next, the splint is thoroughly secured to the limb by a bandage carried upwards. Lastly, the extension which is to be kept up by the hands of the assistants during this process is to be maintained by



Fig. 25.

means of a *perineal band*, which is passed around the groin, and through the holes at the top of the splint.

The ordinary fractures of the leg, as seen in Fig. 25, may be readily discovered by careful examination.

The treatment consists in extending the leg, reducing the fracture and keeping the parts in a proper position by splints, bandages, etc.

DISLOCATION.

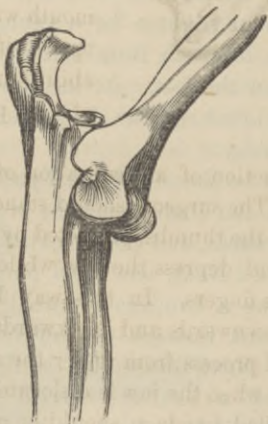


FIG. 26.

Dislocation of the elbow joint is by no means uncommon, and in many cases the diagnosis is very obscure. Especially is this the case when it is connected with violent injury of the soft parts.

The most common dislocation is that in

which both bones are thrown backwards with or without fracture of the coronoid process. In this injury the olecranon process will make a prominent projection backwards, and the articular ends of the humerus and tendons of the triceps muscle can readily be felt. In cases where the coronoid process is fractured, there will be great mobility about the joint as well as distinct crepitation.

When dislocation of both bones occurs forward, it is always connected with fractures of the olecranon process.



FIG. 27.

Dislocation of the lower jaw may occur as the result of too widely opening the mouth in the act of laughing or gaping, (see fig. 27.) The signs of this dislocation are obvious, as the mouth will be seen open without the ability on the part of the patient to

close it.

Treatment.—The reduction of a dislocation of the jaw may be effected thus:—The surgeon should stand in front of the patient and place the thumbs, protected by a napkin, upon the molar teeth, and depress the jaw while he raises the chin by means of his fingers. In this way he pushes the angle of the bone downwards and backwards, so as to disentangle the coronoid process from under the zygomatic arch, where it is lodged when the jaw is dislocated. After the reduction, a four-tailed bandage should be applied, as in fracture of the jaw; and if the patient should be of a

weak and feeble habit, iron, hydrastin, and other tonics should be administered.

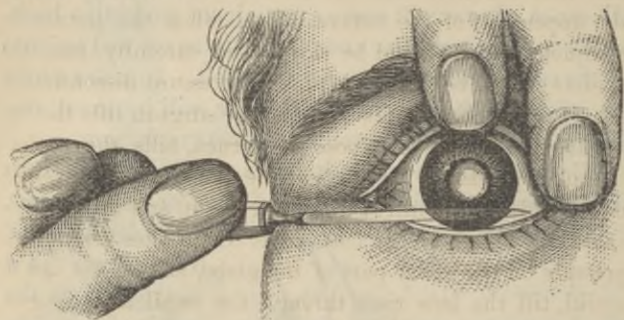


FIG. 28.

In the above cut we have a fair representation of the operation for removing cataract from the eye. The delicacy of the organ requires great care in the operator, but of its benefits many can testify to. The following is the plan of operation :

The patient may be either sitting, or lying on his back, with the head properly supported, and in a good light. The operator, behind him, uses his right hand for the right, and his left for the left eye. An assistant draws down the lower lid, and steadies it against the malar bone, without pressing on the globe. The operator, with the forefinger of the non-operating hand, raises the upper lid and locks it under the edge of the orbit, just resting the point of his forefinger against the upper surface of the globe, and that of the middle finger against its inner surface, so as to steady it. Then holding the knife lightly with the thumb and first two fingers of the other hand, and resting his hand against the side of the face, he commences by first puncturing the cornea at the center of its outer margin, half a line from the sclerotica. (See fig. 28.) 2d. The blade is pushed gently across parallel with the iris, in such a way that the point shall penetrate the other side

of the cornea, exactly opposite to the first puncture; and that the edge shall cut an even semicircular flap of the upper half of the cornea. Just when the incision is complete, which should be slowly and carefully done, the eyelids should be dropped, and all pressure discontinued. 3d. Having waited a few seconds, the surgeon lifts the upper lid sufficiently to expose the cornea, tells the patient to look towards his feet, so that the globe may be directed downwards; then introduces the curette, and freely lacerates the capsule of the lens. 4th. He makes *very gentle* pressure on the under part of the globe, and on the upper eyelid, till the lens rises through the pupil and escapes. Lastly, the eye should be opened after a minute or two, to see that the flap of the cornea is rightly adjusted, and that the iris is not prolapsed; if it is, the eyes should be exposed to a bright light, so as to make the pupil contract, and the prolapsed portion should be gently pressed upon with a spoon of the curette. Then the operation is finished.

After Treatment.—The patient should be put to bed, with the shoulders raised, the room darkened, and with a very soft dry linen rag over both eyes. The bowels should be kept open, and everything be avoided which is likely to provoke coughing, sneezing, or vomiting. If all goes on comfortably the eyelid may be raised on the fifth day, and then if there be no prolapse of the iris, and the cornea be united, he may get up occasionally, wearing a shade, sitting in a darkened room, and walking about a little. After a fortnight the eye may be opened in a weak light, and be gradually brought into use.

POTT'S CURVATURE OF THE SPINE.

Pott's curvature of the spine consists in an angular curvature produced by caries of the body of the vertebræ, or ulceration of the inter-vertebral substances. It is mostly confined to scrofulous children. It begins with weakness,

and symptoms of spinal irritation, coldness of the extremities, twitching and spasm of the legs, which is frequently followed by palsy. If the disease is confined to the dorsal vertebræ, there will be tightness of the chest and difficulty of breathing. If to the cervical, one or both arms may be paralyzed.

Rest and horizontal posture is indispensable in the treatment of this disease; and the back may be supported by a bandage. An irritating plaster should be applied over the diseased portion, and caused to maintain a discharge for several weeks. The body should be bathed once a day in alkaline water, followed by friction, and from one to two table-spoonfuls of the syrup of rock rose, or the compound syrup of frostwort should be given in connection with Mecca oil, the anti-periodic pills, the catarrh vapor, the blood, stomach and liver tonic, boiled wheat and milk with rare cooked beef and fresh vegetables as a diet, and a plenty of out-door exercise. The instrument prepared by the author is infinitely superior to those ordinarily manufactured.

GANGRENE AND MORTIFICATION.



Fig. 29.

Gangrene and mortification may arise from a variety of causes, such as intense inflammation, arrest of circulation, severe contusions, compressions, certain specific poisons, etc. Gangrene may also occur spontaneously in old people, when

it is called *senile*, and is usually owing to a disease of the coats of the arteries. Fig. 29 represents this kind of gangrene. See Inflammation and Gangrene in another part of the work.

The symptoms of gangrene and mortification are both local and constitutional. The local symptoms are death of the part, followed by sloughing and deep ulceration, unless it be dry gangrene, represented in the Figure, which dries and becomes very hard. The constitutional symptoms depend much upon the extent and nature of the gangrene. If it be dependent upon active inflammation, and great debility of the parts, there will be feeble vitality, loss of appetite, great prostration, and if the gangrene be internal, there will be hiccup, vomiting, cold sweat and death. But where the disease is confined to the extremities of the body, they correspond with the extent of the injury.

When there is a tendency to gangrene in any of the internal organs, quinine, capsicum, baptisin, yeast, and other stimulants and antiseptics should be given in such quantities as are necessary to maintain the vitality of the parts. In external gangrene, poultices made of pulverized indigo weed, sweet fern, peruvian bark, slippery elm, and yeast, should be applied, and changed every hour. Tonics and anodynes should be administered internally. A tea-spoonful of the catarrh vapor added to a slippery elm poultice sufficiently large to cover the part has been found to be almost a specific. Also the catarrh vapor may be inhaled freely as it has a powerful influence to disinfect the system and purify the blood. The blood, stomach, and liver tonic will also be valuable adjuncts, and cases of gangrene can hardly be successful if treated without it. The diet should be stimulating and nutritious.

CLUB-FOOT, OR TALIPES.

Four varieties of Talipes are recognized:—Talipes Equi-



Fig. 30.

neus, in which the heel is elevated, (fig. 30,) *Talipes Calcaneus*, (fig. 31,) in which the anterior part of the foot is drawn up. This is a very uncommon variety of club-foot; and, when it occurs, is almost always congenital. In order to relieve this deformity, the *tibialis anticus*, the *extensor communis*, the *extensor pollicis*, and the *peroneus tertius*, may all require to be divided; after which a straight splint should be applied, and the foot brought

down to it. For the cure of *talipes equineus* the *tendo-Achilles* should be divided about an inch above its insertion into the *os calcis*. The foot should be grasped, and the surgeon extend it until the tendon is tense. He then slides a *tenotome* beneath it, and cuts slowly through it, from beneath upwards, bearing the foot up at the same time. Some prefer to cut from without inward. In this event much care should be taken, or the posterior tibial artery may be wounded. As soon as the operation has been performed and the pain will warrant it, some of the modern instruments, as *Scarpa's shoe*, should be applied, and the foot maintained in its normal position until the deformity is entirely overcome.

TALIPES VARUS.

{ (Fig. 32.) This is one of the most common forms of

club-foot. The foot is turned inwards, and the patient walks on the outer side of the foot. To remedy this deformity, the tendo Achilles, the tibialis anticus and posticus, and plantar fasciæ, require division. In dividing the tibialis posticus tendon in the sole of the foot, much care will be required to prevent wounding the posterior tibial artery, which lies close to it. The best way will be to introduce the tenotome, through the



Fig. 31.



Fig. 32.

sheath of the tendon directly downwards, and separate it forwards away from the vessel. Two or three days after the operation, the inflammation being removed, the foot may be well abducted by means of splints, or a little shoe. The only use of these appliances is to keep the foot properly abducted, and in an easy position.



FIG. 33.

Fig. 33. In talipes vulgus the foot is turned out, and the patient walks on the inner ankle.

The treatment consists in dividing the tendons of the peroneus longus and brevis behind the outer ankle, and that of the extensor communis on the dorsum of the foot. An instrument should be applied, and the foot brought into position and supported.

The majority of all cases of club foot can be cured, if treated early, by gentle pressure, made by means of shoes manufactured for the purpose. They are so arranged, that pressure may be made on the contracted muscles from day to day until finally the contraction is overcome. When this treatment fails, the deformity may be overcome by an operation called *tenotomy*, which consists in a division of the contracted tendons.

Figure 34 represents an instrument used for the cure of these diseases of the feet, manufactured by the author.



FIG. 34.

Fig. 35 represents anteversion of the uterus, and may occur as the result of jumping, falling, or any great exertion. It is followed by pain in the back, tenderness of the abdomen, loss of appetite, great nervous prostration, constipation, monthly irregularity, leucorrhœa, diseases of the bladder, headache, sense of weight about the loins, and if the disease is not relieved it terminates in cough, dyspepsia, affection of the lungs and consumption. It can easily be cured by the author's uterine supporter, and the use of the leucorrhœa pills, with the uterine tonic syrup.

Anteflexion of the uterus, Fig. 36, may be produced by the same causes that produce Anteversion, when the system is in a weak or debilitated condition. It, also, is amenable to the same treatment, with the exception that it is important previous to commencing treatment to have the uterus put in its proper position.

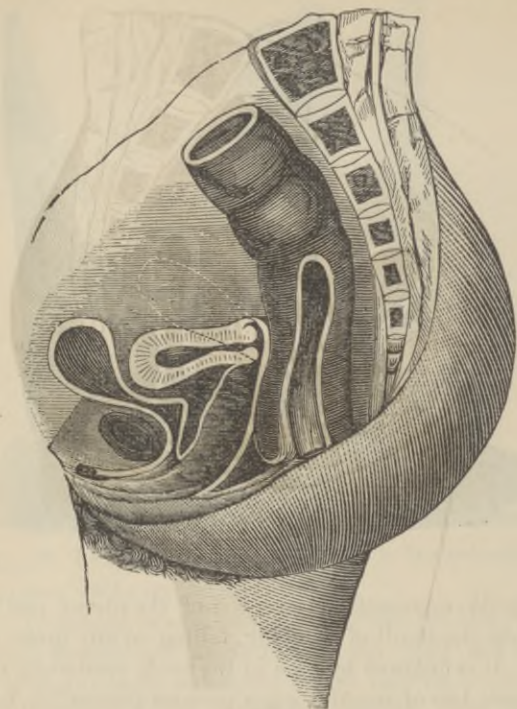


FIG. 35.

CANCERS, OR MALIGNANT TUMORS.

Cancer usually presents itself in four or five varieties, each variety possessing characters peculiar to itself: viz. schirrous, or hard; encephaloid, or soft; colloid, or gelatinous; melanosis, or black cancer.

The schirrous variety is hard, firm, and transparent, and of a grayish color. The encephaloid is brain-like in its appearance, and is of a soft and hemorrhagic character. The colloid resembles glue, or honey in the comb. The melanosis is of a black color, and is sometimes soft, and at

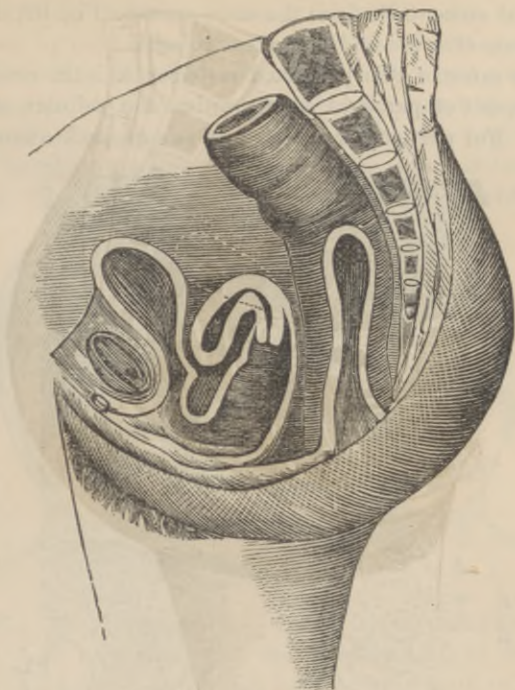


FIG. 36.

others hard. Another variety of cancer is mentioned by some authors, called epithelial cancer.

They all yield, by pressure, a turbid fluid, called *cancer juice*, in which are granule cells, pigmentary and fatty matter, with great abundance of parasites. The cancer cells are spherical, fusi-form, and spindle-shaped, elliptical or caudate, having two or three terminations.

The following figures show the appearance of cancer cells.

Fig. 37 shows the arrangement of fibrous cancer-cells, as they occur in the female breast. Fig. 38 shows the same after the addition of acetic acid. Fig. 40 shows the

isolated cancer-cells from the same growth. Fig. 39, shows the same after the addition of acetic acid.

The cause of this perverted cell-growth is the result of the deposit of parasital spores, within the cellular structure. For particulars see the author's researches into the



FIG. 37.

FIG. 39.



FIG. 40.



FIG. 38.

nature and cause of disease by the aid of the microscope in this work.

The unsuccessful treatment that has accompanied all the efforts of the profession, has been the result of ignorance of the true nature of this disease. The author has discov-

ered that the parasites creating this malady are not destroyed by arsenic, acids, nor any of the ordinary remedies, but may be effectually killed by an agent that he has incorporated into a mass, and has denominated cancer ointment. The same agent may be made into a vapor that may be inhaled to kill the spores when absorbed into the blood. See also the author's microscopical researches.



Fig. 51.



Fig. 52.

Fig. 51 represents the square cap bandage of the head, and is formed with the handkerchief by folding it in the form of an oblong square; it is used to cover the head, ears and jaws.



Fig. 53.

Fig. 52 represents the fronto-occipito-labialis cravat, also formed with the handkerchief, and is useful to retain dressings, and to support wounds of the lips after the hair-lip operation.

Fig. 53 represents the occipito-frontal triangle, front view. It is useful in retaining dressings to the head.

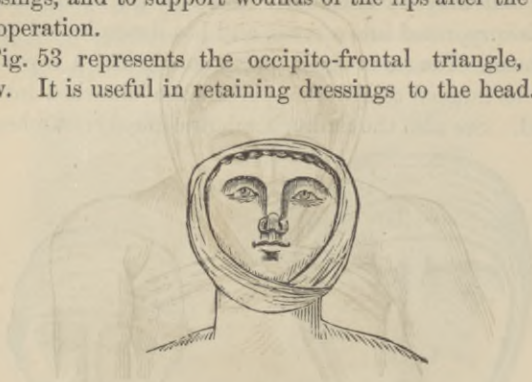


Fig. 54.

Fig. 54. Vertico-mental cravat, formed by carrying the ends of the handkerchief under the chin and fastened near the ears, used to retrain dressings on the chin or base of the jaw.

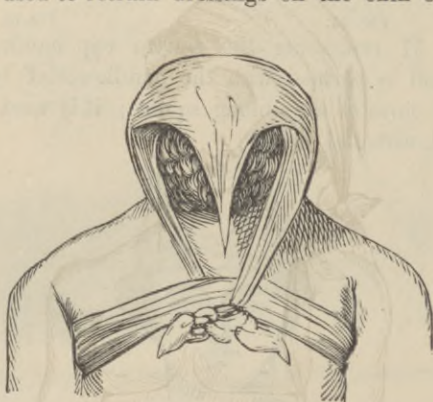


Fig. 55.

Fig. 55 represents the Occipito-Sternal bandage, and is composed of two separate handkerchiefs, one passed over

the head and united to another passed around the body. It is very useful in uniting wounds of the throat.



Fig. 56.

Fig. 56 is the Fronto-dorsal bandage, and is simply the reverse of the preceding.



Fig. 57.

Fig. 57 is the Parieto-axillaris, and is for the purpose of drawing the head to one side in wry-neck, spasm of the sterno-cleido muscle, etc.



Fig. 58.

Fig. 58 represents the simple Bis-axillary cravat, and is for the purpose of retaining dressings on the axillæ.



Fig. 59.

Fig. 59 is the compound Bis-axillary cravat, and is very similar to the preceding, but is applied to both axillæ.

Fig. 60 represents the triangular cap of the breast. Its formation is very simple, and it is an excellent bandage to retain dressings applied to the chest.



Fig. 60.



Fig. 61.

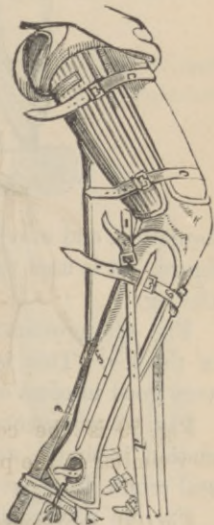


Fig. 62.

Fig. 61 represents the tibial cravat. It is of simple



Fig. 63.

formation, and may be readily understood by noticing the figure. It is used to retain sinapisms, &c., on the calf of the leg.

Fig. 62 represents Amesbury's apparatus for fractures of the leg. This is a rather complicated machine, but very good in cases of this kind.

Fig. 63 represents the sub-femoral bandage. Its formation is simple, and it is the only neat bandage that will retain dressings to the pelvic portion of the body.

Fig. 64 represents the reduction of a dislocation of the collar bone, showing the position which should be assumed by the patient and operator.

Fig. 65 represents Tapping. In this operation the trocar is used and the puncture made along the linea alba, about two inches below the umbilicus. It is for the purpose of freeing the peritoneal cavity from an accumulation of serum which collects in some diseases.

Fig. 66 represents the bandage used in arresting hemorrhage, which consists in placing a handkerchief around the limb above the point of hemorrhage and introducing a twist so as to prevent circulation through the part.



Fig. 64.



Fig. 65.

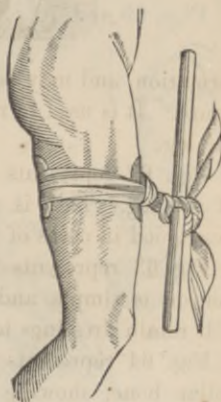


Fig. 66.

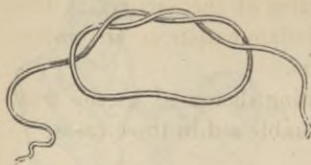


Fig. 67.

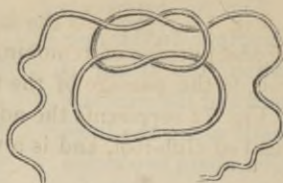


Fig. 68.

Fig. 67 represents the surgeon's knot, which, when skillfully made forms a secure knot.

Fig. 68 represents the sailor's knot, much used in surgery and preferred by some to the preceding.



Fig. 69.

Figs. 69 and 70 represent the introduction and use of

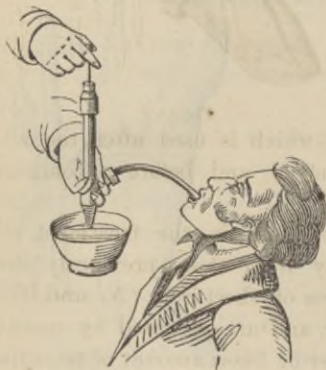


Fig. 70.

the stomach pump; the former represents the tube situated in the œsophagus, and the latter, the relative position of patient and operator used where some active poison has been taken into the stomach. When the pipe is introduced, a plug should be placed between the teeth to prevent the closure of the jaws.

Fig. 71 represents the injection of the lachrymal ducts for the purpose of removing inflammation or an obstruction to the passage of the tears.

Fig. 72 represents the adjusting shoe used in the treatment of club-foot, and is a valuable aid in these cases.

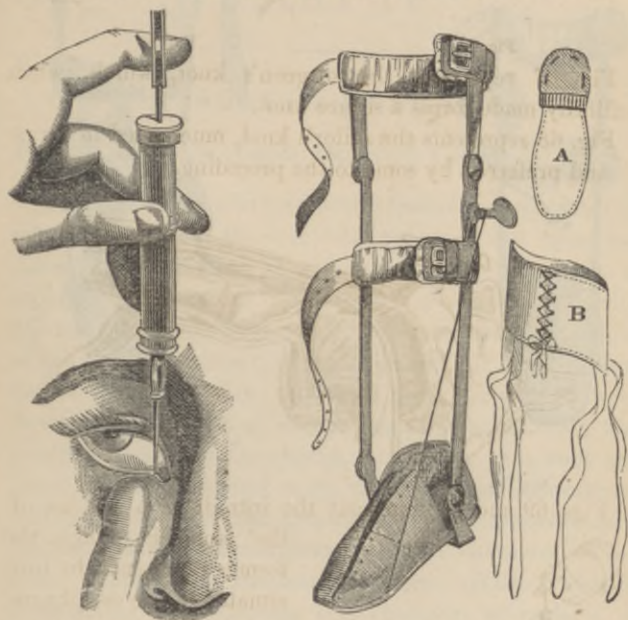


Fig. 71.

Fig. 72.

Fig. 73 represents a shoe which is used after the adjusting shoe has been removed, and before a common shoe can be worn.

Fig. 74 represents a shoe used in the treatment of bandy legs, and differs only from those previously described, in having two pieces of sheet-iron (A. and B.) which fasten around the leg, and are governed by means of a screw by which a greater or lesser amount of pressure may be exerted upon the part.



Fig. 73.

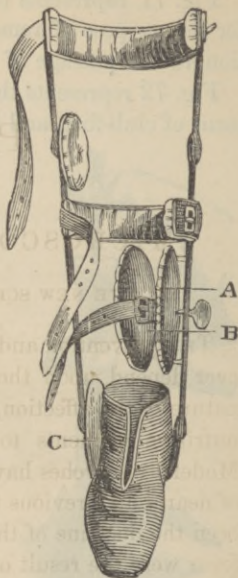


Fig. 74.

PART IV.

MICROSCOPIC RESEARCHES.

THE NEW SCHOOL PRACTICE A SCIENCE.

THE prevention and successful treatment of disease must ever depend upon the true knowledge of the cause and nature of the affection, as well as the proper adaptation of nutritive elements to the support of organic integrity. Modern researches have amply demonstrated the fallacies of nearly all previous theories of disease. It has long since been the doctrine of the profession that nearly all forms of fever were the result of miasm, vegetable or animal; that cholera, small-pox, scarlatina, and other cutaneous and chronic diseases depend upon the poisonous influence of malaria; but until the present time, no successful effort has been made to demonstrate the real character of this either supposed or absolute substance. With a view of determining the existence and character of malaria, or miasm, we instituted a series of experiments.

A family was seized with typhoid fever, which broke out apparently *de novo*, without any exposure so far as the patients knew, and appeared the same day in three members, and in two others the following consecutive days. The disease was of a malignant character, manifesting all the symptoms of typhoid. Upon searching for the cause, we found a crevice connecting the cellar with the water-closet, through which a small portion of the water passed, saturating the wall.

Around the damp portion there were numerous lines or spots of violet, blue, and pink colors. We gathered different samples of what appeared as dust, and upon submitting them to a microscopic examination, discovered them to be a cryptogamous vegetation, loaded with microscopic spores. Upon allowing them to dry on white tissue paper, they were soon carried away by the atmosphere in the room, they being so light that it was difficult to retain them on paper. We accumulated a section of the algæ, and introduced a portion of them into a weak solution of albuminous water, and the remainder in weak starch water. The water was maintained at a temperature of sixty-five, and we made daily microscopic examinations of the germinations, as we supposed, of the spores. At the expiration of nine days, instead of the production of algæ, to our surprise, they gave birth to microscopic parasites, belonging to the family of hematodes. These were placed upon a small section of the mucous membrane of a calf's stomach, and immersed in another weak solution of albuminous water. A daily examination revealed an increase in size, until the expiration of fourteen days, when they

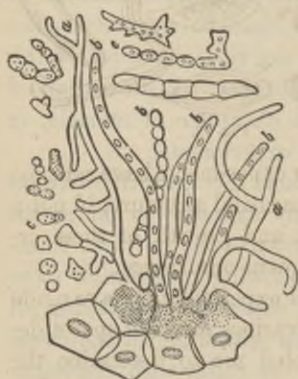


Fig. 75.

with *achorion schonleinii* (fig. 75). The fibril was filled

burrowed beneath small sections of mucous villi, and deposited great numbers of spores. These in turn were subjected to similar treatment, and gave birth to monards instead of hematodes.

Another experiment consisted in taking a section of mucus expelled from the nasal cavities of a young lady, who was laboring under a malignant catarrh. This was filled

with spores. When put into a solution of starch water and allowed to remain for fourteen days, it was found, upon examination, that the spores were giving birth to a parasite of the Order of Nemertidæ or Turbellarians. In another case the spores of *porrigo favosi* were subjected to a similar treatment, with the addition of albumen, when the solution became filled with *Anguillulidæ*, much resembling the common vinegar eel (*Sclerostoma*). The spores deposited by these were again subjected to the hatching process, and fresh mucous membrane added to the solution. The product thus formed was of the Order *Syngamus*, which adhered to the fresh mucous lining, developing until they were visible with the naked eye. These are believed to be identical with those found in birds, and in chickens, producing what is known as "the gaps."

The spores exhaled from the lungs of several consumptive patients were treated similarly, and they gave rise to the *Distoma Hæmatobium* (see fig. 76). In these cases fresh muscle was used instead of albumen.



Fig. 76.

The foregoing and many other experiments have satisfied me that the metamorphosis of parasital structure, if not a law regulating the development and growth of these organized beings, is at least of frequent occurrence.

The extensive observation and experiments I have made in reproducing or hatching the various forms of spores deposited by parasites have enabled me to determine the nature and character of a great many diseases heretofore unknown. In studying the habits of these parasites, I have

noticed that they only deposit their eggs, or spores, under suitable conditions, and in proper menstruum for reproduction. Thus the hematodes, or turbellarians, deposit their spores upon the mucous membrane, and, if maintained at a temperature above fifty, they hatch with great rapidity. But the young parasites are soon destroyed unless there is present a quantity of the lower form of algæ upon which to feed. The trematodes are developed from the spores of the turbellarians. They are minutely small, and are found in the excrement of nearly all reptiles, fishes, and many of the higher order of animals. The spores may even be absorbed by vegetables, such as potatoes, radishes, etc., etc., and in that form be introduced into the human system, where they hatch out, giving rise to a great variety of sporocystic diseases, such as diphtheria, scarlatina, measles, catarrh, consumption, etc. The sclerostoma deposits its spores in stagnant water, filthy drains, damp cellars, and other places where algæ forms. When the vapors or fluids in which these spores are deposited are introduced into the human system by inhalation, or swallowing, they develop into a species of the symgamus, and give rise to bronchitis, dysentery, croup, and other diseases of the mucous membrane. The sclerostoma will deposit its eggs in cider vinegar, and when the spore is hatched, it produces what is known as the vinegar eel.

The trichina spiralis, the condona hispida, and the many thousands of invisible and visible annelidæ are produced by the hatching and metamorphosis of the sporous-cysts.

An English scientist has discovered that typhoid fever was caused by fungoid growths around a well. A gelatinous matter on the spout of the pump showed numerous spores, which were constantly being washed into the well, and were drunk. He concluded, as would be perfectly natural, that the disease was caused by this fungous matter,

which, when taken into the system, fermented like yeast in beer, and so poisoned the blood.

In confirmation of what I have said, upon this subject, I here give some extracts from a statement handed me by an eminent chemist of this city, and am only sorry that the limits of my book will not allow me to publish the whole statement.

June 10th, 1855, he was taken with severe pain in the stomach and bowels, lasting three hours. A few hours after, it returned with increased violence, lasting nine days without a moment's cessation. He says: "The first day I vomited thirty-four times, and for a week not the smallest piece of toasted bread could be kept on my stomach. During the whole nine days, not the slightest movement of the bowels could be felt, and but for the pain, the idea would have suggested itself that the bowels were dead. I would take purgative medicines in double doses with very slight effect, and injections produced scarcely any discharge." Hot cloths, and fomentations of various kinds had no beneficial effect, and the only relief he found was in taking a tea-spoonful of proof spirits every ten or fifteen minutes and vapor baths. He continues: "At the end of nine days the pain left me even more suddenly than it came, leaving me, as I thought, quite well; but in twenty-one days from that time it came upon me again, and I had nine days more of the same pain, when it suddenly left me as before.

"In six weeks from this time I was taken the third time, and two or three days after, five other members of the family (eight in all) were attacked, all going through the same course I had gone through on two previous occasions. We had in attendance three Allopathic physicians, but none of them could give any clue as to the cause of the disease.

