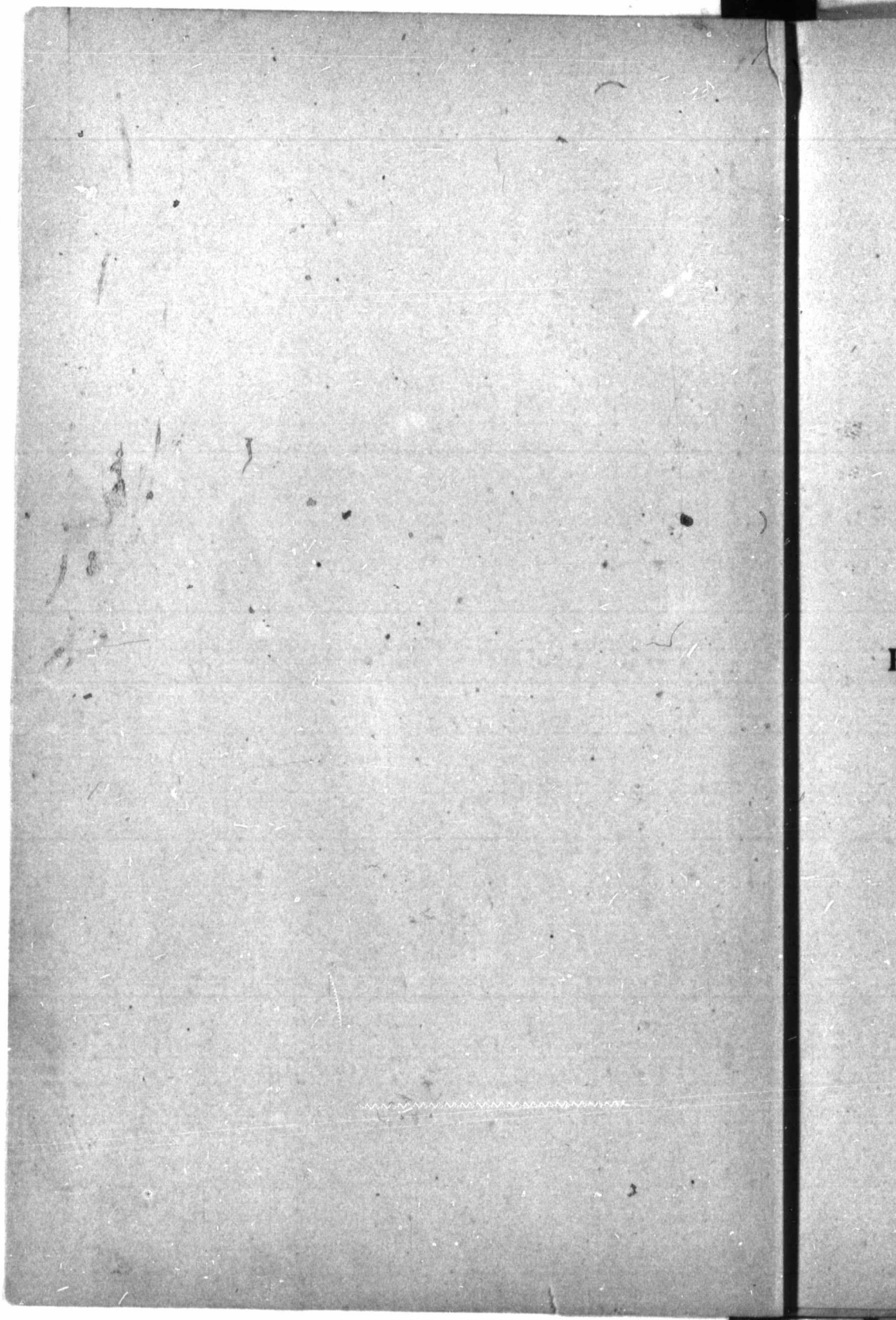


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A. W. WOOD, M.D.

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ELECTRICAL MEDICATION.



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A REVISED AND ENLARGED EDITION

OF

Daniel CLARK'S NEW SYSTEM

OF

ELECTRICAL MEDICATION.

By A. W. TIPTON, M. D.,
JACKSONVILLE, ILL.

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CHICAGO:
CHAS. J. JOHNSON, PRINTER, 138 LAKE ST.
1882.

RM 871
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In the Office of the Librarian of Congress, at Washington.

Entered, according to Act of Congress, in the years 1866 and 1869.
By DANIEL CLARK, A.M.,
In the Clerk's Office of the District Court of the Northern District of Illinois.

PRICE:

Cloth, best English, \$3.00
Library Binding, 4.00

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JACKSONVILLE, ILL.

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PREFACE.

In determining to publish a revised and enlarged edition of Clark's work on ELECTRICAL MEDICATION, the author has been prompted chiefly by a desire to bring this system in its practical bearings more prominently before the medical profession. Having, during a practice of fifteen years, fully tested and proved to his own satisfaction and that of many others interested in the progress of medical science the efficiency of this agent, when properly applied, as a curative power, he has felt that a more comprehensive work than any yet published was needed and would meet with general favor and appreciation. Since the announcement of its contemplated publication, the author has received repeated assurances of gratification on the part of some of those who had already procured and profited by the work referred to, as also from his medical friends generally, and he can only hope that the work, as now completed and offered to the profession, will meet their expectations and prove suggestive and helpful. It is not, of course, claimed that all persons can use this agent successfully in the treatment of diseases. There must be more or less of natural, as well as acquired ability or adaptation, and this is true in every department of applied science or art. It would not be reasonable to expect that a person almost totally devoid of mechanical genius, could manipulate such a complicated piece of machinery as a battery in such a manner as to harmonize with the more complicated machinery of the human system.

PREFACE.

But with average medical skill, coupled with intelligence and discrimination, the most satisfactory results can and will be secured. This work has been prepared and published at the sacrifice of time and considerable outlay of means upon the part of its author, but if it will supply a want and succeed in awakening renewed interest in this phase of medical science, he will feel amply rewarded.

THE AUTHOR.

JACKSONVILLE, ILL.

