Therapeutic methods : an outline of principles observed in the art of healing / by Jabez P. Dake.

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BY

Jabez P. Dake, M.D.

THERAPEUTIC METHODS.

AN OUTLINE

OF

PRINCIPLES OBSERVED IN THE ART OF HEALING.

BY

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TO

R. E. DUDGEON, M.D.,

Of London, England,

THIS WORK IS DEDICATED AS A TOKEN OF HIGH APPRECIATION OF HIS LEARNING AND WISDOM IN MEDICINE, AND ESPECIALL OF HIS SUCCESSFUL EFFORTS IN BEHALF OF A RIGHT UNDERSTANDING AND APPLICATION OF THE

Homœopathic Law,

AS AGAINST THE MISCONSTRUCTIONS OF SOME OF ITS ADVOCATES AND THE MISREPRESENTATIONS OF ITS OPPONENTS,

By the Author.

PREFACE.

In the use of the term therapeutics in this work, I shall claim for it more than conventionally allowed of late years by medical writers.

It comes from the Greek θεραπευω, — "I serve, or attend upon the sick."

Any one who ministers to the relief of the sick by remedial measures is a therapeutist, however educated, and acting upon whatever theory, and with whatever means of cure.

The good "grandmother," among our American pioneers, with her boneset and saffron and catnip teas, was a therapeutist; and so, likewise, the "medicine man" of the aborigines, with his roots and berries and incantations.

Nor is the field of therapeutics to be limited by conventional methods and rules, so that some measures and means may come in as therapeutically indicated, while others, equally if not more important, are ranked as accessories or simple adjuvants. Whatever agencies or operations are resorted to, varying the conditions of the sick for the restoration of health,

whether medicinal, chemical, or mechanical, — whether drugs, water, air, movements, or mental impressions, — not usual or necessary in states of health, should come within the pale of therapeutics, and be subject to some recognized principles.

The distinctions made under the promptings of some transient theories magnifying the importance of some things and minifying that of others, have often led to grave errors in practice. It has frequently turned out, that what was regarded as accessory and of little importance in the treatment of a form of disease, has afterwards come to be ranked as the essential or most important.

It is, therefore, much safer, and more promotive of the medical art, to recognize in the domain of therapeutics, and to employ under the direction of ascertained therapeutic principles, whatever is employed for the removal of disease. As an example, I may mention the popularity of some simple herb, used in the form of tea or hot infusion, which afterward was found to be medicinally inert, the entire benefits of the tea having come from its high temperature.

In the course of my work, it may be noticed that the same points are more than once referred to, not in a kind of careless repetition, but in order to show how they stand related in different directions, and to emphasize their importance.

And, in speaking of the *materia medica* required, it

may be observed that I, at times, indicate what should be, as well as what is. It is a fact much to be deplored, that, in the ascertainment of drug effects in the human system, the work of experimentation has generally been neither sufficiently thorough nor careful. Very few drugs have been properly proved.

Without claiming more prophetic foresight than falls to the lot of those who look forward in the light of past experience and observation, I do not hesitate to predict the time, not far in the future, when more careful and rigid experimentation will greatly reduce the number of drugs employed, and when much greater reliance will be placed on the measures and agencies now ranked as hygienic. Where drugs are resorted to at all, there will be some clearer understanding of their essential properties, and of their positive effects in the human organism.

It has been my aim, in the presentation of therapeutic principles, to avoid an error too generally fallen into by writers; namely, that of setting forth only what may have received authoritative endorsement, or that may be entirely in accord with theories considered orthodox. In dealing with matters of vital importance, I hold it to be the duty of a writer to speak of realities, of facts as they are, or as they should be, and not as dressed up to suit either a numerical majority or any special class of critics.

I have been an earnest medical student too long,

and have put therapeutic principles to careful tests too many times, to have any hesitation in the statement of what I conceive to be the truth.

That my advocacy of scientific therapeutics will be satisfactory to all who read this treatise, I do not expect; for it is not in the nature of things for an exhibit, viewed from different stand-points, to impress all observers in the same manner.

If I shall be able, however, to give some clearer view of the great therapeutic field, to stimulate more earnest thought upon the principles concerned in the daily work of the physician, so that greater exactitude and precision may direct, and increased success attend, his therapeutic efforts, I shall have gained the object in view in the preparation of this work.

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THERAPEUTIC METHODS.

HISTORY.

For our present purpose, there is little need of research beyond the time of Pythagoras, in the dimly lighted ages of man. How disorders of the body came, and how they were met by remedial measures, before the historical period, must ever be a matter of conjecture. That human ailments were few and mild, comparatively, while human life was simple and human labor less worrying and destructive, we may well believe. That the progress of discovery, among the multitudinous articles of earth, showing which were suited to the sustenance of the body in health, and which to its relief or cure in times of sickness, was slow and difficult, we are not left in doubt. The art of healing, so far as it was an art, long remained in the hands of the priesthood, wrapt in all the mysteries, and shaped by all the superstitions, of the mythological era. Disease was looked upon as a visitation from an offended deity; and sacrifices, oblations, incantations, and prayers constituted the therapeutical armamentarium, the only means calculated to appease the divine wrath, and turn away its dire effects. Gradual was the disenthralment of human reason and the development

of an instructive experience. The bits of knowledge gained were handed down from generation to generation by tradition, till, through a written language, they finally became matters of record. And the records from ancient times show little of permanent value till the time of Pythagoras, about five hundred years before the Christian era.

Among the uncivilized nations of the earth, the healing art is yet but a mixture of religious and empirical performances, such as seen among the Egyptians, the Greeks, and the Romans at an early day.

First Period.—In the school of Pythagoras, which reigned in the medical world till the time of Hippocrates, the various tissues and organs of the body were believed to result from different combinations of the four elements; namely, *fire*, *earth*, *air*, and *water*.

For example, the muscles were supposed to be formed of equal parts of those elements, the tendons of larger proportions of fire and earth, and the bones of larger proportions of earth and water.

The four elements, when in due proportion in each tissue, and when bearing equally upon the organism as a whole, ensured health, while the preponderance of any one or more of them occasioned sickness. Based upon such a theory of disease, the Pythagorean therapeutics, so far as systematized and orthodox, consisted in efforts to supply or withdraw one component or vitalizing element or another, according to the nature of the case, so that harmony might be regained.

Hippocrates and his followers, while adhering to the sacred number four, changed from fire, earth, air, and

water, to *heat*, *cold*, *dryness* and *moisture*, afterwards represented by four cardinal humors, — *blood*, *mucus*, *black bile*, and *yellow bile*. These, in due proportion, were believed to constitute health, and, out of proportion, disease.

The idea of a *materia peccans*, something generated out of the humors, when not in due proportion, originated with this school; and so, also, the therapeutic measures of purgation for its removal. And the theory of progressive stages in disease, known as *crudity*, *paroxysm*, and *crisis*, was of Hippocratic origin.

The "crudity" represented the acrid and irritating properties of some one of the four humors; the "paroxysm" the autocratic or divinely directed effort of nature to modify or correct such bad properties through the influence of heat; and the "crisis" was regarded as the resulting expulsion of the *materia peccans*, in the form of perspiration, hemorrhages, or increased alvine or urinary evacuations.

The critical days and signs of that distant and mystical age are yet potent in the average medical mind. But teachers and practitioners, now holding to the Hippocratic pathology, have forsaken the ancient trust in the divine wisdom or natural economy, which were considered quite able, through the fiery ordeals of the "paroxysm," to eliminate and expel the offending "crudities." They administer sudorifics and purgatives, and practise blistering, leeching, and even venesection, to hasten the "crisis" before its time. If such modern healers have not changed the pathology of Hippocrates for the better, they have surely changed his therapeutics for the worse. Their reasonings are

much like those of the market-gardener, who, observing that the tops of his potatoes are dead and dry when the tubers are ripe, concludes that, in order to have ripe potatoes in midsummer, he has only to destroy the tops by fire or flail. Such a mistaking of effects for causes in the medical art, is quite as disastrous as in that of the market-gardener.

The Pythagorean physiology and pathology, varied somewhat by Hippocrates and others, characterized what has been called the first period of medicine as a science, extending down very near to the Christian era. Many and sharp, however, were the struggles between dogmatism and empiricism, as the ages went by, suffering humanity gaining most by logical methods applied to the latter.

Second Period. — Something of a new era in medicine began upon the appearance in Rome of Asclepiades of Bithynia. A disciple of Epicurus, his physiology rested largely upon the theory of corpuscles or atoms circulating through invisible pores. He denied the intelligence and sanitary action of nature, as held by Pythagoras, and especially advocated by Hippocrates. He taught that inflammation arises from an obstruction of the pores or vessels, occasioned by the size or form or multitude or rapid motion of the atoms; that pain arises from obstruction due to particles of large size, and the absence of a due supply of the smaller. He believed that fainting, dropsies, and hectics come from the great size of the pores. He denied the critical days of Hippocrates.

Themison, one of the greatest of the disciples of

Asclepiades, discarded the empirical tendencies of his master, and became the leader of the school long known as the Methodist. The pathology of this school rested upon the three conditions or "communities,"—*strictum*, *laxum*, and *mixtum*. The *strictum* was characterized by too little secretion or impeded discharge, the *laxum* by too much secretion or too free discharge, and the *mixtum* by too much discharge from one organ and too little from another, at the same time.

The therapeutics of the school, of course, rested upon its theories of disease, calling for evacuants in cases of *strictum*, astringents in cases of *laxum*, and the one class or the other in cases of *mixtum*, according as the excess or the deficiency might seem of the most pressing importance.

Just at the dawn of the Christian era appeared another school, known as the *Pneumatic*, occupying ground, and inculcating doctrines and measures, quite opposed to those of the Methodists. Its leader, Athenæus, accepting the Platonic philosophy, believed there is a *pneuma*, or immaterial active principle, as the basis of existence, whose injury or disturbance must be the occasion of disease. One of his brightest followers was Aretæus, at first educated in the Pneumatic school, but afterward accepting much from what was known as the Eclectic. He was noted as a medical writer as well as practitioner. It may be surprising to the lingering advocates of cupping, leeching, and bleeding, to learn that such were among the favorite measures of Aretæus.

Celsus, whose writings were in classical Latin, and whose works have survived the destructive night of

the Middle Ages, seemed little noted for originality. He was more of a compiler and reporter of what others had discovered or introduced, than an advocate of views and methods peculiarly his own.

About the year 80 of the Christian era, Agathinus, a Roman physician, gathering up the fruits gained by Roman conquest, the various theories and means of cure brought back from Greece and Egypt and other countries where medicine as well as philosophy had many votaries, founded a new school, called, on account of its peculiar make-up, the Eclectic. But this school would have met with no great success had it not been for the appearance of Galen, the great systematizer and writer, whose works were destined not only to survive the dark ages, but to give shape to medical practice, in the more enlightened countries of the world, for more than fifteen hundred years. Accepting the humoral pathology of Hippocrates as a basis, and adding something from the atomic of Asclepiades, and something from the pneumatic of Athenæus, he brought into systematic shape the gatherings of Agathinus, his medical preceptor.

Although not much given to original research and experimentation, he succeeded in building up a school that maintained its shape and gave currency to its pathological and therapeutical teachings over a wider range of countries, and for a longer period of time, than any medical school ever founded.

It is said of Galen, that he believed "health to consist in the perfectly equal mixture of all the elements of the body, and in the correct relation of the solid parts to the fluid."

He regarded disease as "an unnatural condition of homogeneous parts or organs; that diseases of homogeneous parts arise, either from mechanical disturbances, contraction, and relaxation, or from the disproportion of elements, according as either one or two, at the same time, may predominate."

With him the cardinal humors were identical with those of Hippocrates, from the alterations of which eight different dyscrasiæ were produced, and four different temperaments.

He taught the vitiation and stagnation of the fluids in fevers; the derivation of the different fevers, with the exception of the ephemera, from the corruption of the different humors,—the quotidian from the corruption of mucus, or phlegm; the tertian, of yellow bile; and the quartan, of black bile. To him inflammation was an *error loci* of the blood,—the presence of that fluid out of its proper vessels: and the specific character of an inflammation he attributed to the presence of blood alone, or of blood mixed with mucus, or yellow or black bile, in parts where they do not belong; and, accordingly, inflammations were called *phlegmonous*, *erysipelatous*, or *scirrhous*.

Where the *pneuma* was supposed to accompany the blood in its intrusion where it did not belong, a "pneumatoid inflammation" was looked upon as the result.

The therapeutic measures suggested by the eclectic theories of Galen and his followers were various, and often very contradictory.

All kinds of blood-letting, issues, setons, and moxas were in vogue as measures for the removal of vitiated humors, and, likewise, every species of purgative sup-

posed, in any way, to clean out the obstructed or burdened organs and avenues of the diseased human body.

Although generally discarded by medical writers, the theories and remedial measures favored by Galen are yet cherished largely among medical men, as well as among the people, in civilized countries.

From the time of Galen, especially after the spread of Christianity through the Roman empire, and the prevalence of a faith in apostolic or religious healing, the cultivation of medicine as a necessary science or art was not encouraged. At a few points only were medical schools maintained, or medical libraries gathered, during the lapse of centuries.

Third Period.—The sixteenth century saw important changes in nearly every department of life, in none perhaps more than in medicine. Many discoveries in human anatomy were made by Vesalius and Eustachius, the latter of whom seemed to recognize the importance of pathological and post-mortem examinations.

With the revival of criticism and learning, and the breaking away of the mists of superstition, which had been so thick and dark all through the Middle Ages, medicine began to attract the attention it deserved, and to stimulate research and experimentation, upon the results of which alone all sciences must build, and all the higher arts depend. Paracelsus, or, as he styled himself, "Philipus Aureolus Theophrastus Bombastus Paracelsus," the first to make much use of chemical remedies, such as mercury, antimony, and lead, flourished about the middle of that century.

In place of the four essential elements contended for by older writers, he was the advocate of three alchymistic fundamental elements, *mercury*, *salt*, and *sulphur*, symbols of the *volatile*, the *soluble*, and the *combustible*, together constituting life and health. He said, "As long as the three are one, health remains; but, when they are separated, the one putrefies, the other burns, and the third takes another course, and these are the beginnings of disease." He also said, "Diseases proceed from arrogance, when one element becomes arrogant, and separates itself from the rest."

He believed in a *materia peccans*, but not as those before him. To him it was but the sensible vehicle of an indwelling spirit or vital force.

Hippocrates had spoken of a divine power that governs the concoction and expulsion of morbific matter, while he recognized the *archeus*, or vital principle, as dwelling in man to receive, digest, and assimilate nourishment, and to expel excrementitious matters.

To him the *archeus* seemed to rally the organs and forces of the body to resist the invasion of morbific agents, to contend with disease, and to remove the *débris* after the battle is over.

Fevers he regarded as but the sanative efforts of nature.

He had warm adherents among medical men, and, also, most bitter enemies.

Among those who accepted and improved upon the teachings of Paracelsus, the most prominent was Van Helmont, who flourished about the middle of the seventeenth century.

He was rather less a materialist, and more of a dynamist, however, than was his master.

But with the discovery of the circulation of the blood by Harvey, early in the seventeenth century, and other discoveries in anatomy, a new system of physiology had been growing up, leading to great changes in the pathological as well as therapeutical views of the world. New facts and new theories brought forth new remedies.

Empiricism, more respectably known as clinical experience, the great court of appeals, overturned many old systems, and introduced some that were different if not better.

Fourth Period. — The next period of medical history shows the influence of Lord Bacon of England, whose convincing advocacy of thorough experimentation and of logical methods gave a wonderful impetus to progress in all the sciences.

Unfortunately, the advancement in medicine was too much in the ruts of chemical and mechanical notions. "Acids and alkalies took the place of the four Empedoclesian and the three alchymistic elements."

There was fermentation and absorption of the effete residuum, to be renovated by an acid.

There was the "acrimony" of an acid and the "acrimony" of an alkali affecting, each in its own way, the solid parts, as indicated by pains, spasms, and other sufferings.

The sanative powers of the *archeus* were of no moment: it had to stand back while chemistry sent in its

alkali to kill the morbific acid, or the acid to destroy the morbific alkali.

Such was the chemical pathology, and such the chemical therapeutics, at the close of the seventeenth century.

And, on the other hand, natural philosophy, disputing the ground with chemistry, was, to some extent, switching the medical mind into the Iatro-mathematical ruts, so that the benefits of Harvey's discovery of the circulation of the blood were not soon apparent.

A knowledge of the motion of blood suggested friction along the vessels as the cause of heat, fever, and inflammation. Secretions were looked upon as variable according to the relation of diameter to length and curvature in the secreting tubules, and according to the angles made by the branches in leaving the larger channels. Such medical philosophers looked upon the stomach as performing the work of a mill in the digestion of food.

To them, pains and convulsive affections seemed due entirely to the tension or vibration, in one way or another, imparted to the nerves. But yet nearer the end of the seventeenth century appeared Sydenham in England, with the methods of a philosopher applied to medical data in such a way as to bring order out of previous confusion. He endeavored to describe diseases as the naturalist would the objects he has to deal with, so as to have them properly recognized and classified. The influence of his labors is yet apparent in the great medical field, as having accomplished much to bring pathology and therapeutics out of the chemical and mechanical ruts.

About the middle of the eighteenth century the teachings of Stahl were quite prevalent, especially in his own country, Germany. He taught that the power of nature in man is the *rational soul*, presiding over the actions of the organism, recognizing the approach or entrance of noxious influences, and exciting the organs and tissues to resistance and recovery.

Many of the heroic measures, such as venesection, salivation, etc., were discarded by the Stahlian school, which placed more reliance on the intelligent defensive and recuperative power of the soul. From that day to this the influence of such views has been felt in the medical world, giving rise in our times to the Expectant school, the "Young Physic" of Sir John Forbes, with a reliance, not upon the soul, as that is now understood, but upon the *vis medicatrix naturæ*.

In the University of Halle, where Stahl lectured, a man slightly his junior, Friedrich Hoffmann, accepting the theory of the soul's influence in a manner, taught that "all natural bodies are endowed by the Creator with material forces, through which they execute their motions." He called these forces "coherence and resistance."

He believed "the foundation of the special activities of organic bodies to lie in the accession of an ether, a material substance of peculiar subtlety, fluidity, and vivacity." He considered the brain as the secreting organ of this ether, or nervous fluid, which is supplied through the nerves to all parts of the body; and he taught that "life depends upon the continued motion of the solid parts, particularly the heart and dura mater," and that "disease consists in a defect of

motion, which is either too weak or too strong." According to his pathology, spasms result from motions that are too violent, as also pains in sensitive parts; and from the spasmodic state he looked for inflammations, hemorrhages, catarrhs, and fevers.

When the motions were slow or insufficient, the troubles of atony were expected. Between "cramp and atony," much after the manner of the Methodists, who talked of the *strictum* and *laxum*, he arranged most of the diseases common to humanity. Stagnation and putrefaction came from atony, while the resulting "corrupt humors" were retained by cramp.

While Stahl believed in the absolute autocracy of the soul and the immateriality of all the forces actuating the organism against morbific agencies, and in support of life, Hoffmann contended against the spiritual idea and in favor of an exceedingly subtle, invisible form of matter, as the basis of life and forceful activity, not only in the healthy organism, but likewise in the morbific and curative agencies bearing upon man; and, further, he contended for the reign of some fixed laws in the operation of all the forces of nature, though not yet fully recognized by man.

To Hoffmann must be awarded the credit of awakening an interest never before felt in the physiology and pathology of the nervous system.

Immediately following, indeed almost contemporary with Stahl and Hoffmann, was Boerhaave, who, though not a theorist of any note, was a successful systematist.

He gathered from those who had traversed the medical field before him, and who had strenuously opposed each other's theories and therapeutic measures, bring-

ing into systematic form chemical, mechanical, and spiritual teachings, so as to present an imposing system, one destined to influence the practice of medicine for many generations. His writings were numerous, and held in highest esteem, especially on the continent of Europe, down to the opening of the nineteenth century.

Fifth Period.—The progress in anatomy, physiology, and pathology, on the lines suggested by Harvey's discovery of the circulation of the blood, had been much greater during the last part of the eighteenth century than ever before. The studies and experiments by Albrecht Von Haller and others, especially their discoveries relating to muscular motion and nerve action, cast a new light upon the domain of physiology, and led to new theories in regard to the origin and transmission of power in the human body.

The known contraction of the heart in the propulsion of the blood, explained by the discovery of Haller (that contractions in the muscular fibres of the heart occur on contact with irritating substances when disconnected from the body), led to most important results.

It was soon an admitted fact, that muscular contractions are not dependent on nerve supply or connections, inasmuch as the muscles would shorten themselves on the application of mechanical or chemical agents after nerves connecting them with the brain or spinal cord had been severed.

The property resident in muscular fibres, to shorten by such means, he called *irritability*. And the faculty

of nerves to convey impressions to the mind, upon the application of such irritants, he called *sensibility*. He laid the foundation of modern ideas of irritation and re-action.

Roger is said to have been the first to explain the irritability as a potential quality, a possibility, requiring an external irritant to occasion motion or make the quality actual. From this development in the physiology of the nervous and muscular systems came a new philosophy of life, as well as of disease and of cure, having considerable merits as well as considerable defects, as viewed from our present standpoints.

Cullen, not so much a medical discoverer as a gatherer and organizer of the discoveries of others, at the close of the last century, remodelled the system of Boerhaave, retaining many of the ideas of Hoffmann and older pathologists. He adhered to the theory of *spasm* and *atony*, attributing to them the phenomena of febrile disorders. With him, rheumatism was muscular spasm, arising from too great a supply of blood to the parts; and gout an atony, the latter chiefly due to weak digestion.

While he discarded the humoral pathology in general, he allowed it to influence his therapeutic measures in many cases, especially where he thought he recognized an *acrimony*. The difficulties of the circulation he would not explain upon the old iatro-mathematical and mechanical theories, by the consideration of angles and curves and resulting friction in the vessels, but rather upon assumed derangements of nerve-supply and brain energy. He wrote much of a "vital prin-

ciple" and of a "nervous fluid," and of the "irritability of the sensorium."

He was a voluminous writer, not only upon the practice of medicine, but also upon *materia medica*. His works did much to awaken thought and investigation, especially in English-speaking countries.

Edinburgh had become an important seat of medical learning in the time of Cullen. While his teachings were in great favor, a rival arose to dispute the ground with him. John Brown, a man of more inventive genius and boldness than Cullen, endeavored to simplify the principles and practice of medicine by generalization. Accepting the facts adduced in support of the theory of "excitability," he essayed by it to explain all the processes of life in the human organism. A due supply of "excitants" produced and sustained health. When in excess they produced disease, and when deficient they produced disease.

The diseases of excess were termed "sthenic," and those of deficiency "asthenic." In therapeutics, accepting the theory, *contraria contrariis curantur*, he sought to employ asthenic agents in sthenic affections, and sthenic remedies in asthenic affections.

The apparent simplicity and scientific accuracy of the Brunonian philosophy led to its ready acceptance, not only among the people, but also among learned men in the medical profession. In some of the university schools on the Continent, especially in Germany, the enthusiasm of Brown's followers was such as to engender bitter strife, and to result, at times, in riotous proceedings.

Brown's pathology led to the recognition of three classes of disease: —

1. Diseases of augmented irritation and increased excitement — *sthenia.*
2. Diseases of diminished irritation and lessened excitement — *direct asthenia.*
3. Diseases of excessive or violent irritation and consequent exhaustive excitement — *indirect asthenia.*

And this mode of classification necessarily led to a corresponding arrangement of remedies into three divisions:—

1. Excitants of excessive power — *sthenic.*
2. Excitants of deficient power — *asthenic.*
3. Excitants of violent and exhausting power — *indirectly asthenic.*

Some of Brown's definitions, viewed in the light of later times, are not at all objectionable. For example, he says, "Good health consists in a pleasant, easy, and exact use of all the functions; and bad health consists in an uneasy, difficult, or disturbed exercise of all or any of the functions."