"As we lived in a village of about 3,000 inhabitants,

near Philadelphia, and as no others in the place had it, I was led to think that its origin must be in the house, and the fear of having it again led me to hunt it out. Having read a pamphlet by the late Dr. J. K. Mitchell, of the Jefferson College, wherein he speaks of the cryptogamous origin of fevers, and also of cases of blood-poisoning by cryptogamous vegetation, or vegeto-animal sporules, whereby patients lost their finger-nails after recovering from sickness—as I had just finished up my sickness by the loss of my toe-nails—I thought that my disease might originate from the same cause.

“As soon as I was able, I visited the cellar, a fine large one, divided by a partition, paved with brick, the walls in some parts plastered, and the whole cellar white-washed. I was astonished to find the whole wall covered with a beautiful rose-pink color, evenly distributed on every spot. On the top of this, in many parts of the walls, were streaks of deep red intermingled with green, and I instantly thought of what is said in Leviticus xiv. 33, concerning a plague in the house. On opening the door to the other part of the cellar, which had been used as a milk cellar, I observed the same appearance. It had two windows, and through a broken pane a number of toads had fallen. I picked up twenty-eight, twenty-three of which had not only “lost their finger-nails,” but some of them had lost half, and others nearly all of their hands, and were hobbling around upon the raw flesh.

“After fumigating with smoke, and white-washing thoroughly, fifteen years have passed with no return of the disease.”

The limits of the present work will not admit of a detailed account of my discoveries and observations in reference to all forms of malaria, nor of the real character of consumption, dyspepsia, liver, bowel and kidney diseases, cancer, syphilis and most other acute and chronic affec-

tions. These observations, together with new discoveries in therapeutics, we contemplate embodying in another work devoted exclusively to these subjects. Suffice it to say that we have found these parasites in the blood, lungs, liver, and in all the tissues of the body. In many diseases the presence of spores alone produced the morbid changes upon which the pathological conditions depended. Our *Catarrh Vapor*, *Anti-periodic Pills*, *Leucorrhœa Pills*, and many other remedies we have discovered, have a direct influence to destroy the vitality of these microscopic beings, and thus remove the diseases they have been found to produce.

Trychophyton Tonsurans derived from *trix* (hair), and "phyton" (plant). *Tonsurans* means to destroy. (See fig. 77.) The scalp affected with them is dry, and covered with fine dust. The hairs split, break off, and eventually fall out, leaving the head bald. The microscope reveals a great number of irregularly grouped spores. They are effectually destroyed by bathing the head with Mecca oil once a week, and washing it thoroughly with warm water and soap. The oil should be applied at night, and followed by the soap and water bath in the morning, so as to completely remove the oil.



Fig. 77.

This treatment should be followed by a small quantity of Mecca oil pomade every day.

Microsporon Andouini is a parasite of a different species, but very much resembling the above. It produces a similar disease, and may be cured in the same way.

Microsporon Mentogrophyles and *Microsporon Furfur* are found in sycosis, or barber's itch and pityriasis. They consist of spores, but are imbedded beneath the epidermis. In order to destroy them the parts should be washed with a strong solution of the sulphate of zinc.



Fig. 78.



Fig. 79.

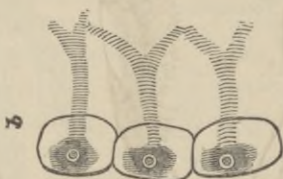


Fig. 80.

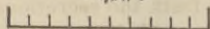


Fig. 81.



Fig. 82.

Achorion Schonleini.—This parasite consists of hollow fibrillæ branching from a stock. The cylinder is filled with spores. This parasite is liable to form around the nails and produce what is called run-a-round. It may be destroyed in the same way as the form spoken of above.

Epizoots.—These consist of a variety of animal parasites that afflict the human body. The more common of them are the *Pediculus vestimenti* (harvest flea), *Pediculus capitis* (head louse); (figs. 78 and 79 represent the antenna, and 80 the trachea of the same).

Pediculus Pubis is a small insect that infests the hairy portion of the sexual organs. (Fig. 81.)

These parasites can all be removed by washing the parts in hot castile soap and water, and applying Mecca oil every night. It must be remembered that these parasites deposit spores, and that the application should be continued for a week or ten days after all traces of the insect are removed.

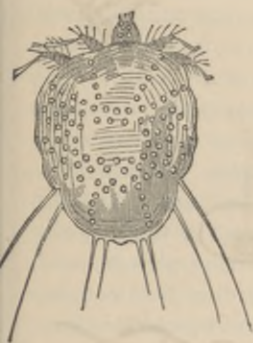


Fig. 83.



Fig. 84.



Fig. 85.

The *Trichomonos vaginalis* (fig. 82) are parasites hatched from spores (see spores in the fig.) from the secretions of the vagina in cases of leucorrhœa; and it is probable that in chronic cases of this kind, they are a cause of the disease. They can be removed, and the spores effectually destroyed, by a weak solution of permanganate of potash and Mecca oil being injected in the parts two or three times a day.

The itch is now known to be caused by an insect called

the *Acarus Scabiei*, and is represented in the foregoing cuts.

They burrow beneath the cuticle in some soft and moist portion of the skin. They travel from one person to another while lying in contact, and thus the disease spreads. The female is very much smaller than the male, and they usually travel in pairs.

Fig. 83, dorsal surface of female acarus scabiei; fig. 84, side view of same; fig. 85, abdominal view of the male acarus magnified 100 diameters.

Cured with Mecca oil and sulphur.

ENTOZOON FOLLICULORUM.



Fig. 86.

This insect inhabits the sebaceous follicles of the skin, and is very common in the face, more especially when the seat of acne or small pimples. In the follicles of the nose they are present in the majority of living persons, and, according to Simon, are almost universal in dead bodies. He frequently found them living six days after the death of the individual in whom they were found. The animal measures from 1.135th of an inch to 1.64th of an inch in length, and from 1.155th

of an inch to 1.555th of an inch in breadth. It is composed of a head, a thorax, and an abdomen.

CUTANEOUS ERUPTIONS AND ULCERS.

Pus taken from all kinds of eruptions and sores, presents the same appearance; thus, the pus taken from eczema and variola is identical in character. Squamous eruptions of the skin consist of psoriasis, pytyriasis, and ichthyosis. The dry scales, found on the surface in these diseases, consist of flakes of epidermis, more or less aggregated together. The tumors found on the skin which are of an epidermic character, assume the forms of callosities, condylomatous warts, and corns. They all consist of epidermic scales, more or less condensed. The favous crust consists in epidermic scales, lined with a fine granular mass, from which millions of cryptogamic plants originate and fructify. In cutaneous ulcers of a healthy character the surface is covered with normal corpuscles. In scrofulous or unhealthy sores the pus is more or less broken down. In cancerous ulcers of the skin the fluid obtained from the ulcer will be observed to be full of cancer cells. (See fig. 87.)

Appearance of section of cancerous ulcer of the skin. a, epidermic scales and fusiform corpuscles on the external surface; b, groups of epidermic scales; c, fibrous tissues of the dermis; d, cancer-cells infiltrated into the fibrous tissue, and filling up the loculi of the dermis.



Fig. 87.

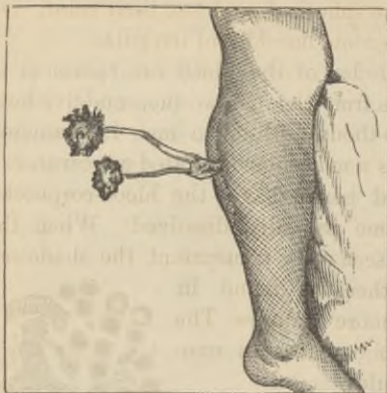


Fig. 88.

Fig. 88 represents a vegetation as it occurred in a boy's limb who had been suffering from a scrofulous ulcer. The boy was of a consumptive constitution, and was very much reduced by the extensive discharge of tuberculous matter. This cryptogamous vegetation

made its appearance at night, and by twelve o'clock next day, was in full bloom as represented in the figure.

The Blood.

On examining a drop of blood, there will be seen a large number of bi-concave discs, rolling in the field of the microscope, which soon exhibit a tendency to turn upon their edge, and arrange themselves in rolls, like rouleaux of coins. These rouleaux, by crossing one another, dispose themselves in a kind of net-work, between which may be seen a few colorless spherical corpuscles, having a molecular surface, and a few granules. The colored blood-corpuscles vary in size from the one-five-thousandth to the one-three-thousandth of an inch. Owing to their bi-concave form they present a bright external rim, with a central shadowed spot, or a bright centre and dark edge, according to the focal point in which they are viewed. If the blood be exposed to the air a little time before examination, or if obtained by venesection, the edges of the corpuscles may often be observed to have lost their smooth outline, and to have become irregular, notched, serrated, beaded, &c. On the addition of water,

the blood discs become spherical, and lose their color. On adding syrup, they become flaccid and irregular.

The colorless corpuscles of the blood are spherical in form, and vary in size from the one-two-thousand-five-hundredth to the one-two-thousandth of an inch in diameter. Their surface presents a molecular or dotted appearance.

In certain internal hemorrhages the blood-corpuscles break down, or become partially dissolved. When the external envelope is seen very transparent, the shadowed spot disappears, and there is found in their interior one or more granules. The liquor sanguinis also contains an unusual number of granules.

EXPLANATION of Fig. 89. Blood-corpuscles, drawn from the extremity of the finger. On the left of the figure they are isolated, some flat and on edge, some having a dark and others a light centre, according to the focal point in which they are viewed. On the right of the figure several rolls have formed. Two colorless corpuscles and a few granules are also visible.



Fig. 89.

We have seen that, in a healthy condition, the blood possesses very few colorless corpuscles; but there is a certain state of that fluid called "Leucocythemia," Fig. 90, or white-cell blood, in which they are very numerous, and generally associated with enlargement of the spleen, or other lymphatic glands.

It has been affirmed that the color and number of the corpuscles of the blood undergo a change in plethora, fever, jaundice, dropsy, cholera, etc. I have never been able to satisfy myself that any such changes were observable in these diseases by means of the microscope.



Fig. 90.

In chlorosis the number of the blood-globules is undoubtedly diminished; but this is determined by the size of the clot, rather than by microscopic demonstration.

LEUCOCYTHÆMIA.

When the human blood is examined under the microscope of two hundred and fifty diameters, it will be observed to be composed of two sets of small, round bodies of different colors. These are the white and red corpuscles. (See fig. 91.) The small, round bodies which are aggregated together, and arranged in rows, are the red corpuscles; and the small bodies which are separate, and appear to be filled with granular matter, are the white ones. Fig. 92 is the same after the addition of acetic acid.



FIG. 91.

FIG. 92.

In the normal state the number of red corpuscles is very large, in comparison to those of the white, about the propor-

tion as represented in fig. 91. In leucocythæmia the white blood-corpuscles become abundant, while the red blood-corpuscles either remain stationary, or are diminished in number. It is now generally considered by physiologists that the colored corpuscles are formed from the colorless ones; but Mr. Bennett, in connection with some others, is of the opinion that the colored blood disc is merely the liberated nucleus of the colorless cells. Of the mode of transformation he remarks, that the colorless cells may frequently be seen, on the addition of acetic acid, to have a single round nucleus; but more commonly the nucleus is divided into two, each half having a distinct depression presenting a shadowed spot in the centre. Occasionally, before the division takes place, the nucleus be-

comes oval, and sometimes bent, and even of a horse-shoe form.



FIG. 93.

Fig. 94 shows the development of

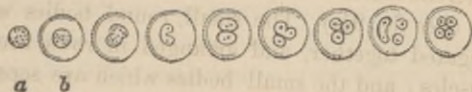


FIG. 94.

the nucleus in colorless blood-cells; *a*, as found in the lymphatic vessels; *b*, increased development. Mr. Bennett regards the formation of white blood nuclei as dependent upon the aggregation of granules in the chyle; and that in the lymphatics, or blood-glands, which consist of the spleen, thymus, lymphatics, thyroid, and supra-renal capsules, they undergo still farther development. Fig. 95 shows the order of the development. He also

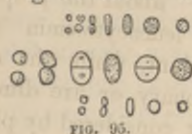


FIG. 95.

claims that the liberation of the nucleus, and its transformation in the lungs, constitutes the red corpuscles. Fig. 96 shows the nuclei of the blood-cells after the addition of acetic acid. From this

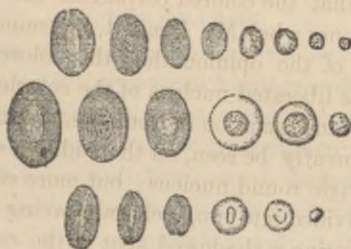


FIG. 96.

hypothesis or theory of the development of the formation of blood, Mr. Bennett infers that many of the most important pathological changes of that fluid depend upon a disordered condition of the blood-glands; and in leucocythæmia his observations appear to be confirmed, as it has been shown in this disease that the blood-glands are the primary seat of the difficulty.* He explains the disease by showing that when these organs are diseased the cell elements of the white blood-corpuscles circulate in the blood without undergoing transformation into red blood-corpuscles, thus producing a superabundance of white blood-cells, and a corresponding diminution of the red blood-corpuscles.

SYMPTOMS.

This disease usually commences very slowly, frequently continuing for years previously to manifesting its fatal symptoms. The first indications of its approach are slight dyspeptic symptoms connected with disordered respiration, which frequently amounts to more or less dyspnœa. In connexion with these symptoms there is a peculiar, light sallow complexion. As the disease advances, the spleen, liver, kidneys, and lymphatics will be found enlarged, and otherwise disordered. These symptoms are usually followed by dropsical deposits in various organs and tissues. They generally increase, and become more malignant until death occurs.

TREATMENT.

The treatment for leucocythæmia has not been very successful. A case that I have at this time under the following treatment appears to be improving. He is taking chimaphilin, one dram; ferri hypo-phosphite, one-half dram; aluïn, two drams; cod liver oil, six ounces. A mixture is formed by trituration, and one teaspoonful taken every three hours during the day. In connection with this treatment, hot friction baths are given, and the

patient ordered a nutritious diet. In a few cases that I have treated, in connection with the above remedies I have found a free lobelia emetic, administered every two or three weeks, to be of advantage.

On examining the minute structure of the exudation on a serous surface when recently formed, and when it presents a gelatinous, semi-transparent appearance, it will be found to be made of minute filaments mingled with corpuscles. (Fig. 97, molecular fibres and plastic corpuscles, in simple exudation on a serous surface; letter *a*, after the addition of acetic acid.) The filaments are not the result of the development of either a nucleus or a cell, but are formed by the simple precipitation of molecules, which arrange themselves in a linear manner, in the same way as they may be seen to form in the buffy coat of the blood.



FIG. 97.

These corpuscles, after a time, melt away among the fibres; but several of them remain, constituting, as shown by Dr. Drummond, permanent nuclei. After a time blood-vessels grow in the exuded lymph, (see Vascular Growths,) the surface of which becomes villous. Into the villi, loops of vessels penetrate, and by these the fluid contained in the interior of shut sacs, is absorbed. The fluid thus gradually diminishes, and, when the villous surfaces are brought into contact, they unite, and ultimately form the dense chronic adhesions so common between serous membranes. (Fig. 98, a portion of recent lymph from the pleura. Fig. 99, another portion of the same, farther developed. Fig. 100, portion of firm pleural adhesion. Fig. 101, another portion of the same, farther developed. Fig. 102, the last acted on by acetic acid.)



FIG. 102.



FIG. 101.



FIG. 100.



FIG. 99.

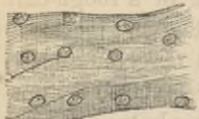


FIG. 98.

Exudation poured out on a mucous membrane, sometimes presents a fibrous mass, as in cases of croup and diphtheritis; but more generally it passes into an opaque, unctuous, straw-colored fluid, long known under the name of pus. When poured into the meshes of areolar tissue, and occasionally into the substance of the brain, the same transformation occurs, and then forms an abscess. On examining the minute structure of pus, it is seen to be composed of numerous corpuscles floating in a clear fluid. These corpuscles are perfectly globular in form, and vary in size from the one-two-thousandth to the one-one-thousand-two-hundredth of an inch in diameter. Their surface is finely granular. They have a regular, well-defined edge, and roll freely in the liquor puris upon each other. On the addition of water, they become much in-

creased in size, and more transparent, their finely granular surface disappearing. Weak acetic acid partially, and the strong acid completely, dissolves the cell-wall, and brings into view the one included body, generally composed of two or three granules close together, and rarely four or five, each with a central shadowed spot. These are usually about the one-six-thousandth of an inch in diameter. (Fig. 103, pus cells. Four cells have been acted on by acetic acid. Fig. 104, pus cells containing fatty molecules, after



FIG. 103.



FIG. 104.

adding acetic acid.) In some cases the pus corpuscles now described are surrounded by an albuminous layer closely resembling a delicate cell-wall, which I first described in 1847. It is about the one-ten-thousandth or one-eight-hundredth of an inch in diameter, and is highly elastic, assuming different shapes, according to the degree and direction of the pressure to which it is subjected. Water and acetic acid cause it at once to dissolve, whilst the included pus corpuscles exhibit the usual body composed of two or three granules.

Pus cells, if not evacuated externally, ultimately dissolve, their walls disappear, the included nuclei and granules separate, and are converted into a fluid. This passes into the blood, increases for a time its effete constituents, but is at length excreted by the emunctories. Meanwhile the original abscess, or collection of matter is said to be *resolved*.

In parenchymatous organs, the exudation insinuates itself among the elementary tissues of which they are composed, so that, when it coagulates, those are imprisoned in a solid plasma, like stones in the mortar of a rough-cast wall, thus constituting a firm mass, and giving increased density to certain organs. This is well observed in the lungs, where, however, a mucous surface extensively prevails, and where the exudation is commonly transformed into pus. In the brain, spinal cord, and placenta, we find the exudation deposited in the form of minute molecules and granules, which are frequently seen coating the vessel externally, and filling up the intervascular spaces. (Fig. 105, granular exudation and granular masses, from cerebral softening.) The granules vary in



FIG. 105.

size from the one-twelve-thousandth to the one-six-thousandth of an inch in diameter. They always contain among them round, transparent globules, varying in size from the one-five-thousandth to one-three-thousandth of an inch in diameter. These are the nuclei of round or oval cells, which may frequently be observed in various stages of development. When fully formed, the cells vary greatly in size, for the most part measuring from the one-thousandth to the one-hundred-and-seventy-fifth of an inch in diameter. They sometimes contain a few oil granules only, at others they are so completely filled with them as to assume a brownish-black appearance. Water and acetic acid cause no change in them; although the latter re-agent, on some occasions, renders the cell-walls more transparent. They are readily soluble in ether, and break down in a molecu-



FIG. 106.

lar mass on the addition of potash and ammonia. These are granule cells. (Fig. 106, granular cells and masses from cerebral softening.) Masses of these granules may be seen floating about, of irregular shape, without any cell-wall. They are produced either by the solu-

tion of the cell-wall in which they are contained, or from the separation, or peeling off of such masses from the external wall of the vessels, and form granular masses. Pressure causes these granules to coalesce, or the air to be forced through the cell-wall; occasionally, also, the cell-wall is ruptured.

The granules, masses, and cells just described, are found in the colostrum secreted by the mammary glands in the exudative softening of parenchymatous organs; on the surface of granulations and pyogenic membranes; in the pus of chronic abscesses, combined with cancerous, tubercular, and all other forms of exudation; in the tubes of the kid-

neys when affected with Bright's disease, and in the contents of encysted tumors. In fact, there is no form of cell growth, whether healthy or morbid, that may not, under certain conditions, accumulate oil or fatty granules in its interior, become a compound granular corpuscle, and thus be rendered abortive. The granule cells in an exudation, however, are the results of a vital transformation of that exudation, and not of a mere fatty degeneration of the vessels, as some have supposed. In some instances I have seen them in all stages of development



Fig. 107.

coating the blood-vessels, as in fig. 107. (Fig. 107, two vessels coated with exudation from softening of the spinal cord. Granular cells may be seen forming in it). That softening from the formation of granules and granular cells may occasionally disappear, and the new structures be absorbed, is rendered probable by the history of several well-recorded cases; but the changes thereby produced, especially in nervous textures, have not hitherto been made the subject of special investigation.

If a recently-formed granulation on the surface of a healing sore be examined, numerous cells will be observed of various shapes, and in different stages of development. Some are round, others caudate, spindle-shaped, elongated, or splitting into fibres, as originally described by Schwann. (Fig. 108, vertical section of a granulating sore. Externally, pus corpuscles, deeper fibre-cells in various stages

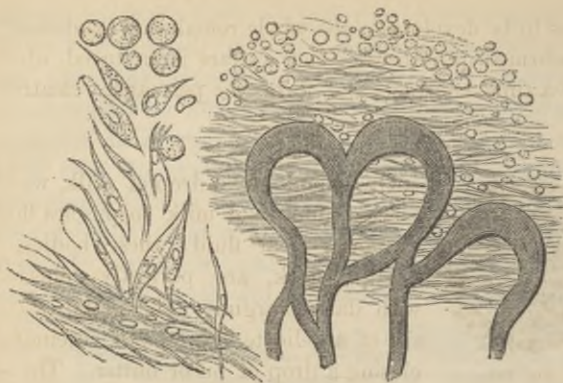


Fig. 108.

of development into fibre. The looped blood-vessels are seen enlarged at their extremities, *magnified one hundred diameters linear*. On the left, the cells are *magnified two hundred and fifty diameters linear*). In many cases there may be seen a number of free nuclei imbedded in a slightly fibrous blastema, elongating at both ends, becoming fusiform, and splitting up the surrounding exudation, as described by Henle. Not unfrequently the nuclei may be seen developing themselves into elastic fibres, in the same exudation which contains cells that are passing into white fibres. Indeed, the process of cicatrization in its various stages, and in different tissues, offers the best means of studying the manner in which nucleus and cell fibres are respectively formed. As these fibres are developed in the deeper layers of the exudation, a villous, vascular basis is formed, and the superficial pus corpuscles, after having served to protect the more prominent growths, are thrown off in the form of discharge. When the fibrous structure becomes more consistent and dense, the amount of pus diminishes, and a greater tendency is manifested by the exudation to pass into permanent tissue. At length pus

ceases to be developed; the whole remaining exudation is transformed into fibres; a new surface is produced, which, after a time, contracts and forms the permanent cicatrix.

Milk.



Fig. 109.

On examining a drop of milk, we observe a number of milk corpuscles floating in a clear fluid; these bodies, in healthy milk, are perfectly spherical, with dark margins. The globules consist of a delicate envelope of caseine, enclosing a drop of oil or butter. The act of churning consists in liberating these fat corpuscles, which accumulate in a mass, and constitute the butter. The richness of the milk is determined by the quantity of the globules; the various adulterations of milk are determined by the number and character of the corpuscles. Water separates the globules. Flour exhibits the large starch corpuscles, which are changed blue by the action of iodine. Chalk shows numerous irregular mineral particles. Brain substance can be distinguished by large oil globules, mixed with nerve tubes. Healthy milk may be recognized by the uniformity and size of the globules. In some cases milk is mixed with pus and blood, in which event it can be distinguished by the characteristics of these substances.

Pus.

Normal, or good pus, when examined under a microscope, is found to consist of numerous corpuscles, floating in a clear fluid, the *liquor puris*. The corpuscles are globular in form, having a smooth margin, and finely granular surface. They vary in size from the one-two-thousandth to the one-one-thousand-two-hundredth of an inch in diameter. In some of them there may be generally observed a round or oval nucleus, which is very distinct on the addi-

tion of water, when also the entire corpuscle becomes distended from endosmosis, and its granular surface is more or less diminished. On the addition of strong acetic acid the cell-wall is dissolved, and the nuclei liberated in the form of two, three, four, or rarely five granules, each of which has a central shadowed spot. If, however, the reagent be weak, the cell-wall is merely rendered transparent and diaphanous, through which the divided nucleus is very visible.

Occasionally these bodies are seen surrounded by another fine membrane, as in fig. 110. At other times



Fig. 110.

Pus corpuscles, as seen in healthy pus.

The same, after the addition of acetic acid.



Fig. 111.

they are not perfectly globular, but present a more or less irregular margin, and are associated with numerous molecules and granules. This occurs in what is called scrofulous pus, and various kinds of unhealthy discharges from wounds and granulating surfaces. In gangrenous and ichorous sores we find a few of these irregular pus corpuscles associated with a multitude of molecules and granules, and with transformed and broken-down blood globules, the debris of the involved tissues, etc., etc.—(*Bennett*).

In scrofulous affections the pus corpuscles present an irregular and disorganized appearance.

HOW TO EXAMINE CASES.

The general principle of sounding the lungs and other parts of the body to discover diseased portions, may be learned from the following diagrams. It is necessary first to know the exact positions of the different organs,

and then to study carefully the different sounds given in healthy persons, comparing them with others in disease. A drum or a barrel, filled with water, gives a different sound from one empty. This is the method of comparing healthy and diseased portions of the body.

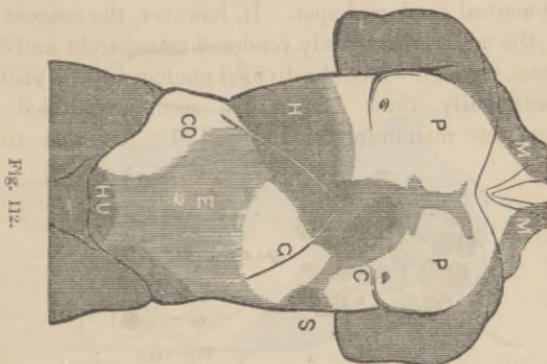


Fig. 112.

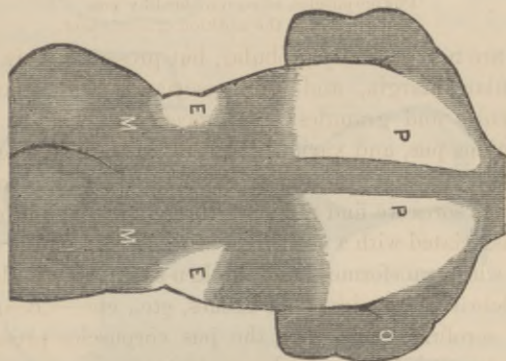


Fig. 113.

Fig. 112 represents a front view, and Fig. 113 a back view. For the lungs in a healthy person we listen and sound at PP; the heart at C; the liver at H; the spleen at S; the stomach at G; the bowels at E; the colon at CO; the bladder at HU; the muscles at M; and the bones at O.

Thus by very closely examining persons in good health, and becoming familiar with the various sounds, very slight departures may be discovered in those diseased; and it is only by much practice and close observation, that any one can become proficient in this department of medical observation.

FIG. 114.

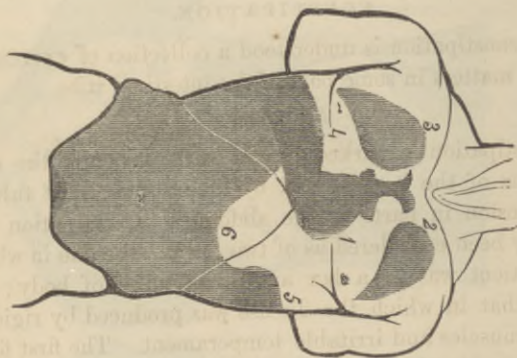
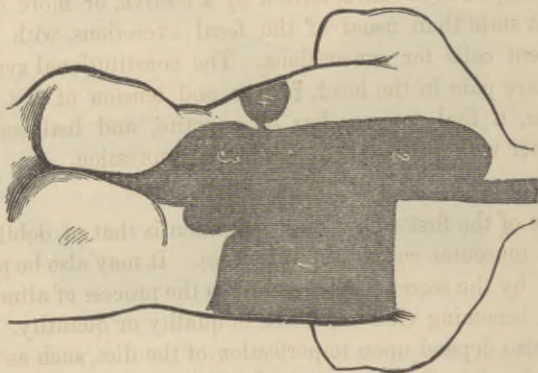


FIG. 115.



In the following figures we have represented a few points where disease has begun its work. Fig. 114 represents phthisis, atrophied heart and liver. 1. Atrophied heart; 2. Inflated tubercles on the left side; 3. The same

on the right; 4. Atrophied liver; 5. Spleen; 6. Unusual dullness over abdomen from prolonged abstinence.

Fig. 115 represents pleurisy. 1. On the right side, when in the erect position; 2. On the left side, when lying on the right; 3. Kidneys; 4. Spleen.

CONSTIPATION.

By constipation is understood a collection of excrementitious matters in some part of the intestinal tube.

Symptoms.

Constipation is marked by the infrequency of the evacuations of the bowels, and by the occurrence of fulness and tension in parts of the abdomen. Constipation has usually been considered as of two forms—the one in which the patient was of a lax and weak habit of body; the other that in which the disease was produced by rigidity of the muscles and irritable temperament. The first form of constipation is characterized by a costive, or more consistent state than usual of the fecal excretions, with less frequent calls for evacuations. The constitutional symptoms are pain in the head, fulness and tension of the abdomen, a foul tongue, loss of appetite, and listlessness, together with an undefinable sense of oppression.

Causes.

One of the first causes of constipation is that of debility of the muscular coat of the intestines. It may also be produced by the secretions concerned in the process of alimentation becoming vitiated, either in quality or quantity. It may also depend upon imperfection of the diet, such as introducing into the stomach food which can be only imperfectly dissolved in the gastric secretions; also by food which lacks the proper quality of nutrition. Constipation is also a very common occurrence as the result of a morbid state of the brain and nervous system. The nerves and

brain, when diseased, fail to dispense to the bowels that amount of nerve influence essential to their healthy condition. Again, constipation may be produced by irritating medicines, and the constant use of drastic purgatives. It may also be produced by excessive secretions from other portions of the body; as elimination is carried on from the body by the various emunctories, and when there is an ex-

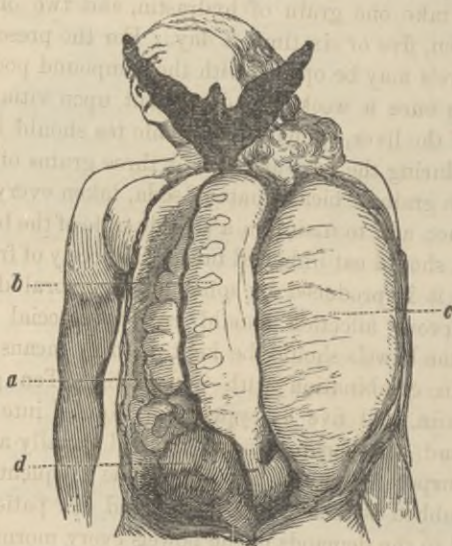


Fig. 116.

cess of elimination from one, it is proportionately diminished in another. Mental emotion, grief, anxiety, etc., also produce constipation. It may also occur as the result of stricture of the rectum, or other portions of the bowels. A remarkable case is shown by Mr. Easton, in which there was an accumulation of fecal matter in the ascending colon.