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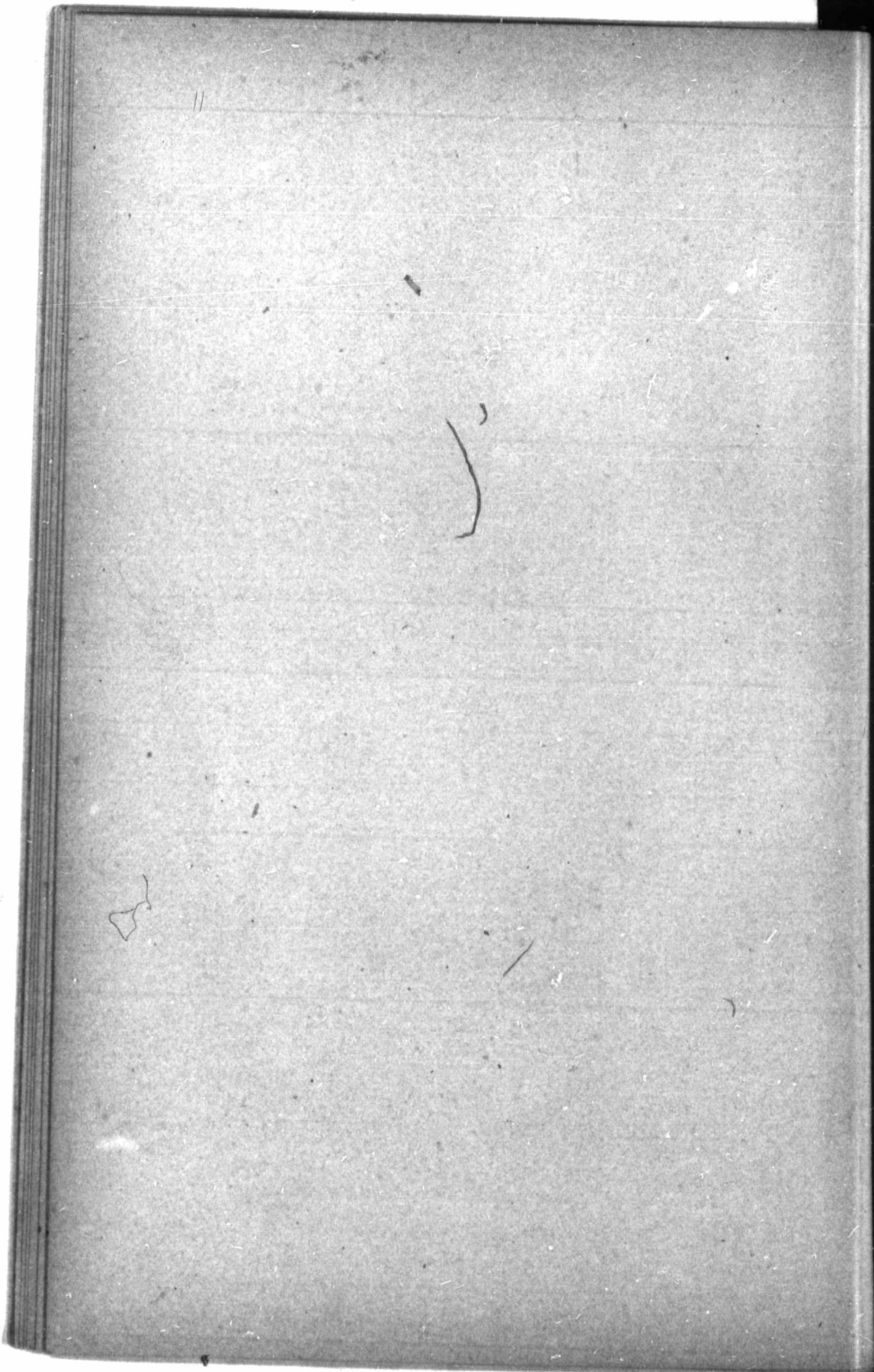
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INTRODUCTION.

Considerable parts of this book have been written for the unlearned. For the scholarly reader such parts, of course, would be wholly superfluous; yet it is hoped that they to whom these are familiar will be patient in passing through them for the sake of others to whom they may be instructive. Other parts, again, it is believed, will be found new to the most of even educated minds. But men of the greatest intellectual attainments are commonly the most docile. Such men, meeting this work, will not shrink from a candid examination of its contents merely on account of their comparative novelty, nor because the views expressed differ essentially from those usually held by the medical faculty. The candid, yet critical, attention of such gentlemen, the author especially solicits. He assures them that he does not write at random, but from careful research and practical experience. His *philosophic theories* he offers only for what they are worth. His *principles of practice* he believes to be scientifically correct and of great value.

Let it not be supposed that the author, in this work, assumes a belligerent attitude towards the members of the medical profession. Although anxious to modify and elevate their estimate of electricity as a remedial agent, and to improve their methods of using it, he has no sympathy with those who profess to believe, and who assert, that medicines of the apothecary never effect the cure of disease; that where they are thought to cure, they simply do not kill; and who contend

that the patient would have recovered quicker and better to have taken no medicine at all. He knows that such allegations are false as they are extravagant; and so does every candid and unprejudiced observer whose experience has given him ordinary opportunities to judge. The writer believes it can be perfectly demonstrated that the advancement of medical science in modern times—say within the last two or three hundred years—has served to essentially prolong the average term of human life. The world owes to medical instructors and practitioners a debt of gratitude which can never be fully repaid. Their laborious and often perilous research in the fields of their profession, and their untiring assiduity in the application of their science and skill to the relief of human suffering, entitle them to a degree of confidence and affectionate esteem which few other classes of public servants can rightly claim. For one, the author of this book most sincerely concedes to them, as a body, his confidence, his sympathy, and his grateful respect. And the most that he is willing to say to their discredit (if it be so construed), is that he regards them as having not as yet attained *perfection* in their high profession, and as not being generally as willing as they should be to examine fairly into the alleged merits of remedial agents and improved principles of practice (claimed to be such), when brought forward by intelligent, cultivated and respectable men outside of "the regular profession." This is said at the same time that the author gives much weight to their commonly offered defence, viz: that, in the midst of professional engagements, they have not always the time to spare for such examination; and that, since the most of alleged improvements in the healing art, particularly of those introduced by persons who have not received a regular medical education, sooner or later prove themselves to be worthless, the *presumption*—though not the *certainty*—is, that whenever a new agent, or a new method or principle is proposed by an "outsider," that

this, too, if not willful charlatanism, is a mistake, and the sooner it comes to an end the better it will be for the public health.

But the medical faculty have too widely employed electricity in the treatment of disease, and that with too frequent success, to admit of its being denied a place among important therapeutic agents by any respectable practitioner. The only questions concerning it now are those which relate to the *versatility* of its power, the *scope* of its useful applicability, and the *principles* which should guide in the administration of it. The general subject embraced in these questions is one in which suffering humanity has a right to claim that physicians shall be at home.

And yet it will scarcely be denied that, in the exhibition of electricity, more than of almost any other therapeutic agent, medical practitioners feel incertitude as to what shall be its effect. Now and then it acts as they expected it to do; sometimes it pleasantly surprises them; oftener it offensively disappoints them. They find it *unreliable*. Of other remedial agents, they commonly know, before administering them, what *sort* of effect will be produced; but in employing this, while they have hope, they are generally more or less in doubt. They regard it as *a stimulant*; although its action on the living organism appears to them to be largely veiled in mystery. In many cases of disease, particularly those of acute inflammatory or febrile character, they judge it to be not at all indicated. To administer it in a case of bilious or typhoid fever, or in a case of pneumonia, pleuritis, gastritis, inflammatory rheumatism, or acute, and especially *epidemic* or malignant dysentery, or in a case of pulmonary phthisis, would probably be viewed by the most of physicians as the rashest empiricism, if not the next thing to madness. *The idea of producing antagonistic effects with it at will*, they would, for the most part, esteem preposterous. Rather, perhaps, it may be said of the majority of medical practitioners that such an idea has

never entered their minds; so foreign is it to their conception of truth and propriety. But, at whatever risk of discredit or censure, the writer of the present volume avers that this idea is both scientifically sound and of every day's practical verification. The various and opposite forms of disease—acute and chronic, hypersthenic and asthenic—are habitually treated and *cured*, in his own practice by electricity alone.

But "*oui bono?*" may be asked. "What if it be true that these things can be done with electricity? They are also done with medicines, which are more quickly and conveniently administered, and usually less annoying to the patient. What, therefore, is the *practical utility* of your electric system above the ordinary practice, especially if we include, in the latter, electric treatment as occasionally employed by the most of respectable physicians?"

This is the important question—that to which the author desires to call particular attention. He, therefore, answers:

First.—It is manifestly true that the majority of diseases, (the exceptions are comparatively few), can be cured by the use of medicines. It is also true that these can generally be administered with more convenience and less expenditure of time to the practitioner than electricity; and this is a great advantage. The author is often asked if he thinks his electric system will ever supersede the use of medicines. His answer is uniformly, "No." It takes too much time for that. Where the population is crowded, as in cities and large towns, it is often the case, especially in times of prevailing epidemic, that a physician can prescribe medicine for half a dozen or more patients in the time required to treat one electrically. To reject medicines and rely alone on electricity would, in periods and places of prevailing sickness, leave many sufferers without professional service, or would require that the proportion of doctors to the whole population should be largely increased—a thing certainly not often to be desired. So much, candor must concede.