He was quite correct again in dividing diseases into local and general; and in saying that the local may become the general, and that "predisposition to disease is that state of the body that recedes from health and approaches disease in such manner as to seem still within the boundaries of the former, of which, however, it is only an insidious and deceiving resemblance."

But the attempt to classify and, more especially, to treat the varied and often complicated cases of disease on the field of practice, upon his principles, was too much for his knowledge and skill, and resulted disas-

trously. And the endeavor to arrange all remedies in three leading classes was a miserable failure, inasmuch as the positive powers of drugs had not been ascertained, after the mode commended by Haller,—their trial upon persons in health,—and because the knowledge of them, derived *ex usu in morbis*, had shown them to be too refractory to fall into line after the Brunonian theory as to what they might be expected to do.

Sixth Period.—Near the close of the eighteenth century a German physician, thoroughly acquainted with the prevailing theories in medicine as well as with the principles and technicalities of chemistry and pharmacology, was at work correcting errors in these latter branches of physic, and in translating into his native language the writings of Cullen on *materia medica*, when a therapeutic principle was suggested to him which has led to many and important changes in the practice of medicine. That physician was Samuel Hahnemann, a man highly endowed as an observer and experimenter as well as reasoner.

In original research, and in the logical handling of what he gathered and discovered in the field of facts, he was an extraordinary man.

At first, disgusted with what he saw of the theories and measures and results in the art of healing, he betook himself mostly to chemical and pharmaceutical work, winning a very honorable position among discoverers and writers in the fields of chemistry and pharmacy. His views of the condition of the healing art were well expressed by his contemporary, Girtanner, who, in 1798, said, "As the healing art has no fixed

principles, as nothing is demonstrated clearly in it, as there is little certain and reliable experience in it, every physician has the right to follow his own opinion. When there is no question of real knowledge, where every one is only guessing, one opinion is as good as another.

"In the dense Egyptian darkness of ignorance in which physicians are groping their way, not even the faintest ray of light has penetrated, by means of which they can steer their course. I don't care if any one feels offended by what I say. My object is not to give offence, but to maintain the truth. If any practitioner is not satisfied with my opinions, let him examine his own conscience, and ascertain of how many medical truths he is certain. He who can point out to me certainty in medicine may throw the first stone."

As mentioned a moment ago, Hahnemann, while endeavoring to place the *materia medica* of Cullen before his countrymen in their own language, was struck with the remarkable action of cinchona bark in the arrest of chills and fever, and the utter absence of any satisfactory explanation of its *modus operandi*. To solve the question for himself, he says, "For the sake of experiment, I took, for several days, four drachms of good cinchona bark twice a day; my feet, finger-tips, etc., first grew cold; I became exhausted and sleepy; then my heart began to palpitate, my pulse became hard and rapid; I had intolerable anxiety, trembling (but not rigor), prostration in all my limbs; then throbbing in the head, flushing of the cheeks, thirst; and, in short, all the ordinary symptoms of intermittent fever appeared, one after another, but

without actual febrile rigor. In a word, even the special characteristic symptoms of intermittent fever — dulness of the senses, a kind of stiffness of all the joints, and, in particular, the disagreeable numb sensation, which seemed to be located in the periosteal covering of all the bones of the body — made their appearance. This paroxysm lasted two or three hours each time, and returned when I repeated the dose, otherwise not. In leaving off the drug, I was soon well."

This note in his translation of Cullen appeared in 1790. In 1794, in his translation of Monro, second edition, in the chapter on cinchona bark, he says, "If, however, we accept the view given at length in my note in Cullen's Materia Medica, that bark, in addition to its tonic action, overpowers and suppresses the intermittent fever chiefly by exciting a fever of short duration of its own, it will not be difficult to explain this paradox.

"All other substances, capable of exciting counter-irritation and artificial fever, given shortly before the paroxysm, check intermittent fever quite as specifically, but they cannot be relied on with such certainty."

Looking along the line of drugs that had gained notoriety, as specifics of more or less worth, in the light of his experiment with cinchona bark, he found a number that had been known to produce affections in the well similar to those they had overcome in the sick.

In 1796 he wrote a paper for "Hufeland's Journal," entitled, "Essay on a New Principle for Discovering the Curative Power of Drugs," in which he discussed the various modes adopted by intelligent physicians in the cure of the sick.

At that time he was not ready to abandon the long-current method of treating acute diseases with agents known to act according to the principle *contraria contrariis curantur*. He says, "In acute diseases, which, if we remove the obstacles to recovery for but a few days, Nature will herself generally conquer, or, if we cannot do so, succumb,—in acute diseases, I repeat, this application of remedies is proper, to the purpose, and sufficient, as long as we do not possess the above-mentioned philosopher's stone (the knowledge of the fundamental cause of each disease and the means of its removal), or as long as we have no rapidly acting specific."

But in ailments of longer standing, chronic diseases, where the sufferings continue after the apparent causes have ceased to be operative, and where "Nature herself" is unable to conquer, he no longer favored the antipathic remedies.

He said, "I beseech my colleagues to abandon this method (*contraria contrariis*) in chronic diseases, and in such acute diseases as tend to assume a chronic character: it is a deceitful by-path in the dark forest that leads to the fatal swamp. The vain empiric imagines it to be the beaten highway, and plumes himself on the wretched power of giving a few hours' ease, unconcerned if, during this specious calm, the disease plant its roots still deeper."

In the treatment of such affections he would follow the "new principle" first suggested by his study of cinchona bark. He said, "We should imitate nature, which sometimes cures a chronic disease by superadding another, and employ in the (especially chronic)

disease we wish to cure, that medicine which is able to produce another very similar artificial disease, and the former will be cured (*similia similibus*)."

Continuing his studies and experiments year after year, he found the principle so successfully followed in his treatment of chronic ailments to be applicable, as well, in the treatment of acute cases of disease.

In 1805 he published another essay, entitled, "The Medicine of Experience," in which he boldly announced the general application of *similia*. He said, "Every disease is owing to some abnormal irritation of a peculiar character, which deranges the functions and healthy state of our organs." It will be noticed, that, in this definition of disease, he was quite in accord with Brown and other leading writers on pathology.

He then proceeded to submit two important propositions, which he termed "maxims of experience:"—

1. "When two abnormal irritations act simultaneously on the body, if the two be dissimilar, then the action of the one (weaker) irritation will be suppressed and suspended for some time by the other (the stronger)."
2. "When the two irritations greatly resemble each other, then the one (the weaker) irritation, together with its effects, will be completely extinguished and annihilated by the analogous power of the other (the stronger)."

After the citation of examples sustaining these propositions, he submitted the following conclusion as the governing law, the basis, of a new system of therapeutics: —

3. "In order, therefore, to be able to cure, we shall only require to oppose to the existing abnormal irritation of the disease an appropriate medicine, that is to say, another morbific power whose effect is very similar to that the disease displays."

The necessity of a new *materia medica*, one setting forth the positive powers of the agents to be selected from, must be apparent to the reader. Not satisfied, like Brown, with the common observations regarding the effects of drugs in the sick, or when acting as poisons, Hahnemann took practical steps for the proving of them upon persons in health.

The uncertainties attending the pathogenetic and curative operations of drugs administered to the sick, and the utter impossibility of distinguishing the one from the other, led him to interrogate Nature by deliberate and careful experimentation rather than to listen to her dubious utterances in the sick-room.

As early as 1796, before the principle *similia* had become clear to his mind, he had become disgusted with the current *materia medica*, and in favor of more direct and positive methods for its cultivation.

In "Hufeland's Journal," after showing the deplorable state of *materia medica*, he said, "Nothing, then, remains for us but to test the medicines on our own bodies. The necessity of this has been perceived in all ages; but a false way was generally followed, inasmuch as they were only employed empirically and capriciously in disease."

Year after year he and some of his devoted followers made trial of various drugs on themselves, while in

health; and in 1805 he published a good-sized volume, entitled, "Fragmenta de Viribus Medicamentorum Positivis," made up of the results of their provings, and of gatherings from the field of toxicology.

So much of the history of Hahnemann's labors is here given, in order to show the origin of the therapeutic principles which have served to make up a new and influential modern school of medicine.

In our brief sketch of medical history, designed especially to show the birth of systems of therapeutics, or development of principles which must be recognized by the student who attempts to explore the great medical field of to-day, it is quite out of the question to notice each worker and each author who has won distinction since the coming of the nineteenth century. The great number and variety of workers, and the rapid combinations of one system with another, would make it quite difficult, if not impossible, to follow each discoverer, and to note all the important changes made in therapeutic teachings and practice.

Although physical exercise and bathing had been practised for the restoration as well as preservation of health from the earliest ages, no rules of recognized importance for them had been formulated, no system built, before the time of Ling in Sweden, and Priessnitz in Germany. Though not at first educated for the art of healing, these men devoted energies and mental endowments of no mean order to the powers and uses of water and bodily movements for the removal of disease; and the results of their labors are to-day everywhere recognized among earnest medical writers and practitioners.

The revelations of the microscope, in the fields of pathology and, especially, in that of etiology, have led to the discovery of many germs of disease and the formation of what is known as the *germ theory*.

The properties of electricity have undergone much study, and have come to be recognized as of some positive therapeutic value. And the analogous power, very marked in some persons, usually called "animal magnetism," showing itself in the touch and manipulations of certain persons, often clothed in mysticism, and denounced as "the power of the Devil," has at times effected relief of pain, and conduced to recovery of health, though not recognized as a therapeutic means to be employed in accordance with any known principles.

Persons possessed of this power, usually termed "healers" or "healing mediums," seldom attempt to account for its presence, or to explain its *methodus medendi*. They exercise it empirically, some believing it to be an interposition from the spirit-world.

ADMITTED PREREQUISITES.

BEFORE proceeding to the consideration of current therapeutic principles, our usual guides in the art of healing, it is necessary briefly to notice the character and degree of information necessary to their proper application in practice.

The mariner may have the magnetic needle, and yet fail miserably in the art of navigation if not provided with reliable charts, and made somewhat acquainted with the humors of the sea.

Anatomy. — First in order is a knowledge of the human body, its various organs and tissues. The bony framework, the ligaments that bind, and the muscles that move the varied parts; the nerves that receive and communicate impressions, and actuate the muscles; the organs that receive and reduce and take up nutriment; the heart, and the vessels that distribute and return the blood; the wonderful brain, and every other organ and tissue composing the human body, — must be studied long and well.

Happily the barriers of superstition are so far removed, that the dissection of the *cadaver* is not only tolerated but urged upon the student of medicine in all civilized countries. Provision for it is made in every medical school, and its practice is rendered obligatory before graduation.

It is quite unnecessary here to display arguments in

favor of a thorough acquaintance with human anatomy on the part of every practitioner of the healing art, whether devoted to surgical, medical, or what is commonly known as hygienic, treatment.

Physiology. — And it is considered necessary, not only to acquire a knowledge of the composition and relations of the organs and tissues of the body, but, likewise, of their actions and uses. The varied processes concerned in nutrition; the selection and appropriation of articles of aliment; the advantages of each; the development of the organism, and its maintenance in vigor, — these, and many other things in the domain of physiology, must be learned. Since medical men have adopted the experimental method, not only listening attentively to the voice of nature, picking up facts by the way, but pushing inquiry by earnest tests, great has been the light shed upon the functions and powers and susceptibilities of the human organism. Without a sound physiology, there can be no standards of health, and consequently no means of detecting, or properly estimating, departures from it. He who knows not the uniform characteristics of health, can know little of the characteristics of disease.

The enlightened physiology of our day has banished many barbarous measures of the past, and brought forward many simple and more effective expedients for the restoration of harmony and strength in the diseased organism.

But we need not dwell upon such matters here.

Pathology. — Having some acquaintance with the composition, form, and relations of the different tissues and organs of the body, and also with the pecu-

liarities and results of their varied actions, there is a possibility of our acquiring some satisfactory knowledge of their conditions and behavior under morbific influence.

Without such an acquaintance with healthy conditions and actions, it would be quite out of the question for us to gain even a faint conception of their real character, location, and tendencies.

Pathology is but physiology plus morbid action, and pathological anatomy is to us only human anatomy plus the sensible morbid results. Such being the case, it is not to be wondered at that the great advances of anatomy and physiology, during the last half-century, have served to scatter much of the fog, and to clear up many of the mysteries, that seemed to hang over the field of pathology.

For a long time the prevailing conception of disease was of some disturbing entity, spiritual and wicked, or material and obstructive, to be subdued by religious ceremonies, expelled by purgation, or drawn off "as filthy dregs from a cask by a faucet."

For a long time disease was regarded as a change in the properties of the fluids, and what is known as the "humoral pathology" prevailed. Again, the changes in the organism constituting disease, were supposed to be in the "solids;" while, ever and anon, morbific impressions and actions were looked upon as "dynamic."

At one time pathology was all "humoralism;" at another, all "solidism;" and, again, all "dynamism," or "vitalism."

At present the disposition is, laying aside these dis-

tinctions, or acting independently of them, to gather facts, in regard to human ailments, in the fluids, the solids, and the mental actions of the sick.

By every means of inspection, through symptoms objective and subjective, and *post-mortem* appearances, human ailments are studied, compared, and classified. Though the human organism, especially under morbific influence, is not always the same; though cases of disease do sometimes vary when arising apparently from the one cause; though the problem to be solved by the pathologist is complex and beset with difficulties, — the study goes on with no small degree of success.

Taking the tissues and organs of the body as a basis, and their normal appearances and actions as a standard, it has been, if not an easier, certainly a much more satisfactory, way to recognize and study diseases by methods of comparison, than by some preconceived pathological notions.

The necessity of some classification, some nosological arrangement, giving names and distinctions to certain groups of symptoms, must be admitted; for human memory and reason could not deal successfully with such endless, disconnected facts as presented by all the sick with their various ailments.

Generalization here is just as safe, and quite as successful, as in some other departments of natural history and science.

Even were it possible for an individual practitioner to memorize and constantly bear about an intelligent conception of all the symptoms of disease he may have met with, so as to recognize and provide for the

conditions underlying them, without generalization he would be quite unable to make himself understood by others when speaking of his observations and experiences in practice. He would be like the backwoodsman, familiar with every tree and plant and flower in the country, and yet unable to speak of them in classes and species so as to be understood by the students and writers of botany.

A grouping of symptoms, and names more or less general for such groups, must be had; and the basis for all must be anatomical and physiological.

It is now quite generally held that the morbific impression, the cause being what it may, animate or inanimate, mental or physical, must bear upon some particular tissue, and disturb the integrity or functions of some one organ; or, in other words, that all diseases must be first local before they can be general or constitutional.

Upon the physiological scale, attempts have been made to divide diseased conditions according to disordered function; for example, in menstrual pathology, there may be —

Amenorrhœa, where the flow is wanting;

Menorrhagia, where the flow is excessive;

Dysmenorrhœa, where the flow is painful.

And, again, in the same connection, the menstrual flow may come, but too soon or too late; and then the affection is —

Hetero-chronic; right action at a wrong time.

The flow may be anal or nasal, when it should be vaginal; and then the affection is said to be —

Hetero-topic; right action in a wrong place.

According to the supply of blood, an organ or tissue is said to be —

Hyperæmic, when having too much;

Anæmic, when having too little.

Many and serious are the affections now recognized as belonging to one or the other of these two conditions.

Again, according to the sensitive state of an organ, its affections are divided into two classes: —

Hyper-æsthetic, when too excitable;

An-æsthetic, when torpid or slow in responding to an excitant.

In this connection, it may be remarked that Brown, adding the idea of strength or efficiency of action to that of excitability, divided all affections into two great classes: —

Sthenic, when too strong;

Asthenic, when not strong enough.

He was slightly in error in the use of the term *sthenic*, inasmuch as it would not necessarily indicate any thing abnormal. He should have employed the term *hyper-sthenic*.

But for the present purpose, enough has been said about pathology, except to mention that a familiarity with it is of great importance to the therapeutist who must thereby be governed largely in deciding upon a successful line of treatment, and in forecasting the future of his cases.

Ætiology. — The first care of the therapeutist, or at least the one that demands attention upon a survey or diagnosis of his case, must be to ascertain the cause or causes of the existing trouble. Where the morbific

influence is yet active, and such as to be within reach, his whole duty may be performed in its removal from the patient, or the patient from it, without the use of a single dose of medicine. While it may not be profitable to attempt the solution of all the causes, more especially to determine the *rationale* of the morbific impression, before proceeding with measures of relief in urgent cases, it would be exceedingly absurd, not to say criminal, for the practitioner to prescribe an opiate or simple sedative, or a symptomatically indicated drug, where a chemical antidote is required for an irritant poison that threatens life; nor would it enhance his professional reputation to prescribe a chemical antidote where only a mechanical manipulation is called for to replace a dislocated organ.

Whatever the therapeutic method and means practitioners may adopt, they cannot be excused from a prompt and sharp inquiry after the immediate, and, in chronic ailments, the remote, causes of ailments for which they are about to prescribe.

In the effort to shun the mistakes of those who in earlier times thought only of the injunction "*tolle causam*," and who became lost in a wilderness of conjectures while hunting for the "*prima causa*," it will not do for us to shut our eyes to conditions and habits, a proper history of which would show a causal connection with the ailments of our patient and the need of some personal hygienic change, instead of doses of drugs. In view of these facts, it is proper here to consider, briefly, some of the leading principles in ætiology, as recognized by the best medical thinkers and writers of the day.

Predisposing Causes. — There are slight departures from the normal standards of health, hardly noticed, which render an individual more subject to certain morbific influences than other persons equally exposed. Experience, to some extent, has shown what such departures are, and how they may be corrected in the avoidance of special affections.

But much misunderstanding has existed in reference to *susceptibility*, or the state supposed to be induced by some predisposing cause.

In agriculture, experience proves that virgin soil more readily receives, and more abundantly returns, the seed of a special crop than soil already occupied by other kinds of vegetation; and so, in medicine, experience shows that the organism, free from all disease, more readily receives, and often more severely suffers, from the germs of a special disease, than organisms previously brought under the influence of some prophylactic, or similarly acting agency. It may suffice to show what is meant by reference to the decreased susceptibility to small-pox occasioned by vaccination, to malarial chill and fever by cinchona, to scarlatina by belladonna, and to Asiatic cholera by camphor and cuprum.

Much that is fanciful has been written upon *erethism*, as an excessive susceptibility, and of *torpor* as a diminished susceptibility; while practically the distinction is of little worth.

Exciting Causes. — The influences recognized as immediately bearing upon individuals, in the production of disease, are usually considered the essential or real causes.

These may be apparently trivial, like the "last straw that broke the camel's back;" while the predisposing may be the most important. It is well known, that, in some conditions of the human organism, a little exposure to cold, or a little over-exertion or excitement, may lead to very grave disorders and fatal results. A person much diseased, and greatly reduced in strength, may live, and accomplish good work, for years by avoidance of the exciting cause necessary to precipitate the end.

As already intimated, where the special cause is organic and living, freedom from it must be effected by prophylaxis or avoidance of contact. Where sickness comes from entozoa, intestinal worms, for example, the treatment must be addressed to the intruders, and be such as to sicken or destroy them without endangering the person to be relieved.

It is not necessary here to discuss, or even to enumerate, all of the recognized causes of disease. They are internal, from inheritance, and external by acquisition; organic and inorganic; atmospheric, climatic, dietetic, contagious, infectious, general, specific, endemic, epidemic, pandemic, etc. At no time in the history of the healing art has there been so much activity and earnestness, so many tests, and so much research for the discovery of morbific causes, as in this closing quarter of the nineteenth century. Though often disappointed, and sometimes discouraged, the workers in the field of ætiology are meeting with gratifying success. And, though much has been learned, the practitioner is yet sorely puzzled, at times, as he contemplates the vast amount of information

needed, and the multitude of mysteries remaining unsolved, as to the causes of morbid conditions he is called on to correct.

Symptomatology. — Symptoms constitute the language of disease. They are expressions a careful study of which must reveal the character, location, and tendency of human ailments, so far as our limited faculties may enable us to understand them. And they, in connection with the history of cases of disease presented, must be our guide in the therapeutic field. Without them we can have no pathology, and no successful treatment of disease.

They appear in two classes: —

Subjective symptoms are those told us by the patient, and consist of abnormal sensations, emotions, thoughts, and desires.

Objective symptoms are those which we may observe by our senses, or discover by the aid of various diagnostic means.

Much has been said as to the comparative value of these two classes of symptoms, the majority of writers placing a much higher estimate upon the importance of the objective. Where we are able to obtain symptoms of but the one class for our guidance, we must all prefer the objective.

The practitioner resting too much upon the narrative of sufferings, given by his patient, may be greatly misled in his conceptions of the disease and in his proposed line of treatment.

The steps necessary in the study of symptomatic displays, among thorough diagnosticians, have been chiefly these: —

1. *First glance*, taking in the general appearances, such as the form, position, color, motions, voice, feeling of skin, etc., of the patient.

While some practitioners may be quite expert in reading such appearances, so as to arrive at a satisfactory diagnosis very quickly, the practice is one not to be encouraged.

Jumping at conclusions where human life is at stake cannot be justified.

2. *History* of sufferings given by the patient from the beginning of the ailment. This narrative should be given, at first, without leading questions from the examiner. Afterward a course of rigid questioning is necessary, in order to ascertain what, where, when, how long, the sufferings were; by what made worse, and by what better.
3. *Inspection* of morbid appearances and products by the eye, ear, touch, and smell.
4. *Examination* of morbid appearances and products by the senses, aided by all possible devices, such as the microscope, stethoscope, laryngoscope, ophthalmoscope, otoscope, various kinds of specula, the thermometer, chemical re-agents, etc.

Great have been the advances in the last half-century in our means of diagnosis; and important, both to pathology and therapeutics, have been the results of their use.

The amount of time and the number of tests to be employed in tracing morbid displays, must depend on the nature of the case. In acute affections the range

of inquiry need not be so great, nor the tests so numerous and prolonged, as in chronic. In these latter it becomes necessary, at times, to inquire after the family history in order to ascertain if there be hereditary taints.

In nearly every case, careful inquiry should be made as to the residence, occupation, and habits of the patient.

Pathogenesy, or Materia Medica. — In tracing medical history, the student, if at all given to reflection upon what he learns, must feel inclined to ask, why the knowledge of drug influence and drug effects has been so far behind and below the knowledge generally possessed of morbific influence and effects, especially during all the centuries preceding our own. Physicians seemed satisfied at first to take such information, regarding drugs, as they could gather from the common people, in market-places and by the roadside. Later they relied upon observations in the sick-room, taking the fancied effects of doses administered to the sick. Fancied effects, it must be said, because there could be very little certainty as to the influence of any particular drug in compounds and mixtures embracing half a dozen or a dozen different articles. And long after the value of experimental inquiry, incisive and patient, had been recognized in chemistry, and even in physiology, its importance in the department of pharmacodynamics was not appreciated. Medical writers on *materia medica* were satisfied to accept the inconclusive and, often, absurd teachings of clinical experience, vitiated by a miserable polypharmacy, in the making up of their ponderous volumes.

Haller, in his day, advocated the trial of drugs upon the healthy, and one or two other writers mentioned the plan as desirable; but neither he nor they ever put it in practice.