(Fig. 116. Remarkable displacement of organs, in consequence of intestinal obstruction. *a*, Caput coli; *b*,

Ascending portion of sigmoid flexure; *c*, Descending portion; *d*, Gravid uterus turned a little down.)

Treatment.

In the treatment of constipation of the bowels, the cause or causes of the difficulty should be carefully studied. If dependent upon a weak and lax state of the muscular fibre, hydrastin and iron are the remedies; say, let the patient take one grain of hydrastin, and two of iron by hydrogen, five or six times a day. For the present relief, the bowels may be opened with the compound podophyllin granule once a week. If dependent upon vitiated secretions of the liver, stomach, etc., tonic tea should be drunk freely during the day, and two or three grains of frazerin, and one grain of bicarbonate of soda, taken every night at bed-time; and to maintain a soluble state of the bowels, the patient should eat unbolted bread, and freely of fresh fruits. Where it is produced by spinal and cerebral difficulties, the nervous affection should receive especial attention, while the bowels should be kept open by means of euonymin, in combination with cypripedin. Ten grains of euonymin, and five of cypripedin, divided into two powders, and one morning and night, will usually accomplish this purpose. The surface should be frequently bathed and rubbed with a coarse towel, and the patient should attend to the demands of the bowels every morning.

CORNS AND BUNIONS.

One of the most prolific causes of corns and bunions is the wearing of tight boots and shoes. It seems that the Chinese custom of pinching the feet is gaining ground in most of the enlightened countries of the world. Both men and women must have their boots or shoes set like plaster-moulds to their feet, so that every motion will cause friction on some of the joints, and therefore corns and

bunions follow. Every shoemaker knows, as our cut represents, what pulling at the boot straps is necessary in order to get on a boot sufficiently small, so that no wrinkles shall make their appearance. Ladies with delicate, high heels, throwing their feet with all their weight down into the toe of the shoe, or allowing the foot to turn upon every little obstacle trod upon, thus wrenching the feet, or producing calluses upon different parts, will continue to do so just because it is the fashion. The pains



Fig. 117.

experienced are trifling compared to the disgrace of being out of fashion. Troublesome sore feet for after life are never thought of. It is a true saying that *they that dance must pay the fiddler*.

To cure these troublesome things wear boots and shoes of proper size, and apply a mixture of equal parts of Mecca oil and tr. iodine. If this should not cure them, a few applications of the author's corn and bunion ointment should be made.

ULCERS.—There are many kinds of ulcers, arising from different causes. Almost every kind of a sore, where there is a secretion of either pus or other fluid, is commonly called an ulcer. They may arise from an enfeebled state of the blood, when almost every bruise or wound can hardly be healed, or from some poison absorbed into the blood, as in syphilis, the use of mercury, etc. Perhaps the most common places are the legs and feet. Some are of a healthy character and heal rapidly of themselves; others are sluggish and are hard to heal.

The treatment consists in correcting the disordered condition of the system, and applying the Mecca oil ointment.

ANCHYLOSIS.—This is an immobility of a joint, frequently arising from violent injuries, or of diseases of the part. It is best treated by stimulating liniments, brisk friction, local steam baths, and extension splints and bandages.

ABSCESSSES.—A collection of pus in any tissue of the body, is termed an abscess. There are many kinds frequenting different parts of the body. They generally first appear in a gradual swelling, with or without much pain, passing on to suppuration. If they are superficial they often open of themselves, but if deep-seated may require lancing. They may occur on almost every part of the body; but the neck, the groin, the axilla, and other parts where there are secreting glands, are very liable to them. Boils, carbuncles, buboes, scrofulous gatherings, etc., are some of the different names by which they are commonly known. When it is desirable to bring them to a head, a hot poultice of slippery-elm, flax-seed, and pulv. lobelia should be applied, and changed frequently.

PARONYCHIA, Whitlow, or Felon.—This is an abscess which frequently forms at the end of the finger, and often causes the loss of a joint unless seasonably and effectually treated. They are extremely painful, and when deep-seated, attended with great danger to the finger. The pain

may commence suddenly, keeping the patient awake at nights, and still show no evidence of the trouble. If allowed to go on, the loss of a joint is pretty sure. A deep incision should be made at once, and a poultice applied as hot as can be borne. Laudanum, tr. lobelia, and arnica may be used to moisten the poultice with, when the pain is great.

WHITE SWELLING, or *Hydrarthrus*.—This disease may attack either children or older people of middle life. It is a slow, insidious disease, and may appear first as a simple stiffness of the limb, which gradually swells, and in some months, or it may be years, an abscess forms and opens near the joint or at some distance from it. There is generally but little pain, but a sense of uneasiness. Sometimes it comes on without any assignable cause, though it is generally the consequence of exposures to cold, or makes its appearance after fevers, and in persons of a scrofulous or consumptive constitution. The treatment consists in building up the system by the use of the blood, stomach, and liver tonic, and anti-periodic pills, with the application of the rheumatic liniment, and tr. of iodine; and when it is necessary to open the swelling, hot poultices, as in the case of abscess should be applied. To prevent opening, cold packs may be used.

NECROSIS, or *Caries*.—This is a disease of the bones, and denotes death or decay of the part attacked, and may arise from ulcers, syphilis, mercury, scrofulous taint, inflammation, or the want of bone matter in the food. The treatment is the same as for scrofula.

HIP DISEASE, or *Morbus Coxarius*.—The causes of this disease are the same as those producing necrosis, of which it is one variety. Frequently falls, dislocations, bruises, etc., are the forerunners. The pain seldom commences at the seat of the disease, but may be in the knee, foot, etc. Deformity of the limb is an early symptom, as well as the produc-

tion of constitutional effects. Excruciating pain follows whenever the leg is pressed upward, making it difficult to walk. It is a disease of childhood. An irritating plaster should be applied, and continued until a thorough discharge from the surface is produced. This may be followed by the Mecca oil ointment until the parts heal, when the irritating plaster should again be applied. This course of treatment should be repeated as often as necessary, and the limb supported by one of the author's splints, and the constitution thoroughly built up with antiperiodics and tonics.

HERNIA, or Rupture.—A protrusion of any organ from its proper cavity is denominated a hernia. The names which have been given to the different forms are *omental*, *intestinal*, *gastric*, *cystic*, or otherwise, according to the organ misplaced. Inguinal hernia, is the most common, and often is termed strangulated.

Symptoms.—The tumor increases in size, is hard and tense. The patient is restless and has obstinate constipation, the pulse full and hard, skin hot and pungent, the tumor of a dark purple color, extremely painful, nausea and vomiting, cold and clammy sweat, and eventually death. The operation for the strangulated hernia is fully described in works on surgery. For a cure of rupture, the irritating plaster with the author's radical-cure-truss is all that is necessary in adults or children, male or female.

BURNS AND SCALDS.—Where burns or scalds are slight, almost every thing has its advocates as a remedy. Anything that serves to protect the part from the air is useful. Where there are blisters, care should be taken not to tear off the skin and thus expose the flesh to the air. The blisters should be carefully pricked with a needle or lancet to let out the fluid. The part should be immersed immediately in cold water, and remain in it until the smarting ceases, which will usually prevent blistering. Fine flour

mixed with a little Mecca oil, or cotton, or wool, packed closely around the burn, will also prove beneficial. Lime-water and sweet oil are also used. Where the burn or scald is severe, a stimulant of brandy or whiskey should be administered immediately, and followed by a little aconite as soon as reaction takes place.

VACCINA.—Vaccina, or cow-pox, is a variety of exanthematous disease, communicated by inoculation or vaccination, and serves materially to lessen the susceptibility of the system to the contagion of small-pox. The best time to vaccinate is when the child is from three to six months old. Only pure lymph should be used from the cow or a healthy person, when the pox is about five days old. Slight scratches or punctures should be made on the arm with a lancet or knife, just through the outer skin, where the lymph should be applied. The operation will be followed, if successful, in a few days by inflammation at the point of puncture, suppuration and fever. Great care should be used that matter be not used from persons troubled with scrofula, syphilis or other infectious diseases.

OBSTRUCTION OF THE BOWELS.—This disease is sometimes sudden in its attacks; at other times, it approaches slowly with the ordinary symptoms of constipation. The most prominent symptoms are, constant vomiting of the contents of stomach, and mucus at first, but soon becoming of a fecal nature, swelling of the bowels, hiccough, great depression of spirits and constipation.

Causes.—Accumulation of hardened feces, stricture, foreign bodies, organic tumor, twists or displacements of the intestines, solid concretions, &c. I have cured a few cases by pumping into the bowels a large quantity of warm water, and a little tincture of lobelia. Two ounces of the tincture to four quarts of water may be used.

DIARRHŒA.—*Symptoms.*—Generally preceded by a sense

of indigestion, fulness of the stomach, flatulency, and more or less pain resembling colic. The pain generally subsides after an evacuation, and returns as an indication of another discharge.

Causes.—Improper diet, weakness of the stomach, indigestion, unwholesome drinks, &c. Sometimes it is symptomatic, as in children while teething.

Treatment.—One tea-spoonful of the neutralizing cordial may be given every hour, and in bad cases the following: Take sulphuric acid, one dram; water, six ounces; sulphate of morphine, two grains; mix; dose one tea-spoonful every half hour until the disease is cured, which will not fail.

SORE THROAT.—In this disease we include the more technical terms, *laryngitis* and *pharyngitis*. It may be of any degree of severity, from a simple sore throat to extensive ulcerations, and loss of voice. The *tonsils* may become enlarged from inflammation, and from continued irritation become permanently enlarged. Catarrh vapor, acetic syrup of sanguinary and tonics will cure it.

BRIGHT'S DISEASE.—This is a disease of the kidneys, attended with a dropsical condition of the patient, which has baffled the skill of physicians to a very great extent. The disease occurs gradually, and more frequently attacks people advanced in years, suffering from cardiac and bronchitic disorders.

Symptoms.—Gradual increasing debility, irritable pulse, pallor and fulness of the face, as well as of the skin generally, frequently passing of urine laden with albumen, dyspepsia and vomiting.

Treatment.—The best treatment consists in the use of helonin and brandy, (see helonin); and the antiperiodic pills should be taken every seven days, and the diet as directed under that head.

APHONIA.—Aphonia, or loss of voice, may arise from

anything that causes an inflammation of the larynx, and may vary from an impairment to a complete loss of voice, and is more frequently found in women than men. The causes are protracted, or exhausting sickness, excessive efforts at singing or speaking, sudden exposures to cold, affections of the nerve centres, and in persons of a consumptive constitution. The treatment consists in the use of catarrh vapor, and the Mecca oil compound with tonics and a proper diet.

INFLUENZA, or Common Cold, much resembles catarrh, only in an aggravated form. Sometimes it produces only slight disturbances; again, it appears in an epidemic form. The catarrh vapor and antiperiodic pills will cure it.

STOMATORRHAGIA.—Stomatorrhagia, or discharges of blood from the mouth and throat, occurs less frequently than epistaxis. In scurvy, and after the use of mercury, and sometimes after the extraction of a tooth, or the division of the frænum of the tongue, it may prove troublesome. Ten grains of pure capsicum, and a tablespoonful of cream taken every hour is the best treatment.

MELÆNA, or Hemorrhage of the Bowels.—This disease is generally preceded by symptoms of some well-known disease, such as enteritis, dysentery, enteric fever, scurvy, purpura, etc. Sometimes the patient is attacked suddenly with griping pain, nausea, paleness, extremities cool, and offensive discharges of black-colored blood from the bowels. The color of the blood may vary. One grain of nitrate of silver, made into sixteen pills with gum arabic, and one every two hours, will cure it.

CONGESTION OF THE LIVER.—The cause of this state of the liver lies in some obstruction of the circulation of the blood through its substance, and this may arise from some organic affection of the heart, or in some disease of the pulmonary apparatus, when it interferes with the circulation of the blood through the pulmonary organs. Hepa-

tic congestion may also occur, as the result of violent exercise after a hearty meal.

Symptoms.—In both the *acute* and *chronic* form, there will be much the same train of symptoms, though in different degrees. The yellowness of the eyes, a dull, heavy feeling, sleepiness, high-colored urine, constipation, capricious appetite, and sometimes sickness at the stomach.

Treatment.—A hot pack should be applied to the liver, and be maintained four hours, to be followed by an irritating plaster, and one of the liver renovator pills, administered night and morning for three or four days. These should be followed by the antiperiodic pills, one every hour until twenty are taken; after which from ten to twelve drops of the Mecca oil compound should be taken four or five times a day.

CATARRH, Acute and Chronic.—Catarrh is an inflammation of the schneiderian, or lining membrane of the nostrils. From a simple fullness, dryness and irritation of the nostrils, there follows dull pain, and a discharge of a thin, colorless, acrid fluid, obtuseness of hearing, chills, pains in the limbs, &c. It may arise from colds, acrid vapors, powders, &c., or may be epidemic. Sometimes it is very troublesome in small children. In the chronic form the discharge is thick, and at times connected with large green masses, which are very offensive if the bones are affected. It frequently extends to the throat and lungs, producing dyspepsia, bronchitis and consumption. It is cured by catarrh vapor, antiperiodic pills, and blood, stomach and liver tonic.

EPISTAXIS, or Nose-Bleed.—This is the most frequent variety of hemorrhage, occurring frequently in childhood and youth. Generally but little blood is lost. Sometimes it is profuse and dangerous. When it occurs in weakened and debilitated constitutions, where the blood is in a deteriorated condition, as in fever, purpura, scorbutus, etc., it is

an alarming symptom. Cold water or ice applied to the back of the neck, will frequently stop it. When that fails, a moderately strong solution of cold salt and water should be snuffed up the nose.

BRONCHOCELE, or Goitre.—Bronchocele is an enlargement of the thyroid gland, known by a thickening of the neck. It is more likely to occur in females at the age of puberty, although it may occur at any period of life, and is developed in low, marshy, and miasmatic sections of the country. It should be painted with the tincture of iodine every night, and one anti-periodic pill taken four times a day, until a cure is effected, which will be in the course of a few months.

NASAL POLYPI.—A nasal polyp is a soft, moist tumor of yellowish color. One of its first symptoms is a feeling as if something were in the nostril. Sometimes they are so large as to disfigure the nose and face. The catarrh vapor, if injected with a syringe up the nose a few times will destroy their growth; or they may be removed by the polypi forceps.

STONE IN THE BLADDER, or Gravel.—This disease is common to both men and women.

Symptoms.—Irritability of the bladder; frequent desire to urinate; sudden stoppage of the stream; pain in the neck of the bladder; a brick-dust sediment in the vessel after urinating. Twenty drops of the Mecca oil compound every two hours, and a free use of the queen of the meadow tea is the best treatment, unless an operation is required.

SPLEEN.—This organ is subject to enlargement in attacks of ague, hence an enlarged spleen has received the name of *ague cake*. This may also arise from improper treatment in intermittent fevers. Treatment same as in ague.

CHOLERA INFANTUM—This is a complaint which usually attacks children between the ages of two months and three years, and is peculiar to the warm season.

Symptoms.—Diarrhœa; irritable stomach; vomiting and purging. The discharges from the stomach and bowels are of a yellowish, thin, liquid character, and sometimes of a rice-water appearance. The disease is sometimes so severe as to destroy life in a very few hours.

Causes.—Hot weather; impure air of cities; lack of proper nutrition, etc.

Treatment.—The dysentery cordial, neutralizing cordial, and in bad cases the acid cholera mixture should be used. The diet should consist of equal parts of lime-water and milk; fresh air, with a plenty of good water allowed.

PROLAPSUS OF THE RECTUM is of common occurrence, sometimes the protrusion being only slight; at others it may be five or six inches. There is much pain in the lumbar regions; nervousness; constipation or diarrhœa; dyspepsia, etc.

To cure this, whenever the protrusion occurs, it should be thoroughly sprinkled with pulverized blood-root, and the parts put back to their proper position. This practice continued for a few weeks will generally effect a radical cure.

TABES MESENTERICA, or a degeneration of the mesenteric glands, occurs particularly in children of a scrofulous tendency, and in those who are weaned too soon, or are fed on indigestible substances. The disease usually progresses very slowly, continuing sometimes for years.

Symptoms.—Abdomen swollen and tense; vomiting of glairy matter; bowels irregular; features shrunken; breath offensive; urine scanty; general emaciation, and death.

Causes.—Unwholesome diet; impure air; sedentary habits; exposure to cold; abuses of the system; mental anxiety, etc.

Treatment.—See article on diet for consumptive and scrofulous patients, with the treatment for consumptives.

SYNCOPE, or *Fainting*, generally occurs suddenly, though

sometimes preceded by sickness at the stomach, mental confusion, impaired vision, rapidly sinking pulse.

Causes.—It may arise from organic disease, rheumatism, gout, poisons, strokes of lightning, etc. Of the nervous causes, terror, sudden fright, sad intelligence, nausea, etc.

Treatment.—Place the patient on the back, and drop water on the face.

PARALYSIS OF THE BLADDER.—If the body of the bladder be paralyzed, the patient will be affected with retention of urine, on account of the want of power in the organ to throw off the contents, and not because of any obstacle to the flow of the urine. When paralysis occurs in the neck of the bladder, the urine passes away without the will of the patient.

Treatment.—Electricity and tonics are the best remedies.

RULES FOR DIET AND EXERCISE.

The practitioner of medicine usually contents himself with giving his prescription, and allowing the patient to chalk out his own method of dietetics, when, to every careful observer, it is apparent that far more depends upon a well regulated life, both for the prevention and cure of disease, than upon all the medicines of the various schools of physic. The physician and medicines should only be resorted to in emergencies, while every person should study to preserve life and health, by a proper conformation to the laws God has established; a strict obedience to which is a condition whereby life may be matured and health enjoyed.

Exercise.—Either too violent or a total want of exercise is attended with equal disadvantages. The blood is driven from the capillaries into the veins, and a healthy circulation thereby maintained by the alternate contraction and relaxation of the muscles. All the muscles should be equally exercised. This can be effected by walking,

swinging, rowing, pitching quoits, jumping, lifting, wrestling, dancing, sweeping, scrubbing, washing, hoeing, plowing, chopping, cooking, ironing, sewing, and in the labors of nearly all the mechanical arts. Thus we observe God's revealed law, "that man shall live by the sweat of his brow" exemplified in our conditions, for if we exercise the various muscles of the body every day, from five to six hours, and conform to other physiological conditions, we will enjoy health; otherwise we must necessarily suffer from either acute or chronic maladies. Nor will it answer that we exercise the muscles of one portion of the body, and allow the others to rest, for they must all be brought into active exercise, at least for several hours each day.

Diet.—That man is omnivorous in relation to his demands for food, there can hardly be a question. Many of the inferior animals can subsist entirely upon vegetable or animal aliment; but it is evident from man's anatomy and physiology that his digestive organs are merely a culinary laboratory, in which the more crude organic elements are reduced to a proper condition for the nutrition of the human body, and the most ample experience has verified the fact, that man cannot enjoy the full exercise of all his powers and faculties, without a reasonable mixture of both animal and vegetable food. The functions of the mind and nervous system demand large supplies of nitrogenized elements, while the active metamorphosis of tissue, produced by mental influences can only be maintained by the reception into the system of proper quantities of non-nitrogenized food which is derived from animal tissues. The vegetables best adapted to the nourishment of the body, are wheat, corn, rice, oats, potatoes, tomatoes, cabbage, beans, peas, onions, parsnips, carrots, vegetable oysters and turnips. The animals which furnish the best food are sheep, oxen, swine, fowls, fish, deer,

squirrel, and rabbit. These articles, however, should not be eaten promiscuously, nor can they be used with impunity, unless they are properly prepared before they are introduced into the stomach. Cooking, as a science, is very imperfectly understood; and it is because of this ignorance that dyspepsia, liver disease, consumption, and scrofula are so very prevalent. Thus, potatoes contain potash, soda, sulphur and starch. The potash is necessary for the formation of bile, and to supply the bones and other tissues. Thus one pound of potatoes contains about twenty-one grains of potash; but by boiling them in water the potash, sulphur, and soda are extracted by the water, while there only remains the starch, which, when deprived of its earthy salts, acts as a ferment when introduced into the stomach, and, if taken with the albumen of animal food, generates sulphuretted hydrogen gas, carbonic acid gas, and arrests the process of digestion. This is the cause of flatulency, stupor, and mental inactivity, which so frequently follow the use of this article when it is improperly cooked. Potatoes, in order to be nutritious and healthy, should either be steamed, roasted, or baked, and eaten as soon as cooked; for as soon as the potato gets cold the starch corpuscles, or portions of the potato, are transformed into glucose or grape sugar, which, if taken with milk, turnips, beans, or cabbage, will be converted into lactic and butyric acids in the stomach, producing rheumatism, dyspepsia, nervous irritability, headache, constipation of the bowels, and other acute and chronic maladies. Other vegetables, such as beans, peas, etc., should be cooked by steaming, or may be boiled and eaten with the water in which they are cooked. The water can be seasoned with butter, salt and flour, so as to make it palatable. Peas and beans contain a large amount of potash, soda, sulphur and phosphorus, and are good articles of diet for persons of a nervous, scrofulous, or consumptive

habit; also, for those who have a deficiency of bile, and suffer from constipation. Wheat and rye are equally serviceable as a bread. Wheat should be cooked, whole or crushed, by placing a proper quantity in water, allowing it to soak from twelve to twenty-four hours, then boiling it until soft. It can be used with salt, pepper, butter, milk or cream. Rye and rice can be used in the same manner, only they do not require as much cooking. If they are made into bread, the whole kernel should be used ground fine, as the phosphorus, lime and other important nutritive elements exist more in the shuck than in the centre of the seed. Beef, mutton and pork are best prepared by baking or broiling. Beef can be eaten rare, while other animal substances should be thoroughly cooked. Fish is best prepared by boiling or baking. Never eat a great variety at any one time.

Fruits.—All ripe fruits are wholesome, and may be taken in reasonable quantities for dessert after breakfast or dinner, and may be used as an exclusive meal for supper, but should never be mixed with other food at night.

Salad.—Pickles, lettuce, radishes, water-cress, mustard, and old cheese are said to be promoters of digestion when taken in connection with a mixed diet of animal and vegetable food, but should always be taken in small quantities.

Diet in Disease.—The weaker the stomach the less the variety of food it can digest. All the food introduced into the stomach that is not digested, acts as poison. Consumptive patients may use the following: To one pound of beef chopped like mince meat, add one pint of hot water; press out all the juice with the water, by squeezing through a coarse linen cloth; to this ten drops of nitromuriatic acid may be added, and drank during the meal, which should consist of boiled wheat, rice or rye, with sugar, butter, pepper or milk. For dinner, ripe fruit may be taken, but only in limited quantities.

Dyspeptics.—Where there is a disease of the stomach, patients may use their meat broiled or roasted with wheat, rice, rye, peas, or vegetable oysters without fruit.

Heart Disease.—The diet should be exclusively milk, with boiled wheat or rye, with one meal a day of fruit.

Rheumatism and Gout.—Milk and meat should not be used; wheat, rye, and fruits, may be taken once a day.

Nervous Diseases.—Wheat, rice, rye, and milk, with fresh fish.

In *inflammatory diseases* and *fevers* no solid food should be taken, the diet being exclusively of milk.

Epilepsy.—The diet should be exclusively corn mush, and milk.

In *Female Diseases.*—Animal food should be taken only once a day.

In *Catarrh.*—The diet should be exclusively vegetables and milk.

Sleep and Rest.—From six to eight hours sleep is required for a healthy person, and much more for those who are diseased. All persons who are sick should take a short rest in a recumbent position, as often as the body becomes fatigued. Fire, gas, light, noises, and an overloaded stomach, are incompatible with refreshing sleep.

Drinks.—Tea and Coffee are full of tannin as well as granular matter. They retard digestion and disorder the organism generally; hence, they should not be used. The only healthful drink is *pure water*, which should never be taken very cold. The system exhausts about two gallons of this fluid every twenty-four hours; hence, it must receive that much in return, or the tissues will become inspissated, or too thick, to perform those changes essential to life's process.

THE

DIFFERENT SYSTEMS OF PRACTICE.

THAT the reader may become familiar with the resources, with all Systems of Practice, we introduce that of the Allopathist, Homœopathist and Hydropathist, I will here introduce a list of diseases, with their remedies, from the most approved authority of each system of practice. The Allopathic treatment I have given strictly according to Prof. Eberle, one of the most popular authors upon that system of practice. The Homœopathic practice is given according to J. Lourie, M. D., an author of great popularity among Homœopathists. The size of the dose and the trituration are given according to Jahr's and Gruner's Homœopathic Pharmacopœia. The Hydropathic treatment is given according to Shew, Trall, and other standard authorities.

ALLOPATHIC PRACTICE.

Intermittent Fever. — Treatment: — Emetics, opium blood-letting, nitre, camphor, sulphuric ether, magnesia, calomel and jalap, cinchona, quinine, potash, cloves, leeches, blisters, arsenic, sulphate of zinc, black pepper salivation.

Remittent Fever. — Treatment: — Blood-letting, cathartics, calomel and jalap, ipecac, nitre, salivation, epsom salts, castor oil, magnesia, opium, antimony, ammonia, cold water, leeches, blisters, balsam copaiva, sinapisms, warm bath, enemata, lemonade, quinine, gentian, serpentaria.

Yellow Fever.—Treatment:—Blood-letting, calomel, salivation, enemata, epsom salts, sponge with cold water, leeches, blisters, aperients, DIAPHORETICS, quinine, wine, ammonia.

Synocha or simple continued Fever.—Treatment:—Blood-letting, purgatives, soda, magnesia, antimony, jalap, cream of tartar, calomel, DIAPHORETICS, nitre, James's powders, digitalis, salivation, ipecac, sponging with cold water, blisters, cupping, leeches, enemata.

Synochus Fever.—Treatment:—The same as synocha throughout.

Typhus Fever.—Treatment:—Emetics, ipecac, calomel, gentle purgatives, castor oil, enemata, epsom salts, croton oil, salivation, blood-letting, effusions of cold water, diaphoretics, laudanum, nitre, wine, ammonia, camphor, opium, quinine, blisters, capsicum, serpentaria, camomile.

Glossitis, inflammation of the tongue.—Treatment:—Blood-letting, leeches, scarifying, incisious with scalpel, laxative enemata, blisters on the back of the neck.

Tonsillitis, Quinsy.—Treatment:—Blood-letting, scarifying the tonsils, cupping, an active purge, mild aperients, calomel, enemata, nitre, antimony, ammonia, liquorice, blisters, spirits turpentine, emollient poultices.

Parotitis, Mumps.—Treatment:—Keep the bowels open, diaphoretics, blisters, mercurial ointment, camphor, rubefacient liniments.

Acute Gastritis.—Treatment:—Blood-letting, leeches, blisters, mercurial ointment, mucilaginous drinks, vegetable acids, laxative enemata, opium, calomel.

Chronic Gastritis.—Treatment:—Leeching or cupping, blisters, tartar emetic ointment, sulphate of iron, hyosciamus, morphia, nitrate of silver, borax, Dover's powder, balsam of copaiva, syrup of poppies, purgative enemata.

Peritoneal Enteritis.—Treatment:—Blood-letting, purgatives, laxative enemata, calomel, castor oil, opium,

spirits turpentine, blisters, emollient poultices, digitalis, wine.

Dysentery.—Treatment:—Bleeding, purgatives, castor oil, calomel, laudanum, emetics, ipecac, diaphoretics, salivation, mucilaginous liquids, nitrous acid, sugar of lead, leeches, blisters, emollient poultices, balsam of copaiva, turpentine, enemata, dogwood bark, diet, rice, barley.

Chronic Enteritis.—Treatment:—Proper diet, castor oil, laudanum, leeches, blisters, tartar-emetic ointment, calomel, balsam of copaiva, spirits turpentine, sulphate of iron, nitrate of silver, hyosciamus, elm bark.

Acute Peritonitis.—Treatment:—Blood-letting, leeches, emollient poultices, active cathartics, castor oil, spirits turpentine, cream of tartar, calomel, jalap, blisters, leeches, salivation, opium, digitalis, wine.

Chronic Peritonitis.—Treatment:—Leeches, blisters, mercurial ointment, tartar-emetic ointment, emollient poultices, warm baths, castor oil, cream of tartar, Dover's powder.

Acute hepatitis.—Treatment:—Blood-letting, mercury, castor oil, leeches, salivation, blisters, opium, antimony, warm bath, nitro-muriatic acid, cicuta, tonic bitters, nitric acid, extract of conium.

Chronic hepatitis.—Treatment:—Blood-letting, mercury, leeches, salivation, blisters, emollient poultices, blue-pill, conium, laxatives, epsom salts, gentian, columbo, nitro-muriatic acid, white precipitate, setons.

Splenitis.—Treatment:—Blood-letting, purgatives, counter-irritants, warm bath, leeches, tartar-emetic, mercury, setons, hyosciamus, diaphoretics, antimony, muriate of ammonia, ipecacuanha, iodine.

Phrenitis, phrensy.—Treatment:—Blood-letting, leeches, cold water or ice, active purgatives, calomel, senna, blisters, nitre, antimony, digitalis.

Arachnitis, hydrocephalus.—Treatment:—Laxatives,

calomel, blue-pill¹, castor oil, blood-letting, leeches, manna, laxative enemata, spigelia, ipecac, salivation, mercurial ointment, blisters, ice, tartar-emetic ointment, James's and Dover's powder.

Cerebritis, softening of the brain.—Treatment:—Blood-letting, sinapisms, opium, cold to the head, blisters, calomel, salivation.

Peripneumonia.—Treatment:—Bleeding, leeches, digitalis, nitre, castor oil, emetics, cooling diaphoretics, muriate of ammonia, antimony, calomel, opium, camphor, ipecacuanha, expectorants, blisters, squills, tartar-emetic ointments, setons, conium.

Cynanche Laryngea, Laryngitis.—Treatment:—Blood-letting, leeches, blisters, emollient poultices, emetics, calomel, sinapisms to the feet, lunar caustic, alum, bronchotomy.

Cynanche Trachealis, Croup.—Treatment:—Bleeding, blisters, emetics, warm bath, mercurial purgatives, antimony, enemata, salivation, ipecac, friction with turpentine, polygala senega.

Acute bronchitis.—Treatment:—Blood-letting, enemata, castor oil, emetics, tartar-emetic, ipecacuanha, squills, expectorants, opium, calomel, blisters, leeches, emollient poultices, warm bath, columbo, gentian.