Second.—It is not quite true that medicines are usually less annoying to the patient than electricity as *we* use it. As administered by others, it is often nearly intolerable. In our hands, on the contrary, it seldom inflicts any pain or distress, and almost invariably becomes agreeable to the patient after a very few applications. We have no occasion to torture our patients in order to cure them. But the cases are comparatively rare where medicines are not offensive; commonly they are positively so.

Third.—In not a few diseases, and these among the most dangerous or distressful, the electric current, employed according to the system here taught, is able to reach, control and cure, with facility, where medicines are but slowly, and in most instances imperfectly successful, or fail altogether. This is said, or meant to be said, not invidiously nor boastingly, but in the candid utterance of a great and practically demonstrated truth. It is, perhaps, most frequently exemplified in neuralgic, rheumatic and paralytic affections. The author is happy to acknowledge that these diseases are often mitigated, and occasionally cured, by means of electrical treatment administered by those who know nothing of the system here taught. But the important fact is, in *their* hands there is *no certainty* as to the effect before trial. Under *this* system, the kind of effect is as certainly known before as after the trial, since it can be made one thing or another *at will*.

Cases are not unfrequently presented of *inflammatory action*, more especially where it is internal—traumatic cases and others—which the practitioner finds it impossible to reduce with medicine. But, with a proper knowledge of the system herein taught, he has at his command a power with which he can control such cases with almost infallible certainty, provided he can get access to them within reasonable time. The same may be said of fevers, particularly those occasioned by miasmatic or infectious virus. These are often difficult to manage

by the use of medicine, and not seldom prove fatal, in spite of the best talent and skill which the profession can afford. But the electric current, rightly selected and scientifically applied, destroys or neutralizes the virus and restores the normal polarization, and so effects a cure.

Neuralgic affections are frequently found difficult, or even impossible, to be cured by means of medicines, and yet, in the very same cases, these affections yield and disappear with comparative facility when brought under the electric current, judiciously applied, according to the principles of this new system.

Chronic cases, and others of an asthenic character, are often very stubborn under the medicines of pharmacy, and are commonly the dread of physicians; yet, under scientific treatment by electricity, they rarely fail to lose their formidable character and to become obedient to the remedial agent.

Fourth.—In enumerating a few of the peculiar advantages of this system, I should add that it corrects the usual *electric* practice of the profession, so far as they become acquainted with it. As before intimated, the mass of physicians at present, who treat more or less electrically, do so with no knowledge, or next to none, of the great *versatility* of action of which the electric current is capable. They know nothing of the electrical polarization of the living organism in health, nor how it is variously affected in disease. The particular *electrical* state of the diseased organs is a matter foreign to their minds. They appear to suppose the point to be immediately aimed at as a means of cure is to get the electricity from the machine into the affected part or parts; whereas it should be to change, by correction, the *polarization* of the part or parts; and, if there be virus present, to neutralize that. Equally unacquainted are they generally with the diverse physiological action of the several modifications of the electric force—galvanism, magnetism, faradayism, and frictional electricity. This, in their

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candor, they commonly acknowledge. And, for the most part, they are little or no better acquainted with the *distinctive* effects on the system of the positive and negative poles of the instrument. There is, therefore, plainly no *science* in their electrical practice. Everything is done at random—all is empirical.

But the system here taught throws the light upon all of these points. For practical purposes, at least, it is, in its essential features, the only system of electrical therapeutics which has in it any real merit—the only system which *can be true*. By this, the writer does not mean to assert, or to imply, that the book now before the reader contains no error, either in respect to theory or practice. In this early stage of our system's history, it would be remarkable if it did not contain errors in both these respects. But what it is intended to affirm is, that the book presents the *cardinal features* of a true, and the only possibly true, system of electrical practice. All possibly true systems of geometry must necessarily be essentially the same; and so, too, all possibly true systems of electrical medication must be essentially one. That one system, it is candidly and confidently believed, is briefly contained in the present volume.

**DR. KIDDER'S
IMPROVED TIP BATTERY,
TEN CURRENT
ELECTRO-MEDICAL APPARATUS.**



**NEW
YORK.**



The Battery is charged or uncharged by merely tipping it one way or the other, and is a perfect hydrostat, to be carried without spilling the fluid.

Medal of Special Award, by the American Institute, to JEROME KIDDER, M.D., for the best Electro-Medical Apparatus yet invented.



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PROGRESS OF ELECTRIC SCIENCE.

It is not a little interesting to note the progress by which electric science has advanced from its small beginnings and some of the experiments employed for its development.

The first recorded discovery of the electric principle was by Thales, a distinguished Greek philosopher of Ionia, about 600 years before the birth of Christ.

He observed it in amber, a resinous substance which the most of you have probably seen in articles of ornament. Because he first found it in amber, he called it *electricity*, from the Greek word *ἤλεκτρον* (*electric*), which means amber. With a curious and philosophical eye, Thales observed that amber, immediately after being briskly rubbed as in *polishing*, drew to itself other light substances lying near it, such as feathers, bits of paper or papyrus, etc. With him, however, this seems to have been regarded merely as a *curious* phenomenon.

No practical results were deduced from it, nor does there appear to have been any further discoveries of consequence made of the presence, or the properties of this remarkable agent for the next two and a half centuries, or thereabouts.

Then *Theophrastus*, a celebrated Greek philosopher, of Lesbos, who flourished over 300 years before Christ, detected it in the mineral called *tourmaline*. After him no advance worthy of note was made in the knowledge of electricity for nearly 200 years. In the year 1600 of the Christian era, *Dr. Gilbert*, physician to King James I., of England, ascertained that a *large variety* of bodies, as opal, diamond, carbuncle, sapphire,

quartz, amethyst, rock alum, and several others, when excited by friction, attract to themselves other light substances. About the same time *Ott Guericke*, Burgomaster of Magdeburg, discovered electrical repulsion, and himself with two or three others,—Dr. Wall, of England, among them—discovered also the *electric spark*. Dr. Wall procured a long stick of amber, slightly tapering, and excited it by drawing it swiftly through a bit of woolen cloth in the hand, when frequent little crackings were heard, and each was accompanied with a small flash of *light*. But by presenting his *finger* near to the amber, thus excited, a much larger flash of light was elicited, attended by a loud and distinct snap.

Dr. Wall says: "It strikes the finger very sensibly where-soever applied, with a push or pull, like wind. This *light* and *cracking*," he sagaciously adds, "seems in some degree to represent thunder and lightning." Bear in mind that this remark of Dr. Wall was made about 150 years before Dr. Franklin demonstrated the identity of electricity with lightning!

Again, *Stephen Gray, of England*, in the early part of the last century, did considerable for the advancement of electrical science. His principal experiments extended from about 1734. He seems to have been a careful observer, especially of analogical relations. Among his other discoveries, he was the first to observe that knobs give off larger electric sparks than *points*; and was thus led to the following interesting but modest conjecture. He says: "There may be found out a way to collect a greater quantity of the electric fire, and consequently to *increase the force* of that power, which, by several of these experiments" *si licet magna componer parvis*. (If it be permitted to compare great things with small), "seems to be of the same nature with that of thunder and lightning." This was about twenty-five years before Franklin's great discovery.

The *Leyden jar* was the next important discovery in electrical science. This was about the middle of the 18th cen-

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tury, a few years only before Franklin used it so successfully both to give grandeur to electrical science, and immortality to his own fame.

The honor of this invention is held in dispute. It has been most commonly ascribed to Prof. Musschenbrock, of the University of Leyden, in Holland, but, it has lately been claimed, with much seeming confidence and apparently good authority, for another native of Leyden, a Mr. Cuncres, who it is affirmed, first made the *experiment* by which electricity was *accumulated* "on a glass vial called the *Leyden jar*, because the experiment was made by a native of Leyden, but," the same writer adds, "the person who made the discovery of, or observed first the phenomenon, was a Mr. Von Kleest, the Dean of Commin. On the 4th of November, 1745, the first shock was felt by this gentleman." (See Dr. A. C. Garratt's *Medical Uses of Electricity*, page 67, 2d edition.)