As mentioned already, in the historical chapter of this work, Samuel Hahnemann was the first advocate of the "healthy vital test" who went on to make it practical. He not only gathered from cases of poisoning, and from reports *ex usu in morbis*, the effects of various drugs where they had been administered singly, but went farther, instituting experiments on himself and others in health, in order to ascertain the positive and certain influence of each article. He proceeded with as much care as did the analytical chemist who put but one article into his crucible, or into his retort, while aiming to ascertain its exact properties and powers. He clearly saw the impossibility of assigning symptoms to a particular drug administered, out of the multitude of symptoms arising from a pre-existing disease, or out of a multitude arising from several drugs, all equally unknown, combined with the one under investigation. He discarded the observations of the sick-room, and especially the Babel-tongued teachings of experiments with the mixtures of a fanciful polypharmacy.

The persistent assaults upon the errors of the past, made by Hahnemann and his followers, have gradually led the medical mind away from the old methods of cultivating *materia medica*, methods that could be of service only in an age of common empiricism, to one more in keeping with the plans for eliciting knowledge adopted in other departments of science, one that is

at once useful to the physiologist, the pathologist, the toxicologist, and the pharmacist, as well as the therapeutist.

To-day, not alone among those enrolled as the followers of Hahnemann, is this method being followed. In England, Germany, Austria, France, and America, experiments are being made upon it, at times ostensibly in the interest of physiology, which furnish the most treasured data in pharmacodynamics.

Standard works on *materia medica*, esteemed as orthodox, have been displaying more and more of the fruits of such experimentation, under the head of "physiological effects." Although some have come to the human, healthy, vital test, by a circuitous route, through a line of inferior animals, they seem now to appreciate most highly the reported effects of drugs, proved singly upon well people, after the manner of Hahnemann.

So unanimous in favor of this method are the leaders of medical opinion to-day, it is hardly necessary to enforce its claims by further comment here.

In a subsequent portion of this work, the detalis of it will be presented.

But it should be said, in conclusion, that an exact knowledge of anatomy and physiology, pathology and symptomatology, can avail little to the practitioner who is unacquainted with the properties and powers of the articles and agencies to be employed in the treatment of the sick. Imagination will not serve in place of real knowledge; and he who draws most upon it, in the selection of curative means, will make the most miserable failures in practice. The knowledge required is

not simply, nor chiefly, of drugs, but quite as much or more of the ordinary or every-day influences bearing upon man, sustaining him in health, or making him sick, according as their properties vary, — such as the atmosphere he breathes, the food he eats, the fluids he drinks, and the influences of his occupation, residence, and habits. Water at various temperatures, electricity, physical exercise, — all these must be understood in their varied relations to human health. He who studies the properties and uses of drugs ever so much, and knows little of these, will make poor headway in healing the sick.

PART SECOND.

THERAPEUTICS.

After the brief sketch given of medical history, showing the prevailing principles and systems in the different ages, and an outline of the knowledge and research requisite in the fields of anatomy, physiology, pathology, ætiology, and *materia medica*, we are prepared to consider the principles that guide in the art of healing, as observed toward the close of the nineteenth century.

A survey of the therapeutic field shows the development of three different methods, marking three successive periods, more or less distinct, which may be called, —

1. The Empirical.
2. The Theoretical.
3. The Scientific.

These methods of therapeutic practice have not been exclusive in their respective periods: for, quite early in the reign of the first, men began to theorize; and, during the second, there were glimmerings of the greater light characterizing the third.

The Empirical. — Rightly to understand this method, we must imagine ourselves in the childhood of the human race, before the lessons of experience, or experience itself, had become known, and see the occurrence of physical injuries and bodily ailments calling

for help. That superhuman aid was sought after in such straits, was but natural; so that the priestly practice of healing need not be a matter of wonder or surprise. Passing from an early reliance upon the direct Divine interposition to the employment of means endowed with healing properties by the same Divine power, the ministers of health were soon noting the favorable effects of one agent after another, which chance or caprice had brought into use among the sick. As already intimated, such notes were passed from generation to generation through the channels of tradition, till a written language made them matters of record.

The earliest of all therapeutic principles thus arrived at was this: —

Administer, in each case of disease, the remedy which experience has shown to be effective in a similar case.

Subject, in the first place, to the uncertainties attending the reference of effects to causes, which might lead observers to attribute recoveries to means not at all curative; and, again, subject to the uncertainties attending the comparison of one case with another, where an apparent similarity might allow an essential difference, — this empirical rule, very limited in its application at best, could but prove very unsatisfactory. As new forms of disease were developed, its insufficiency became more apparent; and thoughtful attendants upon the sick desired some light, some guide to lead them in advance of experience. As seen in our historical sketch, as men began to philosophize in other departments of life, attempts were made to account for various ailments and for curative effects.

The human body was a compound or mixture of certain elements, the excess or deficiency of any one or more of which was supposed to result in disease, and the withdrawal or supply of which, to a necessary extent, was considered the proper therapeutic measure.

The formation of theories as to the body, and as to the action of remedies, thus led on to the second method: —

The Theoretical. — The development and constant exercise of the reasoning faculties in man stimulated the desire to see beyond the line of simple facts.

Not satisfied with the knowledge that a form of disease had yielded to a certain remedy, philosophical practitioners endeavored to learn the *modus operandi* of the curative agent.

Each discovery, or fancied discovery, in anatomy, physiology, or animal chemistry, and in the ætiology or pathology of disease, led to a new therapeutic theory; so that the history of medicine, as slightly shown in the sketch already submitted, is but a record of the rise and fall of doctrines and systems of cure, each holding its votaries for a season, and then giving place to others. In looking back over the record, the student must see much that is surprising, and much that is amusing. Agencies the most imaginary, and substances the most inert and disgusting, have been employed as curative means.

Mythology, astrology, necromancy, alchemistry, and superstitions, ancient and modern, have had their influ-

ence, adding the mysterious, the miraculous, and the grotesque.

But a review of such things must be left to the medical antiquarian and curiosity-hunter.

The efforts to learn the philosophy of cure, so as to be able to connect morbid conditions with curative agencies, the formation of some theory that might lead where empiricism could not avail, were not only natural but necessary. And the casting aside of a theory formed when it had failed to work out in practice, — when it was not sustained by facts, — was in the direction of real progress. The fact that the heterodox has constantly displaced the orthodox, that the new has succeeded the old, has been as important here as elsewhere in human affairs.

Short-sighted and slow as the empirical method, the clinical trial, seems to be, it has been the merciless critic and destroyer of false theories from the beginning of the healing art till now.

The theorizing effort has been injurious only when accepting unreliable data, or when jumping to conclusions from insufficient premises. The classification of human affections has occasionally brought together things essentially different, and grouped agencies of very diverse powers. Such errors have sometimes kept in place and in favor remedies not only worthless, but positively injurious. Generalization has thus, to some extent, worked mischief and made confusion instead of simplicity and good order. And, acting upon insufficient analogies, theorists have sometimes brought into a group a remedy of different, and often contrary, medicinal influence, on account of some chemical or

botanical resemblance it bore to the other articles embraced. The *materia medica*, all along down to the present age of theoretical medicine, has been full of such errors. It is to-day, with all its classifications and appearances of scientific value, fairly honeycombed with the evils flowing from false analogies and false associations. And the same, to a large extent, may be said of the nosological classifications composing works on special pathology and practice.

Clinical experience declares the unfitness and failure of medical practice as based on such theories.

College faculties, large works on medical topics, and vast displays of learning, all fail to render it successful in the face of positive, well-marked, sweeping affections, such as Asiatic cholera and yellow-fever, for which efficient remedies must be had. The consternation and hopeless fury of the people in France and Italy, who had no confidence in what the most scientific medical men could do for them, and the high rate of mortality among those under treatment during the late epidemics of Asiatic cholera, sufficiently attest the inadequacy of theoretical medicine.

The method followed in other departments of human learning and labor must be adopted in the cultivation of medicine; namely, —

The Scientific. — Facts in relation to the human organism in health, and facts concerning it in states of disease, and facts as to the influence of agents resorted to as remedies, must be closely observed.

And such facts, logically treated, must yield principles more or less widely applicable in medical treat-

ment. And well-established principles, each recognized in its own sphere, must constitute a proper science of therapeutics.

It has been said by able writers, and the saying has almost passed into a proverb, that the facts in medicine are so unstable or inconstant, there is no possibility of such a thing as a *science* of therapeutics, and that nothing but an *art* may ever be expected. Such a view has obtained among those who have depended chiefly upon empirical rules, or on very limited and short-lived theories. The frequent failures, the ups and downs of one method and one drug after another, have led to such opinions; and nothing short of a thorough reformation, whereby the influence of superstition and prejudice, and veneration for authorities, shall be swept away, and medical men be brought to the acceptance of what is proven to be true by careful observation and experimentation, can correct such views.

Medicine must shake off the idea of an orthodoxy and heterodoxy, and of sects and parties, and be willing to learn or unlearn, and to accept truth on its own account wherever and whenever found. Not so credulous as to accept what is not proven, nor so sceptical as to refuse what cannot be denied, — conservative enough to hold fast what is good, and progressive enough to get away from what is worthless, — medical men should fearlessly follow logical methods wherever they lead.

But logical methods avail little toward the building up of a science of therapeutics where the facts generalized are not *facts*.

Nowhere in all the fields of human study, owing largely to a disposition to theorize, have there been greater obstacles in the way of certainty than in those pertaining to therapeutics, and none in which there has been a greater tendency to see a *propter hoc* where there has been only a *post hoc*.

This fact must account for the sudden and great prominence given to drugs afterward proven to be worthless, and to methods at one time highly praised and again quite forgotten. So fallacious has the testimony of experience seemed, at times, it has been stigmatized as the "mother of quackery."

But clinical experience of that careful kind which looks in all directions for vitiating circumstances, and the operation of other agencies beside the ones under trial, does not mislead. Observation, and experiments conducted with the precision required in chemistry and natural philosophy, must result in data upon which the science of therapeutics may rest securely.

As already intimated, the three methods — the *empirical*, the *theoretical*, and the *scientific* — have not been entirely distinct since men began to depend upon their own faculties of observation and reason, instead of looking for some supernatural intervention in behalf of the sick. To-day the practice of medicine, in the more enlightened countries, exhibits the shaping influence of all three methods.

Taking their best fruits, so far as they have survived decay, and are found useful, it remains for us to bring them into some systematic shape. As the ultimate object of our profession is to employ the best means in the most efficient manner, any arrangement of the

principles deduced from medicinal, hygienic, and surgical experiences, at once sound and comprehensive, must be a desideratum of the greatest importance. Much confusion has existed, and still exists, as to the places properly occupied by different remedial measures, and as to the rules governing them.

Some speak of remedies "indicated," and also of "adjuvants," always advancing the former to the highest place, and using them under the rigid requirements of medical science; while the latter are employed as "nondescripts," or means without the pale of recognized principles.

What is now required, is a system or scientific arrangement, in which every therapeutic procedure is regulated by some therapeutic principle.

Surveying the great therapeutic field, we must, at the outset, discover a well-marked line running through it, having on one side all those means and measures which are relied upon to relieve suffering and restore health without the institution of an artificial pathological condition, and, on the other, such as are employed "to institute those new pathological conditions which are most conducive to health." It is an obvious fact, that all the curative influences brought to bear upon the sick, which are not disease-producing, must be governed by the principles suggested by physiology, such as relate to the deficiency or excess of things requisite in health, or the removal of the factors or products of disease. Physiology has to do with the tissue pabula and excitants, as well as the whole environment of healthy life, for its support and protection. And, on the other hand, it is a fact equally obvious,

that other principles must govern in the employment of means which, in the language of Dr. Martyn Payne, "substitute one pathological state for another in the cure of disease," or, as written by Hahnemann, "such as possess the power of producing in the human body an artificial disease."

In the absence of terms more definite and convenient, we shall call the one department *Physiological* and the other *Pathogenic Therapeutics*, and proceed to notice the leading principles recognized in each.

PHYSIOLOGICAL THERAPEUTICS.

An acquaintance with physiology prepares the therapeutist to appreciate the influence of the various excitants and supports of the human organism.

The preservation of tissue integrity and functional efficiency, depending upon a due supply of these, must be of first concern. Fortunate it is for humanity, that medical study, of late years, has been largely in the direction of physiological requirements.

Disappointed, and often disgusted, with the action of drugs employed after the usual methods, physicians have, more and more, endeavored to dispense with their use, and, more and more, have counselled the sick to regulate their diet and habits, or make change of occupation or residence, for the recovery of health. The fact has been often noted, that men grown old in the practice of medicine are much less inclined to prescribe drugs, especially potent drugs, than they were when they started out in professional life. And another fact may be noted, of late years, that the most successful and famous practitioners are those who do not leave the physiological needs of their patients to ignorant nurses, nor to individual caprice and desire. They, first of all, consider what laws of life were violated, what necessaries omitted, or what deleterious things allowed, in the daily life, that should occasion

the existing ailments; and they do not look upon it as less scientific and becoming a learned doctor, to prescribe a change of diet, or residence, or occupation, in place of half a dozen potent drugs.

Among the things requisite to health, and life itself, the first to be considered is, —

The Air Breathed. — This article is the first demanded in the support of individual terrestrial life at the moment of birth, and it is the last to be yielded up when that life comes to its close.

Upon its quality and quantity must depend the functions of the respiratory organs. The preponderance of one or another of its constituent elements may render it, not only useless, but noxious, and rapidly destructive.

The researches of physiology have discovered, with considerable exactitude, the properties of atmosphere necessary to health, and, likewise, the amount of its supply. And the states of the atmosphere, its temperature, its weight, its motion, its humidity, and electrical property, have been matters of study in their influence upon health.

The therapeutist must be able to judge of these, and to prescribe the changes necessary in the avoidance of conditions hurtful, and the procurement of those which will be beneficial.

Examples of bad air may be seen on ship-board, in crowded dormitories, in cellars, in factories, in assembly-rooms, and in swampy low-lands. And the good influences of change may be noted at summer resorts, by the seaside or on mountain heights.

The Food Eaten. — Although the capabilities of the human apparatus in the digestion and assimilation of various kinds of aliment are very great, and likewise their tolerance of things not suitable, — though, in different circumstances, men may live well on vegetables alone, or on meats and animal fats alone, — there are certain kinds and qualities of food demanded for the best development and support of the organism, which must not be ignored. Wrong selection, excessive use, and improper times and ways of eating, undoubtedly occasion more suffering and disability among men than any other class of errors recognized in the wide domain of ætiology. Practitioners who are mindful of this fact, and closely observe the principles developed by dietetic experience, must ever be more successful than those who never inquire as to the food taken by their patients, allowing them, very likely, from day to day, to use the very things that have made them sick. Enough cannot be said in condemnation of the practice of some who, instead of carefully directing a course of proper diet, allow those sick from over-eating or wrongly eating, to go on till excessive purgation is considered necessary to set things right.

When it is considered that nine times in ten, infantile convulsions, and apoplexy in adults, as well as numerous other sudden and fatal ailments, come from excessive or wrong alimentation, the necessity of attention to diet, on the part of the therapeutist, must be apparent.

The Fluids Drank. — And closely allied to the matter of eating is that of drinking.

The process of digestion is often greatly delayed by the excessive use of liquids, diluting the gastric juice, upon the strength of which the reduction of food in the stomach depends. And digestion may be retarded by the quality as well as quantity of liquids drank.

Physiological experiments and daily observation, both, have shown the evil effects of certain articles of drink and the good of others.

Here, as well as in the matter of eating, the therapeutist cannot afford to follow theoretical teachings. He must observe the physiological principles relating to the use of different beverages, deduced from daily experience and careful inquiry, and follow where they point. Medical men have been often blamed, and quite justly, for prescribing alcoholic liquors where not required, and for not denouncing their general use by persons in health.

They who fail to recognize the train of evils, even beyond the physical, which come from improper drinks, or who only provide for them out of the pharmacopœia when developed in all their fury, fail to reach the high plane on which every therapeutist should stand.

The inventive genius of man, in these latter days, and under the strong light thrown upon the evils of intoxicating beverages, seems to be taxed in the production of various other drinks, in a measure substitutive, and gratifying to human taste; and toward these concoctions, many of them vile, and damaging to human health, the medical profession should look with concern and care.

The Clothing Worn.—It is well known among those who observe the progress of physiological discovery, that the bodily condition of man is variously influenced by the color, texture, and cut, as well as the kind and weight, of clothing worn.

Protection from the extremes of cold and heat, and from wet, the allowance of room for chest expansion, and the right action of the abdominal viscera, the free movement of the limbs, and the ready transmission of the fluids of the body through their channels, all must be provided for by the regulation of the clothing worn.

In the prevention of sickness, as well as restoration of health, articles of raiment must be considered in the light of physiological requirements.

The Dwelling Occupied.—The location of a dwelling-house, high or low, deeply shaded among trees and shrubbery, or perched on a hill, unprotected from the blazing summer sun and from wintry blasts, has much to do with the health of the inmates. The search for the causes of sickness has led to the consideration, not only of the position and surroundings, but, likewise, the character, of the house occupied. Modern architecture has begun to provide for healthfulness as well as general convenience and beauty. From the cellar to the roof, care is taken to admit, as far as possible, to every room the life-giving influences of the sun, to shut out dampness and ground-air and sewer-gas by improved walls and floors and flues and pipes and ventilators. The principles of hygiene are recognized by all competent architects; and the provisions of architecture, so far as they relate to health, should be

well understood by the therapeutist. He should be able properly to consider the house of his patient, and to prescribe necessary changes.

The Business Followed. — Long observation, and the gathering of statistics, have done much to determine the comparative healthfulness, and special influences upon life, of the various occupations followed by mankind. A change from one to another may restore health where other means are of no avail.

The constant bearing of one set of influences may occasion wear and ultimate failure in tissues and organs which would be happily restored were the bearings changed by the substitution of other influences peculiar to another line of business.

To tell an earnest, successful man to quit work, and sit down in idleness, when insomnia, neurasthenia, or locomotor ataxia is being developed, is to hasten him on to entire disability or death. An ocean voyage, and travel in foreign countries, full of objects calculated to give pleasing exercise to a restless mind, would afford a measure of relief not to be gained by enforced idleness, nor by sedatives, stimulants, or any other products of pharmaceutical art.

The therapeutist cannot afford to be ignorant of what the various occupations may do to make people sick, nor of the changes necessary to effect recovery.

He should know that a kind of work suitable for one man may be very deleterious to another, and should be prompt in making use of that knowledge for the benefit of those who may rely upon him as a medical adviser.

Habits Contracted. — Under the influence of various inherited or acquired desires, habits have been contracted, and practices followed, by individuals, to the detriment of health and comfort. Things at first so distasteful and repugnant as to be scarcely tolerated, have come into such constant use, and things necessary have been so much abused, as often to induce disease and untimely death. So great have become the disturbances of health in consequence of such physiological transgressions, and so complicated the resulting diseases among mankind, it has been quite reasonably feared that a serious degeneration of the human race must follow. And here it should be remarked, that the therapeutist who, guided by the symptoms presented by persons sick from irregular and destructive habits of life, considers his entire duty discharged when he has prescribed some drug, without an earnest command as to the necessary change of habits, fails signally in a proper appreciation of his calling, and is not worthy a place in the medical profession.

District Inhabited. — Local causes of sickness, the influences of soil and climate, and form of country, upon health, were never so closely studied as at the present time.

There is now a geography and topography of disease, each year taking more definite shape, and proving of more service to the medical practitioner. The haunts and routes of travel peculiar to some dreadful forms of disease are mapped out, and the necessary measures for their avoidance or removal are better understood than even one decade ago.

Drainage, isolation, and disinfection are measures well calculated to recover lands and save cities from the reign of endemics and epidemics, before which humanity for a long time seemed helpless.

Conclusion. — Before passing from the consideration of what are generally termed hygienic requirements, a plea should be entered for the popularizing of this branch of therapeutics.

The writing of works on physiology and hygiene for general reading, and of text-books for schools, has been in the right direction. It is not long since the literature of disease prevention as well as cure was locked up in a dead language. Treatises on the human body, and its diseases and remedies, were written in Latin, and designed alone for the eye of the son of Æsculapius. The people were purposely kept in the dark, as unable to comprehend, or make any proper use of, medical knowledge.

But the world is to be congratulated upon the change that is dissolving the mists, and throwing light into the dark places, so that man may know himself, and also something of his relations to the causes and the prevention and cure of disease.

Let the people have knowledge, and let the physicians who cannot keep in advance of them in knowledge and skill turn away to more suitable occupations. And it is a matter of general congratulation, that the domain of physiology and hygiene is no longer the fighting-ground of medical schools and sects. The interests of public health, as well as individual hygiene, are committed not alone to the medical profession:

they are receiving the deserved attention of architects, engineers, manufacturers, and philanthropic individuals in private life, as well as of physicians.

THE CHEMICAL.

In the prevention and control of human ailments, means are at times employed which must act in obedience to chemical principles.

Though the body of man is something more than a chemical compound, and though the functions of the different organs are more than the action and re-action of one chemical element upon another, much important information has been furnished the physiologist and the pathologist, and some valuable hints to the therapeutist, by the analyzing processes of chemistry.

Chemical theories in medicine have proved delusive, when, disregardful of physiological requirements and of medicinal influence, they have, on the one hand, assumed too much, and, on the other, performed too little.

Clinical experience has declared their insufficiency in providing a complete system for the therapeutist.

Elements Requisite. — The indications afforded by chemical data have been of some value in leading to the employment of favorable articles of food, such as calculated to provide for a deficiency, or check an excess, of some required element or property in the human body. Though much that is fanciful, having only a show of science, has been put forward in regard to *food remedies*, or drugs embracing chemical elements

such as necessary in the human structure, there is only a *modicum* of truth in the claim, that things supplied in the stomach may find their way, with little or no chemical change, to the tissues in which they are supposed to be deficient. The want of iron in the blood of the chlorotic girl occurs when she is using food in which iron is just as abundant as at other times, the fault being not in the supply, but in the power to appropriate it. The excess of acid in the gastric juice of the dyspeptic comes not from a deficiency of alkali in the food taken; nor will the increased use of alkaline substances correct the evil.

On the other hand, experience has shown, that the use of a mineral acid, in cases of excessive gastric acidity, will generally provoke the chemico-vital forces to secrete a fluid less acid and more alkaline.

The excessive use of acids does not occasion acidity of urine, nor correct an alkalinity in that fluid.

Clinical experience has contradicted many a fine chemical notion.

But there are cases where agents supplied by chemistry are requisite in the removal of morbid growths, and destruction of morbific matter.

Agents Hurtful. — Poisonous articles are sometimes taken into the stomach which must be antidoted by chemical means. Irritant acids are best neutralized by alkaline agents, and *vice versa*. While chemical principles should govern in the selection of such direct means, their application in the human system must be with all due regard to the limits of vital endurance.

Again, poisons that threaten life in the form of infec-

tion or contagion may be removed, or rendered powerless, by means of chemical agents.

The cultivation of sanitary science, of late years, has developed ways and means of disinfection which, under chemical guidance, are of great value. But here, as in therapeutics, many useless things have been brought forward, and not a few hurtful, in the name of chemistry.

In closing this chapter, it should be said that it is not safe for the therapeutist to proceed in the treatment of cases to which he may be called, till his diagnosis has informed him if the *causa morbi* be a poison within, calling for an emetic or an antidote, or a poison without, calling for disinfectants, which chemistry alone may be able to point out. To prescribe "mint tea," an "epigastric sinapism," or "arsenicum album," in a case of poisoning by *arsenious acid;* or to prescribe "paregoric," "blackberry tea," or "croton tig.," where an excessive dose of *croton-oil* has been taken, would enhance the reputation of the prescriber about as much as would the administration of "ammonia" or "lachesis" to one asphyxiated in the bottom of a foul well, or of "dialyzed iron" or pellets of "china" to the pauper dying of the anæmia of simple starvation.