Chronic Bronchitis, Bronchial Consumption.—Treatment:—Bleeding, leeches, warm climate, tartar-emetic ointment, emollient poultices, emetics, digitalis, antimony, squills, balsam copaiva, quinine, opium, conium, ipecac, prussic acid, sugar of lead, blue-pill, or calomel, salivation.

Pthisis Pulmonalis.—Treatment:—Blood-letting, digitalis, tartar-emetic blisters, issues and setons, gum arabic, prussic acid, acetate of lead, opium, uva ursi, expectorants, muriate of ammonia, tartar-emetic ointment, salivation, squills.

Nephritis.—Treatment:—Blood-letting, cupping or leeches, active cathartics, calomel, castor oil, enemata, emollient poultices, blisters, diaphoretics, antimony, steam bath, Dover's powder, uva ursi, opium, conium, lime water, balsam copaiva.

Cystitis.—Treatment:—Bleeding, leeches, emollient poultices, gentle laxatives, enemata, opium, introduction of catheter, steam bath, antimony, calomel.

Chronic cystitis.—Treatment:—Cupping, leeches, blood-letting, castor oil, magnesia, caustic issues on the thigh, muriated tincture of iron, beech leaves, uva ursi, ursi, elm bark injected into the bladder.

Hysteritis.—Treatment:—Bleeding, leeches, emollient poultices, calomel, epsom salts, injecting warm emollient fluids into the vagina, blisters, nitre, antimony, opium.

Chronic hysteritis.—Treatment:—Blood-letting, cupping, purgatives, leeches, blisters, emollient injections, warm bath, mercury, camphor, antimony, balsam copaiva, muriate of ammonia, liquorice.

Pericarditis.—Treatment:—Calomel, bleeding, opium, salivation, leeches, blisters, cream of tartar, diuretics, squills, pustulation with tartar-emetic ointment, or a caustic issue over the region of the heart.

Acute Rheumatism.—Treatment:—Blood-letting, purgatives, calomel, epsom salts, emetics, antimony, opium, diaphoretics, salivation, quinine, colchicum, magnesia, stramonium, leeches, blisters.

Chronic Rheumatism.—Mercury, rhubarb, quinine, antimony, salivation, sarsaparilla, vapor bath, sulphate of zinc, stramonium, colchicum, arsenic, leeches, cups, blisters, spirits turpentine, capsicum, camphor, warm bath.

Gout.—Treatment:—Bleeding, cathartics, calomel, emetics, ipecac, opium, eupatorium perfoliatum, colchicum, magnesia, blue pill, camphor, ginger, savin, laudanum, sinapisms, enemata, cupping, leeching.

Catarrhal Ophthalmia.—Treatment:—Scarifying, antimony, calomel and jalap, emollient applications, opium, solution of zinc, nitrate of silver, corrosive sublimate, ipecac, blisters, lunar caustic, quinine, bark, arsenic.

Rheumatic Ophthalmia.—Treatment:—Bleeding, antimony, opium, calomel, Dover's powder, blisters, cupping, puncturing the cornea, aqueous solutions of opium.

Purulent Ophthalmia.—Treatment:—Blood-letting, leeches, decoction of poppy-heads, calomel, ipecac, antimony, castor oil, blisters, emollient fomentations, lime, nitrate of silver, quinine, nitric acid.

Scrofulous Ophthalmia.—Treatment:—Leeches, purgatives, calomel, castor oil, rhubarb, emetics, antimony, Dover's powders, sarsaparilla, quinine, barytes, iodine, nitrate of silver.

Syphilitic and strumous iritis.—Treatment:—Mercury, antimony, jalap, salivation, belladonna, precipitate ointment, chalk, quinine, setons in the nape of the neck.

Variola, Small-pox.—Treatment:—Blood-letting, purgatives, calomel, emetics, diaphoretics, nitre, antimony, ammonia, cooling regimen, wine, camphor, quinine, opium, blisters, scarifications, chalk, ipecac, warm bath.

Rubeola, Morbilli, Measles.—Treatment:—Mild laxatives, diaphoretics, sage, elder blossoms, balm, eupatorium, bleeding, antimony, nitre, warm baths, stimulating friction, sinapisms, camphor, ammonia, opium, blisters, calomel, squills, serpentaria.

Scarlatina.—Treatment:—Gentle aperients, cool or tepid drinks, emetics, brisk mercurial purges, warm baths, nitre, antimony, ammonia, sulphuric acid, cold water to the surface, blisters, blood-letting, camphor, calomel, opium, sinapisms, wine, quinine, capsicum, enemata, serpentaria.

Erysipelas.—Treatment:—Blood-letting, purgatives, calomel, emetics, diaphoretics, antimony, ipecacuanha, magnesia, castor oil, warm bathing, bark, wine, opium,

camphor, cupping, blisters, enemata, corrosive sublimate, nitrate of silver, incisions in the inflamed skin.

Herpes Phlyctenodes.—Treatment:—Gentle aperients, simple diet, diaphoretics, calomel, ipecac, warm bath, bleeding, Dover's powder, lunar caustic.

Herpes Labialis.—Treatment:—Fomentations of white poppy-heads, acetate of lead.

Herpes Preputialis.—Treatment:—A solution of borax, nitrate of silver, chloride of sodium in solution.

Pemphigus.—Treatment:—Mild laxatives, rest, tepid bathing, bleeding, diuretics, calomel, Fowler's arsenical solution, opium, quinine, sulphuric acid.

Urticaria, Nettle Rash.—Treatment:—Emetics, ipecac, mild laxatives, simple diet, cooling drinks, rest, magnesia, quinine, sulphuric acid, iron, Fowler's solution, tepid bath.

Miliaria, Miliary Fever.—Treatment:—Ipecac, emetics, warm bathing, diaphoretics, Dover's powder, ammonia, serpentaria, camphor, opiates.

Lichen.—Treatment:—Tepid bathing, mild aperients, diluent acidulated drinks, cream, calomel, unsalted butter, sulphuric acid, bleeding, Fowler's solution, laxatives, low diet.

Eczema.—Treatment:—Sulphur ointment, tepid bathing, mild laxatives, nitre, tartar emetic, Dover's powders, calomel, nitric acid, soda, sarsaparilla, camphor, opium, stramonium, borax, cantharides, arsenic, Fowler's solution.

Herpes Zoster.—Treatment:—Gentle aperients, simple diet, diaphoretics, calomel, ipecac, warm bath, bleeding, Dover's powders, lunar caustic.

Herpes Circinatus, Ring Worm.—Treatment:—Alkaline washes, sulphate of copper or zinc, ointment of narrow-leaved dock, mild laxatives.

Erythema.—Treatment:—Light diet, gentle diapho-

retics, mineral acids, warm baths, tepid ablutions, borax, acetate of lead, opium.

Roseola.—Treatment:—Rest, mild aperients, acidulated cooling diluents, simple diet, refrigerant diaphoretics.

Hemorrhagica Petechialis.—Treatment:—Tonics, cinchona, serpentaria, sulphuric acid, wine, nitrate of silver, spirits of turpentine, blood-letting, purgatives, calomel and jalap, oil of turpentine, bathing the surface with a decoction of oak bark.

Hemorrhages.—Treatment:—Blood-letting, digitalis, cold, blisters, sinapisms, warmth, sugar of lead, alum, muriated tincture of iron.

Epistaxis.—Treatment:—Bleeding, cool drinks, laxatives, nitre, cold water applied to the head, neck and genital organs, sugar of lead, gallic acid, blisters to the nape of the neck, pediluvium, sinapisms to the feet.

Hæmatemesis, bleeding at the stomach.—Treatment:—Blood-letting, sinapisms to the epigastric and hypocondriac regions, cupping, warm bath, laxatives, enemata, active purgatives, emetics of ipecac, sugar of lead, spirits of turpentine, castor oil, tincture of iron, juice of the common nettle.

Hæmaturia, bleeding of the urinary organs.—Treatment:—Bleeding, warm bath, opium, cupping, sugar of lead, sinapisms over the kidneys, muriated tincture of iron, mucilaginous drinks, alum, ipecac, decoction of logwood, cold water to the genitals, inject cold solutions of the sugar of lead.

Hæmoptysis, bleeding at the lungs.—Treatment:—Blood-letting, common salt, sugar of lead, sinapisms to the breast, cooling drinks, laxative enemata, nitrate of potash, opium, calomel, emetics, capsicum, digitalis, caustic issues, setons, leeches to the anus, camphor, ipecac, cantharides, warm hip bath.

Menorrhagia, uterine hemorrhage.—Treatment:—

Bleeding, sugar of lead, ipecac, opium, camphor, cinnamon, alum, nitre, astringent injections into the vagina, elixir of vitriol, tampons, emetics, valerian prussiate of iron, ergot, savin.

Phlegmasia Dolens. — Treatment: — Blood-letting, leeches, purgatives, magnesia, colchicum, antimony, calomel, opium, ipecac, nitre, frictions with dry flannel, fomentations with hot vinegar and water.

Apoplexy. — Treatment: — Copious blood-letting, cold water to the head, fomentations, sinapisms of the tincture of capsicum to the feet, cupping, active purgatives, calomel and colocynth, croton oil, castor oil and turpentine, enemata, aloes, antimony, emetics, zinc, blisters, issues.

Hemiplegia, palsy of one side; Paraplegia, palsy of the legs. — Treatment: — Blood-letting, purgatives, salts, aloes, calomel, scammony, colocynth, capsicum, emetics, blisters to the neck, sinapisms to the ankles, stimulating enemata, friction, stimulating baths, electricity, galvanism, strychnine, salivation, iodine, warm bath.

Epilepsy. — Treatment: — Bleeding, cold water in large draughts, emetics in large draughts, emetics of ipecac, calomel, diaphoretics, warm bath, antimony, camphor issues, setons, emetics, spirits of turpentine, castor oil, oil of turpentine, misletoe, oxide of zinc, nitrate of silver, tin, lead.

Catalepsy. — Treatment: — Sulphuric ether, stimulating applications to the feet, enemata, bleeding, purgatives, galvanism, electricity, country air, regular exercise, tepid bathing, blue pill, camphor, tepid shower bath, zinc, valerian, musk, castor, opium.

Chorea, St. Vitus's Dance. — Treatment: — Purgatives, mercury, quinine, aloes, bleeding, vegetable diet, Dover's powder, magnesia, valerian assafœtida, hyoscyamus, camphor, opium, turpentine, warm pediluvium, blisters, savin,

iron, leeches and warm bath, sulphur, issues, tartar-emetic ointment, &c.

Convulsive affections of infants.—Treatment:—Emetics of ipecac, purgatives, enemata, infusions of savin and spigelia, bleeding, calomel, pediluvium, cold water to the head, blisters, assafœtida, musk, opium, Dover's powder, warm bath, setons, issues, sulphur.

Hysteria.—Treatment:—Bleeding, sinapisms, emetics, sulphate of zinc, ipecac, opium, assafœtida, musk, sulphuric ether, castor, enemata, warm pediluvium, turpentine, enemata, camphor, valerian, ictodes-foetida, antimony, iron, mercury, cold shower bath, &c.

Puerperal Convulsions.—Treatment:—Blood-letting, sinapisms to the feet, purgative enemata, cupping, cold applications to the head, active cathartics, calomel, jalap, aloes.

Tetanus.—Treatment:—Bleeding, leeches, mercury, opium, warm bath, purgatives, castor oil, spirits of turpentine, wine, prussic acid, cold effusions.

Hydrophobia.—Treatment:—Local applications to the wound, wash the wound with warm water, excision, cauterly, cupping, glysters, ligatures, belladonna, water plantain, vinegar, cantharides, mercury, cold bathing, copious bleeding.

Monomania.—Treatment:—Blood-letting, leeches, purgatives, mercury, castor oil, jalap, spigelia, turpentine, emetics, regimen, exercise, warm bath, cold bath, blisters, circular swing, music.

Delirium Tremens.—Treatment:—Opium the sheet anchor, castor oil, laxatives, enemata, cupping, emetics of tartar-emetic, ipecacuanha, cold and tepid effusions, ammonia, assafœtida, camphor, Hoffman's anodyne.

Neuralgia.—Treatment:—Divide the nerve with a scalpel, quinine, arsenic, carbonate of iron, stramonium, frictions with the extract of belladonna, oil of turpentine,

moxa, leeches, strong magnet, lobelia, zinc, leeches to the anus, aloes.

Amaurosis.—Treatment:—Bleeding, free purging with calomel, epsom salts, antimony, salivation, belladonna, blisters or setons on the neck, leeches to the temples, blue-pill, ipecac, sarsaparilla, arsenic, bark, cold bath, capsicum, opium, emetics, leeches around the anus.

Asthma.—Treatment:—Blood-letting, hyosciamus, stramonium, emetics of ipecac, squills, vinegar, digitalis, opium, skunk cabbage, lobelia inflata, galvanism, tonics, bark, quinine, arsenic, carbonate of iron, blue-pill, tepid shower bath, warm bath.

Asphyxia from drowning.—Treatment:—Artificial inflation of the lungs, gradual warmth, friction with a dry flannel, mustard and capsicum, stimulating injections, warm wine, weak brandy toddy, infusions of balm, sage or catnip.

Asphyxia, from mephitic gases.—Treatment:—Dashing cold water on the face and breast, dry frictions to the extremities, cold wine, cold shower bath at short intervals, flesh brush, ammonia, stimulating injections, artificial respiration, abstraction of blood, warm wine, galvanism.

Asphyxia from Electricity.—Treatment:—Cold water copiously dashed over the whole body, frictions with the flesh-brush.

Asphyxia from cold.—Treatment:—Gradual communication of warmth to the body, immersion in spring water continued forty minutes, gentle frictions with flannel, artificial respiration, gentle stimulants, such as balm, sage, warm wine, &c.

Pneumothorax.—Treatment:—Blistering, tartar-emetic ointment, cupping, moxa, issues, setons, &c.

Dilatation of the ventricles.—Treatment:—Bleeding, low diet, starvation and venesection, diuretics, squills, nitre, digitalis, purgatives, antimony, valerian, orange

flowers, cat lint, mercury, castor oil, blue-pill, tepid shower bath.

Sympathetic affection of the heart.—Treatment:—Gentle aperients, tepid bath, gentle tonics, bitters, iron, bleeding, warm pediluvium, digitalis.

Angina-Pectoris.—Treatment:—Bleeding, ether, camphor, opium, hyoseyamus, ammonia, draughts of cold water, emetics, leeches, sinapisms to the legs, mild diet, blue-pill, tepid or cold bathing.

Indigestion.—Treatment:—Diet, gentle aperients, mild tonics, regular exercise, rhubarb, aloes, soda, ipecac, hyoseyamus, boneset, mild tonics, alkalies, calomel, gentian, iron, white mustard seed, mercury, antimony, nitro-muriatic acid bath, opium, ammonia, nitrate of potash, leeches, blisters.

Diarrhœa.—Treatment:—Mild purgatives, calomel, castor oil, ipecac, laudanum, chalk, warm bath, leeching, Dover's powder, acetate of lead, balsam copaiva, sulphate of copper, injections of mallows, flaxseed or barley water, sulphuric acid.

Cholera.—Treatment:—Opium, sinapisms to the region of the stomach and liver, free use of bland drinks, frictions with spirits of turpentine, calomel, warm bath, tinct. of capsicum to the extremities, camphor in vitriolic ether, mucilages in a warm state, ipecac, columbo, calomel, ammonia.

Cholera Infantum.—Treatment:—Leeches to the temple, calomel, poultices over the abdomen, blisters behind the ears, ipecac, mild laxatives, castor oil, warm bath, spirits, Dover's powder, magnesia, tartrate of iron, charcoal, wine whey, milk punch, ammonia, common soot.

Flatulent colic.—Treatment:—Rapid friction with the flesh-brush, camphor, laudanum, vitriolic ether, oil of juniper, emetics of ipecac, essence of peppermint, ca

thartics, enemata, castor oil, turpentine, laudanum, bleeding, leeches, blisters.

Bilious Colic.—Treatment:—Emetics, eupatorium, or camomile tea, antimony, calomel, sinapisms, or epispastics to the epigastrium, castor oil, enemata of castor oil and turpentine, opium, salivation, blood-letting, calomel, magnesia, warm bath.

Colica Pictonum.—Treatment:—Blood-letting, opium, calomel, salivation, purgatives, castor oil with spirits of turpentine, purgatives, enemata, glauber salts, flaxseed tea, blisters, leeches, tartar-emetic ointment, warm bath, senna, alum.

Ileus.—Treatment:—Bleeding, cupping, leeches, opium, purgatives, calomel, castor oil, enemata of warm water, tobacco, cold water, &c., cold effusions, mercury, tincture of rhubarb, and aloes.

Constipation.—Treatment:—Proper diet, active exercise, regular attempts at stool, calomel, rhubarb, jalap, aloes, enemata, blue-pill, aloes and antimony, castor oil, oil of turpentine, salivation.

Intestinal Worms.—Treatment:—Spare and liquid diet, mild purgatives, epsom salts, spigelia, followed by calomel and jalap, tin filings, spirits of turpentine, male fern, pomegranate root.

Hemorrhoids, Piles.—Treatment:—Light vegetable diet, bleeding, sulphur, cream of tartar, blue mass, nitre, cupping, sinapisms, blisters, injections of cold water, acetate of lead, quinine, opium, cinnamon, aloes, ipecac, astringents, injections, excision of tumors, balsam copaiva, oil of turpentine, aloetic purgatives.

Jaundice.—Treatment:—Opium, warm bath, leeching, frictions, emollient applications to the epigastrium, bleeding, purgatives, enemata, emetics, ipecac, mercury, mercurial frictions, nitro-muriatic acid bath, proper diet.

Diabetes Mellitus.—Treatment:—Bleeding, leeching,

cupping, opium, lime water, alum, uva ursi, active exercise, friction with flannel, carbonate of ammonia, blisters, quinine, exclusive animal diet.

Diabetes Insipidus. — Treatment: — Tonics, alkalies, opium, quinine, bitartrate of soda, mercury, ipecac, magnesia and rhubarb, lime water, uva ursi, hyoscyamus, camphor, gum arabic, mineral acids, quinine, iron, burgundy pitch, galbanum and turpentine to the loins, castor oil.

Lithic acid diathesis. — Treatment: — Proper diet, mild aperients, alkalies, bitters, vegetable tonics, calomel, antimony, magnesia, soda, saleratus, gentian, columbo, warm bath, opium, hyoscyamus, vegetable diuretics, bleeding, cupping, colchicum.

Phosphatic diathesis. — Treatment: — Opium, tonics, mineral acids, cinchona, uva ursi, pitch, soap or galbanum plaster to the kidneys, issues in the back, hyoscyamus, country air, exercise.

Ischuria renalis. — Treatment: — Bleeding, cupping, leeching, warm bath, blisters, stimulating diuretics, spirits turpentine, castor oil, balsam copaiva, juniper oil, nitre and laudanum, mercury.

Retention of urine. — Treatment: — Introduction of catheter, canth, camphor, blisters to the pubic region, spirits of turpentine, juniper, oil, dipple oil, Peruvian balsam, cold water to the pubic region, blood-letting, leeching, emollient clysters, fomentations, mild purgatives, antimony, warm bath, calomel, opium.

Dysuria, pain in voiding urine. — Treatment: — Mild laxatives, flaxseed tea, gum arabic, Dover's powder, castor oil, rhubarb, calomel, ipecac, lunar caustic, borax, citron ointment, zinc or alum injected into the vagina, diluents, opiates, fomentations, anodyne enemata, flaxseed tea.

Enuresis, incontinence of urine. — Treatment: — Alum, cantharides, uva ursi, iron, cold shower bath, electricity, stimulating frictions, cupping the perineum, blisters, ano-

dyne enemata, Dover's powder, stramonium, tonics, iron, quinine, oxyde of zinc, spirits of turpentine.

Ascites. — Treatment: — Blood-letting, cups, leeches, blisters, setons, drastic purgatives, cream of tartar, eleterium gamboge, diuretics, squills, digitalis, acetate of potash, nitrate of potash, cantharides, juniper berries, colchicum, spirits of turpentine, erigeron, heteraphullum and parsley, calomel.

Scrofula. — Treatment: — Diet and regimen, pure air, calomel, blue mass aperients, rhubarb, tonic vegetable bitters, gentian, quinine, leeches, saturnine solutions, nitrate of silver, sulphate of copper, corrosive sublimate, sarsaparilla, conium, antimony, setons.

Bronchocele, Goitre. — Treatment: — Iodine, burnt sponge, calcined egg shells, sea water, squills, kermes minerals, belladonna, conium, digitalis, mercury, antimony, blistering, cataplasms, mercurial ointment.

Scorbutus, Scurvy. — Treatment: — Fresh vegetables and animal food, lemon juice and vinegar, nitre, iron tonics, cinchona, muriate of lime, lunar caustic.

Chlorosis. — Treatment: — Exercise, purgatives, aloes, rhubarb, calomel, ipecac, hyoscyamus, Dover's powders, diet, sea-bathing, tepid shower bath, tonics, iron.

Gonorrhœa, Clap. — Treatment: — Blood-letting, saline purgatives, nitre, antimony, gum arabic, warm fomentations, opium, camphor, balsam copaiva, cubeb, spirits of turpentine, injections of sulphate of zinc, and sulphate of copper, nitrate of silver, lunar caustic, cantharides, sarsaparilla, mercury.

Syphilis. — Treatment: — Mercury, emollient poultices, lead, sulphate of copper, citron ointment, corrosive sublimate, lunar caustic, bleeding, antimony, zinc, nitre, quinine, opium, hyoscyamus, cicuta, nitrate of silver, Venice turpentine, balsam of copaiva, myrrh, red precipitate ointment, salivation, warm bath, guaiacum.

Buboes. — Treatment: — Mercury, frictions, emollient poultices, hydriodate ointment, bleeding, purgatives, antimony, lead water, blisters, opium, sarsaparilla, lead, copper, corrosive sublimate, galbanum, cicuta, carrot poultices, nitric acid, hyoseyamus.

Amenorrhœa. — Treatment: — Blood-letting, opium, ether, active cathartics, purgatives, enemata, sinapisms, warm pediluvium, camphor, ergot, blisters, warm bath, antimonials, iron, ipecac, castor oil, balsam copaiva, spirits of turpentine, cantharides.

Dysmenorrhœa. — Treatment: — Camphor, Dover's powder, elder blossoms, or eupatorium tea, opium, ipecac, warm bathing, bleeding, aperients, blue-pill, ipecac emetics, antimony, guiacum, sulphur, stramonium.

Leucorrhœa, fluor albus. — Treatment: — Bleeding, purgatives, antimony, blue-pill, injections of warm water and sugar of lead into the vagina, cantharides, balsam copaiva, turpentine, alum, ipecac, astringent injections, such as zinc, copper, alum, oak bark, sulphuric acid, and nitrate of silver.

Cholera Asphyxia. — Treatment: — Calomel, opium, camphor, sulphuric ether, mild purgatives, rhubarb, or castor oil, sinapisms, alcoholic vapor bath, blood-letting, cupping, leeches, frictions with tincture of capsicum, brandy, ammonia, turpentine, sugar of lead, mustard, emetics.

HOMŒOPATHIC PRACTICE.

The following are *Hahnemann's* remarks on the triturating process of *Homœopathic* remedies, as transcribed from *Jahr's* and *Gruner's Pharmacopœia*.

“All those homœopathic drugs which constitute the pure materia medica, are prepared in the manner pointed out below. The following anti-psorics come under this remark: silica, calcarea carbonica, natrum carbonicum, ammonium carbonicum, magnesia carbonicum, baryta carbo-

nica, carbo-vegetabilis, carbo-animalis, graphites, sulphur, antimonium crudum, antimonium, gold, platinum, zinc, copper, silver, tin. Lumps of these metals, not the foil, are rubbed upon a hard, fine hone, under water, or sometimes under alcohol; for example, iron. Of these pulverized substances 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 great force for about six minutes, without, however, adding anything new. This mass you scrape up again for about four minutes; then add another thirty-three grains of sugar of milk, stir the new compound for a minute with a spatula, then triturate it for six minutes with the pestle, scrape it up for four minutes, triturate again with great force for six minutes, scrape up the mass again 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 enclose in a well-corked glass vial, and mark it with the name of the substance, and the figure $\frac{1}{100}$, to show that this is the first potency of the substance. In order to prepare the degree $\frac{1}{10000}$, you take one grain of the degree $\frac{1}{100}$, and add to it thirty-three grains of the sugar of milk. Stir up this mass for a moment with the spatula. Then triturate for six minutes, stir it up for four minutes, triturate again for six minutes, and then stir up again for four. After this, you

add the second thirty-three grains of sugar of milk, proceed then as before; afterwards add the last thirty-three grains of sugar of milk, stir up and triturate again as before, and enclose the mass in a well-corked vial, marked $\frac{1}{100000}$, or second potency.

“To prepare the degree $\frac{1}{1000000}$, or third potency, you take one grain of the degree $\frac{1}{100000}$, and go through the processes of stirring and triturating in the same way as before, employing upwards of an hour for the preparation of each different potency. For the sake of establishing a sort of uniformity in preparing homœopathic remedies, and especially the anti-psorics, I never carry the trituration above the millionth degree. From this degree, I derive the dilutions in their various degrees of potency. For the process of trituration, a certain force should be employed; not too much, however, lest the mass adhere too tenaciously to the mortar, to be scraped up in four minutes.

“From the millionth degree of trituration, the dilutions in the various degrees may be obtained by dissolving these triturated substances in alcohol or water. Chemistry is not acquainted with the fact that, all substances, after having been triturated up to the millionth degree, can be dissolved in either alcohol or water. Sugar of milk cannot be dissolved in pure alcohol; this is the reason why the first dilution should be composed of one-half water, and one-half alcohol. To one grain of the millionth, you add fifty drops of distilled water, and turn the vial several times around its axis; by this means the sugar of milk becomes dissolved: then, you add fifty drops of good alcohol, and shake the vial twice, first carrying the arm up and then down. Only two-thirds of the vial should be filled with the solution.

“This vial is then marked with the name of the medicine,

and the number $\frac{1}{100}$. Of this solution you take one drop and mix it with ninety-nine or one-hundred drops of pure alcohol, shaking the vial twice after it has been corked; this vial is marked $\frac{1}{10000}$. Of this solution you take one drop, and mix with it ninety-nine or one-hundred drops of pure alcohol, then shake the vial twice, and mark it $\frac{1}{100000}$. Of this potency you again take a drop, and mix it with ninety-nine or one-hundred drops of alcohol, shaking this third vial twice, and mark it $\frac{1}{11}$. In the same way you continue the preparation, and marking of the higher potencies, $\frac{1}{100}$, $\frac{1}{11}$, $\frac{1}{10000}$, $\frac{1}{11}$, $\frac{1}{11}$, $\frac{1}{11}$, $\frac{1}{11}$, $\frac{1}{11}$, &c.

"The intermediate vials are put in perpendicular boxes and kept in the dark, in order not to be affected by the light of day. In practice only the full vials are used. The shaking being accomplished by means of moderate strokes with the arm, it is desirable that the vials be of such size that the one-hundred drops will only two-thirds fill them. Vials that have contained one medicine, ought never to be used for another even if they have been previously rinsed with great care."

"Vegetable substances which can only be had dry, are triturated in the same manner. The millionth trituration may then be dissolved, like all the other substances, either in water or alcohol. In this state, they may be preserved much better and longer than the common tinctures which easily spoil.

"Of the juiceless *vegetable* substances, oleander, thuja, mezereum, you may take one grain and a half, the fresh leaves, bark, roots, &c, and convert them into the millionth trituration, with three times one-hundred grains of sugar of milk. Of this trituration you take one grain, and carry it through the vials, obtaining in this way any degree of potency that may be desired; shake each vial twice, first carrying the arm up and then down. The

same process of trituration may be resorted to in regard to the recently obtained medicinal juices. Squeeze the juice out of the substance, triturate one drop with the necessary quantity of sugar of milk to obtain the millionth trituration. Of these you take one grain, dissolve it in an equal proportion of water and alcohol, and then carry a drop of this mixture through a series of twenty-seven vials, obtaining in this way the degree of potency that is desired.

“By triturating the juice first, the medicinal virtues of the drug are better developed, than by simply mixing the juice with the alcohol by means of two shakes. I know this from experience.

“In the beginning of my practice, I gave a small portion of a grain of the millionth trituration at a dose. But the uncertainty of this mode of exhibiting the remedy, led me to the discovery of preparing the dilutions, and to the use of the globules, any definite number of which may be moistened with the dissolved drug. Homœopathy being based upon a law of nature, it should avoid and exclude all uncertainties.

“Frequent observations have convinced me that it is better to shake the vial twice only, in order to develop the medicinal virtue of the drug just enough to affect the disease in a proper manner. By shaking the vial ten times, as I was in the habit of doing, the proportion between the progressively developed intensity of action of the medicinal properties of the drug, and the degree of potency, were destroyed. The object of the dynamizing process, is to develop the intensity of action of the medicinal properties of the drug, at the same time as that action is reduced to a milder tone. Two shakes are sufficient to establish the due proportion between these two effects.

Table showing the quantity of alcohol or fluid, required to dissolve one single grain or drop of a homœopathic drug (as sulphur, zconite, etc.), down into the following homœopathic attenuations or dilutions. — [DR. SIMPSON ON HOMŒOPATHY, p. 285.]

- 1st attenuation. — One grain or drop in one and half tea-spoonful of alcohol.
- 2d attenuation. — One grain in twenty-one fluid ounces of alcohol.
- 3d attenuation. — One grain in two thousand and eighty ounces, or in one hundred and four pints of alcohol.
- 6th attenuation. — One grain in thirteen million gallons, or in two hundred and six thousand hogsheads, or in fifty-one thousand tuns of alcohol.
- 9th attenuation. — One grain in a lake of alcohol with a volume of about fourteen cubic miles, or in a lake of fifty fathoms in depth, and presenting two hundred and fifty square miles of surface.
- 12th attenuation. — One grain in a sea containing about fourteen million cubic miles of alcohol, or in a quantity of fluid equal to a sea six times the size of the Mediterranean Sea.
- 15th attenuation. — One grain in an ocean of fourteen billion cubic miles of alcohol, or in an ocean about forty-six thousand times greater than the whole waters of all the oceans of the earth.
- 24th attenuation. — One grain in an ocean of fourteen quintillion cubic miles of alcohol, or in a quantity sufficient to make one hundred and forty masses, each filling a sphere extending from limit to limit of the orbit of the planet Neptune.