Cuncres' experiment was made by placing a vial, or thick brass wire, in an apothecary's glass vial, and then charging the metal with electricity. Von Kleest says: "When this is done very remarkable effects do follow." Shortly after this, Musschenbrock, *repeated* the experiment with a very thin glass bowl, and got a terrible shock. These experiments led to the improved *Leyden jar*, as we now have it; but its essential principles were discovered first by the rude process that I have here stated.

There must have been some great *rashness* in conducting these early experiments with the Leyden vial, or else the philosophers in their surprise and excitement at the mysterious phenomena, must have given most exaggerated accounts of the results of their experiments.

Musschenbrock says, he received such a concussion in his arms, shoulders and heart that he lost his breath, and it required two days to recover from the blow and terror; and he declared that for the kingdom of France, he would not take another such shock.

Winkler affirmed that his body was thrown into such violent convulsions by it, and his blood into such an agitation, that he was obliged to take cooling medicines to keep off fever. At another time as he says, the shock produced in him hemorrhage at the nose, and that the same effect was experienced by his wife, who was almost deprived of the power to walk. The report of these remarkable effects excited the attention and curiosity of all classes of people. "Nearly everybody wanted to experience the singular sensation, and a host of men, half taught, sought to fill their pockets by wandering over the country as electricians to excite the amazement, and gratify the curiosity of the people with the strange phenomena." It is but justice to say here that the discovery of the "*Leyden vial*" or *jar* was due to a *previous* discovery by that prince of philosophers, Sir Isaac Newton; which was, that electricity exerts its power, both of attraction and repulsion, *through glass*. The electrical philosophers were entirely unable to account for the operation of the *Leyden jar*, until Dr. Franklin developed its true principles. His theory of it was at once adopted, and since that time has been everywhere accepted as satisfactory. Dr. Franklin, having in 1752 discovered the *plus* and *minus* of electrical states or the *positive* and *negative* polarities, observed the outside of the jar was always negative, and this he *proved* by the following experiment: He brought the free ends of the two conducting wires nearer to each other, these opposite ends being connected, the one with the outside and the other with the inside coating of the jar—the jar being coated with metallic covering, and between these free ends he suspended a small cork ball. The ball was immediately attracted and repelled alternately by each wire, swinging like a pendulum between them until the jar was discharged. This showed that here were opposing forces exercising control over the ball; since it was always repelled from the wire which it last touched, and at the same instant was always attracted by the other.

This demonstrated the *fact* of the opposite electrical states; and these opposite states he showed to be *plus* and *minus* or *positive* and *negative*, one side losing what the other side gained, or gaining what the other side lost, by varying the experiment as follows: He suspended a small linen thread from *his hand*, near to a charged jar, and then observed that the outside coating of the jar attracted the thread to itself whenever he brought a finger of the other hand near the wire that was connected with the inside coating, the outside coating plainly drawing in, by way of the thread, the same quantity of the electric fluid that was taken away from the inside by way of the finger. Here it was proved, as Franklin considered, that the outside and inside coating of the jar were not only in opposite electrical *states*, but also that, in the changing of the jar, the inside of it gains simply what the outside loses, and consequently that the difference between the opposite electrical states is only that of *plus* and *minus* or *positive* and *negative*. Soon after the invention of the *Leyden jar*, a little more than 100 years ago, a good deal of interest was excited in philosophic circles by the experiment of Dr. Watson, afterwards Sir William Watson. This gentleman associated with himself several other Englishmen for the purpose of ascertaining, by trial, the *distance* to which the electric action could be carried and the velocity of its motion. The historian says, "On the 14th and 17th of July, 1747, they succeeded in conveying the shock across the Thames at Westminster bridge, by an iron wire, the water of the river forming a part of the chain of communication." It is said that one of the party held in one hand a wire, which communicated with the jar, and received the shock by dipping an iron rod, held in the other hand, into the water of the river. Of course, the wire that ran from the jar, across the river, on the bridge, must have had its further end placed in the river, or in the moist ground, in order to complete the circuit. On

the 24th of the same month, Dr. Watson and his party, at two different places, one at New River, the other at Stroke Newington, succeeded in sending the charge over two miles. In one of these experiments some 800 feet, or over a mile and a half of the distance was through the water. As in neither of their experiments was any perceptible time occupied in the passage, they concluded it was instantaneous. These experiments of Dr. Watson and his associates produced a profound impression on the scientific mind at that day, and did much to stimulate further researches in respect to the mysterious nature and laws of electricity. Yet how far they were from giving the remotest conception of what is witnessed in our own time. Who at that day, less than 120 years ago, could have thought of encircling a continent and spanning the ocean with, and making an intelligible messenger of, that invisible agent that was found playing on the rubbed surface of a bit of glass or a stick of amber?

In June of the same year (1752) in which Dr. Franklin discovered the distinction of positive and negative electrical states, and explained the principles of the Leyden jar, he made in Philadelphia his celebrated kite experiment, by which he "bottled up the lightning" and demonstrated the identity of electricity with lightning. He also proved the same fact again by an ingenious apparatus in his house, "connecting an insulated iron rod with two bells, which indicated by their *ringing* that the rod was electrified." In this experiment he found the effects from natural and artificial electricity to be the same. He also made the interesting discovery that the clouds are sometimes *positively* and sometimes *negatively* electrified, and that they often change their electrical states during the same storm. At one time he found the atmosphere strongly electrified during a fall of snow. Dr. Franklin was a man eminently practical, and delighted in subordinating philosophical research, to purposes of *utility*. When, therefore,

he found that he could, by means of a conductor, draw electricity from the clouds, it was, to such a mind as his, perfectly natural that he should seek at once to turn his discovery to a practical account. He did so, and soon electrical conductors were seen pointing upwards from the tops of buildings and ships, designed to divert from those structures to the earth or the sea, the spontaneous discharges of this fearful fluid of the heavens. His experiments in this direction proved a success, and was the *first* application of electrical science to the practical purposes of life. Says an eloquent writer, "Hitherto electricity had not connected itself with any phenomena of wider range and importance than developed during the excitation of glass and other electrics."

Astronomy had lifted the mind to the contemplation of the most august scenes in nature; magnetism had connected her facts with the attraction of the great globe itself. It had indeed been conjectured, as we have seen, that the shock and spark of the electric machine were miniature effects of a more tremendous agent. But it was reserved for our own Franklin to raise electricity to its true dignity among the other branches of human knowledge. His discovery of the identity of the electric fluid with lightning was the step by which the change was effected. The vulgar were astonished at the sight of fire brought down from heaven, and philosophers themselves were startled at the recollections that they had been amusing themselves with a thunder-bolt and trifling with that terrible agent, which had so often alarmed the intellectual and moral and convulsed the physical world. Indeed, it has been forcibly said, in reference to that daring exploit of the American philosopher, "Human genius seems, on this occasion, to have made an impious excursion, *beyond its mortal range*, and one victim was demanded to expiate the audacious attempt, for, on the 6th of August, 1753, Professor Richman, of St. Petersburg, was struck dead while making the experiment of drawing

electricity from the clouds; as he bent forward to his instrument to observe the degree or quantity of electricity which he had gained, he received a charge in his head, which killed him instantly."

Since the time of Dr. Franklin, many able men have taken up the subject of electricity and prosecuted their researches with commendable zeal and much success, until, with the greatly diversified and improved instruments that have been invented, this science, as related to both inanimate and animate nature, except in its *therapeutic* bearings, has attained a highly interesting and honorable position in the circle of sciences.

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ELECTRICAL MEDICATION.

FIRST PRINCIPLES.