The successful therapeutist must be acquainted with the principles of chemistry, and must follow them in the employment of chemical agents for chemical effects.

THE MECHANICAL.

Motion is essential to life. In health there must be personal exercise, and constant molecular change in every tissue of the human body. The circulation of

the blood, its distribution and its return; the act of respiration; the reception, digestion, and assimilation of nutriment; the work of secretion and excretion, — all involve mechanical forces, and must, to some extent, be governed by mechanical principles.

When the medical world came to understand the import of Harvey's discovery, the tendency, as we have seen, was to attribute all diseases to some mechanical difficulty in the circulation. The blood-vessels were too much contracted or expanded, or their angles and curves were too sharp, or the blood itself was too thin or too thick. Much was written of "spasm" and "atony" and "viscidity," "stagnation and putrefaction."

But so impressed were medical men with the potency of drugs and chemical agents to alter the properties as well as the circulation of the blood, and to vary the functions of different organs, they quite overlooked most of the benefits to be obtained by mechanical measures. True, the volume of the vital fluid was lessened by venesection, and issues and setons were established to draw off what was considered the *materia peccans*, — operations quite mechanical, — and some physical exercise, in a general way, was prescribed. But there was no proper recognition of the value of definite movements, active and passive, in the prevention and removal of human ailments.

In fact, the neglect of such therapeutic means was not peculiar to the age of Harvey, nor to the century following.

Till quite recently, little attention has been devoted to the study of mechanical measures except in the

domain of surgery. The prepossession in favor of drugs has been such as to lead to great works upon *materia medica*, and quite small ones upon gymnastics and massage. The old Greeks and Romans, in matters of health and long life, fared quite as well by their devotion to baths and athletic sports, before chemistry and pharmacy had produced the thousand and one active drugs for the sick.

In looking upon the physiological side of the therapeutic field, we discover a large class of mechanical appliances and operations, capable of effecting very definite and important changes in the human body, as a whole, and in some of its organs and tissues in particular. Some of these have been resorted to empirically, and others theoretically, in the treatment of the sick. General exercise for the preservation of organic harmony, and increase of the power of resistance to disease, has been universal in all ages. But only since the time of Ling, the author of what is usually known as the "Swedish Movement Cure" (born in 1766), have various exercises and movements had an anatomical and physiological basis. In the last decade great advances have been made in the study of the physiological as well as curative effects of movements and massage variously applied.

Active Movements. — When the movement of the body, or a portion of it, is effected by an exercise of the will, through muscular contraction, it is denominated active. The direction, time, and extent of the movement, under the control of the will-power, determines its effect in each case.

Passive Movements. — When the force occasioning movement of the body, or some of its parts, is applied from without, the motion is said to be passive; and the effect upon health is varied according to the direction, rapidity, and extent of the movement.

Combined Movements. — When the will-power causes a motion that is limited by some external force applied, or when some external power causes motion that is resisted, to some extent, by the will-power within, the resulting movement is said to be combined.

Following the anatomical and physiological line, movements have been as various, for therapeutic purposes, as the organs and tissues of the body themselves. But whatever the motion imparted, and for whatever ulterior purpose, it must be in compliance with mechanical principles as modified by the demands of physiology and pathology.

While it does not come within the scope of the present work to mention all the methods and rules directing the applications of mechanical force for therapeutic purposes, it is proper to consider, so far as deductions have been made, some of the leading principles to be observed.

1. Active movements, physical exercises, in accordance with the demands of physiology, are promotive of harmony and strength in the organism as a whole, and in its several parts.
2. In many cases of disease involving the organs of circulation and locomotion, the sensory apparatus and the processes of nutrition, active and passive

movements, properly made, may accomplish relief without the use of any medicines whatever.

3. Passive movements and mechanical appliances, in diseased conditions, when continued so as needlessly to supersede natural functions and supports, are productive of harm.

4. In massage, the pressive motion should generally be in the direction of the veinous current, especially where there is lack of blood or heat, or an excess of serum in the parts affected.

5. Percussion and massage, awakening sensibility, and causing the removal of accretions and deposits within the reach of the circulation, must be specially governed, as to locality and force, by mechanical principles and the pathology of the case.

Mechanical force, though a unit, by its various exercise and applications, as set forth by writers on gymnastics, massage, surgery, etc., affords a great number and variety of remedies. The tendency of the day, in therapeutics, is very sensibly toward the study and adoption of these, in place of the multiplicity of drugs and pharmaceutical mixtures upon which the sick have been made to depend for centuries.

In the divisions and subdivisions of this class, we must recognize the simple measures prescribed by the promoters of physical exercise, — the walking, the riding, the rowing, and the climbing, — as well as the more systematized methods of the kinetic school, — gymnastics, massage, percussion, vibration, etc., — and,

likewise, the varied manipulations and appliances of surgery, in its extended and useful ministry.

In medical colleges, the importance of the first is mentioned from the chair of practice, and of the last from the chair of surgery; while very little if any attention is ever bestowed upon kinetic measures, such as devised with much anatomical and physiological as well as mechanical skill by Ling and his followers.

ANTIPARASITIC.

Parasites in and upon the human body have long been recognized in the domain of ætiology; and means for their destruction or removal, and the repair of resulting injuries, have been matters of study.

As the means of diagnosis have increased, and been improved in power, the presence of such invaders, in much greater variety and numbers than were dreamed of at first, has been revealed. From the tape-worm down to the bacterium hardly discernible under the most powerful microscope, they are being studied and classified. Each year adds some new variety.

They have been divided into two large classes:—

1. Animal Parasites, and
2. Vegetable Parasites.

The former are again divided into two sub-classes, on account of the fields they chiefly occupy.

The Entozoa are those found chiefly within the body, and consist of a great number of species.

The Epizoa are those chiefly occupying the surface, or skin. But the distinction is not absolute; as abundant experience has proven that some of those dwell-

ing and burrowing in the skin, may, under certain provocation, go deeper, so as to occasion serious troubles within. It has been claimed, with a good showing of proof, that the acarus, commonly called the itch-insect, may disappear from the surface under certain applications, and, after causing different forms of disease within, re-appear upon the skin. However, such ætiological questions need not be discussed here.

Much theorizing has been done in regard to the way in which animal parasites occasion sickness in the human body; but it is quite generally agreed, that while they draw upon the tissues, or on tissue-pabulum, for nourishment, the theft hardly amounts to a serious trouble.

Mechanical irritation they do occasion, leading to a variety of sufferings, internal and external, direct and reflex.

And, in some cases, they doubtless secrete and cast into the organism of their host a morbific agent of more or less virulence.

Vegetable parasites have, also, been classified according to their microscopic character, or the affections they are believed to produce.

But the question of present concern relates to the methods of their removal.

1. First, then, it must be said, that the treatment of parasites must be largely toxical, or such as may sicken or paralyze them, so that they may be cast off through the natural channels provided for the exit of useless and burdensome material.

2. The agents for the destruction of parasites must be such as will not jeopardize the life of the host, nor induce troubles more grave than the parasites themselves.

3. The remedies indicated by the symptoms of parasitic invasion are, at times, the most efficient means for their removal, the natural forces being by them aroused to successful resistance and expulsive effort.

The treatment of conditions inviting and favoring parasites, calls for hygienic as well as medicinal means, elsewhere considered. Much discussion has taken place as to the order of cause and effect in the field of parasitic display; some writers contending for a systemic or constitutional disorder, resulting in local decay and parasitic occupation, while others have considered the parasites as cause, and the local or general suffering as the effect.

At all events, wherever the intruders are of such a character, and so located, as to be reached directly with means of destruction or removal, the attack upon them should be immediate, but with all care to prevent any additional injury to the person of the patient. The selection and application of such means must be in accordance, in some cases, with *mechanical* principles, in others with *chemical*, and in yet others with *toxical*.

Agents constituting the toxical class are not necessarily poisonous or injurious to the human organism while proving destructive to parasites.

The parasitic field is being explored with great activity, at the present time, and not without some success.

The germ theory, although falling into frequent errors, is aiding much to clear up the mysteries of ætiology, and to suggest ways and means for the prevention as well as removal of disease. Infection, contagion, and malaria are being better understood, and more effectually provided against, in the light thrown upon the fields of ætiology, pathology, and therapeutics by the researches of those inspired by that theory. A careful clinical experience must be trusted to pass judgment upon that as upon all other theories in medicine.

In conclusion, it may be said that the means employed, or measures resorted to, in physiological therapeutics, as now briefly sketched, are of *great importance*, and, further, *that they are all governed by certain principles which must not be ignored.* To the therapeutist they are not simply "adjuvants," nor creatures and tools of fancy, to be employed at random.

They are as regular, and as highly scientific, and as respectable, as the drugs of the pharmacopœia, and a great deal more effective in cases where indicated.

Works on practice, as well as the formal lectures in medical colleges on therapeutics, have seldom dwelt upon them as matters of importance; and thus students have gone forth to practise without any proper conception of their value, or any real knowledge of their applications.

Too often has the medical graduate been obliged to learn something of them from successful nurses or practitioners generally denounced as vagabond quacks.

PATHOGENIC THERAPEUTICS.

THE advocates of medication and other positive measures for the institution of a pathological condition that may supplant that found in the sick, and then itself yield to the recuperative powers of nature, have constituted the *active schools;* while those who would, instead, regulate the hygienic condition, and then await the triumph of the *vis medicatrix naturæ*, compose the *expectant school.*

All practitioners of the former agree that the agents to be employed are primarily disease-producing; that by virtue of a power to impress the organism in a manner different from articles necessary in health, they become medicines; and that their therapeutic effect must therefore be secondary to, and different from, their pathogenetic.

And practitioners of the latter or expectant school, resorting only to things requisite in health for the support or protection of the organism, means not disease-producing except when used to excess, are very properly called physiological therapeutists.

The means employed in the active or pathogenic schools differ only in degree from poisons. The morbid condition they induce may be unto death. The importance, therefore, of an accurate knowledge of the real nature and power of medicines in relation to the human organism must be realized; and it is not

enough that such knowledge takes in drug effects upon the sick; it must, first of all and above all, extend to the positive, direct, and uncomplicated influence each drug exerts upon the healthy organism.

However men may theorize as to how drugs act, whether by reason of one property or another, whether by absorption and conveyance in the blood, or by nerve-contact and through nerve-vibration, the fact must be recognized by all, that such agents become curative only as they are able to make morbific impressions capable of supplanting those existing in the sick.

Much ground may here be covered by a few propositions which are so nearly axioms as to require no array of facts, or efforts at logic, for their enforcement.

1. All drugs are primarily pathogenic, or endowed with sick-making properties.
2. The special character of each drug can be learned in no way except through the symptoms or effects of its action in the human system.
3. The symptoms of the artificial affection induced, must bear some certain relation to those of the affection they supplant; being opposite, unlike, similar, or identical with them.
4. Such relationship, if found to be the same in a number of different cases, must indicate a therapeutic principle.
5. If the relationship proves to be the same in a large majority of cases where cures result, the principle arrived at must be quite general.

6. If the relationship is the same in all cases where drugs act curatively, the principle thereby revealed must be universal, and, therefore, *the paramount law of cure.*

Much has been written in proof of the impossibility of a general law of cure, owing to the uncertainty, the apparent variableness of disease in different persons, and the sometime want of uniformity in the action of drugs in different cases; but how can we escape the conclusion in proposition sixth, the premises being established?

If the human understanding is not competent to make comparisons between the symptoms displayed by a drug affection on the one hand, and those found in the sick on the other, so as to tell if they are opposite, dissimilar, similar, or identical, there is little use of efforts in the study or practice of medicine, as such work must belong alone to beings of a higher order than man. But as a survey of other fields of scientific research brings to view some beset with difficulties, and attended with uncertainties nearly if not quite as great, in which much success has been achieved, there can be no good reason for believing that the facts in pathogenesy (the symptoms produced by drugs and kindred agencies) and the facts in disease (the symptoms observed in the sick) may not be successfully scrutinized and compared, so as to indicate a definite relationship, and, so, a principle in therapeutics.

The ascertainment and value of facts, fortunately for science and useful art, does not depend upon our being able to account for their existence.

Every day, and in every department of life, facts are accepted and acted upon which cannot be explained in the light of existing philosophy.

And the logical process of induction, whereby principles are derived from facts, does not depend for its accuracy and practical results upon a satisfactory theory as to why the facts occurred, or how they came to be grouped as they were.

The greatest difficulty in the way of arriving at correct principles in therapeutics, is in the acquirement of reliable data. While it may be comparatively easy to note the symptoms, objective and subjective, presented in a case of disease, it is not so easy to arrive at those producible by a drug. The latter undertaking involves numerous and careful experiments and crucial tests, as well as the closest observation. But nothing is demanded in these processes that may not be accomplished by the application and exercise of the faculties which have elevated physiology, chemistry, natural philosophy, optics, and other branches of study, to the rank of sciences.

It being undeniable that human ailments are revealed by symptoms, more or less discernible, whether occurring in the usual course of life, or induced by drugs, and that those which are presented in a case for treatment may be successfully compared with those which are artificial, and that such comparison reveals a relationship between disease and its remedy which must be a therapeutic guide, the question arises, *What relationship has been most constant in medical experience?*

In proceeding to the solution of this question, it must be said that only four relationships can at all obtain: —

1. *The Antipathic* — Αντι-παθος — where the symptoms, or conditions indicated by them, are opposites; the relationship being one of *direct antagonism.*

2. *The Allopathic* — Αλλος-παθος — where the symptoms are different, the same organs and tissues being affected in a different manner, or other organs and tissues being affected in some manner; the relationship being one of *indefinite diversity.*

3. *The Isopathic* — Ισος-παθος — where the symptoms are identical, the same organs and tissues being affected, and in exactly the same manner; the relationship being one of *sameness* or *identity.*

4. *The Homœopathic* — Ὅμοιον-παθος — where the symptoms are similar, the same organs and tissues being affected in a like manner; the relationship being one of *similarity*, and not identity.

The allopathic relationship embraces the antipathic, but for convenience each will be considered separately.

Let it be distinctly understood, that the comparisons made and the relationships sought are between the symptoms, or conditions of disease, as observed in persons sick, on the one hand, and the symptoms, or states of disease, as induced by drugs, to be employed as remedies, on the other.

The four possible relationships may now be considered in the order named.

ANTIPATHIC.

Opposite affections, or symptoms indicating morbid states not only different but directly opposed to each other, may appear to a very limited extent. It is not difficult to recognize such a relationship between constipation of the bowels and diarrhœa, a local hyperæmic condition and an anæmic, a comatose state and insomnia, a rigor and a febrile condition; but an opposite to scarlatina, measles, whooping-cough, or pneumonia, dysentery, and a host of other familiar yet dreaded affections, is not thinkable, much less producible. If, however, entire good health be considered an opposite to disease, in every case, the relationship may be appreciable; but such it cannot be, since good health is predicated upon the *absence* of all human ailments.

Brown, with his great ingenuity, failed in the attempt to classify diseases and remedies upon such a line, although he came nearer to success than any one endeavoring to build a system of therapeutics upon the principle *contraria contrariis curantur*.

The exceptions were too many for him. The institution of drug affections opposite to those existing in the sick, failed to cure so often and so signally, his philosophy, if not his style of practice, was soon regarded of little worth.

For the present, it might be sufficient to recognize the fact that the relationship of contraries is traceable but a little way in the great multitude of human ailments, and, therefore, cannot supply a therapeutic principle of general application.

Turning from the *a priori* argument, to see the

proofs furnished by clinical experience, in all times and places, we find that the measures adopted to institute opposite pathological states have generally failed to prove curative. That temporary palliation has at times been thus effected may not be denied.

The constipation overcome by catharsis has been more obstinate and prolonged; the insomnia relieved by hypnotics has become more persistent; the temperature lowered by cold applications has been increased; the sensibility deadened by opiates has been rendered more acute; and the despondency relieved by alcoholic stimulants has become only the more distressing.

That such should be the case, need be a matter of surprise to no one acquainted with the fact, that the human organism is actuated by a living principle, ever on the alert to resist the intrusion of morbific and pathogenic agencies, rallying against them the forces of every organ and tissue attacked.

A piece of iron immersed in ice-water may remain cold when removed from it till warmed by the higher temperature of the air; but not so the living human hand, which soon becomes warmer than before by reason of the vital re-action, which supplies more blood and heat to that member than it had before the cold immersion. This principal of vital resistance and re-action against drugs and other hurtful agencies in the human organism, cannot be doubted, and must not be ignored by the therapeutist.

All that can be claimed for the antipathic relationship, as a therapeutic principle, is, that it may be useful in palliating disease.

Where it is important to deaden sensibility during the existence of affections not susceptible of cure, and affections self-limited, or to hold in check destructive processes not at once amenable to curative treatment, or to stimulate flagging energies directly which cannot be otherwise made to respond, antipathic measures may be of great importance.

ALLOPATHIC.

There is no great difficulty in recognizing a disparity or want of resemblance in cases of disease, when the displays of symptoms presented are not alike; but there is considerable difficulty in recognizing any definite and uniform relationship that may serve as a therapeutic principle in such differences.

When the practitioner is told, that, in order to cure, he must institute an artificial disease, make a morbific impression different from that observed in the sick, he may well hesitate, and inquire in what way and to what extent the new affection must differ from the old.

He would be like a messenger told to proceed from New York to Chicago by a route different from that of the Pennsylvania Central.

The destination is plain, while the line of travel is not at all indicated, except negatively as to the Pennsylvania route. The practitioner, endeavoring to follow the allopathic principle, if it is possible to conceive such a thing, may use any one of a hundred drugs known to induce conditions unlike those of the disease. Practically, such a guide amounts to nothing. They who would practise allopathically make use of

an endless variety of agents, upon various theories, such as mentioned in former chapters, or after the manner of old empiricism.

Purgatives are employed to remove offending material from the intestinal canal, upon various theories as to the need and ultimate effect of such a measure, but chiefly because constipation is considered the cause of most of the ills complained of by the sick. No greater error in ætiology has been cherished than this.

What is ninety-nine times in a hundred but an effect, has thus been looked upon as a cause.

Clinical experience has constantly borne testimony to the uselessness and frequent destructiveness of cathartic measures.

But there is no occasion, for present purposes, to attempt a notice of all the theories, fallacies, and failures characterizing the allopathic practice of the present time.

Reasoning *a priori*, we must conclude that the relationship of dissimilars is of no value as a therapeutic principle and guide; and, reasoning from the results of attempts to follow it in practice, we are convinced that it is little different from, and really no better than, the theoretical and empirical notions of two hundred years ago.

An opinion, lately expressed by a leading writer in the allopathic school, is so appropriate here, it must not be overlooked.[1] He says, —

"We may still occasionally hear, from members of our own profession, that such a remedy 'will cleanse the blood,' that another will

[1] Pharmacology and Therapeutics, by T. Lauder Brunton, M.D., London p. 51.

'open the pores,' forgetting that they are repeating the long-discarded theories of Hippocrates and Themison.

"We all of us speak of laxatives and astringents, of sedatives and tonics and alteratives, without knowing always what we mean. If we were summoned to explain the exact tissue or organ or process we proposed to alter by our alteratives, or the exact cell or fibre we proposed to strengthen by our tonics, we might be sorely puzzled for a true answer."

While this language truthfully characterizes the state of therapeutics as based on allopathic theories, it does more, — it shows the chimerical aspirations of advanced men like Dr. Brunton, who are not willing to accept and generalize facts, open to observation and scrutiny, in the formation of a science of therapeutics, but are striving to accomplish that great object through a process of philosophizing, whereby to account for the facts themselves. While the importance of going backward or inward, from the symptoms to the organs and tissues from the diseased conditions of which they arise, in the cultivation of a rational pathology, is admitted, the claim that short of such an effort, beset, as it ever will be, with conjectures and uncertainties, there can be no science of therapeutics, must be looked upon as preposterous.

In place of clearing up doubts, and furnishing a reliable basis for a therapeutic system, it would substitute fancies for facts, and build up a stupendous castle for the healing art out of modern hypotheses, elaborately decorated with the trappings of modern science.

Practically it would be very little better than the fanciful systems which rose and fell centuries ago.

ISOPATHIC.

The possibility of instituting an artificial affection identical with one already existing, must be admitted, but only in cases where the *causa morbi* is clearly revealed, and where it is such that it may be grasped and applied in practice. A very brief survey of human ailments must show that their causes, very generally, are so obscure or so intangible as to preclude the possibility of their seizure and employment as remedies.

There can be no such general principle as that, diseases may be overcome by the institution of conditions exactly the same, for the simple reason that its general application would be impossible. It may appear, however, that the remote or chronic effects of poisoning may be reached and overcome by the employment of the same poison, modified so as to arouse the vital resistance to renewed effort, under circumstances more favorable to success. Thus may the isopathic principle of cure be admitted as one of limited tenure and application. The coldness of feet, induced by standing in the snow, may be removed by the direct and brief application of snow to the feet; and the lameness of muscles, occasioned by violent exercise, may be removed by gentle exercise.

There is a kind of isopathic practice, favored by some, who believe that a higher attenuation of a drug, its finer particles, may antidote the crude article or its lower attenuations, in the human system. Such persons have forgotten, if they ever knew the fact, that no attenuation of a drug is made up of particles of uniform size — that in a two-grain dose of the third

trituration of arsenicum, for example, there are particles as coarse as found in the first, and some as fine as any in the sixth.

If, then, it be true that doses of the sixth may antidote or remove the effects of the third or the first, the pharmacology and posology, upon which the practitioner must depend, would present insuperable obstacles to his practical success in the sick-room, as each dose administered must supply its own antidote.

And there is a yet worse form of isopathic theory and practice favored by some, who claim that a disease may be overcome by the use of its own products.

Such products, employed in practice, have been termed *nosodes*.

The process of inoculation for small-pox, though preventive rather than curative, has been cited as an example of isopathy; but it cannot apply, for the reason that the small-pox virus is not an inorganic and lifeless substance, like drugs in general, but a mass of germs capable of endless reproduction, the presence of which exhausts the susceptibility of the organism to any fresh invasion.

Inoculation with fresh syphilitic matter has been practised for the cure of chronic syphilis, but with no encouraging success. And other products of disease have been gathered, and employed on the isopathic theory, much to the disgust of well-informed people, and to the disgrace of the art of healing.

The efforts of M. Pasteur, now in progress for the prevention and cure of hydrophobia, by a novel method of inoculation, have not been subjected to practical tests enough to show their real value.

If successful, it must be from the fact that the affection induced, though the same as the natural disease, has the advantage of some preparedness of the system and surroundings, which may render it less destructive; or because the affection induced is only *similar* to, and not identical with, the disease to be prevented.

But whatever the apparent advantage to therapeutics from the isopathic relationship, there can be no general principle or practical rule suggested by it for the art of healing.

HOMŒOPATHIC.

When the symptoms of an artificial affection are similar to those presented in a case of disease, to be cured, there is no great difficulty in recognizing the fact. The relationship is appreciable, and to an extent limited only by a knowledge of the symptoms producible by the several agents to be employed as remedies.

Similarity has a wide range, its maximum leading almost to identity, on the one hand, and its minimum to the line of dissimilarity, on the other; but in neither direction does the similar ever become the identical or the dissimilar.

Resemblance may be generic or specific. A man and a horse are alike in belonging to the animal kingdom, and very unlike in all other respects.

Two men are alike in belonging to the same genus as well as kingdom, and the likeness may extend to all observable minutiæ.

In the present case, the consideration of similarity between one case of disease and another, the likeness must be in the totality of the symptoms, all of the

important points being scrutinized by diagnostic skill. As some persons may declare a likeness between two individuals at first glance, which others might fully indorse after an analytical study and comparison of features, so among medical men, one may be able, from long experience, or quickness of perception, to recognize a similarity between two cases of disease which is confirmed by the most minute and rigid examinations made by others.