30th attenuation.—One grain in an ocean of fourteen septillion cubic miles of alcohol, or in a quantity sufficient to make one hundred and forty billion spherical masses, extending from limit to limit of Neptune's orbit, or in a quantity equal to many hundred spheres, each with a semidiameter or radius extending from the earth to the nearest fixed star.

List of diseases and Homœopathic remedies by Dr. J. Laurie.

The remedies of the vegetable kingdom are the third attenuation, those of the mineral kingdom of the fourth.

Typhus fever.—Remedies :—Bryonia, arsenic, rhus toxico, croton oil, nux vomica, aconite, belladonna, camphor, hen-bane, cocculus Indicus, arnica. The sugar globules are moistened with these tinctures, and five or six given every two or three hours.

Intermittent fevers.—Remedies :—Quinine, arsenic, ipecac, nux vomica, antimony, belladonna, opium, cocculus Indicus, Ignatia or St. Ignatius' bean, white hellebore, aconite, Cayenne pepper.

Bilious fever.—Remedies :—Aconite, belladonna, bryonia, chamomilla, nux vomica, mercurius, pulsatilla, quinine, digitalis, ipecac, tartar-emetica, arsenic.

Yellow fever.—Remedies :—Belladonna, bryonia, rhus toxicodendron, arsenic, nux vomica, veratrum album, lachesis, or viper poison, Spanish flies, mercurius.

Scarlet fever.—Remedies :—Belladonna, mercurius, arsenic, nux vomica, pulsatilla, aconite, opium, tartar-emetica.

Scarlet Rash.—Remedies :—Belladonna, aconite, coffea, sulphur, ipecac, pulsatilla, bryonia, dulcamara, belladonna, arsenic, phosphorus, rhus tox, swamp sumach, cinchona, conium, mercurius, capsicum.

Rubeola, measles.—Remedies :—Aconite, coffea, pulsatilla, sulphur, nux vomica, bryonia, ipecac.

Variola, small-pox.—Remedies :—Coffea, chamomilla, aconite, ipecac, tartar-emetic, bryonia, rhus, belladonna, pulsatilla, stramonium, muriatic acid, mercurius, sulphur, lachesis, vegetable charcoal, arsenic, cinchona, phosphorus, sulphuret of lime, acetate of copper.

Varicella, chicken-pox.—Remedies :—Aconite, coffea, belladonna, emetic tartar, mercurius.

Miliary fever.—Remedies :—Aconite, coffea, belladonna, veratrum, arsenic, ipecac, bryonia, nux vomica, carbonate of lime, chamomilla, tincture of sulphur, acetate of copper.

Urticaria, nettle-rash.—Remedies :—Dulcamara, aconite, nux vomica, pulsatilla, crude antimony, belladonna, sulphuret of lime, rhus, bryonia, nettles, sulphur, nitric acid, lime.

Quinsy.—Remedies :—Mercurius, lachesis, pulsatilla, cantharides, nux vomica, chamomilla, coffea, ignatia, sulphur, veratrum, capsicum.

Mumps.—Remedies :—Mercurius, belladonna, cocculus, carbo-vegetabilis.

Indigestion.—Remedies :—Pulsatilla, arsenic, chamomilla, rhus toxicodendron, sulphur, ipecac, cinchona, nux vomica.

Flatulent Colic.—Remedies :—Cinchona, arsenic, nux vomica, pulsatilla, carbo-vegetabilis, colchicum, belladonna.

Hæmatemesis, vomiting blood.—Remedies :—Nux vomica, pulsatilla, cinchona, arnica, sulphur.

Constipation.—Remedies :—Opium, bryonia, lachesis, alum, nux vomica, lead, platina, nitro-muriatic acid, silicea, lycopodium, china.

Hæmorrhoids.—Remedies :—Aconite, nux vomica, sulphur, arsenic, belladonna, rhus, pulsatilla, platina, ignatia, colocynth.

Prolapsus ani.—Remedies :—Ignatia, nux vomica, mercurius, sulphur, calcarea.

Diarrhœa.—Remedies :—Dulcamara, bryonia, cinchona, chamomilla, mercurius, rhubarb, pulsatilla, ipecac, nux vomica, colocynth, arsenic, crude antimony, rhus, lachesis, nitric acid, phosphoric acid, magnesia.

Dysentery.—Remedies :—Aconite, chamomilla, ipecac, mercurius, corrosive sublimate, bryonia, arsenic, carbo vegetabilis, cinchona, cantharides, sulphur.

Cholera.—Remedies :—Ipecac, veratrum album, arsenic, cinchona, pulsatilla, copper, sulphur, carbo vegetabilis, nux vomica, ergot, stramonium.

Cholérine.—Remedies :—Veratrum, mercurius, pulsatilla, nux vomica, chamomilla, colocynth, ferrum, Dulcamara, carbo vegetabilis, cantharides.

Inflammation of the liver.—Remedies :—Belladonna, aconite, nux vomica, chamomilla, mercurius, arsenic, pulsatilla, nux vomica.

Jaundice.—Remedies :—Mercurius, cinchona, pulsatilla, digitalis, chamomilla.

Inflammation of the spleen.—Remedies :—Aconite, arsenic, cinchona, nux vomica, bryonia.

Inflammation of the stomach.—Remedies :—Aconite, belladonna, ipecac, crude antimony, nux vomica, lachesis, pulsatilla, arsenic, cantharides, hyoscyamus, arnica.

Inflammation of the bowels.—Remedies :—Arsenic, mercurius, nux vomica, lachesis, nitric acid, bryonia, pulsatilla, colocynth, chamomilla, cinchona, colchicum, phosphorus, sulphur, silicea.

Inflammation of the peritoneum.—Remedies :—Aconite, belladonna, arsenic, chamomilla, lycopodium, colocynth.

Worms.—Remedies :—Aconite, ferrum, nux vomica, mercurius, sulphur, calcarea, silicea, pulsatilla, ipecac, antimony, cicuta, cinchona.

Laryngitis.—Remedies :—Sulphur, burnt sponge, Aconite, lachesis, belladonna, hyoscyamus.

Hooping Cough.—Remedies :—Dulcamara, pulsatilla, mercurius, belladonna, aconite, ipecac, nux vomica, chamomilla and sulphur.

Croup.—Remedies :—Aconite, sulphur, burnt sponge, arsenic, tartar emetic, lachesis, caustic, ammonia, bromin.

Influenza.—Remedies :—Camphor, aconite, mercurius, arsenic, bryonia, phosphorus, belladonna, pulsatilla, arnica.

Bronchitis.—Remedies :—Aconite, pulsatilla, bryonia, sponge, belladonna, nux vomica, lachesis, mercury, lycopodium, stannum, dulcamara, arsenic, ipecac, tartar-etic.

Pneumonia.—Remedies :—Aconite, bryonia, phosphorus, tartar-etic, mercurius, belladonna, lachesis, arsenic, antimony, sulphur.

Pleuritis.—Remedies :—Aconite, bryonia, sulphur, mercurius, arsenic, arnica.

Hæmoptysis.—Remedies :—Pulsatilla, bryonia, nux vomica, rhus, arnica, aconite, ipecac, iron, opium, cinchona.

Consumption.—Remedies :—Ipecac, arsenic, nux vomica, bryonia, pulsatilla, tartar-etic, opium, china, sambucus, musk, belladonna, lachesis, veratrum, dulcamara, cinchona, stannum.

Determination of the blood to the head.—Remedies :—Aconite, nux vomica, calcarea, belladonna, opium, coffea, chamomilla, ignatia, arnica, mercurius, pulsatilla, lycopodium, dulcamara, sanguinaria, cinchona, sulphur, carbonate of lime, opium, conium.

Inflammation of the brain and its membranes.—Remedies :—Aconite, belladonna, bryonia, hyoseyamus, opium, stramonium, zinc, acetate of copper, rhus, lachesis, mercurius.

Apoplexy.—Remedies :—Aconite, belladonna, nux vomica, opium, lachesis, arnica, pulsatilla, ipecac, carbonate of barytes.

Paralysis, Palsy.—Remedies :—Arnica, bryonia, rhus, sulphur, electricity, galvanism.

Tetanus. — Remedies : — Belladonna, cicuta, opium, arnica, ignatia, stramonium, hyoseyamus.

Delirium Tremens. — Remedies : — Nux vomica, opium, aconite, belladonna, lachesis, sulphur, calcarea.

Epilepsy. — Remedies : — Belladonna, copper, hyoseyamus, ignatia, lachesis, nux vomica.

Neuralgia. — Remedies : — Belladonna, platina, lycopodium, arsenic, colocynth, veratrum, china, assafœtida, spigelia.

Headache. — Remedies : — Belladonna, bryonia, rhus, sepia, silicea, pulsatilla, china, veratrum, lachesis, mercurius, colocynth, chamomilla, sulphur.

Erysipelas. — Remedies : — Aconite, belladonna, bryonia, pulsatilla, rhus, arsenic, lachesis, sulphur, copper.

Carbuncle. — Remedies : — Lachesis, silicea, arsenic.

Chilblains. — Remedies : — Nux vomica, pulsatilla, belladonna, rhus, nettles, arsenic, sulphur.

Corns. — Remedies : — Arnica, ammonia, bryonia, nux vomica, rhus, ignatia.

Scabies, Itch. — Remedies : — Sulphur, mercurius, veratrum, silicea, sulphuric acid, arsenic, dulcamara, pulsatilla.

Herpes Circinatus, Ringworm. — Remedies : — Rhus, sulphur, calcarea.

Scald-head. — Remedies : — Rhus, sulphur, arsenic, dulcamara, bryonia.

Inflammation of the kidneys. — Remedies : — Aconite, cantharides, arsenic, sulphur, mercurius, arnica, nux vomica.

Cystitis, inflammation of the bladder. — Remedies : — Cantharides, pulsatilla, digitalis, arsenic, carbo-vegetabilis, sulphur, nux vomica.

Gravel. — Remedies : — Sarsaparilla, nux vomica, graphites, sulphur, cannabis, lycopodium, calcarea.

Retention of the urine.—Remedies:—Aconite, camphor, arsenic, phosphorus, belladonna, cantharides.

Difficulty in discharging urine.—Remedies:—Aconite, sulphur, belladonna, cantharides, opium, pulsatilla, spirits of camphor, mercurius, nux vomica.

Suppression of urine.—Remedies:—Aconite, cantharides, pulsatilla, camphor, belladonna, opium, lycopodium,

Diabetes.—Remedies:—Veratrum, mercurius, nitric acid.

Hæmaturia.—Remedies:—Cantharides, quinine, pulsatilla, mercurius, sulphur, ipecac, camphor, carbo-vegetabilis, arnica, nux vomica, nitric acid, aconite, squills, zinc, calcarea, petroleum, cannabis, cocculus indicus, capsicum.

Gout.—Remedies:—Aconite, pulsatilla, arsenic, iron, nux vomica, bryonia, sanguinaria, sulphur, saffron.

Rheumatism.—Remedies:—Aconite, bryonia, sulphur, belladonna, rhus, chamomilla, ignatia, conium, mercurius, lachesis, pulsatilla, arnica, mezereum, euphorbium, pink root, digitalis, phosphorus, veratrum, caustic.

Lumbago.—Remedies:—Aconite, bryonia, nux vomica, rhus, belladonna, pulsatilla, mercurius.

Ophthalmia.—Remedies:—Aconite, belladonna, nux vomica, cinchona, arsenic, euphrasia, ignatia, pulsatilla, mercurius, sulphur.

Scrofulous Ophthalmia.—Remedies:—Arsenic, conium, crude sulphur, lime, bitter sweet, iron, graphites, gold, lycopodium, indian hemp, chamomilla, digitalis, iodine, mercurius, corrosive sublimate, magnesia, nitric acid, lachesis, cinchona, pink root.

Ulceration of the cornea.—Remedies:—Nitric acid, arsenic, euphrasia, sulphur, calcarea, mercurius, lachesis, silicea, nitre.

Epistaxis.—Remedies:—Aconite, belladonna, bryonia, mercurius, carbo vegetabilis, graphites, pulsatilla, calcarea,

arnica, rhus, iron, sepia, nux vomica, lachesis, bryonia, dulcamara, saffron, musk, ammonia, silicea.

Stomacace. — Remedies :— Mercurius, nitric acid, nux vomica, capsicum, carbo-vegetabilis, sulphur, nitre, borax, iodine, lemon juice, dulcamara.

Scurvy. — Remedies :— Vegetable carbon, mercurius, nux vomica, pulsatilla, sulphur, creosote, belladonna, nitric acid, quinine, alum, arnica, chamomilla.

Ascites. — Remedies :— Arsenic, cinchona, iron.

Anasarca. — Remedies :— Hellebore, bryonia, mercurius, arsenic, phosphorus, iron, colchicum.

Hydrothorax, dropsy of the chest. — Remedies :— Arsenic, dulcamara, digitalis, pink root, bryonia, aconite.

Hydrophobia. — Remedies :— Belladonna, hyoscyamus, stramonium, cantharides.

Amenorrhœa. — Remedies :— Nux vomica, sulphur, opium, aconite, veratrum, pulsatilla.

Menorrhagia. — Remedies :— Nux vomica, chamomilla, sabina, ignatia, platina, veratrum, sulphur.

Dysmenorrhœa. — Remedies :— Pulsatilla, belladonna, nux vomica, coffea, sulphur, calcarea, chamomilla.

Turn of life. — Remedies :— Cocculus, aconite, pulsatilla, nux vomica, lachesis.

Leucorrhœa. — Remedies :— Pulsatilla, china, calcarea.

Hysteria. — Remedies :— Calcarea, nitric acid, veratrum, belladonna, pulsatilla, gold, stramonium.

Difficult dentition. — Remedies :— Chamomilla, bryonia, zinc, sulphur.

Sugar globules are medicated with these remedies, in the third to the sixth potencies.

Method of preparing the sugar globules, from Jahr and Gruner,
p. 27.

These are made by confectioners, and are composed of sugar and starch; they can be had of different sizes, from that of a millet-seed to that of a buck-shot. The whitest, driest, and hardest, should be selected for medicinal use; they should be all of equal size, and not mixed with sugar-dust. After having moistened the globules with the medicine in some suitable vial, we turn them out on paper with raised edges, and agitate them until they cease to adhere one to the other. Should we afterwards wish to put them into the same bottle in which we had moistened them, we should take care to dry it also, before making use of it. The complete desiccation of the globules, before bottling them, is absolutely indispensable, since, without that precaution, they fall into powder in a short time, and lose their medicinal virtues.

A table showing the amount of alcohol required to form the different dilutions. One grain of the millionth degree of trituration, is added to 100 drops of alcohol, and one drop of that to 100 more of alcohol, making the first dilution.

First	attenuation = 1 =	100 = hundredths
Second	" = 2 =	10,000 = ten thousandths.
Third	" = 3 =	I = millionths.
Fourth	" = 4 =	100 I = hundred millionths.
Fifth	" = 5 =	10,000 I = ten thousand millionths
Sixth	" = 6 =	II = billionths.
Seventh	" = 7 =	100 II = hundred billionths.
Eighth	" = 8 =	10,000 II = ten thousand billionths.
Ninth	" = 9 =	III = trillionths.
Tenth	" = 10 =	100 III = hundred trillionths.
Eleventh	" = 11 =	10,000 III = ten thousand trillionths.
Twelfth	" = 12 =	IV = quadrillionths.
Fifteenth	" = 15 =	V = quintillionths.
Eighteenth	" = 18 =	VI = sextillionths.
Twenty-first	" = 21 =	VII = septillionths.
Twenty-fourth	" = 24 =	VIII = octillionths.
Twenty-seventh	" = 27 =	IX = nonillionths.
Thirtieth	" = 30 =	X = decillionths.

HYDROPATHY.

By Hydropathy is understood a system of medical practice, in which water, in its various applications, constitutes the only remedy. R. T. Trall, M. D., in his work on the hydropathic system of practice, states, that in order to understand the philosophy of water-cure, it is necessary to understand the physiological relations of water to the healthy organism. These he states in the following propositions:

“1. Water constitutes the greater proportion of the entire bulk of the body.

“2. Water composes more than three-fourths of the whole mass of blood, more than seven-eighths of the substance of the brain, and more than nine-tenths of the various colorless fluids and secretions.

“3. Water is the only medium through which waste, or effete particles of extraneous matter, are conveyed from all parts of the system to the excretory organs to be expelled.

“4. Water is the only solvent diluent and detergent in existence, for animal and vegetable excrementitious matter.

“5. Water is the only material capable of circulating in all the tissues of the body and penetrating their finest vessels, without vital irritation or mechanical injury.

“6. The only morbid effects result from improper temperature, and over-distension of the hollow viscera, or circulating vessels, from excess of quantity — effects never necessarily unavoidable.”

Hydropathists claim disease to be the result of the misuse or abuse of some one or more of the hygienic agencies, such as bad air, impure light, defective aliment, indolence, &c. They still further claim, that medicinal drugs never tend to correct the functional disturbances produced by these morbid influences, although animal organism consists

of true medicinal elements, and for the want of a due amount of which, disease is frequently produced. The teeth cannot be developed without lime, carbonic and phosphoric acids, nor the enamel without fluoride of calcium. Healthy bile, mucus, sweat, saliva, tears, cartilage, &c., all contain carbonate of soda, and if the soda is deficient, these fluids are diseased. Phosphate of lime is one of the constituents of serum, saliva, bones and muscles, which may become diseased by a deficiency of this material; by administering this article to the patient, he is restored. Hydrochloric acid is one of the ingredients of gastric juice, a deficiency of which, causes dyspepsia; the most ample experience shows that salt will remedy the difficulty. Iron is one of the ingredients of the blood, and without it the blood is *anæmic*. Iron will correct the difficulty. The above facts, with many others that might be adduced to show the utter fallacy of depending entirely upon water to correct the abnormal conditions of the system, yet it is a valuable auxiliary. The various methods of applying water for the cure of disease, are the following:

1. The wet sheet pack: The mode of applying this bath, according to Dr. Trall, is as follows: Take a sea-grass or straw mattress, upon which spread from three to five large thick comfortables, then a soft flannel blanket, and lastly the wet sheet, wrung sufficiently so as not to drip. Two pillows placed upon the mattress are necessary for the head. The patient lying down on the back is quickly enveloped in the sheet, followed by the blanket and comfortables. A light feather bed may be thrown over the top, in which case two less comfortables will be required. If the feet remain cold, bottles of hot water should be placed to them. Headache is prevented by the application of cold packs. In wrapping up the patient, great care should be taken to turn the clothing snugly and smoothly around the neck and feet. For very delicate persons, the

sheet should first be wrung out of tepid or even warm water. On coming out of the pack, the plunge, douche, rubbing wet-sheet, or towel washing may be employed, as indicated.

This bath is used by hydropathists in a great variety of diseases, both acute and chronic. In chronic disease it is used for the purpose of producing reaction; hence the packing is continued for a considerable length of time, and a full amount of clothing is used. When it is used in acute diseases to overcome inflammation and restore the superficial capillary circulation, the water is used at a lower temperature, and the packs are more frequently changed. This method of applying water is a very favorite one among most hydropathists, in typhoid fever, inflammation of the bowels, lungs, &c.

The Half Pack Sheet.

The half pack is the application of the wet sheet to a portion of the body only; as to the bowels in Enteritis, or to the lungs in pneumonia. This bath is also used on feeble persons, and in chronic diseases where there is much debility. This method of applying water is a favorite one of mine, in all cases of inflammation of the lungs, and bowels, also in most chronic affections of the uterus.

The Douche Bath.

The douche bath may be applied either warm or cold. It is given by allowing a stream of cold water to fall upon a portion of the body from a height of four or five feet. The stream should be from one eighth to one half of an inch in diameter, and should be repeated from time to time as indicated. It is used in chronic affections of the liver, tumors, local rhenmatism, inflammation of the brain, hip disease, &c. When the vital reaction is feeble, the water should be warm, but where it is vigorous, cold water should be used.

Dripping Sheet.

The dripping sheet is another form of applying cold water. It is given as follows: The patient standing in a tub, the sheet is suddenly thrown around his body, which it envelopes from the head to the feet, and the body is rubbed by the hands of the attendant, outside the sheet, for five or ten minutes, when the sheet should be removed, and the body rubbed with a dry towel.

This bath is used in the early stage of fevers, also in most chronic diseases. I have found this form of bathing a very convenient one, not only in removing disease, but when used once or twice a week an excellent preventive.

The Hip or Sitz Bath.

For the sitting bath, sufficient water should be placed in a tub to cover the hips and lower portions of the abdomen, when the patient is in a sitting posture. The water may be of any temperature to suit the indications. This bath is beneficial in diseases of the uterus, as leucorrhœa, dysmenorrhœa and prolapsus. In these diseases the baths are mostly used cold.

This bath is also used in dysentery, piles, hip disease, &c. The baths should be repeated as often as the nature of the case appears to indicate.

Shallow Bath.

This bath is taken in a tub large enough for the patient to sit upright with ease. The water should be from four to six inches deep. The temperature of the water, as in other forms of bath, should be warm or cold as indicated. The shallow bath is used in all cases where the sitz bath is recommended, and in many cases to much advantage.

Plunge Bath.

This process consists in immersing the whole body up to the neck in water quickly, where there is room sufficient for the patient to exercise his limbs under water. A plunge bath may be easily constructed where there is a running stream. A box eight or ten feet long, and five or six feet high, may serve a good purpose for this bath. This form of bath is of utility in all cases where there is sufficient vital reaction, except in organic disease of the heart, and tuberculous affections of the lungs.

Foot Bath.

By foot bath is meant merely placing the feet in warm water. This is a valuable auxiliary in acute and most chronic diseases. It acts as a revulsive to diseases of the brain, stomach and bowels. Where there is determination of blood to the head, stomach or bowels, the bath should be hot, and followed by brisk friction. The benefit of the bath will be much increased by the addition of lye and pulverized mustard, in acute diseases.

Head Baths.

The head bath may be given in two ways. By laying folded towels upon the head that have been wrung out of cold water, or by allowing a stream of water to fall upon the head. The most common method in acute diseases is to wrap the head in wet cloths, and change as often as they become warm. In some violent affections of the brain, more benefit may be derived from a stream of cold water falling upon the head from some distance.

Cataract Bath.

This bath consists in two streams of water falling obliquely upon opposite parts of the body. This form of

bath may be used for the same purpose as the douche, as also a substitute for the wave bath or plunge, when the patient is too weak to take the latter.

Dry Pack, or Sweating Bath.

This is managed as the wet-sheet packing, except for the wet sheet a dry blanket is substituted. In either process, wet cloths should be applied to the head, and plenty of air should be admitted into the room. This bath is useful where the patient has not sufficient vitality to render the wet-sheet pack or other cold applications practicable. Ague chills may be much lessened in their severity by this process of sweating.

The Vapor Bath.

This is valuable in colds the first stages of fevers, &c. The patient may sit on an open chair with a blanket of sufficient thickness to retain the steam pinned about the neck. A pan of water may be placed under the chair, in which hot bricks are immersed to keep a vapor constantly rising; or a small quantity of alcohol may be burnt beneath the chair, to produce perspiration. This bath may be continued from fifteen to twenty-five minutes.

The Wave Bath.

This consists in extending the body in a swift current of water. It is for the same purpose as the plunge bath.

The Rain Bath.

This is taken by walking in a brisk shower, dressed in thin apparel. This is used for producing reaction; it stimulates the glands, hence it is useful in scrofula. The walk should not be prolonged to produce fatigue; when the patient returns, the cloths should be removed, and the body wiped with a dry towel.

Portable Shower Bath.

This process may be performed by showering the body with an ordinary tin shower-pot.

The Affusion Bath.

This consists in pouring water over different parts of the body, while the patient is standing in a tub.

This is a favorite method of applying water in fevers and inflammatory diseases. Where this bath is used for cooling the body, it should be repeated until the object is accomplished.

Towel or Sponge Bath.

This bath consists in washing the surface with a towel or sponge. This is the most convenient of all the baths. It is used extensively in fevers. It should never be neglected in their treatment, but should be repeated two or three times a day. A small amount of saleratus added to the water is a valuable auxiliary.

Wet Dress Bath.

The patient is enveloped in a dripping night dress, placed in bed, and treated the same as in the wet sheet pack.

Leg-Bath.

The leg-bath consists in immersing the legs in a tub of water. It is used for gout, rheumatism, ulcers, diseases of the joints, &c.

Fomentations.

These are cloths wrung out of hot water, and applied to different parts of the body, as may be indicated.

Wet Bandages.

This is another method of applying cold or warm water to different parts of the body. The cold, wet girdle, is used to good advantage in prolapsus uteri, and leucorrhœa.

Hand Friction.

This should be applied after all baths. It is preferable to any other kind of friction. In all cases where baths are made use of to invigorate the system, friction should be applied until reaction is produced.

TEMPERATURE OF BATHS.* — Hot, warm, tepid, cool, and cold, are only employed as approximate terms. Water that feels hot to one may only be warm to another. The sensations are generally a better guide for regulating the temperature of a given bath than the thermometer; still the latter is indispensable in many cases, and in all, convenient. As a general rule, the more feeble and delicate the patient, the more strictly should we follow the test of his feelings, in administering tepid, warm, or cold baths. When the circulation is vigorous, and the vital temperature well developed, we may regulate any bath with sufficient precision by the thermometer. It is a useful precaution, when commencing treatment with very susceptible patients, to test their sensibility to different temperatures of water, after which the physician or patient can prescribe them thermometrically. Some Water-Cure books seem to make it an especial point, to be thermometrically exact in directing particular baths for given diseases: as, for example, sitz baths, at 59°; shallow-baths, at 63°; half-bath, 74°, &c. These nice distinctions are not to be arbitrarily imitated, but may be regarded as land-marks, to keep us within reasonable bounds.

Baths may be distinguished into cold, below 65° Fahr.; tepid, 65° to 80°; warm, 80° to 98°. But a better division may be made thus:

Very cold,	32° to 40°	Tepid,	72° to 85°
Cold,	40° to 55°	Warm,	85° to 98°
Cool,	55° to 65°	Hot,	98° to 115°
Temperate,	65° to 72°	Vapor,	98° to 125°

* Trall.

Chrono-thermal.—A system of medicine so called, from *chronos*, time, and *therma*, heat, first introduced by Dr. Dickson, of London, in 1836. He lays down the following propositions as the basis of his system :

“1. The phenomena of perfect health consist in a regular series of alternate motions or events, each embracing a special period of time.

“2. Disease, under all its modifications, is, in the first place, a simple exaggeration or diminution of the amount of the same motions or events; and, being universally alternative with a period of comparative health, strictly resolves itself into fever, Remittent or Intermittent, *Chronic* or *Acute*;—every kind of structural disorganization, from *Tooth-Decay* to *Pulmonary Consumption*, and that decomposition of the knee-joint, familiarly known as *white-swelling*, being merely developments in its course—*Tooth-Consumption*, *Lung-Consumption*, *Knee-Consumption*, &c., &c.

“3. The tendency to disorganization, usually denominated *Acute*, or *Inflammatory*, differs from the *chronic* or *Scrofulous* in the mere amount of motion and temperature; the former being more remarkably characterized by excess of both, consequently, exhibits a more rapid progress to decomposition or cure; while the latter approaches its respective terminations by more subdued, and, therefore, slower and less obvious terminations of the same action and temperature. In what does consumption of a tooth differ from consumption of the lungs, except in the differences of the tissue involved, and the degree of danger to life, arising out of the respective offices of each?”

The remedies used in the treatment of disease, Dr. Dickson terms *Chrono-Thermal*, from the relation which their influence bears to *time* or *period*, and *temperature* (cold and heat): *chronos* being the Greek word for time, and *therma* for heat or temperature. These remedies are

all treated of in the various modern works upon the *Materia-Medica*. The only agents this system rejects, are the bleeding lancet, the leech, and the cupping-instrument.

PHYSIOLOGICAL, PATHOLOGICAL, AND PRACTICAL CONSIDERATION OF FEVERS.

PATHOLOGICAL researches have not as yet been as successful in revealing the seat, nature, and character of fevers, as of some other diseases. This may be owing in part to the nature of the investigation. The investigation being mostly confined to autopsic appearances, while a correct physiological analysis of the symptoms manifested in the progress of the disease, has been in a great measure neglected.

In order to arrive at a correct idea of the nature of fevers, a study of the causes, symptoms, and effects, produced by the remedies, and the character of these phenomena, with those of organic modifications in a state of health, with microscopic autopsic appearances, will enable us to arrive at a more just conclusion relative to all the pathological changes connected with fevers.

The phenomena of fevers are so numerous and so different in appearance, that it would be almost impossible to give a minute description of them. There is not a single derangement of function, or of tissue, which I have not observed in these diseases. They have then no specific symptom nor pathognomic sign; even the hot skin, rigors, and accelerated pulse, exist in diseases when fever is not present. Although this is true relative to a single phenomenon of fever, there are a series of phenomena, which is so uniformly present in what is termed idiopathic fevers, that we call the disease fever, when the symptoms are manifested in the following order:

1. Nervous depression, characterized by languor, lassitude, and debility.

2. Rigors and chills, connected with superficial capillary congestion, an irregular pulse, and hurried and oppressed breathing.

3. Reaction, characterized by a dry tongue, scanty urine, and loss of appetite. When these symptoms appear in the order in which they are here laid down, we denominate the disease fever. Although the above series of symptoms must always be present in the above order to constitute fever, it by no means includes the entire number of symptoms present in this disease. These symptoms indicate the disturbance of, or abnormal manifestation of,

1. The nervous system, as indicated by the debility, lassitude, aversion to mental and physical exertions, restlessness, creeping chills, horripilations, alternations of flushing heat, and irregular breathing.

2. A hurried and irregular action of the heart and arteries, dependent upon the abnormal nervous manifestation.

3. Immediately following this increased circulation of the blood, is an increased and abnormal temperature, a derangement of the secretions, as indicated by the scanty urine, dry tongue, hot skin, increased thirst, anorexia, &c., giving unmistakable evidence of the entire inability of the nervous system to afford these important organs the necessary stimulus. In thus carefully noting the series of changes which manifest themselves in all idiopathic fevers, we can commence at the derangement of the brain and nervous system, and follow the entire series of physiological and symptomatic changes, as arising from, and dependent upon, the primary cause of this entire class of diseases, *i. e.*, a derangement of the brain and its appendages.

In our classification of fevers, we have adopted that

which appears to us to be the only one warranted by the manifestations of this disease.