DR. JEROME KIDDER'S ELECTRO-MAGNETIC MACHINE.

On opening the machine-box, as it comes from the manufacturer, there will be found a glass bottle, intended to hold the battery fluid when not in use; a glass cup or jar, to serve as the battery cell; a pair of insulated metallic conducting cords; two tin electrodes; a brass clamp; and, under the helix-box, (which raise), the battery metals and two connecting wires to unite the battery with the helix.

To put the machine in working condition—ready for use—proceed, step by step, as follows, viz: Prepare the *Battery Fluid* by mixing twelve parts, by measure, of water with one part of sulphuric acid, (good commercial acid is pure enough), sufficient to fill the cell two-thirds or three-fourths full, and place in it about one teaspoonful of quicksilver

Next, place the platina plate between the two zinc plates, standing on their legs upon a table before you; and bring the top of the wooden bar (in a groove of which the platina is set) up flush with the top of the zinc plates. Let the brass post, standing on the top of this bar and soldered to the platina plate below, be toward the left-hand side. Then take the brass clamp and place it across the top of these metallic plates, a little to the right of the brass post, or about midway between the right and left sides, having its thumb-screw towards you,

and with it screw the three plates firmly together. The platina is shorter than the zincs, to prevent its reaching the quicksilver in the bottom of the cell; and the wax balls on its sides are to insulate it from the zinc plates. The platina should never be allowed to touch the mercury or the zinc.

Let the plates, properly screwed together, be now placed in the cell with the Battery Fluid. Then, with the two copper connecting-wires, connect the post which stands on the wooden bar above the platina with the post stamped P on the helix-box, and the brass clamp N with the post N on the helix-box.

If, now, the screws regulating the vibrating armature be in perfect adjustment, the current will commence to run, with a buzzing sound; or it may be made to start by touching the hammer-like head of the flat steel spring. If not, the screws may be rightly adjusted in the following way: The top screw, which at its lower point is tipped with a small coil of platina wire, should be made to press delicately upon the center of the little iron plate on the upper side of the spring, so as to bear the latter down very slightly. Then raise or depress the screw-magnet, which turns up or down under the hammer, like the seat of a piano-stool, until the vibration of the spring commences. The *rapidity of the vibrations*, by which is secured the alternate closing and breaking of the electric circuit (or rather what, in practical effects, is equivalent to this—the *direct* and *reverse* action of the current in alternation) is increased by raising the screw-magnet and diminished by lowering it. When it is raised above what is required for ordinary use, the noise becomes too loud and harsh for many nervous patients to bear. It should then be depressed a little.

With respect to curative power, I have discovered but little perceptible difference, produced by the various degrees of rapidity in the vibrations, effected within the range of this magnet.

The *force* of the current is regulated by means of a tubular magnet, which slides over the helix, and is called the *plunger*.

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It is approached under a brass cap at the right-hand end of the machine. The plunger is withdrawn, more or less, to increase the force; pushed in to diminish it. If in any case the current can not be softened sufficiently with the plunger, the quantity of battery fluid in use must be made less.

After a time the current will become weak, and fail to run well. Then renew the battery fluid. When the quicksilver is all taken up by the zinc plates, the machine may be run for a while without adding more. But after it has considerably disappeared from the inside surface of the zinc plates, the latter will begin to show more rapid corrosion, while the current will be less. Then let a small quantity of quicksilver—one-fourth to one-third of an ounce—again be placed in the fluid.

When the machine is not in use, let the metals be removed from the fluid; and, if not to be soon again used, let them be rinsed with water, carefully avoiding to wet the wooden bar in which the platina is set.

The posts, with which the conducting-cords are to be connected, are arranged in a row near the front of the helix-box, and are marked A, B, C, D, E. Either two of these posts may be used to obtain a current; and since they admit of six varying combinations, six to ten different currents are afforded by the machine, viz: the A B current, the A C current, the A D current, the B C current, the B D current, and the C D and D E current. Whichever current is used, it may always be known which of the two posts employed is the positive and which the negative, by observing the letters stamped upon their tops. The one whose letter comes first in order of the alphabet is positive; the other is negative. Also, the one standing towards the left hand is positive, and that at the right hand is negative. *The qualities* of the several currents are stated in a descriptive paper on the inside of the lid of the machine, which see. It will there be found that three of the currents—viz: the A B, the A C and the A D currents—

are *electrolytic*: that is, dissolving by electric action. These electrolytic currents require to be used—one or another of them—whenever any chemical action is needed; as, in decomposing or neutralizing *virus* in the system, destroying cancers, reducing glands when chronically enlarged, removing tumors or other abnormal growths, and in treating old ulcers and chronic irritation of mucus membranes. The other three, being Faradayic or induction currents, and having no perceptibly chemical action, are used where only change of electro-vital polarization is required. These Faradayic currents differ from each other in respect to being *concentrative* or *diffusive* in their effects, and in their *sensational* force. B C is concentrative and delicately sensational. C D is also concentrative, though less so than B C, and is more strongly sensational. B D is diffusive, and the most energetically sensational of the three. See Kidder's catalogue for full directions for different machines.

POLARIZATION.

It may be proper, in this place, to spend a few words upon electrical polarization in general.

Electrical polarity may be defined as a characteristic of the electric or magnetic fluid, by virtue of which its opposite qualities, as those of *attraction* and *repulsion* towards the same object, are manifested in opposite parts of the electric or magnetic body. These opposite parts are called the *poles* of the body, as the *positive* and *negative* poles. The difference between the positive and negative poles is believed to be that of *plus* and *minus*—plus being positive and minus negative. This is the Franklinian view, and, if I mistake not, is the one most in favor with men of science at the present day. This view supposes that the electricity or magnetism arranges itself in *maximum* quantity and intensity at the one extremity or pole of the magnetized body, and in *minimum* quantity and intensity at the opposite extremity or

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pole; and that, between these points—the maximum and the minimum—the fluid is distributed, in respect to quantity and intensity upon a scale of regular graduation from the one to the other. The idea may be represented by a *line*, commencing in a *point* at the one end, and extending, with regularly increasing breadth, to the other end. The larger end would represent the positive pole, and the smaller, the negative pole. Or perhaps a better representation of the magnet would be a line of equal breadth from end to end, but having the one end *white*, or slightly tinted, say, with *red*, and the color gradually and regularly increasing in strength to the other end, where it becomes a *deep scarlet*. Let the coloring-matter represent the magnetism in the body charged, and we have the magnet illustrated in its polarization: the deep-red end is the positive pole, and the white or faintly-colored end is the negative pole.

It is a law of polarization that the positive poles of different magnets repel each other, and the negative poles repel each other; while positive and negative poles attract each other. The same law of polarization rules in electric or magnetic *currents* as in magnets at rest.

THE ELECTRIC CIRCUIT.

The Electric Circuit is made up of anything and everything which serves to conduct the electric current in its passage—outward and returning—from where it leaves the inner surfaces of the zinc plates in the battery cell to where it comes back again to the outer surfaces of the same plates. When the conducting-cords are not attached to the machine, or when the communication between the cords is not complete, if the machine be running, the circuit is then composed of the battery fluid, the platina plate, the posts, the connecting wires, which unite the battery with the helix, the helical wires, and their appendages for the vibrating action. But when a patient is

under treatment, the conducting-cords, the electrodes, and so much of the patient's person as is traversed by the current while passing from the positive electrode through to the negative electrode, are also included in the whole circuit. And whatever elements may serve to conduct the current in any part of its circuit—be they metal, fluid, nerve, muscle, or bone—the same are all, for the time, component parts of *one complete magnet*, which, in all its parts, is subject to the law of polarization, precisely as if it were one magnetized bar of steel. Usually, however, it is sufficient for *practical* purposes to contemplate the circuit as consisting only of that which the current passes through in going from the point where it leaves the positive post and enters into the negative cord, around to the point where it leaves the positive cord and enters into the negative post.