While there is no room for doubt as to the presence, nor as to the quality, of a similarity existing between cases of disease arising from morbific causes, the quality, if not the very possibility, of such a relationship between existing pathological conditions, and others to be artificially instituted for their removal, has been questioned, as a principle generally applicable, upon the ground that it is not possible to induce pathological conditions by drugs, or other agencies, which are similar in all cases to those demanding remedies.

This objection will receive attention farther on; but it may be said, here, that it is not claimed by those who regard the homœopathic relationship as a general therapeutic principle, that drugs or other pathogenic agencies are capable of inducing affections similar to all those found in the wide fields traversed by therapeutic art. The universality of a principle in science does not demand that it shall be applicable outside of its own sphere. As already mentioned, there are affections arising from injuries, poisons, and some other causes, which are to be met with remedies pointed out by the principles of physiology, chemistry, mechanics, and those recognized in efforts to palliate what may not be cured.

From the time when Hippocrates wrote, "Vomiting is cured by vomiting," all down through the ages of medical history, the homœopathic principle has been recognized in therapeutics.

But for the theorizing tendency among medical men, causing them to disregard or distort facts, and to build up system after system upon worthless hypotheses, the general scope and applicability of this principle would have been accepted among medical leaders long before the time of Hahnemann. Not a single fact developed in the study of anatomy, physiology, pathology, pathogenesy, and therapeutics has suggested another therapeutic principle at all approaching this in plainness, exactitude, and general applicability in affections calling for the use of drugs for the removal of disease.

Had Brown adopted it in place of the antipathic principle, placing his "sthenic" remedies over against his "sthenic" affections, and his "asthenic" against his "asthenic," the results of the Brunonian system would have been vastly different.

Similia.—It is necessary to have a clear understanding of what is called the homœopathic relationship.

It involves a comparison of symptoms, on the one hand, such as exhibited by the disease, and, on the other, such as producible by the agent employed as the remedy for it. By symptoms is meant not only the subjective, but also the objective,—all the signs or exponents of morbific influence and pathogenetic action in any way recognizable.

The similarity, appearing upon such comparison, must consist in a resemblance stronger than all the points

of difference. Pathologically speaking, the same organs and tissues must be affected, and in a similar manner.

The relationship does not embrace the idea of equality, or like extent of suffering or lesion; but does, especially, call for a likeness in locality, quality, and tendency of affection.

For example, the homœopathic remedy in a case of suppurating sore may be one that has never been known to produce an abscess, but often to occasion pain and inflammation in the same locality, — a condition related as an antecedent, if not a cause, to the suppurative process. So far as possible, the resemblance must be recognized in the order as well as character of the symptomatic displays, especially in the early stages of the affections compared.

The homœopathic relationship has sometimes been mentioned as a correspondence, and the term *correspondentia* has been proposed in place of *similia;* but the meaning of the two terms is not the same, and they do not serve the same purpose at all.

Two blocks of wood correspond when they fit each other, one presenting a concave surface to the convex surface of the other; and the colors of two pieces of apparel may correspond or harmonize, although not at all alike.

Again, some writers have claimed that the homœopathic relationship must be traced in pathological conditions, comparisons between the symptoms not being sufficient for therapeutic purposes. As mentioned in previous chapters, the study of pathology is of great importance, especially in the determination of the question as to what principle must guide in the selec-

tion of curative means, whether chemical, mechanical, antiparasitic, antipathic, or homœopathic; but that question once settled, the symptoms, subjective and objective, in any way discoverable, must be the means of comparison. If the symptoms are not sufficiently reliable to indicate the homœopathic remedy, they surely may not be trusted to indicate the pathological conditions which are out of sight. If a direct comparison between signs visible and tangible is not sufficiently authoritative, what must be thought of a comparison between pathological conditions, the very existence of which can be known only through those same signs? Errors of fact are not so much to be dreaded as errors of inference added to errors of fact. Better the plain and direct, than the complicated and indirect.

In conclusion, upon the homœopathic principle, as existing in the nature of things, or as proven *a priori*, it may be said that it is plain, possible, and comprehensive, as no other therapeutic principle, pointed out by the relationship observed between a disease and the condition to be instituted for its removal, can be.

Sphere of Similia. — In the consideration of the various possible relationships, and the therapeutic principles pointed out by them, the following proposition was submitted: —

> "If the relationship is the same in all cases where drugs act curatively, the principle thereby revealed must be universal, and, therefore, *the paramount law of cure.*"

As mentioned in our historical sketch, Hahnemann at first saw the applicability of the principle, "likes

are cured by likes," in chronic ailments, and afterward in acute also.

Reviewing, at great length, the records of cases cured by drugs which had been known to induce similar affections in the healthy, and carefully noting the results obtained in the use of remedies pointed out by the same relationship, he finally came to the conclusion that, —

"To cure in a mild, prompt, safe, and durable manner, it is necessary to choose in each case a medicine that will excite an affection similar to that against which it is employed."

The necessity of principles for the guidance of therapeutic art has been realized never more fully than at the present time. Without them, the vast accumulations of medical inquiry and experience would appear in such variety and confusion as to bewilder the student, and afford little, if any, aid to the practitioner. And the exceeding value of general principles, especially of one applicable in all cases of curable disease where disease-producing agencies are employed, is beyond question.

A distinguished writer upon the principles of science has said, —

"In a scientific point of view, general principles must be universal as regards some distinct class of objects, or they are not principles at all."

The objects, among which the general therapeutic principle of Hahnemann is recognized, are diseases of the human body; and the special class, regarding which it is universally applicable, if a principle at all, may be determined by the method of exclusion, as follows: —

1. It relates to no affections of health where the essential cause is constantly present and operative.

2. It relates to no affections of health which will, of themselves, cease after the removal of the cause by chemical, mechanical, antiparasitic, or hygienic measures.

3. It relates to no affections of health occasioned by the injury or destruction of tissues which are incapable of restoration.

4. It relates to no affections of health where vital energy, or the natural re-active power of the organism, is exhausted.

5. It relates to no affections of health, the likeness of which may not be produced in the healthy organism by pathogenic means, susceptible of human grasp and control.

The class not excluded, the one in which it is universal, and paramount to all others, must be made up of

affections similar to those producible by pathogenic means, existing in organisms having the integrity of tissue and re-active power necessary to recovery, the efficient causes of the affections having been removed, or having ceased to be operative.

The propositions thus limiting the domain of *similia*, showing where and when it does not apply, are so axiomatic, there is little need of illustration or argument in their behalf.

However, touching the first, it may be said that an acquaintance with rational ætiology must notify the therapeutist when to remove his patient from the morbific influence, or the morbific influence from his patient, for the recovery of health. When that influence is operative, each hour, or every day, repeating its interference with normal functions, the similar agency, the homœopathic dose, can make little impression, and any apparent improvement by its use is but temporary. But where the morbific influence has made its impression, done its mischief once for all, as generally in attacks of acute disease, the case is different, and the homœopathic remedy may be indicated. And yet, where the cause has ceased to operate, or been removed by chemical, mechanical, antiparasitic, or other hygienic measures, and the natural recuperative powers are able, of themselves, to restore harmony and vigor, there is no occasion for the homœopathic remedy.

But it is not always easy for the therapeutist to determine the ability of the *vis medicatrix naturæ* alone to bring back health, and so the doubt may very properly allow some medical interference.

As to proposition third, it may be said that no one acquainted with pathology will at all question its truthfulness. That tissue-changes and organic repair may be within the reach of medicines, subject to their power to retard or promote, there can be no doubt; but when attempts are made with homœopathic or any other agencies, to reconstruct tissues which, once destroyed or rendered useless, are incapable of restoration, they must prove fruitless. However, as damaged tissues have at times been reached and changed by

remedies homœopathically applied, it may not be improper, sometimes, to invoke their aid in cases where mechanical and chemical measures have generally been considered necessary.

The domain of *similia* may be reached by another route.

Looking at the various drugs, and other agencies, capable of influencing the human organism as to health, and advancing, as before, by the method of exclusion, it may be said, —

1. The homœopathic law relates to no agents intended to affect the organism chemically.

2. It relates to none applied for mechanical effect simply.

3. It relates to none required in the development or support of the organism when in health.

4. It relates to none employed directly to remove or destroy the parasites which infest or prey upon the human body.

Looking over the armamentarium of the therapeutist for agents not excluded, one class is found, namely,

those agents which affect the organism as to health, in ways not governed by the principles of chemistry, mechanics, or hygiene, but those capable of producing ailments similar to those found in the sick.

In the employment of any agents belonging to this class, the homœopathic principle is supreme, not as a

"dogma," but as a law of nature. It is "exclusive" only in the sense that any law is exclusive in its own domain; and it is universal, inasmuch as it applies to each and every member of a class.

In other classes, or outside of its own peculiar sphere, it does not apply, and has no control and no worth whatever.

The Rationale of Similia.—In tracing the history of the principle in physics discovered by Isaac Newton, generally known as the law of gravitation, and in comparing it with the history of this principle in therapeutics discovered by Samuel Hahnemann, many points of resemblance must be noted.

The first suggestion, the patient research in the records of the past, the experiments and positive tests, the practical applications, the unfavorable first impression upon men of special learning, the apparent exceptions, the difficulties in explanation, the stubborn opposition, the steady progress, the widening fields, and increasing triumphs, have been quite similar. To both it was objected, that, had it been a law of nature, it would have been revealed or discovered hundreds of years before.

The impossibility of such a general principle, applicable in so many apparently diverse cases, was urged by learned men. And striking exceptions were mentioned,—feathers and kites, and other bodies, at times, flew upward, and not down toward the centre of the earth; and sick people recovered, in many cases, where other than homœopathic remedies were employed; and, in repeated instances, patients died under homœopathic treatment.

But among the heaviest missiles hurled, was the stunning fact that, no satisfactory explanation of the alleged principle could be given. The question went round, —

"If there be truth in what you claim, why not tell the *modus operandi* of it, and show the reason?"

To this, Newton answered, —

"What the efficient cause of these attractions is, I do not here inquire. What I call attraction may possibly be caused by some impulse, or in some way unknown to us.

"I have explained the phenomena of the heavens and the sea by the force of gravity; but the cause of gravity I have not yet assigned."

And Hahnemann replied to such objectors, —

"As this therapeutic law of nature clearly manifests itself in every accurate experiment and research, it consequently becomes an established fact, however unsatisfactory may be the scientific *theory* of the manner in which it takes place. I attach no value whatever to any explanation that could be given on this head."

Newton had his own opinion as to the philosophy of gravitation, but never presumed to put it forward as the basis, nor even as a proof, of the principle he announced. It was enough for him to know that the observed phenomena of the heavens and the sea were in accord with its teaching.

He said, —

"For that such principles do really exist, appears from the phenomena of Nature, though what the causes of them are, be not yet explained."

Hahnemann was not without some rational idea of how the homœopathic remedy did its work, nor did he hesitate to put it forth, not as a basis, nor as evidence of the correctness of his general principle, but as some effort at its explanation.

In each case, indisputable facts, logically treated, pointed to the principle as a necessary conclusion. Facts did not lie, nor did logic mislead.

It must be said, however, that the *rationale* of a principle, at times, may serve a good purpose in solving difficulties. In the present case it may be said,—

1. That to each organ, or pair of organs, in the human body, specific, though not independent, functions are assigned. As the ear sees not for the eye, and the nose tastes not for the tongue, so not one organ can take up and perform the duties of another. All theories of "compensation" and "vicarious action" must have regard to this truth.

2. That each organ performs its functions by virtue of certain properties, which, for convenience, may be termed forces, acting in and through no other organs.

These automatic forces are the mechanics and defenders of the human workshop, each doing its own work, in its own place, yet all under one directorship, laboring for a common object,—the support, actuation, and defence of the human body.

3. That when an organ is the subject or seat of morbific attack, the indwelling forces are diverted from ordinary functional work to that of resistance; and the disturbance extends to other organs in proportion as they are closely or distantly related to the one attacked.

4. That as the forces of one organ do not perform the ordinary duties of another, they cannot perform the extraordinary,—cannot leave their own posts to fight the battles of another,—but in proportion as they have sympathized in the suffering, they may share in the resistance.

5. That the power of an organ to resist or overcome morbific impressions, while it depends immediately upon the ability of its own forces, must, in a measure, depend, also, upon the re-active energies of other organs which are in sympathy, and upon the general integrity of the whole organism.

6. That the properties, or, as here termed, forces of drugs, whereby they influence an organ, are hostile to life, or are disease-producing, and that their nature is not changed when employed in cases of disease.

7. That the curative effects of drugs are obtained alone by pathogenetic impressions,—the substitution of one disease for another,—whereby the vital or resisting forces are aroused to renewed and more successful resistance.

8. That the pathogenetic impression must be upon the same organ or organs, and in the same direction (so to speak) as the morbific, in order that the resistance, or vital re-action, may be in the direction of health.

9. That the pathogenetic impression must not be identical with the morbific, for the reason that the re-active forces called into exercise thereby would be only those already disabled; whereas, when the impression is *similar*, it also calls into resistance and re-action other and less disabled forces as well.

To use a familiar illustration, when the country of a particular tribe of people is invaded, and those immediately affected are not making a successful resistance, it will secure the expulsion of the enemy if the invasion be extended so as to reach, also, the borders of adjoining tribes, whose forces, fresh, and more vigorous, may make resistance to the common enemy a success.

In these sayings, explanatory of the homœopathic process, reasons may be seen for the failure of isopathic as well as allopathic medication.

But the truthfulness of the principle expressed in the term, *similia similibus curantur*, and the effectiveness of the practice based upon it, as already stated, do not depend upon any satisfactory theory as to how or why such a principle exists.

Exceptions to Similia. — The universality of the homœopathic principle has been questioned upon other grounds, as already intimated.

Drugs found to act curatively through a pathogenetic impression, were known to possess various properties, physical and chemical, and to belong to different classes in the mineral, vegetable, and animal kingdoms, and were, therefore, supposed to accomplish cures under the control of a variety of principles. It was deemed quite out of the question that such various agents, curative in so many different cases, could be obedient to any one therapeutic law.

Bodies left free to move, were observed to fall toward the earth, and the moon and planets to march their rounds through the heavens. Possessed, as all these were, of different properties and relations, no one dreamed that all their varied movements must be in accord with one reigning principle.

The falling apple led Newton to inquire,—

"Why may not this power (that brings the apple to the ground) extend to the moon? And, if so, what more would be necessary to keep her in her orbit about the earth?"

The effects of cinchona bark upon Hahnemann, in health, led him to inquire,—

"Why may not this power to produce an affection similar to that which it is known speedily to cure, extend to all other drugs? And, if so, what more is needed to account for their curative action?"

Newton did not ignore the facts and the principles developed by Tycho Brahe, Kepler, and other philosophers and astronomers who had gone before him, nor deny their value. He brought to light a great universal principle, in full accord with facts, and destructive only of false hypotheses. And so, Hahnemann did not, as often accused, set aside as worthless all the learning and medical accumulations of centuries.

Gathering facts from Hippocrates, Celsus, Galen, and other writers, he compared the cases cured by various drugs with their recorded effects upon persons in health, and so made use of the accumulated experiences of those gone before, as proof of his great therapeutic principle. He overturned nothing but false theories.

The supremacy of *similia* has been denied on the ground that all cures effected by drugs have not been explained by it. For twenty years a similar objection held good against the law of gravitation, for Newton was all that time unable by it to account for the motions of the moon. After many observations and much figuring, and the correction of errors which had been fatal to his calculations, he was enabled to see the moon, also, wheeling on her way obedient to his law.

And it has been objected to *similia*, that it was not approved, but rather rejected, by most of the eminent medical men of Hahnemann's day, and that it has not yet received the endorsement of the great mass of physicians throughout the world. History tells us, that when the great work of Newton was written, and when published by the Royal Society,—

> "Not more than two or three of his contemporaries were capable of understanding it; and more than fifty years elapsed before the great physical truth which it contained was thoroughly understood by the generality of scientific men."

If the testimony of figures, mathematical demonstration, was so long in turning the minds of educated men from contradictory hypotheses to an acceptance of the law of gravitation, it cannot seem surprising,

nor derogatory to the homœopathic law, that medical scholars misunderstood Hahnemann, and that the generality of medical men are yet unconscious of its transcendent value.

It has also been claimed that cures are effected by drugs acting antipathically or allopathically. So far as palliation, stimulation, and other measures resorted to in diseases self-limited, or in cases where the forces of life must be sustained by direct support, may be called curative, this claim has force.

As already mentioned in another chapter, recovery in such cases is not strictly due to curative drug influence, but to a power to suspend sensibility, or bring up flagging energies, within the reach of curative means. In the one case, the affection ends itself; and in the other, it is made amenable to an indicated remedy.

Some years ago a distinguished allopathic writer, discussing the merits of homœopathy, and desiring to rob it of all credit in the cure of disease, made the assertion, that,—

> "In nineteen out of every twenty cases of disease, nature is able to accomplish recovery without the aid of medical art."

Were all the minor disturbances of health included in the count, those calling for no therapeutic interference except such as mentioned in this work as *physiological*, there might be little ground for dispute; but the prescriptions daily made by practitioners of his own school would indicate the prevalence of a very different opinion. However, allowing that ten out of every twenty cases would terminate favorably without medication, it may be well to consider how the remain-

ing ten are really cured. By careful attention to the drugs employed, it is generally found that the more active ones, in the mixtures of polypharmacy, bear the homœopathic relationship to the ailments removed.

As examples, may be mentioned cases of simple fever treated with aconite; of scarlatina, with belladonna; of cholera, with camphor; of intermittent fever, with cinchona bark; of diarrhœa, with rheum; of tonsilitis, with capsicum; of paralysis, with nux vomica; of syphilis, with mercury, etc.

Before passing to other proofs of the homœopathic law, notice must be taken of an expression by Dr. T. Lauder Brunton,[1] which shows the importance of natural laws in medicine, and, especially, the value of the comparison, just now made, of Hahnemann's therapeutic law with the law of gravitation by Isaac Newton.

Speaking of the latter, he said, —

"Why should a law which is so manifest to all the world, which is seen in the wonderful scenery of the earth, and whose powers we can gauge with an accuracy so minute and unerring, — why should the law which governs the falling of a stone be better known to science than the laws which govern us in dealing with life and growth, sickness and health? It is in endeavoring to answer this question that we hope to bring medical science into as advanced a position as other sciences."

In regard to the efforts of Dr. Brunton, and other allopathic investigators, it must be said that they are looking in the wrong direction for the therapeutic law that may "bring medical science into as advanced a position as other sciences."

They must do as Newton did, — accept plain facts, and carefully apply them.

[1] Pharmacology and Therapeutics, p. 53.

Had he done as they are doing,—had he refused to acknowledge the force of gravitation because unable to account for or to explain it; had he stopped to theorize on the subject,—he would not have announced to the world the great principle that underlies all natural philosophy and astronomy.

So far as the use of pathogenic agents go, in the art of healing, Dr. Brunton will never find any other general principle, at all comparable to Newton's law, aside from the one announced by Hahnemann in the terms *similia similibus curantur*.

To this he must come, or wander on in the mazes where ever-changing theories lead.

The Value of Similia Illustrated.—To show the comparative worth of the homœopathic principle as a practical guide, and, more especially, to demonstrate its exceeding utility in pointing the way in advance and beyond the reach of empiricism and theoretical dicta, a piece of appropriate history must here be introduced.

For more than thirteen years, the epidemic form of "spasmodic cholera," as the Asiatic plague was termed, had been making frightful ravages in Hindostan, and other portions of the East. English surgeons in those countries had written paper after paper upon its nature and treatment; yet, in Europe, very little attention, and no fears, had it excited till the year 1830, when it had commenced its irresistible march across the Russian empire.

For more than a year it had gone from palace to hut, through that country, destroying the old and the

young, the weak and the strong, alike, when the emperor, feeling how powerless were all the sanitary defences against its advance, and how useless the medical provision to lessen the severity of its ravages, offered a reward of eleven hundred pounds sterling for the best treatise on its causes, characteristics, and cure. This offer was duly proclaimed in Germany, Hungary, Italy, England, Sweden, and Denmark, as countries most likely to feel the importance of preparing for its visitation.

The first notice of the advancing disease, in "The Medico-Chirurgical Review," appeared in the October number for 1830.

The editor says, —

"This terrific epidemic has reached Astrachan, — nay, even Moscow, — and is menacing the Russian dominions in Europe."

After mentioning the offer of the emperor, he says, —

"We venture to predict that not one IOTA of additional information to the stock on hand will be thus elicited."

Six months later, the nearer approach of the destroyer, and the failure of all known means of cure, gave the editor more serious thoughts.

No longer disposed to ridicule the anxiety of the emperor, he writes, —

"During the present year, the rapid and deadly progress of the cholera over a great portion of the Russian empire renders it an object of dread and interest to Europeans generally, and calls for every *mite* of information relative to the phenomena of this justly-termed inscrutable and intractable disease, which research can discern, or experience supply."

Taking the alarm, England sent special commissioners to St. Petersburg, to study the disease, and to discover some successful means of cure. Three months pass, and the editor writes again: —

"We have been preparing an extended article on this wide-wasting pestilence, and have brought it down to the time of writing this short notice.

"But we find that no limit is yet put to the ravages of the disease, no satisfactory history of its European progress compiled, no probable cause of the malady ascertained, and no consolatory prospects of a successful treatment brought to light."

Six months later the editor writes, —

"The far-distant storm which startled our countrymen on the banks of the Ganges fifteen years ago, and has since ravaged with devious but too fatal course every country from the Straits of Malacca to the Pas de Calais, has at length burst on our shores! In Asia, the fiend was contemplated by us with curiosity; in the wilds of Russia, with suspicion; in Germany, with alarm; but on English soil, with TERROR!"

From this point, the "Review" is filled with notices of books, pamphlets, and letters upon cholera, advocating different theories and a great variety of remedies. One writer, referring to the measures put forward, and the failures that followed their application, said, —

"Venesection was at one time ordered to be employed by *government!* Then sweating was praised, and various ingenious contrivances were brought forth for the purpose of raising that process.

"Of internal remedies, *calomel* and *opium* were most in repute. But they were far from successful. *Rhubarb* and *magnesia* superseded calomel and opium, and were in turn renounced for *subnitrate of bismuth.* This was believed to be almost a specific; but the accounts given of its effects, by various practitioners, would excite laughter were it not that the subject was too melancholy."

Three additional months pass; and in an appendix to the April number, 1832, is given, "A History of the Progress of Cholera in England," written by one endorsed by the editor as "a gentleman well qualified to perform it." In his chapter on treatment appears the following: —

"In each country where the disease has appeared, we find a very different and opposite treatment recommended as one proved by experience to be the best.

"In India, bleeding, calomel, and opium were the favorite remedies. In Russia, a practice as inert as a few grains of subnitrate of bismuth, in frequently repeated doses.

"In England, the mustard emetic."

The writer, further, corroborates the opinion expressed by Sir William Crichton: —

"It is a most melancholy confession, but one not the less true, that after cholera has spread its devastations from Ceylon to Archangel, from Orenburg to Berlin, we are almost as far from a rational *methodus medendi* as we were when it first appeared on the banks of the Ganges."

During the following summer, after the dreadful scourge had visited Paris, the Royal Academy of Medicine issued a report of observations and conclusions concerning it. After perusing that report, the editor of the "Review" wrote, —

"Not one fact is added to our knowledge, nor one novel conclusion submitted to our reason."

Referring to the non-professional persons who might read the report, he added, —

"In short, if they come to any conclusion, it must be, that doctors everlastingly differ among themselves, and make experiments on their patients, rather from curiosity than from any rational or well-grounded hopes of cure."