1st. Ephemeral Fever is the simplest of all forms of fever, yet it manifests the entire series of phenomena; but, owing to the mildness of the cause, it lasts only twenty-four hours. The cure is effected by the recuperative powers of the system.

The next form is that of Intermittent Fever, in which so much of the cause is removed as to relieve the nervous system for the time, but not entirely relieving the system from the morbid influences. During the thermal changes of the body in rest and sleep, the poisonous cause makes a sufficient impression upon the brain and nervous system to obstruct the proper supply of vital stimulus to the dependent organs of the body, and the result is a repetition of the paroxysm or Intermittent Fever. If the shock received by the brain and nerves, is of sufficient intensity to prevent a temporary restoration and reaction, the fever is called Remittent or Continued. When the secretory and excretory system is so far deprived of the necessary stimulus as to produce an entire suspension of these functions, and the circulating organs are exceedingly languid from the same cause, the fever is called Typhus or Congestive Fever. When, in addition to these symptoms, a disorganizing tendency is manifested in the glands of the bowels, the fever is termed Typhoid.

The condition of the capillary vessels in fevers, as recorded by David Craigie, M. D., F. R. S. E., in his Pathological Anatomy, pp. 156 to 163.

“In fevers, whatever be the form, intermittent, remittent, or continued, the capillary vessels are the seat of disorder. Nor is the affection confined to the capillaries of one region, of one organ, or of one tissue. The seat of fever is to be sought neither in the capillaries of the

brain and spinal chord, nor in those of the lungs, nor in those of the alimentary canal; but it is diffused over the minute ramifying communications of the aortic and venous branches, in whatever part of the body these communications are found. To establish the truth of this statement, it is requisite merely to consider the phenomena of fever in the living body, and its traces and effects in the dead.

“I presume that the affection of the capillary system of the brain, both cranial and vertebral, is too generally admitted to require being formally demonstrated. In point of fact, the pain in the head in the beginning of all fevers, the derangement of thought during their progress, and the tendency to stupor, and absolute coma towards the conclusion, are sufficient alone to prove disorder of the cerebral capillaries. But when blood or serous fluid is found effused into the ventricles, when the vessels of the brain are found turgid, distended with blood, and more numerous than natural, it is impossible to resist the inference as to the over-loaded state of the cerebral capillaries during life. I am aware that cases of fever are sometimes adduced, in which neither pain of the head nor deranged thought are observed. I can only say, that, among a very great number of cases which I have observed, though in a few the patient did not complain of headache, it was always possible to recognize more or less derangement of thought.

“In all cases, pain is felt when the patient coughs or stoops, or when the head is slightly shaken; and when no pain is said to be felt, it indicates that the stage of natural sensation is passed, and that he complains not, because he does not feel.

“In ague, the oppression of the cerebral cavities may be so great as to constitute inflammation (*Siriasis Ægyptiaca*), or phrenitic ague; or, in various degrees, the sleepy quotidian, the sleepy, lethargic, hemiplegic, carotic, and

apoplectic tertian, and the comatose quartan of practical authors (Werlhof, Torti, Lautter, Sydenham, Morton, &c), the same disease which has been named by Lancisi, Baglivi, and Morgagni, epidemic apoplexy.

“The disorder of the capillaries of the spinal chord is indicated by pain and weight in various parts of the column, by the derangement in the muscular motions, especially local palsy, *e. g.*, of the arms, legs, &c., by the tetanic spasms and convulsions taking place in many fevers. After death, much serous fluid flows from the *theca*; the vessels of the chord are distended and numerous; in all instances, serous fluid is effused, and sometimes pure blood issues from its capillaries.

“That the capillary system of the lungs is overloaded and oppressed in all fevers, is one of the most certain points in pathology. During the ague fit, the respiration is invariably quicker than natural, sometimes to the amount of thirty or thirty-six in the minute; the patient complains of sense of weight in the breast, cannot breathe fully, pants, and has frequent cough. In continued fever, the respiration is invariably quicker and more laborious than natural; a deep breath cannot be drawn easily, and more or less sense of weight and oppression is felt. I have found the respiration in continued fever so quick as thirty-six in the minute, while in ordinary cases, the application of the stethoscope indicates an embarrassed state of the circulation in the pulmonary capillaries. In persons predisposed, expectoration, streaked with blood (*hæmoptæ*), is not unfrequent during continued fever.

“The same conclusion is clearly established, by examining the lungs of persons cut off either by intermittent or by continued fever. In many instances of the former, it induces bronchial inflammation, or proceeds to actual peripneumonia or pleurisy, constituting the catarrhal, pneumonic, or pleuric tertian respectively (Werlhof, Torti,

Lancisi, &c). In the latter, the bronchial mucous membrane is always more or less red, sometimes crimson or purple, or of a deep brown color, rough and much thickened; the sub-mucous tissue is brown and loaded with serous fluid; and the minute vessels are much distended with dark-colored blood. The bronchial tubes are very commonly, in fatal cases, perfectly filled with thick, viscid mucus, which adheres to the inner surface of the bronchia membrane. The serous surface of the organ is generally livid or marbled from this cause; but the pleura itself is not much changed, save from the bloody serum discharged into its cavity. The lungs, in totality, are generally dense, and firmer than in the natural state.

“These changes arise from the minute ramifying vessels at the termination of the pulmonary artery, and the organs of the pulmonary veins being unusually loaded with blood. As they are more so than can be readily affected by the ordinary quantity of air admissible in such a state, imperfect respiration and undue change of venous blood contributes powerfully to the bad symptoms and the unfavorable termination of the disease. In such a state of the organs of respiration, the bronchial arteries are less able to counteract the bad effects of imperfectly respired blood, in so far as they receive from the aorta blood which has not been sufficiently arterialized.

“In the capillary system of the chylopoietic and assistant chylopoietic viscera, traces of the same condition may be recognized, both from the symptoms during life and its appearance after death. In these organs, two capillary systems may be distinguished, a primary and a secondary one. The primary is that which consists of the ultimate divisions of the splenic, gastric, and duodenal arteries, and of the superior and inferior mesenteric arteries, and their corresponding veins, which afterwards terminate in the splenic and superior and inferior mesenteric veins. The

secondary capillary system is that which results from the union of the minute extremities of the portal vein, and of the hepatic artery with those of the *vena cava hepatica*.

“It is unnecessary to dwell on the proofs of the loaded state of the capillary system of the alimentary canal. It is sufficient to remind the student that the furred or brown tongue, the thirst, the sense of internal heat, the loathing, squeamishness, and sometimes sickness, with weight, oppression, and tenderness of the epigastric region, sufficiently demonstrate the morbid state of the capillaries of the œsophagus, stomach, and duodenum; while the constipation of the bowels at the commencement, insensibility to cathartic medicine throughout, and occasional looseness at the conclusion, indicate the deranged condition of those of the intestines. After death, the minute vessels of the whole of these parts are found much distended with blood, generally dark-colored.

“In one form of fever, the abdominal or intestinal typhus, the ileum and its mucous follicles are very much affected. The follicles become enlarged, elevated, and prominent, and swelled in consequence of their proper tissue being attacked, and perhaps their secreting pores being obstructed. The apices become dead, and are thrown off in the form of sloughs; and in their place are left small ulcers, which, in no long time, enlarge, spread, and increase in depth. These changes may take place either in the isolated follicles, or in the aggregated patches or in both orders of glands.

“In certain forms of fever, there are pain, distension, and uneasy sensations in the right iliac region; and when percussion is employed, the sound emitted is dull, while a peculiar croaking noise is heard, and a gurgling movement is felt beneath the fingers, as if produced by air and liquid moving within the intestine.

“These symptoms continue the greater part of the

duration of the fever; and though they are abated by local depletion, by means of leeches and laxative medicines, they do not disappear until the fever itself either abates or altogether retires.

“The portal vein constitutes, among the vessels of the digestive organs, a secondary capillary system, in which the blood is not less accumulated than in the primary one. It may be thought that, as the blood is accumulated in the first, it ought not so readily to find its way into the trunk, branches, and ramifications of the second.

“But this objection will vanish, when it is remembered that, at the same time, both the primary and secondary system of capillaries become overloaded. This state of the capillaries of the portal and hepatic system is established by the appearance of the liver in persons cut off by fever.

“The spleen may suffer so much from this capillary distension as to resemble a mass of clotted blood without trace of organization. This morbid and extraordinary distension of the primary and secondary capillary systems of the chylopoietic organs, though distinct enough in the fevers of temperate countries, is most conspicuously demonstrated in the agues and remittents of warm climates, and especially in the severe and extreme form termed *yellow fever*. In the former, great sickness and epigastric tenderness, with more or less vomiting, are frequent; and, in the latter, constant symptoms. The vomiting, however, is not bilious, as has been too generally imagined. It is, at the commencement, always a watery fluid, evidently derived from the capillaries of the gastric, and, perhaps, from the duodenal mucous membrane. After some time, it begins to be mixed with bile, expressed, no doubt, from the gall-bladder by the pressure of the stomach in the act of vomiting. A much more uniform occurrence, however, if the disease does not subside spontaneously, or is checked

by art, is the gradual admixture of blood, somewhat darkened, with the watery fluid. This blood issues from the capillaries of the gastric and intestinal tissues by a process analogous to exhalation in the sound state, but differing in so far as, in the capillaries from which it proceeds, a degree of disorganization has taken place.

“As the blood escapes into the cavity of the canal, originally not highly scarlet, it is rapidly blackened by the action of the carbonic acid and sulphuretted hydrogen gases, at all times present in greater or less quantity. This bloody exudation is at first scanty, but gradually increases as the disease goes on, until it constitutes the greater part of what is discharged both by vomiting and by stool. In the former case, it forms the black-vomit or coffee-ground matter (*vomito prieto*), so frequent in cases of remittent or yellow fever. In the latter, it forms the dark, tarry, or treacle-like stools, mentioned by practical authors in the same disease. The description now given is general, and applies to this capillary disorganization, as it takes place both in bad agues and remittents, and in yellow fever. In the former it is less frequent, but, nevertheless, takes place sufficiently often. In the latter, it is seen in its most aggravated form, and is almost invariable in fatal cases. Its origin and formation have been traced in the most satisfactory manner by repeated dissections.

“The idea that black vomit is morbid or vitiated bile, deserves no attention. In some cases of severe yellow fever, a dark colored fluid of the same physical characters as those found in the intestinal tube, may be traced coming down the biliary and hepatic duct, from the *pori biliaris*. This, however, instead of being bile, is blood which has oozed from the hepatic capillaries, in the same manner as that from the intestinal ones.

“The capillaries of the urinary system are much affected

during fever. Both in intermittents and in continued fever, bloody urine has been discharged.

“In the same manner, the capillaries of the muscles, of the filamentous tissue, and of the skin, are morbidly distended. One of the most common symptoms of fever is pain, soreness, and a sense of bruising in the muscular parts and limbs in general. In fatal cases, when these parts are examined by incision, unusual vascular distension and extravasation of blood are frequently seen. The livid spots and patches (*molæpes*; *vibices ecchymosata*) are proofs of the same state of the capillaries of the filamentous tissue, as petechial eruptions denote this in the skin. In short, there is scarcely a texture or organ of the animal body, the capillaries of which are not disordered in the different forms of fever; and this disorder, instead of being confined to the capillaries of a single organ, is extended throughout the capillary system at large.

“It is doubtless true, that in individual cases, this disorder may be greater and more distinct in one set of capillaries than in another. In one set of patients, the capillaries of the brain may be most disordered; in another, those of the lungs; in a third, those of the intestinal canal; and in a fourth, those of the urinary organs. It is always found, however, in such cases, that the affection of one organ does not entirely exclude that of another; and while the capillaries of the one are very much affected, though those of the others are less so, they are by no means in the healthy state. In all cases of severe and exquisite fever, whether intermittent, remittent, or continued, the capillaries of the brain, of the lungs and heart, of the chylopoietic organs, of the urinary organs, of the muscles, of the cellular tissue, and of the skin, are affected nearly in the same degree.

“An important question is to decide the nature of this

affection. The dissections of Home, Plocquet, Mills, &c., as to the brain; those of Schenck, Morgagni, Lieutaud, Sarconi, and others, as to the thoracic organs; and those of Lieutaud, Petit, and Serres, Broussais, Lermier, and Andral, Louis, Chomel, and Bright, as to the intestinal canal, might favor the supposition that the morbid process of fever consists in inflammation.

“Against this conclusion, however, various facts and arguments may be added.

“1st. In fatal cases of fever, unequivocal traces of inflammation are not uniformly or invariably found. The proportion in which these marks, as albuminous effusion, suppuration, ulceration, &c., are observed, is small, compared with the number in which accumulation of blood in the capillaries, and more or less disorganization of these vessels, are observed. 2d. In cases of pure, genuine, and unmixed inflammation of the internal organs, whether spontaneous or from injury, the concomitant symptoms, though febrile, are totally different from those that distinguish either intermittent or continued fever. 3d. The marks or effects of inflammation, which are found in the bodies of persons cut off by fever, are accidental complications, and may almost invariably be traced to inflammatory reaction supervening on the febrile process, in consequence either of the physical peculiarities of the individual, the local weakness of the parts, or the influence of external morbid causes. 4th. Inflammation is a local action confined to the capillaries of one tissue, or at most of one organ and contiguous tissues; and while the structure and functions of the organ may be completely impaired, those of others remain unaltered. In fever, on the contrary, the capillaries of all the tissues, and of every organ are affected; and while no individual organ is much affected at the commencement, every organ suffers a little in the general disorder of the capillary system. 5th

Inflammation gives rise to albuminous exudation, suppuration, ulceration, and in certain parts, to serous, or seropurulent effusion. In fever, the morbid state of the capillaries terminates in complete destruction or disorganization of their organic extremities, and the consequent oozing of blood, from the surface of the several membranes and organs.

In conclusion, though it may be regarded as established that, during the morbid process of fever, the whole capillary system is unduly distended and loaded with an inordinate quantity of blood, which really moves more slowly and imperfectly than in health, we have no facts that enable us to determine what induces this peculiar and excessive accumulation. Much has been said lately of congestion, and especially of venous congestion. The state of the capillary system which I have attempted to describe is that of congestion or accumulation; and so far the hypothesis of congestion is intelligible. Of the existence of venous congestion, however, unless as an effect of that in the capillary vessels there is neither proof nor probability. It is not a primary, but a secondary, or rather a remote consequence."—(Marsh.)

The Condition of the Blood in Fevers.

"It is obvious," says Dr. Carpenter, "that increase of fibrine in the blood does not exist as the result of fever."

Dr. Andral has observed a marked diminution of fibrine in the blood in all idiopathic fevers; he also found the red corpuscles and serum slightly increased. It is probable, however, that the increase of red corpuscle is relative in proportion to the amount of fibrine, and not in proportion to the entire bulk of the blood. "In typhoid fever," says Dr. Carpenter, "the decrease in the proportion of fibrine is much more decidedly marked; and that it does not depend upon abstinence from food, as, in all cases, as soon

as a favorable change occurs in the disease, the proportion of fibrine is much more decidedly marked." "In malignant forms of fever," says Dr. Simon, "the blood frequently becomes so deteriorated in amount of fibrine as to completely lose the power of coagulation." Another remarkable change which has been observed in the blood in Typhoid and other malignant forms of fever, is the want of due arterialization, as indicated by its dark blue appearance in the veins and arteries, as well as that of the capillaries. This being a very important one in a practical point, I will introduce the remarks of Dr. Cragie upon this subject:

"What is the cause of these changes? It is reasonable to think that for the cause we ought to look in the lungs chiefly. The lungs, I have already observed, are in all cases of fever more or less disordered, their vessels are congested and oppressed; their action is impaired; and there is proof of great derangement in the action of the bronchial membrane, imperfect admission of air to the bronchial tubes and their membranes, and, accordingly, inadequate arterialization, or, it may be, the lowest possible degree of that function. These may be regarded as matters of fact, capable of demonstration. Does this morbid state of the blood, then, begin in the lungs or in some other organ or set of vessels? When we consider the large extent of the bronchial membrane; the fact that, upon it are ramified the capillary divisions of the pulmonary artery; and the fact that through these vessels passes the whole of the blood of the body; and the further fact of the manifest disorder of the whole blood of the system in fever, it is impossible to resist the conclusion, that it must be chiefly, perhaps solely, on the blood of the lungs that the cause of the fever begins to display its primary and initial operation.

"On the nature of this cause it is not possible to speak with confidence or certainty. But if the general opinion that it is a poison diffused through the air, be well founded,

it is not difficult to perceive at least some traces of its mode of operation. Whether that poison be extricated in the form of a vapor or exhalation from the surface of the earth, and is telluric in its origin; or is eliminated from vegetable matters in certain circumstances of decay or change; or from vegetable and animal matters conjoined; or is given off as a subtle effluvium from the bodies of living human beings, in circumstances unfavorable to ventilation and the healthy performance of the functions; or is the result of some unknown and inappreciable state of the atmosphere;—it must equally be inhaled in the air in inspiration, and thus thoroughly mixed with the blood of the lungs in successive acts of the function of respiration. If it be so mixed, it must be circulated with the circulating blood, and in this manner distributed through the whole vascular system to every organ of the body. In doing so, however, this poisonous material will have so altered the blood in the lungs as to produce in that blood, and in these organs, a more decided effect than elsewhere. The shock first inflicted on the blood in these organs appears, it is natural to think, the great cause of the loss of coagulating power and the impaired arterialization. We know that one of the great uses of the lung, next to or along with the arterialization of the blood, is to maintain the coagulating power, and restore it when impaired. It is, therefore, natural to infer, that when the coagulating power is diminished, it depends upon some important impediment to the function of respiration, and that when the function of respiration is imperfectly performed, that it should evince its effects in a diminished proportion of coagulating power.

If these views be well founded, it follows that, when the blood thus altered is circulated, however imperfectly, it must operate hurtfully on the organs to which it is transmitted. It must act, in truth, as a poison, and many of the phenomena of fever are similar, certainly, to the effects

of poison, especially a poison at first irritant, and then sedative and narcotic. This appears to be the mode in which, towards the latter stage of fever, its cause acts on the brain and spinal marrow."

The ancients supposed fever to depend upon a warfare between the vital forces of the body and some noxious element which had invaded the system.

Hippocrates ascribed the different fevers to the four humors; blood, phlegm, and yellow and black bile. Galen supposed that the different forms of ague depended upon the corruption of the different fluids. That quotidian arose from the corruption of phlegm, the tertian from the corruption of yellow bile, and the quartan from that of black bile. He also supposed that, in whatever part of the body the heat began, it ultimately terminated in the heart, causing increased motion of the blood and accelerated pulse, followed by an effort of the *vis vitæ* to expel the poisonous agents from the system, and to assimilate the healthy fluids to sustain the different organs of the body. Sydenham says, "that reason dictates that a fever is nothing else than an effort of nature to thrust from the system morbid matter, in order to restore the patient to health; that seeing it has pleased God, the Governor of all things, so to constitute human nature as to be subject to a variety of diseases; that these diseases are introduced into the system in the form of poisoned air and otherwise, and that when once introduced into the system they become so identified with it that it is beyond the art of man to separate it, hence nature has provided for herself a method and concatenation of symptoms, so that she might thereby expel the poisonous matter which would otherwise ruin the whole fabric. Avicenna attributed the phenomena of fever to the superabundance of the different humors. Dr. Stahl maintained that fevers depended upon plethora or overfulness of the vessels, and a depraved condition of the

fluids. Hoffman maintained that fever consisted in a spasm of the capillaries. He attributed the cause of these spasms to some morbid affection of the nervous system. Cullen contended that fever depended upon certain abnormal changes occurring in the brain. Dr. Benjamin Rusk, that all diseases are a unit; and that fevers, as well as other diseases, depend upon an irregular action, and this irregular action, in its turn, is the proximate cause of every form and modification of disease. *Ploucquet* claimed that all fevers were dependent upon inflammation of the brain. *Broussais* that all fevers depended upon an altered condition of the mucous surface of the stomach and bowels. That this alteration was mostly confined to the mucous follicles; and that, as the disease advanced, they passed into a state of suppuration. Relative to the opinion of *Broussais*, Dr. *Andral* remarks as follows: "Admitting that simple or follicular enteritis is the commencement of a great number of fevers, can everything be explained by them? We never thought so; and it has always appeared to us that these fevers never become severe except in consequence of a disturbance which supervenes in the innervation and hematosis. This has been very satisfactorily proved by Prof. *Bouillaud*, who has contributed to give considerable weight to the doctrine of the localization of fevers, by placing this doctrine on a broader basis, more particularly by establishing the reality of the alterations, which on the one hand the blood, and on the other the nervous centres, undergo in a great number of fevers. The part performed by these has been also clearly demonstrated by the valuable observations of M. *Chauffard*, of *Avignon*.

This disturbance of hematosis and innervation, which gives rise to the phenomena called adynamic and ataxic, or in other words, to the typhoid state, may be the result of several lesions, different in their nature and in their seat.

First, gastro-intestinal inflammations give rise to it more frequently than diseases of any other organ. Of these inflammations, some are directed principally to the intestinal follicles, which become tumefied, and ulcerate; others consist merely in a simple ulceration of the mucous membrane itself. Other organs also, however, though less frequently than the digestive tube, may become the occasion of that profound disturbance of innervation and hematosiis, a disturbance which constitutes the adynamic and ataxic fever of Pinel. Thus phlebitis, pneumonia, particularly in aged persons, erysipelas, phlegmon, inflammation of the urinary passages, an abscess developed in the prostate, metritis, several forms of inflammation of the liver, variola, acute inflammations of the synovial membranes, etc., may give rise to it. M. Boisseau has clearly proved this in his physiological pyretology, and it has been put out of all doubt by several other works; by those of Dance, in particular.

Thus the ataxo adynamic, or typhoid state, may be developed, in consequence of a great number of affections widely differing from each other: it is a collection of symptoms identical as to their ultimate seat, but not as to their origin. Thus symptoms, identical also as to their nature, differ only in their greater or less intensity; with regard to their progress and duration, they are subordinate to the progress and duration of the affection, in consequence of which the typhoid symptoms have been developed. If it be a primary alteration of the blood which gives rise to them, these symptoms may acquire, in a few hours, their highest degree of development; and, in some cases, even occasion sudden death. If the commencement be in an organ where inflammation is rapidly developed, as in a lung, or in a vein, the typhoid symptoms shall have a quick course and a rapid termination, similar to this inflammation. If, on the contrary, they are connected with

an inflammation, which, as that of the intestinal follicles, has stages, which it passes through with a certain degree of slowness, they will be like the inflammation itself, slow in their development, and slow in their termination, whether favorably or fatally.

This is, we think, all the difference between a typhoid fever, which is connected with phlebitis, for instance, and that which follows dothiteritis. There will be, however, in each of them, some particular symptoms, which will depend on the local lesion, as the diarrhœa in the case of follicular enteritis. We may, no doubt, as M. Louis has done, reserve the term typhoid fever for the morbid state which proceeds along with the affection of Peyer's glands; this, however, is a distinction purely arbitrary; and, besides this mode of proceeding, seems to us to be attended with the inconvenience of thus designating a great number of cases of follicular enteritis, in which the term typhoid affection has no longer any meaning; for all cases of follicular enteritis, certainly are not accompanied either with stupor, or with the different phenomena of adynamic or ataxic fever; all do not resemble typhus: they are oftentimes mere inflammatory, bilious, or mucous fevers, to use for a moment the language of the *Nosographie Philosophique*.

We do not think it right then to retain the term typhoid fever, because this term leaves a vagueness in the mind, not consistent with science, and because it often fails in exactness, with respect to the symptoms which it represents. We admit as a possible, but never a necessary consequence, a *typhoid state* in a great number of diseases; that is to say, a state in which there appear some general symptoms more or less similar to those which characterize typhus. This state indicates that the disease no longer exists in the organ where it had commenced—it is, in some degree, the signal that the blood and nervous centres participate in

the disease. Thenceforward, the nature of the disease is no longer the same, and other therapeutic indications present themselves to be fulfilled.

The term typhoid, when applied to fevers in this work, is not used as an adjective, defining typhus, but as a noun, the name of a fever which is characterized by a specific glandular affection of the bowels. Dr. Samuel Dickson, of London, donounces, in the most emphatic terms, the opinion entertained by the great body of the medical profession, that not only fevers, but all other diseases, are very various, and may be developed by a plurality of causes; and adopts the maxim of Hippocrates, "*Omnium morborum unus et idem modus est.*" The type of all diseases is one and identical. Upon this subject he remarks, "a disease is not a devil to be cast out, an acrimony or crudity to be expelled, nor any fanciful chemical goblin to be chemically neutralized; neither is the state erroneously termed inflammation, so commonly the cause, as a coincident part of the general disorder. Disease is an error of action; a greater or less variation in the motion, rest, and revolutions of a systematic series of periodic alternations.

Whatever be the cause or causes of corporeal aberration, in obedience to the law of all matter, the first effects are changes of motion and changes of temperature; the patient accordingly has a feeling of heat and cold; his muscular movements are less under the control of their respective influences, thus becoming tremulous, spasmodic, or varied. The breathing is irregular; the heart beats with increased force, and often with much irregularity of motion. The secretions are changed. The functions of the brain are disturbed, and the body undergoes material physical changes. He further states the cause of all disease, of various name, place and degree, is only one in their real nature, and may be found in a deprivation of any adaptation of

the identical forces which continue life in health ; the same natural agencies, in a word, by which every motion or event is produced throughout the universe. They comprise everything, therefore, which connects us directly or indirectly with the external world. The cause of disease, then, never originates in any single organ of the body, except as far as that organ may be predisposed by inherent weakness of the attractive powers of the atoms of its parts to receive grave impressions from outward agencies that affect other parts of the body in a slight manner. He claims health to consist in a periodic alternation of harmonious movements, some longer, some shorter, and that intermittent fever is the type of all diseases ; in other words, that all diseases are but a modification of fever, of which ague is the type.

Whether this doctrine of fever, according to Dr. Dickson, be true, and that every fever is but a modification of the primitive type, ague, is a subject worthy of investigation. The opinion of Prof. J. G. Jones, that disease, throughout the entire western country, is decidedly of a periodic character, with the almost universal success of antiperiodic remedies in its treatment ; and not only that which is acknowledged to be of an intermittent type, but also that which is supposed to depend upon a series of uninterrupted morbid changes, is a confirmation of the doctrine of the periodicity of disease, at least to a certain extent.

Also the doctrine of disease as advocated by my learned colleague, Prof. Chase, M. D., which is, that disease depends upon the too positive or too negative condition of the electrical forces of the brain and nerves, or cerebral spinal system ; and that these alternate changes in the electrical condition of the nervous system give rise to all the pathological changes characteristic of not only fever, but all other diseases. He maintains that all medicine

acts upon the system in increasing or diminishing the positive or negative electrical condition of the brain and nerves. Also that medicines are beneficial in proportion as they regulate the positive and negative electrical forces of the body. These views being true, we can harmonize the doctrine of Dr. Dickson with the manifest phenomena of fever. The limits of this work will not allow of a further consideration of the nature of fever, but the subject will be fully considered in my large work, now in the course of preparation, upon the Principles and Practice of Medicine.

The anatomical character of fever varies with the type of the disease. In intermittent, autopsy has shown traces of inflammation of the arachnoid membrane of the brain. The liver is frequently the seat of lesion, and sometimes undergoes a change of structure. In chronic ague, it presents the appearance described by Dr. Craigie, caused by the congested condition of its capillaries. But of all the organs of the body, the spleen is the most uniformly affected. It is not only changed in structure, but becomes very much enlarged, and in all fatal cases proves to be the principal organ on which the disease has spent its force. In remittent and congestive fevers, the essential anatomical character is alteration in the condition and structure of the liver and gall-bladder, although other organs, such as the spleen, lungs, brain, and we might add the entire capillary system, at times manifest organic lesion and congestion.

In typhoid fever the principal anatomical characteristic appears to be confined to the glands of the bowels. On summing up the locality of fevers, we may reasonably infer that the intermittent form is intimately connected with a deranged condition of the spleen, while the remittent and congestive spend their force upon the liver and stomach, and typhoid upon the bowels. Yet it is contrary to the universal characteristics of all forms of fever, to confine

their anatomical and physiological changes to any definite boundary, as each and every organ of the body is necessarily more or less dependent upon the entire organism which constitutes the whole. So disease, although local in its incipency, soon extends its abnormal influence to nearly, if not every, tissue of the body.

METHOD OF PREPARING CONCENTRATED REMEDIES.

All the concentrated remedies which are prepared in a powdered form, should be triturated either with sugar of milk or pure white sugar. The object of this is, 1st, to prevent the local influence of the medicine upon the stomach; 2d, it enables it to become more readily absorbed and conveyed into the circulation, to perform its mission of removing disease, as it passes through the different tissues, with the blood. All the fluid extracts should be diluted with pure syrup of sugar, in the same proportion as the powdered materials, i. e., ten parts to one hundred of the syrup. The tincture should be given largely diluted with soft water. The triturations, tinctures and syrups, should all be thoroughly prepared and well secured from light, moisture and heat. They should be kept in ground-stopper jars, and should be prepared as often as once or twice a year. My recipes in this work are full doses for an adult, or what might be considered a medium dose. To enable the prescriber to proportion the dose to the age, sex, idiosyncrasies, temperament, &c., I introduce the following table from the A. E. D., p. 1315.

Table of Proportionate Dose for Different ages.

Under $\frac{1}{2}$ year,	one-fifteentth of a full dose,	or	4 grains.
" 1 "	one-twelfth "	"	5 "
" 2 "	one-eighth "	"	$7\frac{1}{2}$ "
" 3 "	one-sixth "	"	10 "
" 4 "	one-fifth "	"	12 "
" 7 "	one-third "	"	20 "
" 14 "	one-half "	"	30 "
" 20 "	two-thirds "	"	40 "
" 21 "	the full dose		1 drachm.
" 63 "	eleven-twelfths "	"	55 grains.
" 77 "	five-sixths "	"	50 "
" 100 "	two-thirds "	"	40 "

To the above rule there are certain exceptions; thus castor oil requires to be given in larger proportionate doses, while opium, and the narcotics generally, should be administered in smaller proportionate doses.

Sex, temperament and idiosyncrasy, have also a modifying effect upon the dose, and they should always be kept in view in the administration of medicines.

Females usually require smaller doses than males; and persons of a sanguine temperament bear depletory medicines better than the phlegmatic.

Explanations of the Abbreviations occurring in the Formulas of this Work.