POLARIZATION OF THE CIRCUIT.

I have said, in effect, a little above, that, while the current is running, *the entire circuit is one complete magnet*, which extends from the inner or positive sides of the zinc plates, where the current commences, all the way around to the outer or negative sides of the zinc plates, to which it returns. Viewed in this light its negative pole or end is the battery fluid, next to the positive surfaces of the zinc plates, and its positive pole or end is the brass clamp which, holding the metals together, is in contact with the outer and negative surfaces of the zincs.

But, for practical purposes, it is sufficiently exact to consider the *magnetic circuit* as extending only from the positive *post* around through the conducting-cords, the electrodes and the person of the patient to the *negative post*. The negative end or pole of this magnet is the wire end of the cord placed in the positive post, and the positive end or pole is the wire end of the cord placed in the negative post.

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conceived as composed of a succession of shorter magnets placed end to end. If we view it as one entire magnet, we call the end in which the magnetic essence is in greatest quantity the *positive* end, and the end where it is in least quantity the *negative* end. But if we imagine the one whole magnet as being divided up into several sections, then we conceive of each section as a distinct magnet, having its own positive and negative poles. And, all the way through, these sectional magnets will be arranged with the positive pole of the one joined to the negative pole of the next in advance of it.

It is just so in respect to the magnetic circuit of a moving current. The whole circuit, as before remarked, is in reality one long magnet. But in applying the terms *positive* and *negative* in our practice we often view the whole circuit—the one long magnet—as composed of a series of shorter ones, arranged with positive and negative ends in contact; and all the way the current in each section is supposed to be running from the positive pole of the magnet behind to the negative pole of the magnet before.

We consider the circuit, from the positive post around to the negative post, as composed of three magnets, as follows: Magnet No. 1, which extends from the positive post, along the cord and electrode, to the body of the patient, where the positive electrode is placed. The *negative pole* of this magnet is the *wire end of the cord* placed in the positive post, and its *positive pole* in the *positive electrode* placed upon the person of the patient. No. 2, which is composed of the parts of the patient traversed by the current between the two electrodes. Its negative end or pole is the part in contact with the positive pole of magnet No. 1, and its positive pole is the part in contact with the negative pole of magnet No. 3. No. 3 extends from the positive pole of No. 2, through the electrode and along the cord, to the negative post. Its negative pole is the *negative electrode* in contact with the positive end or pole of magnet

No. 2, and its positive pole is the *wire end of the cord* in the negative post.

Since in every magnet the magnetic fluid is supposed to be regularly graduated from minimum quantity in the negative end to maximum quantity in the positive end, this is true in respect to the one magnet, consisting of the whole magnetic circuit, as well as in respect to each one of the sectional series. Consequently there must be the same quantity of magnetism in each negative pole of the sections as there is in the positive pole of the section immediately behind it. And the magnetism of the whole circuit between the positive and the negative posts is in its *least* volume next to the *positive post*, and in its *fullest* volume next to the *negative post*. If we consider the circuit as divided into two equal halves, the *negative half* is plainly that which joins the *positive post*, and the *positive half* that which joins the *negative post*.

From this it will be seen that what in practice are designated as the positive and negative *posts*, and also positive and negative *poles* or *electrodes* are *not* such in relation to each other, but the *reverse* of it; that is to say, the *positive post* is not *positive* in relation to the *negative post*, but is *negative* to it; and the *positive electrode or pole* is not positive in relation to the *negative electrode*, but *negative* to it. The *positive post*, like the *positive electrode*, is called *positive*, because it is the positive end of the sectional magnet next *behind* it. And the *negative post*, as also the *negative electrode*, is called *negative* because it is the negative end of the sectional magnet next *in advance* of it.

THE CENTRAL POINT OF THE CIRCUIT.

The *central point* of the circuit—that point which divides between its positive and negative halves—is reckoned, in practice, to be the midway point in the line over which the current passes, in its whole course from the positive post around to

the negative point with way between. This center—neither halves of current force be altogether

It may be of this negative and become the center any other this section that, in current do central point is the center of the negative as we see half, the central point

The the circuit positive terminal post, voltage electrode out from positive pole the re

the negative post. When the cords are of equal length, this point will always be in the person of the patient, about midway between the parts where the two electrodes are applied. This central point, or "point of centrality," is practically neuter—neither positive nor negative; and upon the two opposite halves of the circuit, the positive and negative *qualities* of the current are in greatest force nearest to the posts, and in least force nearest to the central point. At this point they cease altogether, and the central point is *neuter*.

It may, perhaps, be observed that, in *apparent* contradiction of this statement, the *sensational* effect of the current on the negative half of the circuit is *least* nearest to the positive post, and becomes regularly *greater* as the current advances towards the central point; and that *at* this point it is greater than at any other point between this and the positive post. To relieve this seeming contradiction, it is only necessary to consider that, in fact, the *positive* state on the negative half of the current *does* increase regularly from the positive post to the central point. But that which is the *increase* of the positive state is the *decrease* of the negative state. So it is still true that on the negative half of the circuit, the *negative* qualities *diminish* as we advance towards the central point just as on the positive half, the *positive* qualities diminish regularly towards the central point, as stated above.

THE CURRENT.

The current is that moving electric essence which traverses the circuit. The *course* of the current is always from the positive to the negative. It leaves the machine at the positive post, where it enters the cord which holds the positive electrode or pole. Thence it advances around the circuit, going out from the opposite cord where that connects with the negative post. The forward end of the current is its positive end; the rear, of course, is its negative end. At its forward end it

is in its greatest volume. At its rear end the volume is least. At the *central point* of its circuit there is the *mean* quantity—the *average* volume. And because the positive and negative forces on either side exactly balance each other upon the central point, therefore this point is practically neuter—neither positive nor negative.

MODIFICATIONS OF ELECTRICITY.

In the present stage of electric science, the conviction has become very general among experimenters that galvanism, magnetism, faradism, frictional electricity and the electricity of the storm-cloud are, in their essential nature, one and the same; being diversified in appearance and effects by the different modes and circumstances of their development. This conviction has been reached in various ways; but chiefly, perhaps, by observing the many analogies between the phenomena of these several forces, and also by the fact that each of them can be made to produce or be produced by one or more of the others. But I must forego any detailed discussion of this matter, since my limits will not admit of it, and shall assume that these apparently several agents are but modifications of the same generic force.

There are two other phases or modifications of the electric principle, as I judge them to be, which are not so generally classed here. I refer to the forces of animal and vegetable vitality, as viewed in the next section.

VITAL FORCES—ANIMAL AND VEGETABLE.

Upon these points I must be permitted to offer a few words.