M. Andral, the great pathologist of Paris, pronounced the disease *enteralgic*, and recommended "free bleeding among the young and vigorous, external irritation, and plenty of laudanum internally." On the other hand, his neighbor and equally distinguished *confrère*, Broussais, declared it to be "highly inflammatory action of the whole alimentary canal," and, basing his therapeutic measures on his pathological theory, prescribed "ice internally, leeches to the epigastrium, and heat to the extremities."

In closing this historical sketch, it may be remarked, that the dreadful cholera, from its Eastern haunts, had ravaged Russia, the various countries in Europe, scourged the British Islands, crossed the Atlantic and spread death and dismay over America; that in St. Petersburg, in Vienna, in Berlin, in Paris, in London, and in New York, it had received the most careful scrutiny, and the most determined therapeutic assaults of the most renowned medical men in the world; that books and pamphlets almost without number, theories and prescriptions without end, had been issued in every country; and that the editorial table of the "Review" had groaned under the weight of these, and the editorial head had ached and become tired in their perusal.

The conclusion must be given from the pen of no less a writer than the editor of the "Review," Sir James Johnson, M.D., Physician extraordinary to the King, etc. He says, —

"If we say little at present, it is because there is really little to say — little, at least, that is new. It is true that every day brings a fresh specific; yet, strange to tell, the dying cholera-list shows no

alteration in the relative proportion of recoveries and deaths. There must, surely, be something rotten in the state of Denmark, when out of the multitude of certain, or nearly certain, remedies, from the tincture of the Russian merchant on Cornhill to the salts of Dr. Stevens, none have yet effected what all pretend to effect, a diminution in the gross mortality. Amidst the great variety of remedies, presented to our notice, we feel like a hungry guest with a splendid bill of fare, — each article tempts, but which shall we prefer?

"With our boasted civilization and intellect, we walk the same mill-horse round we walked before, and that others have walked before us.

"When the cholera appeared in Hindostan, the papers so teemed with specifics and cures, the government put a stop to their further publication on account of the mortality they caused.

"For ourselves what shall we say? Alas! we must own that we are gloomy, heartless sceptics, without so much as a grain of faith, or one single saving particle of belief. Would that it were otherwise — would that we could only so much as imagine that cholera has been, is, or will be, cured by the thousand and one plans, of happy memory, already published, publishing, or to be published!

"In point of fact, we know no better mode of treating cholera than when it first appeared in the island; and the really severe cases are just as fatal as they ever have been."

In the whole range of medical literature, no better illustration of the insufficiency of empiricism and of pathological theories in dealing with new forms of disease, especially with such as require positive remedies, can be found.

It teaches: —

1. That all the learning, all the ingenuity, of the medical world, as represented by empiricism, antipathy, and allopathy, failed to point out reliable remedies for Asiatic cholera, *pre-experientiam.*

2. That they likewise, and most signally, failed to furnish such remedies, after the fullest and fairest opportunities for studying and treating the disease, or, as may be said, *post-experientiam.*

But the failure of empirical and theoretical methods in the treatment of Asiatic cholera is not a fact peculiar to the remote past.

After the last epidemic of that disease in America, a governmental commission was authorized to make inquiries, and to report upon its history, characteristics, and treatment. After giving an account of the disease in its appearance at different points, and the various measures adopted in its treatment, the report says, —

"In the advanced stages of the disease, the entire range of the pharmacopœia seems to have been brought into use with no better results than have been obtained in previous epidemics."

Of the whole number of cases under treatment, fifty-two per cent ended in death.[1] But this rate of mortality is moderate compared with that experienced in France, Italy, and Spain, during the epidemics of 1884 and 1885. The average rate there was over seventy per cent, under the same modes of treatment. The consternation among the people in those countries, where so many of the great lights of theoretical medicine reside, was so great, and the popular confidence in medical men so small, they at times were driven away from the sick with sticks and stones.

But there is a brighter page of history.

[1] It should here be mentioned that the army surgeon compiling the reports included only those coming from allopathic physicians.

In the year 1830, while the terrible cholera was on its devastating march toward Europe, Andral and Broussais had a German neighbor, who, like themselves, was intently watching its approach, gathering all possible information in regard to its character, and studying hard to arrive at the proper method of dealing with it on arrival westward. That neighbor was Samuel Hahnemann.

He took the same reports which reached them, and instead of taxing his ingenuity to decide whether the disease was *enteritic*, or, rather, *enteralgic*, — whether the remedies should be *antiphlogistic*, or, rather, *antispasmodic*, — he collected the symptoms given, and scanned them, one by one, till the image of the hideous monster rose up before him as the living reality.

Under the guidance of the great therapeutic principle, *similia*, he inquired, — What medicines have been known to produce symptoms like those characterizing that awful image?

With a critical knowledge of the pathogenetic effects of various drugs, such as possessed by no other living man, he soon pointed out three, and wrote them down as the homœopathic remedies for Asiatic cholera; namely, *camphor*, *cuprum*, and *veratrum album*. A pamphlet was issued, giving directions for their use; and copies of it were sent to his medical friends at the front.

In Russia, in Hungary, in Austria, in Germany, in France, in England, and in America, the three remedies named surpassed all others in efficacy, during the prevalence of cholera in those countries in 1831, 1832, and 1833. And during the epidemics of 1848, 1849, and

1850, and those of 1853 and 1854, and those of 1866, as well as the last in America, 1873, they maintained the character given them by Hahnemann, and shed abundant glory upon his law.

This brief display of medical history shows the difficulties and failures experienced by theoretical as well as empirical medicine, in the presence of any new form of disease that is especially destructive of human life; and, also, the exceeding value of a general therapeutic principle that may cast light on the pathway of the practitioner in advance of any actual experience. Before Hahnemann had ever seen a case of cholera, such a principle enabled him to name the remedies which would meet it most successfully, in its different phases, at all times and in all countries.

In conclusion, it may be remarked, that as every case of disease is, in a measure, a new one, because in some respects different from all others, the perplexities of antipathy, allopathy, and empiricism, in the presence of Asiatic cholera, must recur, in a greater or less degree, at every step in daily practice; and, on the other hand, that the advantages of homœopathy, seen in the case of Asiatic cholera, are constantly being realized by its practitioners in the treatment of other diseases.

CONDITION OF THERAPEUTICS WITHOUT A GENERAL PRINCIPLE, AS VIEWED BY ALLOPATHIC WRITERS.

THE opinions of able writers, regarding the state of medicine before the discovery of a general therapeutic principle, and the condition, as exercised without regard to such principle, since its promulgation, are of importance in this connection.

"Medicine is a science which hath been more professed than labored, and yet more labored than advanced; this labor having been, in my judgment, rather in a circle than progression. For I find much iteration, but small addition." — *Bacon.*

"That which is called medicine is, indeed, rather the art of prating and telling stories than the art of healing." — *Sydenham.*

"The practice of physic hath been more improved by the casual experiments of illiterate nations, and the rash ones of vagabond quacks, than by all the once celebrated professors of it, and the theoretic teachers in the several schools of Europe, very few of whom have furnished us with one new medicine, or have taught us better to use our old ones, or have in any one instance at all improved the art of curing disease." — *Heberden.*

"Medical science, at all times, has been a medley of empirically acquired facts and theoretical observations; and so it is likely to remain." — *Henlé.*

"And such, in truth, do we believe to be literally the condition of physic at this moment. Things have arrived at such a pitch they cannot be worse. They must mend or end.

"What difference of opinion! what an array of alleged facts, directly at variance with each other! what contradictions! what opposite results of a like experience! what ups and downs! what glorification and degradation of the same remedy! what confidence now, what despair now, in encountering the same disease with the very same weapons! What horror and intolerance, at one time, of the very opinions and practices which previously and subsequently are cherished and admired!

"In a considerable proportion of diseases, it would fare as well or better with patients, in the actual condition of the medical art, as more generally practised, if all remedies — at least, all active remedies, especially *drugs* — were abandoned." — *Sir John Forbes.*

"Yet it must be confessed, that in the understanding of the action of medicines, and of their agency in the cure of diseases, we do not so much excel our ancestors.

"While other sciences are moving, and other inquiries progressing fast, this subject, so momentous in its applications, has, in spite of the earnest labors of a few able investigators, made, after all, but small progress." — *Frederick William Headland.*

"It has been sarcastically said, that there is a wide difference between a good physician and a bad one, but a small difference between a good physician and no physician at all; by which it is meant to insinuate that the mischievous officiousness of art does, commonly, more than counterbalance any benefit derivable from it." — *Sir Gilbert Blane.*

"What has clinical therapeutics established permanently and indisputably?

"Scarcely any thing beyond the primary facts that quinia will arrest an intermittent, that salts will purge, and that opium will quiet pain and lull to sleep.

"To establish therapeutic facts, the profession clings, as with the heart and hand of one man, — clings with a desperation and unanimity whose intensity is the measure of unsatisfied desire for something fixed.

"Yet with a Babel of discordant voices does it celebrate its two thousand years of experience.

"Narrowing our gaze to the regular profession and to a few decades, what do we see?

"Experience teaching that not to bleed a man suffering from pneumonia is to consign him to an unopened grave, and experience teaching that to bleed a man suffering from pneumonia is to consign him to a grave never opened by nature. Looking at the revolutions and contradictions of the past, — listening to the therapeutic Babel of the present, — is it a wonder that men should take refuge in nihilism, and, like the lotos-eaters, dream that all alike is folly, — that rest and quiet and calm are the only human fruition?" — *Dr. H. C. Wood, jun.*

"Our ideas are often hazy and indefinite. We give medicine at random, with no defined idea of what it should do, and trusting to chance for good result. When a remedy fails in its work, we can give no reason for the failure. We do not even seek out a reason, but content ourselves with saying, 'Oh! it did not act as it usually does.'" — *Dr. T. Lauder Brunton.*

No well-informed medical reader will question the competency of the writers quoted, to form an opinion as to the *status* of medicine, especially as to the worth of its therapeutic methods, as understood and practised by themselves.

But the deplorable condition of therapeutics, so truthfully characterized by these eminent writers, is not without hope. Reflected light, from the torch ignited by Hahnemann, is driving away the darkness. Already it brightens up the pathway of some who are becoming leaders for the allopathic host.

Dr. Brunton, one of their foremost authors, has given expression to a sentiment that reads much like a declaration made by Hahnemann at the beginning of the century. He says, —

"Before therapeutics can become a science, the physician must know the action of his drugs, just as the locksmith does that of his keys; and since pharmacology is still so young, it is little wonder that medicine is yet only an art."

And Dr. Wood, advancing yet farther, declares, —

"The work of the therapeutist is chiefly with the second portion of the law.

"Evidently, it is his especial province to find out what are the means at command, what the individual drugs in use do when put into a human system. It is seemingly self-evident that the physiological action of a remedy can never be made out by a study of its use in disease."

Here, at last, is Hahnemann's *healthy vital test* — his proving of drugs on himself and others when not sick — accepted as alone capable of furnishing a basis for the science of therapeutics!

It only remains for Dr. Brunton, Dr. Wood, and their associates, now to open their eyes to a little more light, and they will discover the true relation of the "keys," so obtained, to the "locks" they would open — *similia* is not far away.

CLINICAL PROOFS OF SIMILIA.

However plausible theories may seem, and however logical the principles arrived at by induction, reliance cannot be placed upon them till their practical worth is shown by experience. Though the motions and relations of the heavenly bodies could be accounted for by Newton's law of gravitation, its value was not realized properly till by it conjunctions of planets, eclipses of the sun and moon, and the positionsand or bits of undiscovered heavenly bodies, were foretold.

So, in medicine, it was not sufficient that Hahnemann could trace the homœopathic relationship in the cures set forth in therapeutic records: it was necessary, that, by it, the practitioner should foresee curative results in cases yet to occur. A more striking example of such prevision cannot be asked for, than shown in the cholera pamphlet, already mentioned, in which Hahnemann pointed out the most successful remedies for Asiatic cholera before he had ever seen a case of that disease. The statistical proofs of the superior effectiveness of those remedies will be shown directly. Before entering upon such proofs, it is well to consider the uncertainty attending medical statistics, the danger of accepting a *post hoc* for a *propter hoc*, in cases of recovery.

It is well known that the most absurd theories, the most arrant medical impostors, and the most worthless

remedies, have, each and all, claimed the endorsement of clinical experience. Cases of recovery have been cited as proof; and, on analysis, the affections treated have been found to belong to one of the following classes: —

1. Such as were not of the serious character represented, but such as may, and generally do, end in recovery, without any therapeutic interference.

2. Such as were cured by other agencies than the one alleged, the influence of the other agencies being entirely ignored or greatly misunderstood.

3. Such as were not cured, but simply suspended or alleviated for a time.

4. Such as were not subjected to other influences more likely to effect recovery than the one claimed as the curative agent.

It was once said by the great writer, Sir Gilbert Blane, —

"That, in many cases, patients get well in spite of the means employed; and sometimes, when the practitioner fancies he has made a great cure, we may fairly assume the patient to have had a happy escape."

It is not every therapeutist, nor all the advocates of any particular mode of medical treatment, who will be found content to claim as cured by their remedies, only such cases as belong to the fourth class; and yet, not one recovery beyond the limits of that class can possibly be placed to their credit as a cure.

The cases of recovery to be relied on as proof of the efficacy of special remedies, must be above the suspicion that they may belong to classes one, two, or three. If they are such as may occur spontaneously, or where no remedies are applied, or such as may result from physiological influences, or such, again, as must prove but temporary and delusive, they cannot be ranked as at all decisive.

Numerical testimony, or the many cures claimed as resulting from a certain remedy, or a particular therapeutic method, must, therefore, depend upon a show of probabilities. Absolute certainty here is not possible.

And in the calculation of probabilities in this case, an extensive acquaintance with ætiology, pathology, and diagnosis is requisite. Without it, all must partake of conjecture and assumption.

In the absence of such knowledge among the people, the cunning charlatan has obtained numerous certificates of cancer and consumption, and diabetes and Bright's disease, cured by his nostrums. An ostentatious method of diagnosis, and a frightful name, applied to some self-limited disorder, or some trifling ailment, that has disappeared during his course of treatment, have given fame and fortune to many a quack.

The value of medical statistics, then, especially so far as they relate to therapeutic methods and means, must depend upon the capability of those who report them, as well as upon the number of cases embraced.

Where a large number of cases of a disease, well-marked and unquestionable, have been subjected to remedies acting in accordance with one certain principle, and the proportion of recoveries is greater than

observed under the influence of any other remedies, it is fair to conclude that the principle is sound, and the practice under it superior to any other on trial. In making the comparison, it is important to show that the cases embraced were all equally severe, and that the surroundings were not materially different, not more unfavorable on the one side than the other. Cures reported from private practice, in individual cases, cannot be considered conclusive, generally, inasmuch as the capability and honesty, and freedom from prejudice, on the part of the practitioner reporting, may be called in question.

In hospitals subject to official supervision, where a large number of cases of the same disease may be under treatment, under similar circumstances, comparisons may be made quite successfully.

And in private practice, where a record of cases is kept, showing names and places of persons treated, so that the reports may be verified or contradicted by proper inquiry, proofs of some value may be developed.

And, again, the results obtained, both in public institutions and in private practice, from a special method of treatment, under common observation, may be regarded as some valid proof, when they so far convince intelligent people, and silence objections, that the method grows in favor, and its practitioners are preferred to others in times of sickness and danger.

After this survey of the difficulties attending medical statistics, and of the considerations which should give them weight, attention may be turned to the facts and figures submitted in favor of the homœopathic principle as applied in practice.

Cholera Statistics. — After the cholera epidemic of 1830–31 in Russia and neighboring countries, in a report published by Andrew Mordvinow, President of the Imperial Council at St. Petersburg, the total number of cholera patients under homœopathic treatment, in the departments of Saratow, Tambow, and Twer, was given as 1,273, with a loss of 108, making a rate of mortality of less than nine per cent.

Dr. Rath was sent, in April, 1832, by order of the King of Bavaria, to collect authentic information respecting the results of the homœopathic treatment of Asiatic cholera: and he reported, that out of 1,269 cases treated by fourteen homœopathic physicians, in Moravia, in Hungary, and at Prague and Vienna, there were only 85 deaths, showing a rate of mortality of less than seven per cent; while in the same countries and cities, under allopathic treatment, the rate of mortality was over thirty-one per cent.

Dr. Balfour, a distinguished allopathic physician of Edinburgh, on a visit to Vienna, in 1836, wrote to his friend, Sir John Forbes, saying, —

"During the first appearance of cholera here, the practice of homœopathy was first introduced: and cholera, when it came again, renewed the favorable impulse previously given; as it was through Dr. Fleishmann's successful treatment of this disease that the restrictive laws were removed, and homœopathists obtained leave to practise and dispense medicines in Austria.

"No young physician settling in Austria, excluding government officers, can hope to make his bread, unless at least prepared to treat homœopathically if requested."

Dr. Balfour's letter was written not long after the Leopoldstadt hospital, under the care of Dr. Fleish-

mann, at Vienna, had been officially opened for the reception of cholera patients, and after the publication of the fact, that there two-thirds of the cases ended in recovery, while in the other hospitals of Vienna, under allopathic treatment, two-thirds had ended in death.

It should be borne in mind, that the cases of cholera brought to hospitals for treatment, are always more difficult, and more likely to terminate fatally, than are those met with in private practice. It will not seem strange that such should be the case, when it is considered that hospital gatherings are usually from the lowest walks of life, and that a large proportion of cases are in the second, if not the last, stage of the disease when brought in.

The general board of health of Edinburgh and Leith, Scotland, reported the total number of cases of cholera under treatment from Oct. 4, 1848, to Feb. 1, 1849, as 817, and the number of deaths as 546.

Of the cases mentioned, there were —

Treated homœopathically, 236, with deaths, 57.
" allopathically, 581, " " 489.

Iomœopathy lost a little over twenty-four per cent, and allopathy a little over 84 per cent.

These cases were in dispensary or hospital practice.

In the United States, during the cholera epidemic of 1832–33, there were but few practitioners of homœopathy, hardly one outside of New York and Philadelphia; but such was their success in the treatment of

the dreaded disease, the new principle of therapeutics observed by them gained much favor.

But when the disease came again, in 1849, it was successfully met in all the leading cities of the country by representatives of the new school.

Passing over individual reports of cases and cures, authentic enough for those acquainted with the practitioners making them, — reports showing a rate of mortality seldom ranging above 10 per cent, — it is proper to notice some statistics of an undeniable character.

At Cincinnati two homœopathic physicians had a record of 1,116 cases treated, from May 1 to Aug. 1, 1849, with a loss of 35 patients, — a mortality of less than 4 per cent. So great was the contrast of their results with those reported by their allopathic neighbors, the truthfulness of the homœopathic record was publicly called in question; and, in self-defence, the two physicians, Drs. Pulte and Ehrmann, submitted their list, giving names and residences of persons treated; and inquiry was made sufficient to show the correctness of their claim.

In regard to subsequent cholera epidemics, in Europe as well as America, it is sufficient to say, that such has been the comparative success of the homœopathic treatment, the people turn to it with ever-increasing confidence.

What has been the acknowledged *opprobrium medicorum*, as to the allopathic faculty, has been the greatest means of bringing into favorable notice, and into extensive use, the remedies of homœopathy.

And, before passing from the proofs furnished by Asiatic cholera, it is well to consider the fact, that the three leading remedies for that disease pointed out by *similia*, are coming into use among medical men who deny the universality of that principle.

Camphor is an ingredient in nearly every mixture prescribed in the ordinary practice, and in every nostrum employed with any success in the treatment of cholera, throughout the world.

Cuprum, in the metallic state, very finely comminuted, or in some of its salts, is coming more and more into favor. So much has it been approved, of late, by leading allopathists in France, "The London Lancet" has facetiously mentioned it as their "cupric saviour."

And veratrum album, the third member of the trinity of remedies named by Hahnemann, before he had seen a case of Asiatic cholera, is receiving the endorsement of allopathic writers.

Privy-Councillor Dr. von Blödau, of Sondershausen, has discovered *veratrin* to be an excellent remedy for some phases of cholera! He says,—

"Having frequently administered strong doses of veratrin, as a remedy against cramps in the calves of the legs during sleep, and always with success, I concluded that, as it possessed a stimulating influence on the spinal-nervous system, it might restrain the danger of threatening symptoms in cholera."

Yellow-Fever. — The destructive epidemics of yellow-fever, which have visited portions of the United States, especially those occurring since the year 1850, have afforded opportunity for statistics of decided value. No systematic effort, however, was made for

the gathering and comparison of such statistics, as bearing upon the character of different therapeutic measures, till the year 1878, when a special commission was organized by the president of the American Institute of Homœopathy, to examine and report on the therapeutics of that disease.

After passing over the ground swept by the epidemic, while its events were yet fresh in the public mind, they submitted to the Institute and to the American Congress, among other things, the following facts and figures: —

"We have here (New Orleans) 1,945 cases of yellow-fever treated homœopathically, with a loss of 110 patients, — a mortality of 5.6 per cent.

"We have 1,969 cases of yellow-fever treated in cities and towns outside of New Orleans, with a loss of 151 patients, — a mortality of 7.7 per cent.

"This makes a total of 3,914 cases of yellow-fever treated homœopathically, during the epidemic of 1878, with a loss of 261 patients, — a mortality of 6.6 per cent."

In this number were 2,010 patients, the name, age, and address of each one of which were given to the commission, and sufficient inquiry was made to verify the general correctness of the records. The deaths among the 2,010 amounted to 129, or 6.4 per cent.

On the other hand, the most favorable reports of the results of allopathic treatment, during the epidemic of 1878, fail to show a rate of mortality averaging less than 17 per cent. The mortality, under heroic allopathic measures, — blood-letting, calomel, quinine, etc., — was much above that figure.

It is worthy of note, here, that the leading homœo-

pathic remedies, those found most efficient in yellow-fever, have grown in the confidence of allopathic physicians.

Dr. Charles Belot of Havana, a distinguished allopath, who is said to have treated more cases of yellow-fever than were ever treated by any other one man, has said, —

"One very good auxiliary, which should never be neglected in local congestion, and to diminish the plasticity of the blood, is the tincture of *aconite*.

"This remedy, given in doses of six drops in twelve ounces of water, administered by spoonfuls every hour, has a truly magical power. The pulse becomes softer, and its frequency diminishes; whilst the heat of the skin subsides as perspiration is established.

"It should never be neglected in the first or congestive stage."

And Dr. Belot spoke favorably of another famous homœopathic remedy for yellow-fever, — *arsenic*. He said, —

"Towards the end of the second period, when vomiting cannot be arrested, when the patient has continued nausea, when the vomit contains bile or mucosities, filled with blackish or sanguinolent streaks, there is no better remedy than arsenic.

"Prescribed under fitting circumstances, arsenic often brings unhoped-for amelioration."

As though not quite prepared to acknowledge the evident homœopathicity of this potent remedy, Dr. Belot remarked, —

"As for arsenic, whilst it may be difficult to appreciate its action in theory, its happy influence in this case is as certain as that of sulphate of quinine in intermittent diseases."

Aconite and arsenic have been in use, as leading remedies, by homœopathic physicians, in every epidemic of yellow-fever against which they have been called on to exercise their art.

This disease, like Asiatic cholera, has done a great deal to turn the people to homœopathy, especially in the lower valley of the Mississippi, along the Gulf and Atlantic coasts, and in the West Indies, where it has often been epidemic.

PNEUMONIA.