R. Recipe—Take.	lb. Libra—Pound.
M. Misce—Mix.	℥. Uncia—An ounce.
gr. granum—A grain.	ʒ. Drachma—A drachm or dram.
O. Octarius—Pint.	Gutt. Gutta—Drop.
ss. Semi—A half.	Tinct. Tinctura—A tincture.
aa. of each ingredient equal parts.	Ext. Extractum—An Extract.

GLOSSARY OF MEDICAL TERMS EMPLOYED IN
THIS WORK.

Abdomen. The cavity situated between the lower part of the thorax and the region of the pelvis, containing the intestines, &c.

Abnormal. Unhealthy.

Abortion. Miscarriage.

Abrasion. Excoriation.

Abscess. Cavity containing pus.

Absorbents. The lacteals and lymphatic vessels.

Absorption. The act of taking or sucking up.

Acacia. Gum Arabic.

Acarus Scabiei. The itch insect.

Acetate. A salt containing acetic acid, united to a base.

Acetic Acid. Vinegar.

Acetic Tincture. A tincture made with vinegar.

Acid. A compound body which neutralizes alkalies and other bases.

Aconite, Monk's-hood. A native of Europe. This plant is cultivated in gardens as an ornament. It is very extensively used by Eclectics as a febrifuge.

Aconitum Napellus.

Acme. The height of a disease.

Acne. Small red pimples appearing upon the face, mostly of young persons.

Adhesive Inflammation. That kind of inflammation which glues parts together, by means of coagulable lymph.

Adipose. Fatty.

Ether. The name of the oxyde of Ethyle.

Afferent. Name of lymphatics conveying lymph to the glands; also, nerves which convey impressions to the brain.

Afflux. The act of flowing to.

Ague-Chill. The cold stage of an intermittent.

Albumen. A substance found in animals and vegetables, and which constitutes the chief part of the white of eggs.

Alcohol. The rectified spirits of wine.

Aletris Farinosa. Star-grass.

Aliment. Any kind of food.

Alimentary Canal. The entire passage through which the food passes from the mouth to the anus.

Alkali. A substance, having a metallic base, which neutralizes acids, as potash, soda, and ammonia.

Allopathy. The system of curing one disease, by substituting another.

Aloes. The inspissated juice of the aloe spicata.

Alnuin. Concentrated remedy from the swamp alder.

Alteratives. Medicines intended to change the morbid action by restoring the healthy functions of the secretions, &c., by a gradual process.

Alum. Super sulphate of alumina and potash.

Alvine. Relating to the intestines.

Amaurosis. A paralysis of the optic nerve.

Ammonia. Volatile alkali.

Amphoric. A sound, like blowing into a decanter, heard in auscultating the chest in certain diseases.

Amenorrhœa. Absence of the menses.

Ampelopsin. A concentrated remedy from the woodbine.

Anæmia. An impoverished state of the blood.

Analysis. Resolution of a compound body into its elements.

Anasarca. Dropsy of the cellular tissue, or membrane, beneath the skin.

Aneurism. Morbid enlargement of an artery.

Angina. Generic name of morbid affections of the throat.

Anorexia. Want of appetite.

Anthelmintic. A worm-medicine.

Antidote. A medicine given to destroy a morbid cause.

Antimony. A metal used in medicine.

Antiperiodic. A remedy for periodic diseases, as ague.

Antiphlogistic. A remedy for inflammation.

Antiseptic. A preservative from putrefaction.

Anus. The inferior opening of the rectum.

Aorta. The large artery passing off from the heart.

Aperient. A gentle purgative.

Aphonia. Loss of voice.

Apthus. Sore patches on the mucous membrane.

Apocynin. A concentrated remedy prepared from the bitter root.

Apoplexy. Hemorrhage into the brain.

Apyrexia. Intermission, or absence of fever.

Arachnoid. Web-like membrane covering the brain.

Areolæ. The interstices between fibres composing organs.

Arnica Montana. Leopards' bane; a remedy used in intermittent fever, &c., and for mechanical injuries.

Artery. The name of a blood vessel which conveys blood from the heart.

Arthritis. Gout.

Assafoetida. The inspissated juice of a plant growing on the shores of the Mediterranean.

Ascarides. Small worms infesting the rectum.

Ascites. Dropsical effusion within the abdomen.

Asclepin. Concentrated remedy obtained from the pleurisy root.

Asphyxia. Apparent death from suffocation.

Asthenic. Applied to disease of a low grade of action.

Asthma. A disease of the lungs, accompanied by difficult breathing.

Astringents. Medicines used to contract the animal fibre.

Atony. A want of tone or energy in the muscular power.

Atrophy. A morbid state of the digestive system, in which the food taken into the stomach fails to afford sufficient nourishment. A wasting of the whole or different organs of the body.

Auricles. The superior cavities of the heart.

Aurium, Tinnitus Ringing in the ears.

Auscultation. Method of detecting disease by listening to the abnormal sounds produced in the lungs, in inspiration and expiration, by direct application of the ear, or by means of a hollow tube applied to the chest, called a stethoscope.

Axilla. The arm-pit.

BALMONY. *Chelona Glabra*, Snake's-head, Bitter Herb. Extensively used as a stomachic and tonic.

Balsam Copaiva. Liquid resin used for chronic inflammation of the mucous membrane.

Balsam of Tolu. Liquid resin used for coughs and catarrhal affections.

Baptisin. A concentrated remedy, prepared from the wild indigo or *Baptisia Tinctoria*.

Battery, Galvanic. A connected series of zinc and copper plates alternately arranged, with acid and water.

Bayberry. An astringent plant used as a tonic and astringent.

Beeberine. Active principle of the bark of the Beeberu.

Belladonna. Deadly Night Shade.

Bellows sound. A sound produced in the lungs and heart, analogous to a bellows.

Berberin. Active principle of the barberry; antiperiodic, tonic and laxative.

Benzoic Acid. Flowers of Benzoin.

Bicuspides. The first grinding teeth, molars.

Bifurcate. To divide into two branches.

Bile. A yellowish fluid secreted by the liver; its use is to remove from the fluids superfluous hydro-carbons.

Bistoury. Small knife used by surgeons.

Bitartrate of Potassa. Cream of tartar.

Bleb. Small blister.

Borax. Salt of boracic acid and soda, sub-borate of soda.

Bronchi. The tubes into which the trachea or windpipe divides

Bougie. Small elastic rod for dilating strictures of the urethra; also for evacuating the bladder.

Bronchitis. Inflammation of the ramifications of the wind-pipe.

Bronchial Sound. Sounds heard over the bronchi.

Bronchophony. Resonance of the voice heard over the bronchial tubes, or conveyed through a consolidated lung, or through an accumulation of fluid.

Bronchocele. Enlargement of the thyroid gland.

Bryonia. Medicine used in typhoid fever.

Bubo. Inflamed gland occurring in the groin or axilla.

CADAVEROUS. Countenance resembling a corpse.

Cæcum. The head of the colon; so-called from being perforated at one end only.

Cajeput. Volatile oil used for rheumatism, &c.

Calculus. Stone in the bladder.

Calomel. Combination of chlorine and mercury; a proto-chloride.

Camphor. A valuable antispasmodic and nervine.

Cannabis Indica. Indian hemp.

Canula. A hollow tube.

Cantharides. Spanish flies, for blistering; used extensively by allopaths and homœopaths.

Capillaries. Hair-like vessels for conveying the blood from the arteries to the veins.

Capsicum. Red pepper, Cayenne; pure stimulant, used in two or three grain doses, whenever a stimulant is indicated.

Carbo-ligni. Charcoal; carbo-vegetabilis.

Carbonates. Combinations of carbonic acid, with a base.

Cardiac. Appertaining to the heart.

- Cardialgia. Pain in the stomach.
- Carditis. Inflammation of the heart.
- Caries. Disease of the bone.
- Cartilage. Gristle.
- Carotid. Name of the artery passing up each side of the neck, conveying the blood to the brain.
- Castor. A secretion found in a sac near the anus of the beaver.
- Catalepsy. A nervous affection, involving loss of consciousness.
- Catamenia. The menstrual flux.
- Cataplasm. A poultice.
- Catarrh. Flow of mucus.
- Catharsis. Purgings.
- Cataract. Opacity of the crystalline lens.
- Catheter. A hollow silver tube used for evacuating the bladder.
- Caulophyllin. The active principle of the blue cohosh.
- Caustic. A substance which destroys parts by combining chemically, or disorganizing them.
- Ceanothus. New Jersey tea.
- Cellular Tissue. The fine or net-like tissue connecting most of the structures of the human body.
- Cephalitis. Inflammation of the brain.
- Cephalome. A morbid tumor, the matter of which resembles the brain.
- Cerate. An ointment made of wax.
- Cerasin. Active principle of the choke-cherry; used very extensively as an antiperiodic and febrifuge; the medium dose from three to five grains, repeated every two or three hours until thirty or forty grains are given.
- Cerebellum. The posterior portion of the brain.
- Cerebrum. The anterior portion of the brain.
- Cerebritis. Inflammation of the brain.
- Cervex Uteri. Neck of the womb.
- Chalybeate. Containing iron.
- Chancre. Syphilitic ulcer.
- Chelona Glabra. Snake's head, balmony. It is tonic and vermifuge, used in the form of infusion.
- Chelonin. The active principle of the chelona glabra.
- Chlorine. An elementary gas.
- Chlorosis. Green sickness.
- Cholérine. A modified species of cholera.
- Cholera Morbus. Bilious vomiting and purging.

- Cholera Infantum. Summer complaint of children.
- Chorea. St. Vitus' dance.
- Chyme. The pulp formed by the food mixing with the gastric secretions, after it has been for some time in the stomach. After the chyme becomes mixed with the pancreatic and biliary secretions of the duodenum, it is converted into chyle.
- Cicatrix. A scar.
- Cicatrization. Process of healing.
- Cicuta. Poison hemlock.
- Cicutin. The alkaloid of cicuta.
- Cimicifugin. The concentrated principle of the black snake-root.
- Cinchona. Peruvian Bark.
- Cinchonine. An alkaloid of the cinchona. It is antiperiodic, and used in the same cases as quinine.
- Citric acid. Acid of lemons.
- Clinic. A school in which medicine is taught by examining diseased patients at the bedside.
- Clysters. Injections per ano and per vagina.
- Cnicene. One of the active principles of the blessed thistle.
- Coagulum. A clot of blood or milk.
- Coffea, Coffee. A homœopathic remedy for nervous diseases.
- Colchicin. The alkaloid of colchicum autumnale.
- Cold. Catarrh in the head.
- Colic. Gripping in the intestines.
- Colitis. Inflammation of the mucous membrane of the colon.
- Collapse. Recession of blood from the superficial capillaries, and failing of the vital powers.
- Colliquative. Excessive evacuation.
- Colombin. Proximate principle of columbo.
- Colon. The large intestine.
- Coma. Drowsiness, lethargy.
- Comatose. Drowsy.
- Compatibles. Medicines which can be used together without impairing their properties.
- Confluent. Running together; one variety of small-pox.
- Congenital. Being present at birth.
- Congestion. Over fulness of the blood-vessels.
- Congestive Diseases. Those in which congestion is the most prominent symptom.
- Congestive Fever, is a fever, where the stomach, liver and spleen, are the congested organs.

- Conjunctiva.** The outer membrane of the eye.
Conjunctivitis. Inflammation of the conjunctiva.
Constipation. Costiveness.
Constitutional. Hereditary, or acquired predisposition; a disease is said to be constitutional when it affects the whole system.
Consumption. Wasting away.
Contagion. Propagation of disease by contact.
Continuity. Direct connection; identity of surface.
Cornea. The horny transparent coat of the eye.
Corneitis. Inflammation of the cornea.
Cornus Florida. Dog-wood.
Cornine is the active principle of the cornus Florida, and is used as a substitute for quinine.
Corrugated. Wrinkled.
Corydalin. The active principle of the Turkey pea; it is a specific remedy for syphilis.
Critical. Applied to certain symptoms, and certain stages of disease indicating crisis.
Croup. Inflammation of the trachea.
Cutis Anserinus. Goose-skin.
Cynanche. Any inflammatory disease of the throat.
Cypripedin. The active principle of the lady-slipper.
Cystitis. Inflammation of the bladder.
- DECOCTION.** Preparation made by steeping.
Decomposition. Dissolution of the animal tissue.
Decubitus. Lying down.
Deglutition. The act of swallowing.
Delirium. Aberration of the mind.
Delirium Tremens. Disease produced by excessive use of intoxicating liquors.
Dementia. Loss of mind; idiocy.
Dental. Appertaining to the teeth.
Dentition. Process of cutting the teeth.
Depletion. Diminishing the fulness of a part, by evacuating remedies.
Derangement. Applied to functional disturbances of the organs.
Dermoid. Resembling the skin
Desiccation. Drying, scabbing.
Desquamation. Scaling off.
Determination. Unnatural flow of blood to the part.

- Diabetes. Disease characterized by mal-assimilation and saccharine urine.
- Diagnosis. Distinction of maladies.
- Diagnostic. Characteristic of disease.
- Diaphorous. Transparent.
- Diaphoresis. A gentle perspiration.
- Diaphoretic. Medicines having a tendency to excite perspiration.
- Diaphragm. The partition separating the thorax from the abdomen.
- Diarrhœa. Looseness of the bowels.
- Diastole. A periodical dilatation of the heart and arteries, when the blood enters their cavities. It is the opposite movement to systole, in which the heart and arteries contract to send forth the blood.
- Diathesis. Constitutional tendency.
- Digestion. Conversion of food into blood.
- Digitalis. Fox-glove.
- Digitalin. A concentrated preparation from the digitalis; it is liuretic and sedative; from one-fifth to one-half grain is a dose.
- Dilatation. Widening.
- Dioscorea Villosa. Yam-root.
- Dioscorine. The active principle of the yam-root; a specific for bilious colic.
- Discutient. A repelling medicine.
- Disorganization. Destruction of an organ.
- Dissection. The anatomical examination of the parts of the body.
- Diuresis. An increased flow of urine.
- Diuretic. Medicine which increases the secretion of the urine.
- Dorsal. Pertaining to the back.
- Drachm or dram, \mathfrak{z} . Sixty grains by weight, and an ordinary teaspoonful by measure.
- Drastic. Powerful purge.
- Dropsy. Effusion of serum into any of the cavities.
- Drug. A medicine which has not undergone a preparation.
- Duct. A canal for conveying fluids.
- Dulcamara. Bitter-sweet.
- Dura-mater. The outer membrane of the brain.
- Dysentery. Inflammation of the colon.
- Dysmenorrhœa. Painful menstruation.
- Dyspnœa. Difficulty of respiration, shortness of breath.
- Dysuria. Difficulty in passing urine.

ECCHYMOSES. Effusion of blood beneath the skin.

Eclectic Physicians. Those who select their remedies from all the systems of practice.

New School Physicians. This refers to a large class of physicians, who believe that the investigation and practice of medicine shall be free. That all remedies should be applied that can be of any utility in removing disease, no matter from what system they may be derived. They also claim that the science of medicine is progressive, and that no dogmatic creed should be adopted to impede its progress. By the New School profession, the valuable remedies of the other systems have not only been adopted, but a large number of new ones are introduced, which enable them to combat disease with far greater success than by any exclusive system.

Eczema. Eruption on the skin.

Efferent. To carry. Efferents may be the lymphatics, blood-vessels, or nerves.

Effusion. Pouring out of blood, or any other fluid, into the areolar membrane or cavities of the body.

Effete. Worn out.

Egophony. A sound heard when the lung is hepatized, or the pleural sac partly filled with fluid; when the voice strikes the ear it yields a tremulous or goat-sound.

Elaterin. The active principle of the wild cucumber; a drastive purgative.

Electricity. Galvanism, electro-magnetism, and animal magnetism, are used for rheumatism, amaurosis, paralysis, and most nervous diseases.

Element. A simple constituent or principle of the body, or any other substance.

Emaciation. Wasting away.

Emesis. Vomiting.

Emetics. Medicines provoking vomiting.

Emetine. The alkaloid and emetic principle of ipecac; it is used as an emetic in one-grain doses.

Emeto-Cathartic. A medicine that produces vomiting and purging.

Emmenagogues. Medicines believed to have the power of exciting the menses.

Emollients. Medicines tending to soften parts that are tense and inflamed.

- Empyema.** Collection of pus in the pleural cavity.
- Emphysema.** Cavity filled with air; or the air may pervade the cellular tissue; it is divided into traumatic and idiopathic.
- Enamel.** The outer surface of the tooth.
- Encysted.** Covered with a sac.
- Endemic.** A disease prevailing in a certain district; not epidemic.
- Endosmosis.** The passage of liquids or gases through membranes.
- Endocarditis.** Inflammation of the internal membrane of the heart.
- Endocardium.** The membrane that lines the interior of the heart.
- Enema.** Injection into the rectum.
- Engorgement.** Accumulation of blood in its vessels.
- Enteric.** Belonging to the intestines.
- Enteritis.** Inflammation of the small intestines.
- Epidemic.** A disease prevailing over an extensive country or district.
- Epidermis.** The scarf-skin; cuticle.
- Epigastric.** Above the stomach.
- Epigastrium.** The region above the stomach.
- Epilepsy.** Falling-sickness; fits.
- Epistaxis.** Bleeding at the nose.
- Ergot.** Spurred rye.
- Erysipelas.** Inflammation of the skin.
- Erythema.** Simple redness.
- Euonymine.** The active principle of the *Euonymus Atropurpureus*; a valuable alterative, acting with great efficiency upon the liver.
- Eupurpurin.** The active principle of the Queen of the Meadow; a valuable remedy for gravel and uterine diseases.
- Eupatorin (perfo).** Active principle of the *Eupatorium Perfoliatum*, or boneset; a valuable tonic and antiperiodic.
- Euphorbin.** The active principle of Bowman's root; used as an emetic, cathartic, and diaphoretic.
- Eustachian.** A tube, leading from the throat to the internal ear.
- Exacerbation.** Aggravation of fever, or other disease.
- Excretion.** Anything thrown off.
- Exfoliation.** A separation of dead from living bone.
- Exhalants.** Vessels which throw out.
- Exosmosis** is the passing of rarer fluids to the denser, through the membranes.

Exostosis. Morbid enlargement of the bone.

Exotic. Belonging to a foreign country.

Expectorant. Medicine causing a discharge of mucus from the bronchi.

Extravasation. The effusion of blood into cavities, or beneath the skin.

FASCLE. Tendonous expansions, covering certain muscles, &c.

Fauces. The pharynx; back part of the mouth.

Favus. A pustule resembling the honey-comb.

Febrifuge. Medicine to subdue fever.

Febrile. Belonging to fever.

Fel Bovum. Ox-gall; specific for quinsy.

Felon. A deep abscess upon the finger.

Fever. Disease characterized by three stages—cold, hot, and sweating stage.

Fistula. Deep-seated ulcer, with a tube or canal opening externally.

Flaccid. Soft, pliable, relaxed.

Flatulence. Collection of gas in the stomach and bowels.

Fluctuation. Sensation produced by percussion, when the cavity contains pus.

Follicles. Folds; as the follicles of the mucous membrane.

Formula. Prescription for preparing medicines.

Fremitus. A vibration felt by laying the hands upon the chest.

Function. The action by which vital phenomena are produced.

Functional Diseases. Those diseases in which there is supposed to be only derangement of action.

GALBANUM. A genus of plants, the gum of which forms a valuable warming plaster for diseases of the spine.

Gall-Bladder. A small sac connected with the liver, being the reservoir for the bile.

Gangrene. Partial death of a part.

Gastric. Belonging to the stomach.

Gastritis. Inflammation of the stomach.

Gaultheria. The box-berry; wintergreen. The oil is used as a diuretic and stimulant.

Gland. Applied to those organs which separate from the blood any fluid whatever.

Globule. A small globe. The blood is composed of globules, the red, white and grey.

Glossitis. Inflammation of the tongue.

Glottis. A small oblong body in the larynx.

Glycyrrhiza. Liquorice.

Gonorrhœa. Flux from inflammation of the urethra.

Gossypium Herbaceum. Cotton plant; the fluid extract is extensively used as an emmenagogue.

Gout. Inflammation of the fibrous and ligamentous parts of the joints.

Gravel. Small stones in the bladder.

HÆMATEMESIS. Vomiting of blood.

Hæmaturia. Hemorrhage from the bladder.

Hæmoptysis. Hemorrhage from the lungs.

Hemorrhage. Bleeding.

Hemorrhoidal. Relating to hemorrhoids.

Hemorrhoids. Piles.

Heart. Centre of circulation.

Hectic. A low form of an exhausting fever, characterized by intermissions and remissions, and is mostly dependent upon some organic affection, as consumption.

Hemiplegia. Paralysis of one side of the body.

Helonin. The active principle of the star-grass.

Hepatic. Pertaining to the liver.

Hepatization. Conversion of tissue into substance like liver.

Hernia. Protrusion of the intestine.

Herpes. One kind of tetter.

Histogenic. Producing organic textures.

Homœopathy. Hahneman's doctrine of curing disordered actions in the human body, by inducing disordered action of the same kind, but more easily controlled. (See Homœopathy).

Hospital. An institution for the reception and treatment of the sick and injured.

Humors. All the fluids of the body except the blood.

Hydatids. A species of encysted Entozoa.

Hydrogogues. Medicines producing watery evacuations.

Hydrastin. Active principle of Golden seal.

Hydrocephalus. Dropsy of the brain.

Hydrotherapy. Presnitz's method of curing disease by the external and internal use of water. (See Hydrotherapy).

- Hygiene. The science of preserving health.
- Hyosciamin. Active principle of the hen-bane.
- Hypogastrium. The lower part of the abdomen, below the umbilicus, and above the pubic region.
- Hysteria. A nervous disease peculiar to females.
- ICTERUS. Jaundice.
- Idiopathic. Primary or original disease; one not dependent upon others.
- Idiosyncrasy. An individual peculiarity of constitution.
- Ignatia Amara. Plant bearing St. Ignatius' bean.
- Ileum. The longest portion of the small intestines; also one of the bones of the pelvis.
- Imperforate. The congenital closure of any foramen.
- Impetigo. Moist tetter.
- Imponderables. Without weight, as light, electricity, heat, &c.
- Incision. A clean cut by a sharp instrument.
- Incisors. The front teeth.
- Incompatibles. Medicines that cannot be used together without impairing their properties.
- Incontinence. The inability to retain the natural evacuations.
- Incubus. Nightmare.
- Indication. That which demonstrates what ought to be done.
- Indigenous. That which is peculiar to a country.
- Indigestion. Dyspepsia.
- Indolent Ulcers. Those which do not incline to heal.
- Induration. Hardness of a tissue.
- Infectious. Communicable.
- Infiltration. Extravasation of blood or other fluids into the soft tissues.
- Infinitesimal. Inconceivably minute. (See Homœopathy).
- Inflammation. A state in which the capillaries of the affected parts are interrupted in their proper function, are morbidly relaxed and over distended, and in which the blood which is passing through them is first abnormally excited and chemically changed, and then stagnates and coagulates. (Calvin Newton).
- Inflammatory. That which relates to inflammation.
- Influenza. Epidemic catarrh or cold.
- Infusion. Watery decoction.
- Ingestia. Food or drink.

Inhalation. The act of inspiration; also the method of curing disease by inhaling vapors.

Injection. Clyster; enema.

Innoculation. The insertion of morbid matter into any part of the system.

Inorganic. Not organized.

Insane. An unsound mind or intellect.

Insanity. A deviation from the natural manifestations of mind.

Inspiration. The act of receiving air into the lungs.

Integument. That which covers anything; as the skin, &c.

Intermission. The intervening time between the paroxysms of periodical diseases.

Intermittent Fever. (See Fever and Ague.)

Invagination. A portion of the intestines, falling into one another, becoming strangulated.

Iodine. Elementary body obtained from sea-weed.

Iodide of Potassium. Compound of iodine and potassium.

Irisin. The active principle of blue-flag.

Iritis. Inflammation of the pupil of the eye.

Irritability. A contractility of the solids, when stimulants are applied.

Irritation. The effect of stimulants.

JALAP. A purgative root.

Jalapin. The active principle of the jalap.

Jaundice. A disease accompanied with yellowness.

Juglandin. The active principle of the butternut.

KINGS'-EVIL. Scrofula.

Kinesopathy. Method of curing disease by rubbing.

Kaino Miasmata. Malaria; exhalation from putrifying substances.

LABIA. Lip.

Lactine. Sugar of milk.

Languor. Debility.

Laryngeal. Belonging to the larynx.

Laryngitis. Inflammation of the larynx.

Larynx. The upper part of the windpipe.

Laxative. A mild purgative.

Leech. An aquatic worm.

- Leptandrin. A valuable alterative obtained from the black-root.
- Lethargy. Continued sleep or stupor; coma.
- Leucorrhœa. Sexual weakness, peculiar to females.
- Litmus Paper. Used for detecting acids and alkalies.
- Lobelia-Inflata. Indian tobacco.
- Lobelin. The active principle of lobelia, which is extensively used as a medicine.
- Lumbago. Rheumatic affection of the back.
- Lumbrici. Round worm of the intestines.
- Lupulin. One of the active principles of the hop; used in ague and nervous diseases.
- Lymph. A thin, transparent fluid, which circulates in the lymphatics.
- Lymphatics. Vessels carrying lymph.
- MACERATION. Softening in water.
- Magnesia, Sulphas. Epsom Salts.
- Magnesia. One of the earths, having a metallic basis.
- Malaria. Supposed to be a noxious gas, arising from decomposition of vegetable matter.
- Malformation. Defective, irregular.
- Marshmallow. A valuable mucilaginous diuretic.
- Matico. A styptic plant; native of Mexico.
- Measles. An eruptive fever.
- Meatus. A passage.
- Melæna. Discharge of dark blood from the bowels.
- Melancholy. Species of deranged mental action.
- Melanosis. Black deposits of a tuberculous character.
- Meningitis. Inflammation of the membranes of the brain.
- Meningial. Relating to the membranes of the brain.
- Menorrhagia. Excessive menstruation.
- Menstruation. The catamenia.
- Mercurial. Pertaining to mercury.
- Mercury. Quicksilver. Hydrargyrum.
- Mesmerism. Somnambulism; first produced by Mesmer.
- Metamorphosis. Transformation.
- Metastasis. Change in the seat of the disease.
- Metritis. Inflammation of the womb.
- Miasm. Poisonous emanation from decomposing vegetable and animal substances.
- Miliary Fever. Name given to eruptive fever in children.

Mollities Ossium. Softening of the bones.

Morbific. Causing diseases.

Morbus Coxarius. Hip-disease.

Mortification. Death of a part.

Mucilage. A watery solution of gum.

Mucus. Animal Mucilage.

Murmurs, Respiratory. Are the sounds produced by the air passing in and out of the lungs.

Myricin. The alkaloid of the bayberry.

NARCOTIC. Remedy producing sleep or stupor.

Nausea. Sickness at the stomach.

Necrosis. Death of a bone.

Nerves. Small cords conveying sensation to different parts of the system.

Nervine. Medicine allaying nervous excitement.

Neuralgia. Pain in the nerves.

Nitre. Saltpetre.

Nitro-muriatic Acid. Used as a styptic.

Nutrition. Increase, growth.

Nymphaea Odorata. White pond lily.

OCCULT. Hidden, latent.

Œdema. Effusion into the cellular membrane.

Œsophagus. Passage leading from the back part of the mouth to the stomach.

Olfactory. Relating to the sense of smell.

Ophthalmia. Inflammation of the eyes.

Opium. The concrete juice of the poppy.

Optic. Relating to the eye.

Organs. Parts performing a definite function.

Organic Diseases. In Pathology, diseases in which there is derangement or alteration of structure, are termed organic.

Orthopnoea. Difficult respiration, requiring the erect posture.

Os. A bone.

Osseous. Bony.

Ostitis. Inflammation of the bone.

Otitis. Inflammation of the ear.

Otorrhœa. A purulent discharge from the ear.

Ovaries. Two small ova^r bodies attached to the uterus, one on each side.

Ovum. An egg.

Oxygen. One of the most extensively diffused elements in nature

Ozæna. A fetid ulcer in the nose.

PAINTERS' COLIC. A dangerous kind of colic, ascribed to absorption of lead.

Palate. The roof of the mouth.

Palpation. The method of examining the chest by application of the hand.

Palpitation. An increased and irregular action of the heart.

Panacea. A remedy used for all diseases.

Pancreas. The gland situated behind the stomach.

Pancreatic Juice. The secretions of the pancreas.

Paralysis. Loss of motion.

Paraplegia. Paralysis of the lower half of the body.

Parenchyma. The cellular tissue; the principal part of an organ.

Pathognomonic. Characteristics of disease.

Pathological. Morbid changes.

Pathology. Doctrine of disease.

Pediluvian. Foot-bath.

Pemphigus. Eruptive disease, characterized by small blisters.

Periostitis. Inflammation of the periosteum.

Peritoneum. Serous membrane lining the abdomen.

Pertussis. Hooping-cough.

Pharmacy. The art of preparing and combining medicines.

Pharyngitis. Inflammation of the pharynx.

Pharynx. Back part of the mouth.

Phlebitis. Inflammation of the veins.

Phlogistic. Inflammatory.

Phrenitis. Inflammation of the brain.

Phthisis. Consumption.

Physiology. Science of life.

Phytolaccin. A concentrated remedy prepared from the poke-root, a valuable alterative.

Piles. Varicose veins appearing about the anus.

Piperin. A concentrated remedy prepared from the black pepper.

Plethora. Over-distension of the blood-vessels.

Pleura. A serous membrane lining the chest.

Pleuritis. Inflammation of the pleura.

Pneumonia. Inflammation of the lungs.

Podophyllin. A concentrated remedy prepared from the mandrake.

Poison. That substance which, when taken into the system, produces disease, rapidly tending to dissolution.

Polypus. A tumor growing in the cavities of the body.

Populin. Concentrated remedy prepared from the poplar.

Precordia. The fore part of the thorax.

Probang. An instrument used to apply caustics to the throat.

Prunin. Concentrated remedy prepared from the wild cherry.

Pulmonary. Belonging to the lungs.

Pulsatilla. The anemone pratense.

Pulse. Beating of the heart and arteries.

Purgatives. Medicines which increase the peristaltic motions of the bowels.

Purpura. Scurvy.

Purulent. Resembling pus.

Pus. Matter produced by suppuration.

QUACK; Quacksalber. An ignorant physician.

Quack Medicines. Secret remedies administered by quacks.

Quassia. A bitter wood; used as a tonic.

Quicksilver. Mercury.

Quinine. Alkaloid of Peruvian bark.