Of the *animal kingdom*, I regard the “nervous fluid” or “nervous influence,” popularly so called, as being the very principle of *animal vitalization*—the life force; and that, a modification of the *electric* force. It is, I think, pretty gen-

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erally conceded at this day that the "nervous influence" is probably electric. There are some alleged facts, and other certain facts, which go far to sustain this view. It is said that if we transfix, with a steel needle, a large nerve of a living animal, as the great ischiatic, and let it remain in that condition a suitable time, the needle becomes permanently magnetized. So, too, if the point of a lancet be held for some length of time between the severed ends of a newly-divided large nerve, that point, as I have heard it affirmed, on what appeared to be good authority, becomes magnetized; although I have not attempted to verify either of those cases by experiment. However, admitting them to be true, the metal is charged with simply the "nervous fluid." But the fact on which I myself chiefly rely for evidence of this identification, being almost daily conversant with it in my practice, is this: *The "nervous influence" obeys the laws of electrical polarization, attraction and repulsion.* When I treat a paralyzed part, in which, to all appearance, the action of the nerve force is suspended, I have but to assume that this force is electric, and apply the poles of my instrument accordingly, and I *bring it in* from the more healthy parts, along with the inorganic current from my machine. Forcing conduction through the nerves, by means of my artificial apparatus, I rouse the susceptibility of the nerves until they will normally conduct the "nervous influence" or electro-vital fluid, as I term it, and the paralysis is removed. Again, if I treat an inflamed part, in which the capillaries are engorged with arterial blood, I have but to assume that the affected part is over-charged with the electro-vital fluid, through the nerves and the arterial blood, and so to apply my electrodes, according to well known electrical law, as to produce mutual repulsion, and the inflammatory action is sure to be repressed. I manifestly change the polarization of the parts. This thing is so perfectly regular and constant that I am entirely assured before touching the

patient, what sort of effect will be produced by this or that arrangement in the application of the poles of the instrument. If I desire to increase or depress the nervous force in any given case, I find myself able on this principle, to produce the one effect or the other, at will. Hence, I say, the nervous influence obeys the electric laws, just as does the inorganic electricity. I find this subtle agent not in the nerves only, but also in muscle and blood—more especially in arterial blood. Indeed it seems to pervade, more or less, the entire solids and fluids of the animal system. And wherever it exists, its action is just that of an *electro-vital* force. Examples of this fact will appear further along in the present work. While, therefore, I can not *affirm* the identity of animal electricity and animal vitality, the theory of their identification, to my view, best accords with the manifestations under correct therapeutic treatment, and I am unaware of any established fact to disprove it.

Vegetable vitality, also, I regard as another modification of the electric force. The fact has been proved by repeated experiments, that galvanic currents, passed among the roots of vegetables, causes a quickened development of the plants to a degree that would be deemed incredible by almost any one who had neither seen it nor learned its *rationale*. I have seen it stated, on authority which commanded my credence, that by this process lettuce leaves may be grown, within a few hours only, "from the size of a mouse's ear to dimensions large enough for convenient use on the dinner-table."

EXTENT OF ELECTRIC AGENCY.

When we have settled upon the position that the electricity of the heavens and of the artificial machine are identical, and that their identity is essentially one with galvanism, magnetism, the electro-vital fluid of animal and the life-force of the vegetable kingdoms, it requires no extravagant imagination, nor

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remarkable degree of enthusiastic credulity, to suppose that all the forms of physical attraction and repulsion are due, under God, to the diversified modifications of the same all-pervading agent—ELECTRICITY. Indeed, for myself, I feel no hesitation in expressing it as my belief that electricity, in one phase or another, and controlled only by WILL, is the grand motive-power of the universe. I believe that, in the form of electro-vital fluid, the great Creator employs it as His immediate agent to carry on all the functions of animal life; and that, in respect to voluntary functions, He subordinates it as a servant to the will of the creature, to effect such cerebral action and such muscular contractions as are demanded by the creature's volitions. I am disposed to think that, by the omnipotent power of His will, He controls and uses electricity, in its various modifications, as the immediate moving-force by which He accomplishes all the changes in the physical universe. It is fast becoming a generally-received opinion among modern *savans*, that every body in nature is really magnetic, more or less; and that all visible or sensible changes are but the result of changing poles. Chemical affinities and revulsions are believed to be only the more delicate forms of electrical attraction and repulsion; the ultimate particles of matter, no less than matter in masses, being subject to the control of electrical laws. The imponderable agents, light and caloric, under the ingenious tests of scientific scrutiny, are beginning to give some very decided indications of being simply electric phenomena. Indeed, the doctrine or theory that supposes caloric to be simply *atomic motion* is even now being very generally accepted by the scientific world. And that motion in the atoms of a body which causes in us the sensation of heat is probably electric motion. And permit me to observe that, though the operations of nature seem, at first thought, to be wonderfully complex and mysterious, yet if the views here presented be correct, the marvel is changed; and we are brought to a profound admiration of the

simplicity of the means by which the Almighty conducts His material operations. A *single* agent made to perform processes so infinitely numerous, diversified and apparently complex! How amazing! Simplicity is complexity!—majestic, like the mind of God.

THEORY OF MAN.

Let the question now be raised—*What is man?* The answer will have much to do with the remedial system which I aim to teach. For this reason it is thus early introduced.

My answer to the above question is as follows: *Man is a three-fold being, composed of a body material, a body electrical, and a spirit rational and indestructible.*

Let the elements of this definition be a little amplified:

1. *The material body.* This is composed of various metals, earths, carbon, phosphorus, and gases. I need not go into a representation of their multiplied and curious combinations to form the many parts of the body complete. But these are the ultimate elements; and a most superb and wonderful structure they here compose. Yet, notwithstanding all the manifest skillfulness of its contrivance, and the power of its accomplishment, and the niceness and beauty of its execution, it were a useless display if unaccompanied with the invisible agents which compose the two other grand constituents of man, to wit: the body electrical and the spirit, or mind. Without these, it would quickly fall into decay, as we see it when deprived of them, and would be resolved into its original elements again. But to our gross material bodies the Creator has added,

2. *The body electrical.* By this I mean that which has commonly been termed “nervous influence,” “nervous fluid,” “nervo-vital fluid,” and “nervo-electric fluid.” I object, however, to each and all of these designations. They are too restricted and specific. They all seem to imply that it is an

agent or influence which appertains especially to the *nervous* system; whereas the entire organism is under its pervading force. I do not doubt but its chief action is in and through the nervous system; but it also pervades and, as I think, vitalizes the whole body. The nervous system seems to be created as one principal means for its replenishment,* and to serve as the medium of its ministrations to the body at large. I chose to term it *electro-vital fluid*, or *electro-vitality*. My reasons for so designating it are the following: (1) It is demonstrably electrical in its nature. (2) It appears to be identified, or at least connected immediately, with the vitalization of the body. (3) I wish, by its name, to distinguish it from *mental* vitality, or the vitality of *spirit*. Whether, as a peculiar manifestation of the electric principle, it vitalizes by its own nature and action solely, or whether it be *charged* with another mysterious element—a *life-force*—and vitalizes by ministering the latter to the material organism, I will not positively affirm. Whichever it be, the name I assign to it seems sufficiently appropriate. But I strongly incline to the theory that this electro-vital principle does itself, by virtue of its own nature, vitalize the system. In other words, I am disposed to think that God makes it the *immediate* agent of vitalization, having constituted it the *vis vita* of both the animal and the vegetable kingdoms. Nor does this idea, as I conceive, necessarily conflict at all with the doctrine of *cell-life*, as maintained by the best physiologists of the present day. I also sometimes style this electro-vital element the *body-electrical*, because it is certainly an entity, coëxtensive with and, in greater or less force, wholly pervading the visible, material body.

At this point I will take the liberty to introduce, although

* The *process* of this will probably be explained if another edition should be called for.

somewhat digressively, a few thoughts on the DISTINCTIONS OF VITALITY OR LIFE.

There are, as I suppose, the following several kinds of life:

(1) *Spirit life*; (2) *Moral life*; (3) *Electric life*.

(1.) There is *spirit* life. And here are to be made several subdivisions.

[1.] *Uncreated* spirit life. This is the life of God. Of the nature of the Divine Essence we know nothing; yet that God is a real, living entity, we do know. My own conviction is that of the divine essence and the divine life are identical; that God, a spirit, is necessary, infinite, conscious VITALITY—the voluntary Originator of all existencies besides himself. But as to what is the essential nature of this vitality—this eternal spirit-life—we can have no conception, only that this life is God.

[2.] *Created* spirit-life. And here we make another subdivision.

(a) The life of created *immortal* spirit. This is a rational, intelligent entity, representing the spirit of man and of unembodied, created intelligences above him. This spirit God created as it pleased him—"in his own likeness"—a living, indestructible essence; and as I suppose, its essence and its life the same.