Professor Henderson of the University of Edinburgh published, over thirty years ago, an account of fifty cases of pneumonia treated homœopathically by himself, and by Dr. Tessier of Paris, with a loss of three patients, a rate of mortality averaging 6 per cent. Dr. M. Dietl, an allopath of Vienna, published the following results from his treatment of cases of pneumonia: —

By venesection, 85 cases, with a mortality of 20.4 per cent; 106 cases by *tartar emetic*, with a mortality of 20.7 per cent; and 129 cases without bleeding and without medication, with a mortality of 7.4 per cent.

Henderson and Tessier's cases had an average run of $11\frac{2}{3}$ days; and Dietl's, with venesection, 35 days; with *tartar emetic*, 28.9 days; and without such measures, 28 days.

Here may be seen the negative as well as positive benefits of the homœopathic treatment. Better no active treatment whatever, than the allopathic.

But these statistics, gathered from the treatment of well-marked diseases, and never contradicted, must suffice for the present. Reports from hospitals under official supervision, asylums, and dispensaries, in different countries, all show the lessened rate of mortality, and the lessened periods of sickness, under homœopathic treatment.

As proof of the influence of such reports, against allopathic measures and in favor of the homœopathic, it should be mentioned, that the practitioners of homœopathy have always been ready, even anxious, to take charge of hospital wards along-side of allopathic wards, while the practitioners of allopathy have invariably objected to such trials of comparative merit, under official inspection and the gaze of the public eye.

In conclusion of these practical proofs, it is well to consider how far homœopathy has advanced in the occupation of public institutions for the treatment of the sick and the injured, and what its practitioners and writers have achieved in the departments of learning and literature.

In the older countries, where the interests of medicine, more especially its schools and hospitals, are under governmental control, and constantly managed for the protection of an assumed orthodoxy, it has not been an easy undertaking to open the way for a practice so heterodox as the homœopathic. And yet, in nearly all the leading countries of Europe, the teachings of Hahnemann have gained a firm foot-hold, not only in private practice, but often in public institutions also. In the United States of America, where greater freedom exists, and where the lines of the orthodox and the heterodox are less severely drawn, homœopathy has made its greatest progress.

In private practice, it may fairly claim ten thousand practitioners, nearly all educated after the best man-

ner of the country, — in learning and energy above the average of medical men in the allopathic school, — and possessed of a *clientèle* much superior in culture and social influence.

Homœopathy had in 1885 the oldest national medical society in the United States, twenty-eight State societies, one hundred other societies, fifty-four hospitals, forty-eight dispensaries, thirteen colleges, and nineteen medical journals, all in a flourishing condition.

The creation of such institutions of learning and of charity, and of such a literature, such a body of practitioners, and such a noble *clientèle*, as may now be seen devoted to the progress and ministrations of homœopathy in America, all within half a century, and in the face of the most violent opposition, speaks loudly for the truthfulness of *similia*.

The progress of homœopathy in the older countries of the world, where institutions are venerable and authoritative, especially where large armies and a great number of surgeons with dictatorial powers hold sway, has been less open and pronounced.

Where hospitals are severely closed against the trial of what is not proposed by the reigning medical authorities, and charters for schools are not obtainable without orthodox consent, the chances for new ideas and prompt improvement are exceedingly few, and any thing but encouraging.

But, as already intimated, the influence of *similia* amid all such obstacles has been felt. One homœo-

pathic remedy after another has been adopted: blood-letting, blistering, and the excessive use of mercury, antimony, and other heroic and destructive agents, have been abandoned, till the shelves of the apothecary, and saddle-bags of the practitioner, show a wonderful change, when compared with what they presented half a century ago.

The tendency has been constantly toward homœopathy in all enlightened countries, though less demonstrative and formal in the older than in the new.

The germs of truth may be brushed aside, or buried in the dust of years, but they cannot be destroyed.

PART THIRD.

THE DEMANDS OF SIMILIA.

When the soundness of a therapeutic principle has been demonstrated by reasonings, *a priori* as well as *a posteriori;* when its universality is proven by an analysis of cures effected before it had been distinctly recognized, as well as by cures resulting from its applications afterward, — it only remains for those who acknowledge its supremacy, to inquire as to its legitimate demands.

Plainly stated, the homœopathic principle is this:—

THAT CONDITIONS OF DISEASE, AFFECTIONS OF HUMAN HEALTH, MUST BE OVERCOME BY THE INSTITUTION OF SIMILAR AFFECTIONS, WHICH WILL THEMSELVES YIELD TO THE RECUPERATIVE TENDENCY OF THE VITAL FORCES.

In the domain of this principle, it is not sufficient to say that cures *may* result from its application, they *must* result from it. In other words, if *similia* be a general principle, it must be regarded in therapeutic science as a *law of nature;* and, as such, it must be recognized as the paramount rule in therapeutic art.

Stated as a rule, the law says, —

In the treatment of the sick, where pathogenic agencies may be effective, employ in each case an agent known to induce sufferings or symptoms similar to those to be overcome.

The first great demand, under this rule, is a knowledge of the pathogenetic effects of agents to be employed as remedies.

Such knowledge, as already briefly stated in another chapter, may not be obtained from the observed effects of drugs administered to the sick, nor by the pointings of analogy, nor, again, from draughts upon the imagination. It must come from the trial of agents upon persons in health, by a course of careful and thorough experimentation, and from the most reliable records of cases of poisoning.

The pathogenetic effects of remedies with which an acquaintance must be had, usually termed drug pathogeneses, constitute the homœopathic *materia medica*.

The first requisite, then, under the law *similia*, is,—

A POSITIVE DRUG SYMPTOMATOLOGY.

In making the comparison between the morbid condition existing and that to be induced for its removal, a similarity contemplates a display of drug symptoms parallel, and, so far as possible, co-extensive, with those presented in the patient.

No arbitrary limits can be set to the scope, order, or character of the comparisons to be made. The similarity is not to be in general appearance, color of skin, pulse-rate, or temperature alone, but, in each case, must embrace all the symptoms, or exponents, of the disease presented for treatment. But while the totality of the symptoms must be taken in, on both sides, the work of comparison is very much facilitated where the pathognomonic or characteristic symptoms are

recognizable. Of drug-effects, it is of the utmost importance that those common to the largest number of provers should be distinguished from those which have been reported by one or two only. The probability that symptoms, appearing in the reports of a prover, were really drug-effects, and not due to other influences operative at the time, increases as the same are observed in the reports of two, three, or a dozen other provers. While the numerical method may not be essential in all cases, its value in this connection cannot be questioned. Without it, there is constant danger of mistaking fancies for facts.

When the recorded symptoms of a drug under consideration, so far as they may be similar to those in the patient, are known to have occurred, not in one prover only, but in a large number of provers, there is a feeling of certainty and satisfaction in a reliance upon it as the selected remedy.

In the great field of therapeutic effort, the practitioner cannot know precisely what effects each agent in his *materia medica* may be able to produce upon each patient when in health, — the influence upon the individual presented not having been ascertained by special trial, — and so, reliance must be placed upon the ascertained effects of each upon so many healthy persons, that it is fair to presume the same would appear in all or nearly all others. What must be had, then, is a knowledge of the uniform effects of drugs, singular as to the drug, but general as to the subjects of its influence.

Any showing of drug symptoms, short of this, will not meet the demands of the homœopathic law. As

persons differ in temperament, occupation, and habits, it must facilitate precision, and secure success, in certain cases, to have reference to the symptom-records of individual provers, in order to learn which effects were peculiar to a particular temperament, occupation, or mode of life. In no other way can provision be made for an idiosyncrasy or some peculiar sensitiveness in a patient.

In securing a positive drug symptomatology, the first step is one of experimentation. Human organisms must be subjected to the influence of the several medicinal agents in a manner, to a degree, and under circumstances, calculated to exhibit their effects fully and truthfully.

DRUG PROVERS AND PROVINGS.

1. Persons in good ordinary health, of different ages and temperaments, and some of both sexes, should be employed as provers.

2. They should be favorably situated, so that conflicting or vitiating influences may not complicate the symptoms, and render them uncertain.

3. They should, for a week at least, before coming under the influence of the drug to be proved, be subjected to doses of some inert substance calculated to draw out such purely individual symptoms as might otherwise be recorded as drug-effects.

4. They should be instructed in regional anatomy, and required to locate symptoms in accordance with a topographical chart of the body, in use by all.

5. They should be instructed in proper methods, and with regard to the means requisite, in observing and noting departures from a normal condition during a proving.

6. They should be under the immediate guidance and care of a supervising faculty, capable of applying all necessary tests, and diagnostic means, for the detection and measurement of departures from health.

7. They should, at least twice in the twenty-four hours, undergo a proper examination by the faculty, submitting at such times the record of symptoms made, with such explanations as may be necessary to a clear understanding of it.

8. They should, while acting as provers, depart as little as possible from what they have been accustomed to in diet, exercise, and rest, except where something in the habits may decidedly interfere with the drug influence.

9. They should be students of medicine, free from sick-room influences and from care, except as incident to the work in hand.

10. They should be assembled in one locality, so as to be under uniform rules and the same means of inspection and the same course of questioning; and, together, they should constitute a body of not less than twenty provers.

The observance of these ten rules must ensure a variety of temperaments and constitutions among those engaged as provers, that would give full range to each drug influence, and faithful reflections of all drug effects, in the healthy human organism. Out of the hundreds of students, young women as well as young men, attending lectures at our American colleges, it would not be difficult to find twenty with the qualifications and the willingness required for this most important work. The long vacation between college sessions would afford ample time for it; and how else

could medical students gain so much useful knowledge in the course of four months, while rendering the highest service to therapeutic art?

For the testing of virulent drugs, especially such as may have a profound and hazardous influence, not yet understood, it may serve a good purpose to make experiments on some of the lower animals, such, particularly, as approach most nearly to man in anatomy and physiology.

While the results of such experimentation may not rank with those obtained from the human organism, they are of value in showing something of the direction, as well as rapidity and extent, of operation of poisonous drugs. The knowledge thus obtained may serve to caution and direct the provers, as well as to show the deeper lines of drug influence in the animal economy.

In regard to rule third, it should be said that the prover, for obvious reasons, should not be aware that the doses taken are of some neutral substance in place of an active drug.

Experiments made some years since, by Dr. Wesselhoeft of Boston, while proving carbo vegetabilis (by him called "counter-proving"), to ascertain what proportion of symptoms recorded may be due to the unusual introspection and imagination of provers, shows the practicability as well as necessity of a rule like this.

DRUG SYMPTOMS.

As mentioned in another connection, the term symptoms is here used in its broadest sense as meaning drug effects, so far as they may become known by observation and experience. They are of two classes; namely, —

1. *Objective*, so far as learned by observation, from without, and, —
2. *Subjective*, so far as learned by sensation, through consciousness, from within.

The former comprise all that the provers themselves and the directors of experiments may learn of drug action, by watching its effects, and inspecting every observable departure from normal conditions, by the senses alone, and by the senses aided by every available diagnostic means. And here it must be remarked that the examination of persons directly subjected to drug influence, must be as thorough and extensive, and with as ample means, as considered necessary in the examination of patients under treatment for any form of disease. Nothing short of this can meet the demands of a real drug pathogenesy.

Subjective symptoms reported by provers must also be taken with great caution. The daily records of them, submitted by provers, require a critical examina-

tion, such as may determine the exact location, character, and concomitants of each suffering or abnormal sensation. Such scrutiny, ably performed, while experiences are fresh in the minds of the provers, must go far to ensure reliability in the recorded symptoms.

There is a class of drug effects not belonging strictly either to the objective or subjective, but partaking of both, which must be carefully noted; namely, the mental, or emotional. To meet the varied affections of the brain and nervous system, so common in the world at this time, the therapeutist must not only understand the symptoms which reveal them to him, in the patient, but likewise the similar symptoms produced by drugs in the prover. This knowledge, though very far from perfect, as hitherto obtained from drug-provings, has enabled the follower of *similia* to show results in the treatment of insanity and various obscure nervous affections, not attainable under the most approved allopathic measures.

And drug pathogenesy is also extended and strengthened, in the case of many agents, from the records of toxicology.

It is safe to add symptoms gathered from cases of poisoning, where there is no doubt as to the identity and unobstructed action of the poison. The reports of such cases often show the deeper and more destructive lines of drug influence, the tissue-changes, at times, recognized only on *post-mortem* inspection.

SYMPTOM RECORDS.

It is not enough that drug symptoms are elicited and scrutinized properly: they must be noted in such manner as to be readily understood, and so as truthfully to represent the drug affections induced.

The name, age, and temperament of each prover should be mentioned at the head of the sheet upon which the symptoms are recorded, together with the hour and a description of dose taken. The name and special preparation of the drug on trial, unknown to the prover at the time, should be supplied by the faculty when the record comes into their hands.

Day-books. — The symptoms recorded by the prover should be in the narrative form, and strictly in the order of their occurrence, the time being noted for each.

In mentioning a pain or abnormal appearance, the greatest care must be exercised in its description as to character and location. No departure from the normal or the usual, not attributable to some other cause, must be omitted from the record. Every disturbance of function, feeling, or emotion must be considered during the trial of a drug — even the character of the sleep and of dreams, if out of the ordinary course.

The pulse, the temperature, the color and state of the skin and tongue, the action of the bowels and kid-

neys as to frequency and character of excreta, and whatever else may indicate drug influence, must be clearly stated.

The record should be kept on detached sheets of paper, coarsely ruled, and with a wide margin for notes and corrections.

Taking a clean sheet each morning, the narrative should begin where that of the previous day closed.

Twice in twenty-four hours, say from seven to nine o'clock in the morning, and from seven to nine in the evening, the provers should appear before the faculty, one by one, for inspection, and to submit their day-books, with such explanations as may be called for. The inspection should embrace every diagnostic test applicable to the cases, and should be as thorough and extended as demanded in cases of disease presented at any time for treatment.

In the presence of the prover, the record should be carefully gone over, and such explanations and corrections noted as may prevent ambiguity and uncertainty in the future. Objective symptoms, recognized by inspection and examination, should be noted in their proper places in the daily narrative.

The sheets comprising each daily record should remain in the keeping of the faculty, so as not to influence the mind of the prover in subsequent self-watchings.

The provers should be numbered, and, in submitting their records and themselves for examination, should always come in the same order, so that they would be seen at about the same hour on each occasion, morning and evening.

The faculty referred to in this connection, made up of experts, male and female, should give special instruction to the provers in reference to their work, and general instruction upon *materia medica;* and they should, likewise, prepare and dispense the doses to be taken during the work of experimentation.

And they should append to the day-books a brief record of the states of the weather, and of any other influence that might affect the personal condition and symptoms of the provers.

The narratives should continue, as to each drug, till a reasonable opportunity has been given for the noting of its character and power in the human organism.

When the proving has been continued long enough, the day-books should be collated and printed *in extenso*, just as written by the provers, and commented on by the faculty in charge.

Preceding the day-books, there should be given the name, officinal and scientific, of the drug, the portion used, and the manner of preparation, in brief.

Digest, in Schematic Form. — In addition to the full narratives of the individual provers, and for more ready reference, and as sufficient for the generality of cases met with in practice, drug symptoms should be arranged and published in a schematic form, after the manner first proposed by Hahnemann.

In this publication, all symptoms which have occurred in only one prover should be omitted, except where closely connected with, and illustrative of, some of the symptoms admitted; in which case they should appear in foot-notes, printed in smaller type.

To show the comparative value of the symptoms, different kinds and sizes of type should be employed in the body of the work.

For example, small capitals might be used for symptoms that have occurred in not less than five provers, Italics for those in three or four provers, and ordinary type for all of the rest.

Such a digest and arrangement would comprise the most uniform and certain of drug effects, and form a work not so unwieldy and difficult of reference as that composed of the complete day-books.

The publication having such contents, should be arranged as follows: —

1. Name, officinal and scientific, of the drug.

2. A condensed narrative, showing the inception and progress of the drug affection, the points of first attack, the line of march, involving one tissue or organ or system of the body after another, and so its full development, in the previously healthy human organism.

This narrative must be based on the several narratives furnished in the day-books, and comprise symptoms reported by not less than one-third of all the provers engaged.

3. The symptoms, objective and subjective, arranged according to the regions and organs of the body, beginning with the head, and ending with the extremities, as especially mapped on the topographical chart in use by the provers. Mental,

or emotional, symptoms should be put just before, or along with, those of the head; and the modalities should close the record.

Clinical verifications and therapeutic suggestions may be placed in foot-notes.

Nosological Index. — As no work on practice can be written without mention of groups of symptoms, under more or less general names, as applied to disease, it serves a good purpose to have attached to such names of various affections, a list of appropriate homœopathic remedies.

Following the *schema* and chart adopted in the arrangement of symptoms just mentioned, the phases and characteristics of the different morbid states and feelings, belonging to each tissue, organ, region, or department named, might have attached to it a reference to the symptoms belonging to its remedy in the *digest.*

Such an index would facilitate the search for the right therapeutic agent, and might be attached to the *digest*, or put in a separate volume.

The pathogeneses of agents to be used as remedies, gathered and arranged as indicated, would constitute a convenient *materia medica* such as demanded by the law *similia*, one easy of comprehension, and as free from vexatious uncertainties as possible, with our present modes of gaining knowledge.

The thoroughness indicated has not characterized, to a sufficient extent, the gathering and arrangement of the materials in our present works on *materia medica*, but the necessity of it is becoming more apparent

every year; and the time is not far distant when the use of drugs will be abandoned, or their influence in the human organism will be ascertained with greater precision.

Experimentation, in the study of such influences, is one of the highest and most sacred of all human undertakings, inasmuch as the health and comfort and usefulness and life of man must depend largely upon its provisions against disease.

If symptoms are recorded which are not drug effects, the therapeutist, relying upon them in the selection of his remedy, must utterly fail to cure in affections that require a remedy.

Either the measures of physiological therapeutics, treated of in former chapters of this work, must gradually extend over the entire field, displacing the use of drugs which owe their therapeutic power to their pathogenic properties, or the time and care and means and supervision, necessary to greater certainty, must be devoted to the work of drug experimentation.

State institutions, sustained by a tax upon the people, so far as they relate to medicine, should be devoted to this form of original work.

The ascertainment of drug properties, a knowledge of the effects of each agent in the human organism, and, hence, its therapeutic uses in cases of disease, should have the support and supervision of governments as well as individuals.

APPLICATION OF SIMILIA.

Having the symptomatic displays in cases of disease presented for treatment, on the one hand, and the symptomatic displays of various drugs in the *materia medica*, on the other, the work of comparison must be carried on under the requirements of *similia*.

The ease and rapidity of this work depend, in a measure, upon natural endowments in the practitioner, but much more upon a faithful study of the elements and steps requisite to a correct diagnosis. It is no adverse reflection upon the law of similars, that members of the laity, uneducated in pathology and symptomatology, are able to compare the features of disease with the recorded effects of drugs, so as to obtain some of the benefits of homœopathy in domestic practice. When the mechanic slides his timber into position, down an extemporized inclined plane, or erects his posts to a perpendicular that they may stand securely, he obeys the law of gravitation, and verifies its truthfulness, as does the natural philosopher in estimating the velocity and effects of a falling body, or the astronomer in calculating the orbit of a newly discovered planet. It is greatly to the credit of the homœopathic principle that its application is not enshrouded in mystery, and that its usefulness is not altogether confined to the ministrations of the most learned physicians.

In acute affections, especially such as may be familiar

by reason of their frequent occurrence, the noting of the symptoms with which to compare the effects producible by drugs, involves less time and study than in chronic and complicated diseases. In the former, the characteristic features, often seen, are quickly recognized, and ultimately come to be few in number; while in the latter they are more variable, having successive stages and various modifications to be considered in making a comparison.

As stated in a former chapter, the homœopathic relationship must be seen in the order as well as character of the symptoms, and in the history as well as present displays of the disease; and, of course, the longer the history and the greater the number of stages in a case, the more difficult and tedious the work of tracing the required similarity.

When the cases of some particular disease are numerous in a community, and the symptoms are quite uniform in all, the affection is said to be epidemic; and writers often speak of the *genius epidemicus*. It is not difficult to understand how the discovery of a drug in the *materia medica*, having the symptoms constituting this *genius*, may shorten, and render more satisfactory, the labor of the practitioner. The fruits of one search may be useful over and over again. But inasmuch as cases arising from the same morbific influence, as in scarlatina, whooping-cough, and other well-marked affections, do not always present exactly the same symptoms, it is necessary for the therapeutist to individualize, to institute comparisons in every case. Such differences, occasioned by personal peculiarities, may demand some variation of remedies. There is no

such thing as considering cases, and adapting remedies, under the homœopathic law, simply by classes. Nosological distinctions, while they serve a good purpose in general guidance, cannot safely indicate remedies adapted to all cases met with in homœopathic practice.

In making the necessary comparison in the selection of a remedy, no prejudice should be allowed to govern in favor of certain classes of symptoms and against others. At an early day, Hahnemann concluded that the similarity required by the homœopathic principle should especially be, between the primary symptoms of the drug employed and the symptoms of the case under treatment. But, in common with his leading disciples, he found it difficult to determine exactly where the line should be drawn between primary and secondary drug symptoms, and so the distinction was finally abandoned.

Attempts have been made, somewhat of similar character, to trace the similarity between the symptoms of the patient, displayed before the occurrence of organic lesions, and the effects of the agent to be employed as the remedy. The difficulty, however, in drawing the line between symptoms preceding, and those following, organic lesions, is such as to forbid all attempts at its practical observance. Some have endeavored to place mental and emotional symptoms as among the primary, the determining and most important to be considered in tracing the homœopathic relationship.

But it will not do to say that mental and emotional symptoms are more important than any others; nor yet, that they are altogether worthless. It is a fact to

be borne in mind, that mental and emotional disturbances are so readily produced by the every-day occurrences of life, they cannot, so far as attributed to drugs under trial, be looked upon as reliable, unless experienced over and over again by different provers, and repeatedly by the same provers. They are more uncertain than any other class of symptoms recorded in the *materia medica*, especially as pertaining to drugs not thoroughly proved.

And subjective symptoms are liable, as already intimated, to much vitiation from different sources.

The self-watching and introspection bearing upon a lively imagination in the prover, may give rise to a long list of sensations and sufferings not caused by the drug under trial.

The agreement of several provers, under the influence of the same drug, alone can clear away doubts, and place such symptoms among the reliable data of *materia medica;* and hence the importance of tracing the similarity between reported subjective effects, only when they have been common to a number of trustworthy provers.

Comparisons, taking in the objective symptoms, drug effects observable by other persons as well as the prover, are of the most satisfactory character, especially when such effects have been found to follow the drug repeatedly, and in different provers.

"Key-notes," or symptoms, quite uniform in cases of the same disease, or frequently reported in the experiences of careful provers of the same drug, may be relied upon with great satisfaction; but if they are the results of sick-room trials, or the fruits of some gen-

eralizing effort, on the part of a medical philosopher of sanguine temperament, they will not do.

Something more than an individual experience, or an exercise of the imagination, is requisite in stamping certain drug symptoms as worthy of ranking before all others in value, when the homœopathic relationship is to be traced, and a remedy provided to ease suffering and save life.

The experienced hunter, catching a view of the ears, or tip of the nose, or the foot, of a ferocious animal in the jungle, may fully recognize, and quickly prepare for, the contest; while his less informed or less wary companion may need a sight of the whole form, to awaken him to a proper sense of his danger and his duty.

The eminent success of one practitioner, compared with that of another, comes largely from an ability to catch quickly and surely the pathognomonic symptoms of the disease, on the one hand, and the characteristic symptoms of the homœopathic remedy, in the *materia medica*, on the other.

In making the comparison requisite, in the selection of the homœopathic remedy, the practitioner may succeed by a proper observance of the following rules:—

1. Note the general appearance of the patient, the position, the movements, the speech, the expression of eyes and face, color of skin, etc.