Quinsy. Inflammation of the tonsils.

RASH. Patches of redness on the skin.

Regurgitation. Return of blood, as from the ventricle of the heart to the auricle.

Regimen. Regulation of diet, so as to promote health.

Remission. Time between paroxysms of ague.

Resonance. A revibration of sound.

Respiration. Breathing.

Rheum Palmatum. Rhubarb.

Rheumatism. Inflammation of the membranes of the joints.

Roseola. Rose-rash.

Rubeola. Measles.

SALICIN. Concentrated remedy, prepared from the willow.

Sanguinarin. Concentrated remedy, prepared from Bloodroot.

Santonine. A crystalline body, obtained from worm seed.

Scarlatina. Eruptive fever.

- Schirrous. Hard.
- Scorbutus. Scurvy.
- Scrofula. A chronic disease of the lymphatic system.
- Scutellarin. Concentrated remedy, prepared from the skull-cap.
- Sedative. A remedy that lessens arterial and nervous excitement.
- Senecin. Concentrated remedy, prepared from the *Senecio græcilis*.
- Serous. Watery.
- Sialagogue. Medicines that increase the flow of saliva.
- Sibilant. A hissing sound heard in disease of the lungs.
- Sinapism. Mustard-poultice.
- Solidist. One who ascribes all diseases to the solids.
- Somnambulism. Sleep-walking.
- Spasm. Morbid contraction of the muscles, cramp, &c.
- Specific. A remedy competent to remove the disease.
- Spermatorrhœa. A seminal weakness.
- Spleen. An organ found on the left of the stomach.
- Stethoscope. An instrument employed for examining diseases of the chest.
- Stillingia Sylvatica. Queen's root.
- Stomacace. Canker of the mouth.
- Stomatitis. Inflammation of the mouth.
- Strangury. Painful discharge of the urine.
- Strumous. Scrofulous.
- Sudorific. Producing perspiration.
- Suppuration. Formation of pus.
- Syncope. Fainting.
- Syphilis. Venereal disease.
- Systole. Contraction of the heart.
- TANNIC ACID. Astringent property of oak bark.
- Tartar Emetic. Tartarized antimony.
- Tenesmus. A griping in the lower portion of the bowels, and constant desire to go to stool.
- Turpentine. Concrete juice and oil from pine.
- Thorax. The chest.
- Thrush. White ulcers in the mouth.
- Tinnitus Aurium. Drumming in the ears.
- Tolu. Balsam extracted from a species of fir.
- Tormina. Griping pain in the bowels.

- Trachea. Windpipe.
 Tracheitis. Inflammation of the mucous membrane of the trachea.
 Tubercles. Applied to scrofulous tumors.
 Tuberculous Phthisis. Scrofulous affection of the lungs.
 Tumid. Distended.
 Tympanitis. Abdominal distension.
 Tympanum. Drum of the ear.
 Typhoid Fever. Fever, in which the disease is principally located in the bowels.

- ULCER. A morbid solution of the continuity of the part.
 Umbilicus. Navel.
 Urea. Cyanate of ammonia; a constituent of the urine.
 Urethra. Canal from the bladder, for the passage of the urine
 Uriscopist. Quack doctor, who pretends to form diagnosis of disease from the urine.

VACCINATION. Insertion of cow-pox virus, as a protection against small-pox.

- Valerian. Root used as a nervine.
 Variola. Small-pox.
 Varioloid. Modified small-pox.
 Vascular. Belonging to vessels.
 Venesection. Bleeding from a vein.
 Veratrum Viride. A valuable remedy for fevers.
 Veratrin. Concentrated principle of the veratrum.
 Vermifuge. Medicine given for worms.
 Vertigo. Dizziness.
 Vesicle. Bladder of water.
 Viburine. Concentrated remedy, prepared from the high cranberry.
 Vital. Connected with life.
 Vomica. An abscess in the lungs.

WHITE SWELLING. An inflammation of the periosteum and disease of the bone.

XANTHOXYLIN. Active principle of the xanthoxylum fraxineum, or prickly ash.

- ZIMOTIC. Contagious.
 Zinc Sulphas. Styptic salt, and mild caustic.

INDEX.

A.

Abbreviations, 607.
 Abdomen, dropsy of, 174.
 Abortion, 356, 370.
 " to prevent case of, 257, 258.
 Abscess, 533.
 Acarus Scabiei, 512.
 Acetic syrup, Sanguinaria, 447.
 Achorion schonleinii, 504, 510.
 Aconite in treatment of fever, 304.
 Aconitin, 304.
 Aconitum napellus, 304.
 Affusion bath, 582.
 Ague, 50.
 Albuminuria, 375.
 Alunin, 301.
 Allopathic practice, 547-
 Amaurosis, 235, 381, 427.
 Amenorrhœa, 344, 420.
 American poplar, 404.
 Ampelopsin, 307.
 Ampelopsis quinquefolia, 307.
 Amputation at the wrist, 471.
 " for the tarsus, 472, 473.
 " of the arm, circular, 470.
 " " flap, 471.
 " through the calf, 471.
 Anasarca, a case of, 325.
 Anatomy, 458.
 Anchylosis, 523.
 Anemia, 189.
 Angina, 207.
 Antibilious physic, 449.
 Antiperiodic pills, 444.
 Antispasmodic drops, 452.
 Aphonia, 537.
 Apocynin, 310.
 Apocynum Cannabinum, 310.
 Apoplexy, 178.
 Apple tree, 434.
 Appendix to pharmacy, 436.
 Ascites, 174, 324, 336.
 Asclepias tuberosa, 317.
 Asclepin, 317.
 Asparagus, 457.
 Asthma, 159, 317, 391.
 Atropia, 314.
 Atropia belladonna, 313.
 Atropin, 313.

B.

Balmomy, 330.
 Balsam honey, 452.
 Bandage, bis-axillary compound, 496.
 " " cravat, 496.
 " for fracture of clavicle, 474.
 " " jaw, 374.
 " for lower extremities, 469.
 " fronto-dorsal, 495.
 " " occipito labialis, 493, 494.
 " occipito frontal triangle, 493,
 494.
 " occipito sternal, 494.
 " parieto-axillaris, 495.
 " square cap, 493.
 " sub-femoral, 498.
 " tibial cravat, 497.
 " triangular cap of the breast,
 496, 497.
 " vertico-mental, 494.
 Bandy leg, 501.
 Baptisia tinctoria, 320.
 Baptisin, 320.
 Barosma crenata, 324.
 Barosmin, 324.
 Bath affusion, 582.
 " cataract, 580.
 " douche, 578.
 " foot, 580.
 " head, 580.
 " hip, 579.
 " leg, 582.
 " plunge, 580.
 " rain, 581.
 " shallow, 579.
 " shower, 582.
 " sitz, 577.
 " sponge, 582.
 " sweating, 581.
 " towel, 582.
 " vapor, 581.
 " wave, 581.
 " wet-dress, 582.
 Baths, temperature of, 583.
 Bayberry, 399.
 Belladonna, poisoning by, 314.
 Beth root, 423.
 Billous colic, 89, 349.
 Bitter cucumber, 337.

Black plaster, 453.
 Black root, 389.
 Bladder, catarrh of, 404, 408.
 " paralysis of, 542.
 " stone in, 540.
 Blood, 514, 596.
 " circulation of, 459.
 " root, 414.
 " stomach and liver tonic, 443.
 Blue cohosh, 326.
 Blue flag, 381.
 Blue skin diseases, 219.
 Bones, 458.
 Bowels, obstruction of, 536.
 " hemorrhage of, 538.
 Bowman root, 354.
 Boxwood, 338.
 Brain, dropsy of, 172.
 " inflammation of, 74.
 Brandy, egg and oil mixture, 447.
 Bright's disease, 355, 537.
 Bromo chloralum, 456.
 Bronchitis, 152, 394, 432.
 " drops, 452.
 Bronchocele, 540.
 Bubo, 309, 334, 493.
 Buchu, 324.
 Bunions, 531.
 Burns, 535.
 Burning bush, 352.
 Butternut, 385.

C.

Cancer, 490.
 Carditis, 212.
 Caries, 534.
 Cataract, 482.
 Cataract bath, 580.
 Catarrh, 539, 546.
 " vapor, 445.
 Cathartic syrup, 446.
 Caulophyllin, 326.
 Caulophyllum thalictroides, 326.
 Cellars, vegetations in, 504, 508.
 Cerasein, 328.
 Cerasius virginiana, 328.
 Cerebro-spinal meningitis, 384.
 Chelone glabra, 330.
 Chelonin, 339.
 Chicken-pox, 171.
 Chimaphila umbellata, 332.
 Chimaphillin, 332.
 Chlorosis, 189.
 Choke cherry, 328.
 Cholera, 162, 428.
 " infantum, 332, 410, 540.
 " morbus, 161, 367.
 Chordee, 305.
 Chorea, 179, 417.
 Cimicifuga racemosa, 395.
 Circulation, 468.
 Cirrhosis, 353.
 Club-foot, 485.
 " shoes for, 501.
 Cold, 538.
 Colic, 89.
 Colitis, 82.
 Collinsonia canadensis, 335.

Collinsonin, 335.
 Colon, inflammation of, 83.
 Columbo, American, 360.
 Colycynthia, 337.
 Compositioug powder, 453.
 Compound leontodin granules, 448.
 " spirits of lavender, 451.
 " syrup of helianthus, 452.
 " " " rhei et potassa, 448.
 " " " stillingia, 451.
 Concentrated medicines, 298.
 " " how to prepare,
 6-6.

Congestion, 254.
 Considerations of fevers, 585.
 Constipation, 529.
 Consumption, 113.
 " a case of, 322.
 Convolvulus panduratus, 429.
 Convulsions, 221.
 Copaiba, 431.
 Copaivin, 431.
 Copaifera officinalis, 431.
 Cornin, 338.
 Corns, 531.
 Cornus Florida, 338.
 Cotton root, 370.
 Corydalin, 340.
 Corydalis formosa, 340.
 Cough syrup, 447.
 Crane's bill, 369.
 Croup, 185, 415.
 Cucumis colocynthis, 337.
 Cutaneous eruptions, 513.
 Culver's physic, 389.
 Cyanosis, 219.
 Cynanche tonsillaris, 78.
 Cypripedin, 242.
 Cypripedium pubescens, 342.
 Cystitis, 157.

D.

Dandelion, 387.
 Deadly night shade, 313.
 Delirium tremens, 171, 305, 344, 392.
 Dentition, 194.
 Diabetes, 182, 374.
 Diagnostic symptoms, 286.
 Diarrhoea, 131, 310, 370, 394, 399, 408,
 410, 424, 430, 536.
 Diet, 543.
 " in disease, 545.
 Digestion, 464.
 " impaired, 352.
 Digitalin, 346.
 Digitalis purpurea, 346.
 Different systems of practice, 547.
 Dioscorea villosa, 348.
 Dioscorin, 348.
 " experiments with, 351.
 Diphtheria, 415, 424.
 Diseases of the skin, 5.
 Dislocation of the elbow joint, 480.
 " " lower jaw, 481.
 Distoma hæmatobium, 505.
 Diuretic drops, 453.
 Dog wood, 338.
 Doses, table of, 607.

Douche bath, 578.
 Drinks, 546.
 Dripping sheet, 579.
 Dropsical deposits, 312, 337.
 Dry pack, 581.
 Dysentery, 83, 364, 426, 549.
 " syrup, 448.
 Dyspepsia, 81, 135, 302, 330, 360, 376,
 378, 389, 405.
 Dyspeptics, 546.
 Dysmenorrhœa, 317, 420.

E.

Ear, inflammation of, 49.
 Eczema, 239.
 Eggs, cream and extract of beef, 454.
 Emaciation, 130.
 Emetics, 438.
 Emetic drops, 449.
 " powder, 449.
 Emphysema, 155.
 Empyema, 107.
 Encephalitis, 74.
 Endocarditis, 211.
 Enteritis, 82, 548, 549.
 Entozoa folliculorum, 512.
 Enuresis, 250.
 Ephemera, 49.
 Epilepsy, 176, 317, 347, 393, 418, 546.
 Epistaxis, 539.
 Epizoa, 511.
 Erysipelas, 95.
 Euonymin, 352.
 Euonymus atropurpureus, 352.
 Eupatorin, 359.
 Eupatorium perfoliatum, 359.
 Eupatorium purpurium, 356.
 Euphorbia corolata, 354.
 Euphorbin, 354.
 Eupurpurin, 356.
 Exercise, 542.
 Exudation, 520.
 Eye, diseases of, 317.

F.

Fainting, 541.
 Fæces, indicating disease, 291.
 Felon, 533.
 Female diseases, 372, 546.
 " regulator, 419.
 Fever, intermittent, 50, 547.
 " miliary, 190.
 " remittent, 53, 547.
 " typhoid, 62, 380, 395, 422, 506.
 " typhus, 57, 548.
 " yellow, 69, 414, 422, 425, 548.
 Fevers, considerations of, 585.
 " condition of capillary vessels in,
 587.
 Fistula in ano, 276.
 Flowering cornel, 338.
 Fœtal circulation, 464, 465.
 Follicular stomatitis, 77.
 Fomentations, 582.
 Foot bath, 580.
 For sore lips, 450.

For sprains, 450.
 Fracture, Amesbury's apparatus, 498.
 " of the clavicle, 474.
 " condyle, 474, 475.
 " femur, 477, 478, 479.
 " fore arm, 475.
 " humerus, 474, 475.
 " jaw, 473.
 " leg, 480.
 " lower extremities, 477.
 " olecranon, 475.
 Frazeria carolinensis, 360.
 Frazerin, 360.

G.

Garget, 400.
 Gangrene, 223, 484.
 Gastritis, 80, 378, 548.
 Gastrodynia, 199.
 Gelsemin, 362.
 " effects of, 362.
 Gelsemium sempervirens, 362.
 Geranin, 368.
 Geranium maculatum, 368.
 Geranium, 368.
 Gleet, 432.
 Glossary, 608.
 Glossitis, 548.
 Goitre, 546.
 Golden seal, 377.
 Gonorrhœa, 305.
 Gossypin, 370.
 Gossypium verbaceum, 370.
 Gout, 546.
 Gravel, 540.
 Ground holly, 332.

H.

Hæmatemesis, 200.
 Hæmaturia, 251.
 Hæmoptysis, 130, 149.
 Half pack sheet, 578.
 Hamamelin, 371.
 Hamamelis virginica, 371.
 Hand friction, 583.
 Hard hack, 335.
 Harvest flea, 511.
 Headache, 220.
 Head-bath, 580.
 Head louse, 511.
 Heal-all, 335.
 Healing salve, 453.
 Heart disease, 546.
 " diseases of, 204, 335.
 " atrophy of, 212.
 " congestion of, 208.
 " dilatation of, 215.
 " hypertrophy of, 213.
 Hellebore, 425.
 Helonias dioica, 373.
 Helonin, 373.
 Hemiplegia, 429.
 Hemlock, 455.
 Hemorrhage, to arrest, 499.
 Hemorrhoids, 274, 411, 416.
 Henbane, 379.
 Hepatitis, 158, 549.

Hernia, 535.
 Herpes, 237.
 High cranberry, 426.
 Hip bath, 579.
 " disease, 534.
 Homœopathic practice, 562.
 " preparations, 575.
 Hooping cough, 94, 246, 317.
 Hops, 392.
 Hot drops, 450.
 How to examine cases, 526.
Humulus lupulus, 392.
 Hydrarthrus, 534.
 Hydrastia, 377.
 Hydrastin, 377.
 Hydrastis canadensis, 377.
 Hydrocephalus, 172.
 Hydropathy, 576.
 Hydrophobia, 181.
 Hyoscyamin, 379.
 Hyoscyamus, effects of, 379.
 " niger, 379.
 Hypochondriasis, 229.
 Hysteria, 224, 418, 423.

I.

Iceland moss and quinine jelly, 454.
 Impotence, cure of, 358.
 Indigestion, 81.
 Infantile sore mouth, 76.
 Infiltration, 117.
 Inflammation, 72.
 " of the bladder, 157.
 " " brain, 74.
 " " colon, 83.
 " " conjunctiva, 232.
 " " ear, 79.
 " " eyes, 231.
 " " of infants, 234.
 " " heart, 212.
 " " kidneys, 156.
 " " liver, 158.
 " " lungs, 87.
 " " œsophagus, 198.
 " " pericardium, 209.
 " " peritoneum, 86.
 " " small intestines, 82.
 " " spinal marrow, 226.
 " " stomach, 80.
 " " trachea, 185.
 " " uterus, 254.

Influenza, 538.
 Ipecacuanha, American, 354.
 Ipomœa jalapa, 383.
 Irisin, 481.
 Iris versicolor, 381.
 Irritating plaster, 353.
 Ischuria, 248.
 Itch, 240.

J.

Jalap, 383.
 Jalapin, 383.
 Jaundice, 202, 430.
 Juglandin, 385.
Juglans cinerea, 385.

K.

Kidneys, diseases of, 383, 408.
 Knob-root, 335.

L.

Lachrymal ducts, injection into, 501.
 Lady slipper, yellow, 342.
 Lead colic, 90.
 Leg bath, 582.
 Leontodin, 387.
 Leptandria Virginica, 389.
 Leptandrin, 389.
 Leucocythemia, 308, 515, 516.
 Leucorrhœa, 322, 327.
 " pills, 446.
 Life root, 419.
 Lime-water and milk, 456.
 Liver, 398, 401, 402.
 " congestion of, 538.
 " hypertrophy of, 388.
 " inactivity of, 361.
 Lobelia inflata, 391.
 Lobelin, 391.
 Locked jaw, 181.
 Lupulin, 392.
 Lycopin, 394.
Lycopus virginicus, 394.
 Lymphatics, action of medicines on, 307.

M.

Macroton, 394.
Macrotys racemosa, 394.
 Malarial poison, 339.
 Malignant tumors, 490.
 Mammary secretions, to arrest, 317.
 Mammæ, enlargement of, 332.
 Mandrake, 401.
 Mania-potu, 171.
 May apple, 401.
 Measles, 169, 396.
 Mecca oil compound, 443.
 Medical preparations, 436.
 Melæna, 538.
 Meningitis, 74.
 Menses, cessation of, 260.
 Mercurial disease, 277.
 Microscopic researches, 503.
 Microspheron andouini, 510.
 " mentographylis, 510.
 " purpur, 510.

Milk, 525.
 Miscarriage, to prevent, 357.
 Modus operandi of medicines, 295.
 Morbus cæruleus, 219.
 " coxarius, 534.
 Mortification, 323, 484.
 Muriate of hydrastia, 377.
 Muscles, 463.
 Mumps, 175, 548.
 Myelitis, 226.
Myrica cerifera, 398.
 Myricin, 398.

N.

Nasal polypi, 540.
 Necrosis, 534.
 Nephritis, 156.

Nervous diseases, 546.
 Nervousness, 343.
 Nettle-rash, 192.
 Neuralgia, 232, 304, 306, 317, 380, 434.
 Neutralizing cordial, 448.
 New school compounds, 443.
 " remedies, 295.
 Night sweats, 356.
 No. 6, 450.
 Nose-bleed, 639.
 Nursing sore mouth, 77.
 Nux vomica, 421.

O.

Oedema, 132.
 Oesophagus, ulceration of, 198.
 Ophthalmia, 231.
 " catarrhal, 232.
 " purulent, 234.
 Organs of the body, 461.
 Otitis, 79.
 Ovarian tumor, 385.
 Ovaries, diseases of, 262.
 Ox-balm, 335.

P.

Paine's pile electuary, 450.
 Palsey, 179.
 Panduratin, 429.
 Paralysis, 179, 422.
 Paronychia, 533.
 Parotitis, 175, 548.
 Pediculosus capitis, 511.
 " pubis, 511.
 " vestimenti, 511.
 Pelvis, 462.
 Pericarditis, 209, 338.
 Peritonitis, 86, 549.
 Pertussis, 94.
 Pharmacy, 436.
 Phlebitis, 216.
 Phlegmasia dolens, 216.
 Phrenitis, 74, 549.
 Phthisis, 113, 331, 407.
 Physiology, 458.
 Phytolacca decandria, 400.
 Phytolaccin, 400.
 Piles, 274, 441.
 Pills, 438.
 Pinus canadensis, 456.
 Pipsissewa, 332.
 Plague, 193.
 Plasters, 440.
 Pleuritis, 97, 319.
 Plunge bath, 580.
 Pneumonia, 87, 407, 421, 426, 427.
 Podophyllin, 401.
 Podophyllum peltatum, 401.
 Poisoning, in cases of, 356.
 Poisons, antidotes to, 45.
 Poke root, 400.
 Populin, 404.
 Populus tremuloides, 404.
 Pott's curvature of the spine, 483.
 Poultices, 439.
 Poultice, to allay inflammation, 454.

Practical principles, 7.
 Princes pine, 332.
 Prunin, 406.
 Prunus virginiana, 406.
 Ptelin, 408.
 Ptielin trifoliata, 408.
 Puerperal peritonitis, 332.
 Purgatives, 438.
 Purpura, 243.
 Pustulous cutaneous diseases, 241.
 Pyrola, 332.
 Pyrus malus, 434.

Q.

Quaking aspen, 404.
 Queen of the meadow, 356.
 Quinsy, 78, 548.

R.

Rain bath, 581.
 Recutum, cancer of, 416.
 " prolapsus of, 541.
 " ulceration of, 400.
 Respiration, 467.
 Retention of urine, 248.
 Rhein, 430.
 Rheumatism, 184, 354, 377, 383, 546.
 Rheum palmatum, 430.
 Rhubarb, 430.
 Rhumin, 411.
 Rhus glabra, 410.
 Rich-weed, 335.
 Rhusin, 410.
 Roseola, 192.
 Rose-rash, 192.
 Rubeola, 169, 313.
 Rules for diet and exercise, 542.
 Rumex crispus, 411.
 Rupture, 535.

S.

Saccharine urine, 182.
 Sailor's knot, 500.
 Salad, 545.
 Salt rheum, 237.
 Sanguinaria canadensis, 414.
 " sulphate of, 416.
 Sanguinarin, 414.
 Saracenia, 433.
 " purpurea, 433.
 Scabies, 240.
 Scalds, 534.
 Scarlatina, 91, 313, 395, 396.
 Scrofula, 264, 412, 413.
 Scurvy, 411.
 Scutellaria lateriflora, 417.
 Scutellarin, 417.
 Senecin, 419.
 Senecio gracilis, 419.
 Serous membrane, diseases of, 317.
 Shallow bath, 579.
 Shower bath, 582.
 Similia similibus curantur, 296.
 Simpler's joy, 432.
 Sinapisms, 439.
 Sitz bath, 579.
 Skin diseases, 66, 237, 386, 397.
 Skull-cap, 417.

Sleep and rest, 546.
 Small-pox, 167.
 Smilacin, 430.
 Smilax sarsaparilla, 430.
 Snake root, 400.
 Solution of iodo-bromide of calcium compound, 455.
 Sore nipples, 442.
 " throat, 537.
 Spermatocele, 424.
 Spermatorrhœa, 305, 317, 328, 346, 367.
 Spiced bitters, 462.
 Spinal irritation, 227.
 Spirits of Mindererus, 451.
 Spleen, 329, 401.
 Splenitis, 549.
 Sponge bath,
 Squama, 308.
 St. Anthony's fire, 95.
 St. Vitus' dance, 179.
 Starwort, 373.
 Stillingia sylvatica, 420.
 Stillingin, 420.
 Stimulating liniment, 451.
 Stomach, inflammation of, 80.
 " pump, how to use, 500.
 Stone root, 335.
 Strychnin, 421.
 Sudorific and anodyne tincture, 448.
 Surgeon's knot, 500.
 Surgery, 458.
 Swamp alder, 301.
 " dogwood, 408.
 Sweating bath, 581.
 Syncope, 541.
 Synochia, 548.
 Syphilis, 340, 382, 400.
 Syrup, 437.

T.

Tabes mesenterica, 541.
 Tag alder, 301.
 Talipes calcaneus, 486.
 " equineus, 485.
 " shoe for, 489.
 " varus, 486.
 " vulgus, 488.
 Tapioca and cod liver, 453.
 Tapping, 499.
 Taraxacum leontodon, 387.
 Tar ointment, 454.
 Tetanus, 181, 317.
 Thrush, 76.
 Tinctures, 438.
 Tonic syrup, 449.
 " tea, 452.
 Tonsillitis, 548.
 Toothache, 441.
 Towel bath, 582.
 Tracheitis, 185.
 Trichoma vaginalis, 511.
 Trillin, 423.
 Trillium pendulum, 423.
 Trychophyton tonsurans, 509.
 Tuberculous cavities, 119.

Tumors of the neck, 332.
 Turkey pea, 340.
 Typhomania, 393.

U.

Ulceration, 411.
 Ulcers, treatment of, 323, 332, 369, 533.
 Unicorn root, 373.
 Upland sumach, 410.
 Urinary organs, hemorrhage from, 251.
 Urine, incontinence, 250.
 " retention of, 248.
 " signs from, 290.
 Urticaria, 192.
 Uterine contractions in labor, 356.
 " diseases, 311.
 " hemorrhage, 424.
 " syrup, 450.
 Uterus, anteversion, 489, 490.
 " antelection, 489, 491.

V.

Vaccina, 536.
 Vaginitis, 327.
 Vapor bath, 581.
 Varicella, 171.
 Variola, 167.
 Vegetation of the leg, 514.
 Veratrin, 425.
 Veratrum viride, 425.
 Verbena hastata, 432.
 Verbenin, 432.
 Vervain, 432.
 Viburnin, 426.
 Viburnum oxycocum, 426.
 Vomiting in pregnancy, 317.

W.

Water cress, 457.
 Wave bath, 581.
 Wet bandages, 582.
 " dress bath, 582.
 White root, 317.
 " swelling, 537.
 Whitlow, 533.
 Wild cherry, 406.
 " hyssop, 432.
 " indigo, 320.
 " jalap, 429.
 " potato, 429.
 " yam, 348.
 Wintergreen, 332.
 Witch hazel, 371.
 Worms, 187, 331, 376.

X.

Xanthoxilin, 428.
 Xanthoxylum fraxineum, 428.

Y.

Yellow dock, 412.
 Yellow jessamine, 362.

GREAT REDUCTION IN THE PRICE OF BOOKS!

VALUABLE MEDICAL WORKS

FOR THE PUBLIC & PROFESSION.

NEW & ENLARGED EDITION OF

The Principles and Practice of Medicine, Pathology, Medical Surgery, and DISEASES OF WOMEN AND CHILDREN.

Third Edition—Very much Enlarged.

By W. PAINE, M. D.,

Professor of the Principles and Practice of Medicine and Pathology in the Philadelphia University of Medicine and Surgery; Professor of Surgery and Obstetrics; Lecturer on Clinical Medicines; Author of Concentrated Medicines; The Principles and Practice of Obstetrics, and Diseases of Women and Children; Review of Homoeopathy; Compendium of Eberle's Practice; Treatise on the Rise and Progress of Medicine; President of the National Medical Association, etc.

This work is a royal octavo of a thousand pages, and constitutes one of the most complete treatises on the Principles and Practice of Medicine published. It embraces every known medical disease, with its pathology and treatment by all the new remedies and methods; together with extensive illustrations in pathology; a large, beautiful lithographic plate, representing every variety of skin diseases, colored to nature; also plates and illustrations of the different instruments used for atomizing, nebulizing and vaporizing fluids, solids, and for inhalation of gases; together with the hypodermic syringe, and full directions for the use of all these new instruments; and a complete alphabetical Materia Medica of all the medicines, vapors, gases, etc., used. It also contains a description and treatment of diseases of women and children, and medical surgery.

It is an entirely new work, independent of all the author's previous publications, and is believed to be fully up to the times in pathology and treatment of diseases. It is bound in the best sheep, printed on fine white paper, and is a substantial book. Price \$5—postage 60 cents. Can be ordered from the author, and the work will be sent immediately upon the receipt of the money.

MAXSON'S PRACTICE OF MEDICINE.

This work is a large, beautiful octavo, of between seven and eight hundred pages, and is the production of one of the ablest practitioners on the continent. Price \$4—postage 50 cents.

THE PHILADELPHIA PRACTICE OF OBSTETRICS.

By Joseph S. Longshore, M. D.

This work is extensively illustrated, printed on the best paper, bound in sheep, and is one of the most thorough, beautiful and complete works on Obstetrics ever issued from the American Press. Price \$5. By sending \$15, Paine's Practice of Medicine, Longshore's Obstetrics, and Maxson's Practice, will be sent to one address, free of postage.

ADDRESS—**Dr. PAINE, 232 North Ninth Street.**





Bethesda, Md
NATIONAL LIBRARY OF MEDICINE

U.S. Department of
NATIONAL LIBRARY OF MEDICINE

Bethesda, Md
NATIONAL LIBRARY OF MEDICINE

U.S. Department of
NATIONAL LIBRARY OF MEDICINE

Health Service
NATIONAL LIBRARY OF MEDICINE

Health, Education,
and Welfare, Public

Health Service
NATIONAL LIBRARY OF MEDICINE

Health, Education,
and Welfare, Public

Health, Education,
and Welfare, Public

Health Service
NATIONAL LIBRARY OF MEDICINE

Health, Education,
and Welfare, Public

Health, Education,
and Welfare, Public

Health, Education,
and Welfare, Public

Health Service
NATIONAL LIBRARY OF MEDICINE

Health, Education,
and Welfare, Public

Health, Education,
and Welfare, Public

U.S. Department of
NATIONAL LIBRARY OF MEDICINE

Bethesda, Md
NATIONAL LIBRARY OF MEDICINE

U.S. Department of
NATIONAL LIBRARY OF MEDICINE

Bethesda, Md
NATIONAL LIBRARY OF MEDICINE

Bethesda, Md
NATIONAL LIBRARY OF MEDICINE

U.S. Department of
NATIONAL LIBRARY OF MEDICINE

Bethesda, Md
NATIONAL LIBRARY OF MEDICINE

U.S. Department of
NATIONAL LIBRARY OF MEDICINE

Health Service
NATIONAL LIBRARY OF MEDICINE

Health, Education,
and Welfare, Public

Health Service
NATIONAL LIBRARY OF MEDICINE

Health, Education,
and Welfare, Public

Health Service
NATIONAL LIBRARY OF MEDICINE

Health, Education,
and Welfare, Public

Health Service
NATIONAL LIBRARY OF MEDICINE

Health, Education,
and Welfare, Public

JAN 10 1972

Handwritten initials



NATIONAL LIBRARY OF MEDICINE



NLM 00139175 5