2. Let the patient, and those in charge, in their own way narrate and describe the troubles without interruption, especially without leading questions.

3. After the account, thus given, ask questions so as clearly to develop the history and description of the case from its beginning, during the development and progress of the disease, down to the time of calling for help.

4. With the information so obtained, examine carefully the parts affected, aiding the senses by the employment of the most improved diagnostic means, applying critical tests where the indications are not clear.

5. Make careful record of all that is learned by narrative, description, inspection, and tests.

6. When the symptoms, the history, and the pathology of the case have shown that it is not one outside the pale of the homœopathic law, revert to the *materia medica*, and compare the pathogenetic effects of the agents displayed there with the symptoms presented in the patient to be cured.

7. In acute and urgent cases, memory may be sufficient to bring up the agents and their recorded effects, for the comparison; but in chronic and complicated cases, refer to the *nosological index*, or a work on practice, for the names of appropriate remedies, and then examine the symptoms of each one named, as displayed in the *digest*, or *day-books* of the provers.

8. In chronic cases, especially where important symptoms appear for which none similar are mentioned in the *digest* or manuals, refer to the *day-books* of

the provers, and compare the symptoms of those of the same sex, and of similar temperament and age, with the peculiar symptoms of the patient.

9. In making comparisons, consider the most constant or characteristic symptoms first, and then others of less importance.

10. The similarity required should be (*a*) in locality, (*b*) in character, (*c*) in order, (*d*) in conditions, and (*e*) in pathological results, so far as discernible.

The failures of practitioners of homœopathy have been due, not to the unsoundness of the law of similars, but to a neglect to comply with its plain requirements.

Reliance in such cases has been placed on spurious pathogeneses, spurious pharmaceutical preparations, and on defective methods.

Reichhelm's motto was a good one; namely,—

"*Homœopathy rewards only her true votaries.*"

POSOLOGY.

The demands of *similia* being satisfied, in the selection of the curative agent, the next question arising is,—In what form and dose must it be administered to the sick?

Before the consideration of this question, attention must be given briefly to the character and condition of the drugs, as tested, in the formation of the *materia medica*, or to—

Pathogenic Posology.—The leading points may be briefly set forth in the following propositions:—

1. In the human organism, under pathogenic, as well as morbific, influence, no change in tissue action (functional disturbance) occurs without a previous change of tissue condition.

2. The kind or quality of change in tissue condition and action (under drug influence), other things being equal, depends upon the kind of pathogenic force employed.

3. The degree or extent of change, in tissue condition and action, is in proportion, other things being equal, to the amount of pathogenic or medicinal force employed.

4. The potential medicinal force of a drug-dose is in proportion to the number of medicinal atoms it contains.

5. The actual medicinal force is in proportion to the number of medicinal atoms made superficial or free for contact or absorption.

6. The actual power of a drug-dose, the atoms of which are prepared for contact or absorption, may be regulated by the increase or diminution of the quantity of medicinal matter.

7. The graduation of dose is best effected by a process of trituration or succussion, whereby the medicinal matter is many times divided and subdivided, and mixed with a neutral menstruum, such as sugar of milk, or distilled water.

In the process of trituration, it has been found best to put ten grains of the drug with ninety grains of sugar of milk, grinding the mixture till the medicinal particles are rendered exceedingly small, and evenly distributed among the particles of the vehicle. Putting ten grains of the product of the first trituration with ninety of the sugar of milk, and grinding, as before, the second trituration is made. This process may be continued, each time diminishing the potential medicinal power of a given amount of the product, but, up to a certain point, developing its actual power (as taught in proposition fifth).

Taking liquids, or soluble substances, diminution and development are at once effected by a mixture, in certain proportions, with distilled water, and a vigorous shaking.

In these few lines is cleared up the wonderful mystery thrown about the pharmaceutical methods of homœopathy by fanciful friends and cunning enemies.

The pathogenic, as well as curative, power of a drug resides in drug-matter, and can no more be useful on this earth, when separated from it, than may be the vital forces, or the soul of man, when disembodied.

It is well known that often the same substance, under different circumstances and tests, displays different properties.

Iron, for example, is at once a mechanical, a chemical, and a medicinal agent. It is the province of experimental inquiry to determine when and how the one property may be developed and employed to the exclusion of the others.

To tell exactly where mechanical or chemical action ends, and medicinal begins, in the case of this substance, requires much experimental research and observation.

Every philosopher, as well as earnest doer in life, dealing with properties or forces, whatever his theoretical views of their origin, or unity, or correlation, must practically recognize each in its own field, study it in its own phenomena, and employ it in obedience to its own laws.

Iron nowhere displays *medicinal* power except in the animal organism, and in no possible way there except through the symptoms or changes it may originate or remove.

As to the quantity of drug-matter necessary in the ascertainment of its pathogenic nature and power by

experiments on the healthy, the following additional propositions may serve to indicate what is required by the law of similars: —

1. In experimenting upon the healthy human organism, so little of the drug-matter must be used, and in such form, that it will act *medicinally*, and not chemically or mechanically.

2. All kinds of drug-matter, changing the conditions and functions of living animal-tissue by virtue of their bulk, weight, or form, do so under the laws of mechanics.

3. All kinds of drug-matter, changing the conditions and functions of such tissues by virtue of certain decomposing or combining molecular properties, do so under the laws of chemistry.

The medicinal properties or forces dwelling in drug-matter, and recognizable only in the animal organism, have been variously named, to distinguish them from the chemical and mechanical. Pereira, and some other writers, have called them *dynamical;* while Headland and others have termed them *vital.*

Considering how the former name has been used in physics, and how the idea of life, of something living, is always suggested by the latter, it must be apparent that neither the one nor the other can properly characterize and distinguish the property or power now under consideration. The only name at all suitable is *medicinal.*

Although drugs have often been called medicines, when employed in form and quantity sufficient to act chemically, or mechanically, their action in such cases has not been under strictly medicinal law, and by virtue of medicinal power alone.

The behavior of the organism by reason of their presence, while not strictly indicated nor explained by chemical or mechanical principles, as recognized in the inanimate world, cannot well be anticipated nor accounted for by any thing we may know of medicinal forces or principles. They must be considered in the light of physiological as well as chemical and mechanical knowledge.

However, in the department of pathogenic therapeutics, the doses employed must be designated *medicinal*, subject to medicinal law; and they must be graduated so as to secure medicinal, and not chemical or mechanical, effects.

The doses taken by drug-provers, the material being properly prepared, must not be so large as to become toxical, and destructive of life; nor so large as to occasion a violent storm of symptoms, a rapid and confused development, in which the finer and more remote effects may be entirely lost.

Having learned, by experiments on the lower animals, or from the records of toxicology, something of the nature and activity of a poisonous drug, the proving should begin with a dose below the toxical, but yet large enough to make a decided impression; and it should not be repeated after symptoms are developed so long as any effects are noticeable. Afterwards, smaller doses, daily repeated, at a fixed hour, should be taken.

Beyond the rules shadowed forth in the propositions and comments already submitted, none may be formulated of a general character, certainly none that may be classed as arbitrary, that can, in advance of special experience, dictate as to the preparation and quantity and repetition of the doses necessary in the proving of each drug.

Therapeutic Posology. — The homœopathic relationship calling for the use of agents capable of affecting the tissues already affected, and in a similar manner, forbids the employment of doses so large as those required in experimenting upon the healthy organism. There is a peculiarly increased susceptibility to the homœopathic remedy, in the very nature of the case.

It takes less ipecac to occasion emesis in a person already nauseated than in one entirely well.

This is the secret of smaller doses in homœopathic practice.

How small they should be, must be determined by the nature of the drug and the susceptibility of the patient.

The process of drug attenuation by the intimate mixture of drug-matter with a neutral substance, as already mentioned, develops latent power, and puts the agent under more easy control. When the particles are comminuted so that further division, with present means, is out of the question, an attempt at a continuance of the process leads only to a diminution of the number of particles in a given quantity of the mass.

These and other facts, already submitted, suggest

the following propositions, or rules, as applicable in regulating the preparation and selection of dose, under the law of similars: —

1. The process of trituration with sugar of milk, where one-tenth of the mixture in the mortar is drug-matter for the first attenuation, and each succeeding attenuation consists of a portion of the product mixed with nine times its own weight of sugar of milk, should be continued till the particles of the drug are reduced in size, and made superficial, ready for contact with nerve-tissue, or absorption and conveyance in the blood to the seat of disease.

2. Just when the comminution of particles and the atomic freedom, necessary in a particular drug, are sufficiently effected, must be determined by the special hardness and cohesiveness of the original substance, and by chemical and physical tests, as well as by provings on the healthy, and trials upon the sick.

3. Chemical tests, and inspection by the microscope and spectroscope, are able to trace the particles of drug-matter in attenuations where its presence is not detected by ordinary vision, nor by the sense of taste or smell.

4. The healthy human organism responds to the influence of drug attenuations in which chemistry and microscopy may scarcely detect drug-presence.

5. The human organism, diseased, responds to the influence of a drug capable of instituting a similar condition of disease, in attenuations and doses which do not at all sensibly influence the same organism when in health.

The small amount of morbific matter, at times constituting malaria and contagion and infection, profoundly impressing and often fatally affecting the human organism, while entirely beyond recognition by any means of direct observation known to science, must serve to show how much finer a test of medicinal presence and influence the human body affords than may elsewhere be found.

In determining the size of dose requisite in therapeutic art, there is no occasion for extremes. To avoid too much medicine, it is not wise to choose too little. In getting away from the toxical, it is not necessary to seek doses in which there is not a particle of medicinal matter.

In calculating probabilities in this case, it is very unsafe to rely upon clinical proofs alone. Beyond sensible demonstration and sound analogy as to the presence of drug-matter in the doses employed, *post hoc*, or sick-room experiences, cannot be taken as at all conclusive.

If it is a crime to destroy life by the exhibition of too much medicine, it is no less a crime to allow life to be lost by the exhibition of no medicine, when medicine is essential to the cure.

The reality of the homœopathic principle, and the success of the therapeutic measures based upon it,

were clearly demonstrated to the world by the use of sensible doses of medicine. The greatest obstacle to the progress of homœopathy, especially with the medical profession, during the last half-century, has been put in the way by some of its ardent but misguided advocates, who have considered it possible and necessary to get rid of all drug-matter by a process of "dynamization," so that the medicinal spirit, the intangible and incomprehensible "dynamic power," may be enabled to act purely and directly upon the spiritual forces of the diseased organism!

PHARMACY.

While the ways and means required in the gathering or production of medicines, and in their preparation for use, are to be learned elsewhere, it is proper, in this connection, to notice some of the leading pharmaceutical measures demanded by the homœopathic law.

1. The greatest care must be exercised in describing the articles employed in drug-proving, so that there may never arise a question as to the identity of any one of them.

2. Botanical, chemical, and other characteristics, whereby each may be surely recognized, must be recorded.

3. The exact manner of preparing each for experimentation must be given, inasmuch as drug properties are not the same under different methods of pharmaceutical treatment.

4. The articles prepared for use must be kept free from such exposure to light and heat, extreme cold, and other influences, as may lead to some important change in medicinal properties.

5. In dispensing as well as preparing medicines, the purity of the menstruum used, whether sugar of milk, water, or other article, should be secured as far as possible.

6. To provide against interference from some impurity of menstruum or vehicle, so much medicine should be employed as will secure the desired medicinal influence in spite of any hindering or antagonistic properties, unavoidably present.

In the light afforded by examinations and experiments lately conducted by Professor J. Edwards Smith,[1] and others, under the auspices of the American Institute of Homœopathy, there can be no excuse for any pharmaceutist who prepares and puts on the market triturations or solutions in which an impurity of menstruum, a foreign drug, far outweighs the medicinal matter designated by his label. Nor can there be any justification of the practitioner who exhibits doses of such preparations to the sick standing in need of the medicine indicated by the label so miserably misapplied.

Surely the advocate of the "single remedy" must hesitate to administer chamomilla, in the thirtieth, or even tenth, decimal attenuation, in pellets which have been found to contain silica and lime enough to bring each to a sixth decimal attenuation, while chamomilla is the only remedy indicated in the case.

No amount of clinical proof of cures effected, in disregard of these facts in pharmacy, can justify so gross an inconsistency on the part of the practitioner.

[1] Transactions, American Institute of Homœopathy, 1883, 1884.

ENVIRONMENT AND HABITS.

Successful therapeutic art depends not alone on the proper selection, preparation, and administration of remedies.

If the surroundings of the patient be such that the medicinal influence is counteracted by morbific influences, it matters little that primary obedience is rendered to a law of cure.

It becomes the duty of the therapeutist to see that his patient is placed in circumstances not unfavorable to the action of his remedy and the recovery of health.

In times past, when reliance was placed on heroic measures, such as bleeding, blistering, and excessive purging, it was not considered so necessary to regulate the habits and surroundings of the sick.

The means employed would do their work in spite of ordinary adverse influences.

The quality and quantity of food and drink were matters of less concern, as the alimentary canal would be purged and scoured. If the blood was overcharged with heating material,—if food too stimulating induced plethora, if acidity came from excess of indigestible food,—in place of "drawing the rations," the practitioner drew the blood, and filled the stomach with "antacids," or cleared the way, and reduced the patient, by repeated and most active purgative doses.

To Samuel Hahnemann the world is indebted for a great reform in dietetics and general personal hygiene.

His diminished doses called for close attention to the habits and circumstances of the sick, in his practice and in that of his followers; and the undeniable success, attending their ministrations, obliged the allopathic profession to accept one or other of the horns of a dilemma, — either to acknowledge the efficacy of the homœopathic remedy, or to attribute the cures effected to the carefully regulated regimen of the sick. The general acceptance of the latter view led to a more careful study of the diet, habits, and surroundings of the sick.

The wonderful advances in public as well as personal hygiene, during the past forty years, must be attributed very largely to the teachings of Hahnemann.

And some sharing of the credit of cures, in homœopathic practice, with good hygienic regimen, is in no way detrimental to the exalted claims of *similia*.

CONSTRUCTIVE HOMŒOPATHY.

As mentioned in the historical sketch, Hahnemann searched the records of the past to ascertain if other drugs, than cinchona bark, had been known to remove affections from the sick like those they had been found to induce in healthy persons.

In the course of his search, he found many cases where the homœopathic relationship was plain between the affections induced and those cured by the same agents; and some in which that relationship was possible, from the fact that cures had followed the use of mixtures, the most potent factors in which had been known to induce similar conditions in the healthy.

Again, in the display of symptoms (drug effects) gathered from cases of poisoning and from cases of sickness under treatment, where antidotes employed, or morbific influences in operation, had rendered the real causes of such symptoms uncertain, there is a possible value; and the removal of similar displays of symptoms from the sick by the use of the agents which had done the poisoning, or been administered in the reported cases of sickness, may have been in obedience to the homœopathic law.

And, again, when cases of disease are cured by drinking and bathing in certain natural mineral waters, an analysis of which shows the presence, in considerable quantity, of one or two agents known to produce

similar affections in the healthy, there is quite a strong probability that the cures were homœopathic.

Some practitioners have reported cures effected by doses, in each of which was a mixture of two or more medicines found to produce, singly, in the healthy, symptoms more or less like those of the cases treated. Chemical compounds, like those called "tissue remedies," in which the chief ingredients are individually known by their pathogenetic effects, are claimed as homœopathic remedies.

Therapeutic practice, employing such means, may be constructively homœopathic.

While the best results must be obtained by the use of thoroughly proved remedies, singly administered to the sick, in obedience to *similia*, it cannot be said that cures never result from constructively proved and constructively indicated homœopathic remedies.

When works setting forth drug pathogenesy shall be made up as demanded by the homœopathic law, there will be less occasion, and less excuse, for some of these inferential homœopathic methods and means.

NON-MEDICINAL HOMŒOPATHY.

In the consideration of physiological therapeutics, mention was made of the curative influence of agents necessary to the development and preservation of the human organism in states of health. Here it is proper to consider, briefly, the specific curative influence of such means, brought to bear on the diseased organism under the direction of the homœopathic law.

That agents, essential to normal life, may become pathogenic, when wrongly or excessively applied, requires no special proof; and that they may, therefore, rank with drugs possessed of similar powers, and be directed to diseased parts, under the same therapeutic principle, none may question.

Heat. — The sick-making power of heat has been noted thousands of times.

Sun-stroke, congestion, hyperæmia, and inflammation, with all their consequent sufferings and lesions, are on record. And the happy results of heat, variously applied, under the law of similars in the treatment of those affections, are also matters of record, as well as of daily experience.

The sad results of ice-applications in such cases, regardless of the re-active tendency in living animal-tissues, have been seen since the days of Hippocrates.

Cold.—The sick-making power of cold has, likewise, been a thousand times noted.

The frost-bite, the anæmia, the depression, local as well as general, with their destructive tendency, have long been on record; and so have been the curative effects, in such cases, of the timely and proper applications of snow, ice-water, and the cold bath.

Electricity.—The physiological effects of currents of electricity, the departures from health, in feeling as well as function and organic states, induced by them, are, to some extent, on record. It is to be regretted, however, that no thorough experimentation, to ascertain clearly the sick-making properties of the electric current, variously applied, has ever yet been instituted.

This potent agent merits more serious study, and a more intelligent application, than it has yet received at the hands of the medical profession.

So far as its pathogenesy has been developed and noted, and its applications directed by the homœopathic principle, electricity has proven an efficient remedy. A great future is in store for it by virtue of its medicinal as well as its chemical power.

Motion.—The pathogenic power of mechanical force, definitely applied to the human body, and to its individual parts, has not been studied thoroughly so as to constitute a motor-pathogenesy. The influence of passive as well as active motion, in the development and increase of strength, is quite well understood, as mentioned in the consideration of physiological therapeutics. The normal or necessary supply has been

the subject of much attention; but the abnormal, the excessive or wrong applications, have not received the attention required. That suffering, and functional as well as organic departures from health, are occasioned by mechanical means, there is no question; nor may it be denied that similar sufferings and abnormal conditions are often overcome by the special, though gentler, application of the same means.

To some extent the homœopathic law must govern the therapeutist in the use of mechanical force for the cure of the sick.

ADJUVANTS.

The action of indicated remedies may be hindered or assisted by conditions procured by other than pathogenic means. Obstacles to recovery must be recognized and removed, and aids to recovery must be supplied.

In cases of acute pain, hot fomentations and poultices may so far exclude cold, disperse excess of blood, and soothe irritable nerves, as to enable the remedy to exert its specific influence.

The warm poultice may not only allay pain in suppurative inflammation, but, likewise, hasten the approach of pus to the surface. And the timely use of the bistoury may prevent days of suffering and multiplied dangers, by the evacuation of burrowing pus.

In therapeutic art, many expedients may be resorted to, calculated to soothe suffering, and hasten recovery, while in no wise hindering the special action of the medicines administered.

And, in many cases, recovery has been more due to the physiological measures than to the drugs swallowed by the patient.

As indicated throughout this work, it is the duty of the therapeutist to employ every means of cure in obedience to the principles, deduced from observation and experience, in the special department to which each one belongs.

The habit of resorting to measures usually termed adjuvants, without regard to the laws which govern them, is not only absurd, but dangerous.

It is a glaring inconsistency in the therapeutist when he carefully renders obedience to principle in the selection of medicinal agents, while employing mechanical or chemical means, as adjuvants, without regard to the requirements of their governing principles.

CONCLUSION.

It has been most unfortunate for the development of therapeutic facts, and the acceptance of principles properly resulting from their logical treatment, that the spirit of orthodoxy and heterodoxy, of sects and schools, has descended from the priestly days of medicine, so as constantly to prejudice and hinder the new in therapeutics.

Individuals, grown old in professional study and work, are naturally somewhat averse to change in the methods and means of dealing with human ailments; and the disposition engendered by such a feeling is rather increased and intensified by college-teaching and the organization of societies.

Had it been possible for the art of healing, like other arts which call for the gathering of facts, the application of tests, and the formation of rules based on principles, effectually to throw off the influence of the supernatural, and to break away from the ties of superstition and bigotry, much greater would have been its progress. Perhaps it is not strange that such hinderances should have been in the pathway of medicine, when it is remembered how much astronomy and chemistry and geology have had to encounter from the same sources. The cry of innovation and of dangers, incident to departures from the well-beaten track, has been often heard, even in departments of human affairs

less clothed in mystery and doubt than that which cares for human ailments and their cure.

The divine right of kings to rule, and the grievous sin of nonconformity, have not been peculiar to human government and to ecclesiastical authority. Authors and teachers in medicine have assumed the right to exact allegiance, and forbid independence of thought and freedom of investigation, among those they have sought to lead, so that only an extraordinary degree of enterprise and determination, in the individual, has enabled him to inaugurate or even propose reform.

The essential objects, in this age of greater individual freedom, claiming the efforts of medical men, may be briefly stated thus: —

1. To develop, gather, and sift facts relating —

   (*a*) To the human organism in health and in disease;

   (*b*) To the influences which cause, and those that may prevent, disease; and

   (*c*) To the special character of agencies to be employed for the removal of disease.

2. To develop, gather, and sift facts indicating —

   (*a*) The relationship necessary between a disease and the condition producible by the agent that must prove curative, and

   (*b*) The requirements of the therapeutic principle discovered in that relationship.

These objects are to be gained, not by casually hearing, nor yet by carefully listening to, the voice of

nature in her daily revelation of facts, but also, and quite as much, by earnest interrogations.

Facts which lie upon the surface, to be seen at a glance, are by no means the most important. Those which lead to principles in science, and rules in art, are often so far hidden from common observation, they must be developed and scrutinized by human skill in order to be appreciated. As an example, it may be mentioned again, that the positive influence of drugs upon the human organism, their power to occasion departures from the normal standard, was never learned, and could never be, by their accidental, nor yet by their casual, use; nor yet, again, by any amount of experimentation upon the persons of the sick. It has been found necessary to administer drugs, singly, to persons in health, and favorably situated, in order to obtain a clear reflection of the influence each may exert upon the human organism.

What is required in the cultivation of therapeutic science is simply the application of the methods recognized, since the time of Bacon, as necessary for the continued development and progress of other sciences.

Fearless inquiry, thorough experimentation, and a willingness to accept the results, will clear away the vapors of mysticism, and render the pathway of the therapeutist plain and prosperous.

Such must be the freedom allowed and enjoyed, on all sides, that any discovery or experience by a therapeutist, believed to show an advance in the knowledge of ways and means of cure, may be presented in any gathering of medical men, and there be discussed with candor and a spirit of fairness; or may be published in

any medical journal, and there receive unprejudiced and thorough criticism. A therapeutic method, different from any in vogue, when it has shown a degree of success in private practice sufficient to gain the confidence of a goodly number of intelligent people, should not be refused a trial in public institutions.

A refusal on the part of those who may have charge of hospital management, to allow a trial, under proper safeguards, on the plea of injustice to the sick, will not excuse them from a charge of undue prejudice and partiality.

So far as objections to such trials may come from physicians holding to the older and more orthodox therapeutic methods, they savor greatly of fear as to the results of a public comparison. If the new method has no merit, what readier course for exploding its claims to superiority could be devised?

Conservatism is good so long as it does not place itself, as an obstacle, in the way of improvement.

It is better to have our medical doctrines written on a blackboard with chalk, so as to be readily modified to suit the revelations of increasing light, than to have them engraven on tables of stone, never to be changed.

The prospect for the discovery of more reliable principles to guide the therapeutist, and for the more ready acceptance of what is established as true, is encouraging.

It is not possible to have a better motto inscribed upon every medical banner than this old one: —

"IN CERTIS UNITAS; IN DUBIIS LIBERTAS; IN OMNIBUS CARITAS."

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