(b) The life of created *mortal* spirit, as the spirit of the beast. Of the intrinsic essence of this spirit, we are also necessarily ignorant. Yet, of its attributes we know that it has *consciousness*, *sensibility*, and *will*. Of its life we know as little as of its essence; both of which, however, as I conjecture, are also one and the same—the spirit substance being itself essentially vital.

(2.) We pass next to *moral* life. This life is identical with *holiness*—the very opposite of that defilement that characterizes moral *death*, which is a state of *sin*. But let me again subdivide.

[1.] As to the moral life of *God*, it consists in his infinite moral purity—his *veracity*, *justice* and *benevolence* or *love*—qualities which, in their combination, make up his holiness.

[2.] The moral life of *man*, as also of other rational creatures. This consists in his *sympathy of spirit with God* in respect to those pure qualities which constitute the Divine holiness.

(3.) Finally, there is *electric* or *physical life*. But here again there are varieties.

[1.] There is *animal* life, as of man and the lower animals. This I have already represented as consisting in the electro-vital force.

[2.] *Vegetable* life. This is another modification of the same essential principle—electro-vitality.

But now to return to the *physical* or *animal life of man*—the electro-vital element. While this is in such *immediate* relation to the visible body on the one hand, it holds, also, on the other hand, an *immediate* relation to the mental part, both of man and of the other animated beings of earth. It serves to transmit, through the nervous system to the mind, all sensations and impressions from the outer world. It, moreover, receives from the mind the action of its volitions and imaginary conceptions, and conveys through the nerves the impressions or impulses thus obtained to the various parts of the body, and there secures the fulfillment of the mind's behests. It appears to be only in this way that communication is had between the mind and its outer body. The natures of spirit and of gross matter are so totally unlike, that it seems impracticable for the mind and body to come into *immediate* mutual relation, or to act reciprocally, without the aid of a *medium*—ethereal, semi-material and semi-spiritual, such as is the electro-vital fluid. And the Creator has accordingly provided this mysterious, invisible medium between the two, and thus, in a

degree, extended man's likeness to himself by making him *a trinity in unity*.

[3.] *The mind or spirit*. This is immeasurably the highest and most important constituent of man. His body material will fall back to dust. His body electrical may be reabsorbed in the great ocean of natural electricity that fills the earth and the heavens. But his spirit is immortal. His spirit made in the divine image, lives and acts, thinks and feels, independently of every other existence save Him from whom its being came. While in connection with its visible body, its good or ill, its bliss or woe, has, indeed, much to do with its bodily state. But, when separated from this body, its high and more independent existence is at once asserted; and then its good or ill are determined by its Author only in accordance with the workings and affections within itself. A spiritual and indestructible being like its Creator, it can never cease to be while He exists.

But our present concern is with the mind in its relation to that electro-vital medium between it and the body, and to the body itself. The mind's influence upon both of these lower parts of the entire man is truly wonderful, although perceptible mostly on the material body. Few persons are aware how much the state of the mind affects the bodily health, although the degree is often very great. Yet this is done by the mind's action, first on the electro-vital functions, and through these, by way of the nerves, upon the bodily tissue. Changes in the mental states will, in this way, frequently produce changed polarization in the physical organs, and thus determine infallibly the matter of health or disease. So, too, the condition of the bodily health will often determine irresistibly the mental state. Whatever bodily changes affect the polarization of the electro-vital medium in any part of the organism, do thereby produce corresponding changes in the mind.

These views of the reciprocal action between mind and body, through the medium of the electro-vital element, may serve to

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explain those psychological wonders exhibited in the cure of diseases by the imagination, as well as in diseases and even death induced by the imagination. I would much like to unfold and illustrate this bearing of the subject; and, also, in the light of it, to show the *philosophy* of one mind acting intelligibly on another mind, with, and even *without*, the aid of the physical organs, as is sometimes seen in the facts of mesmerism.

There is another thought which I will offer in this connection. I maintain that all *functional* action of our bodily organism, *ab initio*, is conducted by *thinking mind*, through the medium of organic electricity or the electro-vital fluid. Every organ as a whole, and every life-cell in detail, is charged with this active principle. I believe that every one of them is controlled and guided incessantly in its propagating, organizing and entire functional force by *intelligent mind*, acting through this wonder-working agent—the electro-vital fluid. In respect to our *voluntary* exercises, this organic electrical force is made subject to our own mental activities, and executes its office upon the bodily organism mainly through the medium of the nerves. But, as regards all the *involuntary* functions, I believe that control is exercised *directly* by the omniscient and all-pervading God, although in accordance with his own established laws.

Once more of the *mind* let me remark, that *conscientiousness, sensation, and will belong to it alone*. The *body* never thinks nor feels; nor does the organic electricity within it. The popular idea, especially with the less educated masses, is that, if a man burn his finger, it is the finger that smarts. But this can not be true. Pain can exist only where consciousness is. And there is no consciousness in the finger, nor in any material part. Only the *mind* is conscious of *existence*, even; and hence only the mind can be conscious of pleasure or pain. If a limb be paralyzed, by interrupting in any way the flow of

the electro-vital fluid through its nerves, and thus depriving the *mind* of its medium of communication with it, you may burn that limb to a crisp and the subject will feel no pain. When you burn your finger or break your arm, you disturb the action of the electro-vitality in the injured part, deranging its poles. This electric agent instantly communicates its disturbance along the nerves to the brain, where it reports to the mind and tells where the disturbance is. The conscious mind takes cognizance of the fact and feels distress.

THE LOWER ANIMALS.

It may, by some, be objected that, if we regard sensation as existing only in the *mind*, as affirmed above, then we must concede mind to the lower animal tribes, since they are subjects of consciousness, sensation and will, as truly as ourselves. I admit this necessity, and unhesitatingly take the position, as has been already done in the classification of minds, that the lower animals are in fact endowed with a something higher and more spiritual than their material bodies or their animal vitality—something which bears distinguishing characteristics of *mind*. I would not, however, be understood to say, or to imply, that they possess *all* the characteristics of our minds, even in a rudimental degree. I do not believe they do. My theory does not accord to them either reason or immortality. Yet, in respect to the latter, my views are less decisive, and my utterances usually more reserved. But I think their minds may, and probably do, perish with their bodies. Nevertheless, the existence of consciousness, sensation and will, in any orders, does evidently presuppose some sort of mental constitution. And such mental structure, in them as well as in us, must be distinct from and superior to the animal vitality—compelling service from the latter, and using it as a medium for communicating with the body, and with the outer world in general.

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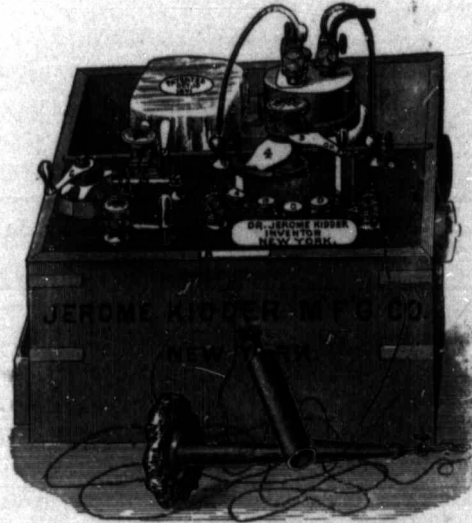
THE VEGETABLE KINGDOM.

As to the vegetable kingdom, there is here, so far as we can discover, only a duality of principle, viz: the material body and a modified phase of electro-vitality. These component parts appear to sustain to each other, in the vegetable, relations quite analogous to those of the corresponding parts in the animal. But here the *mental* part is wanting; and consequently there is no consciousness, sensation, nor will; and the electro-vital action is guided in its elaborate and beautiful operations for the forming and developing of the plant, and in all its vital functions, by the all-pervading mind of God.

NATURAL POLARIZATION OF MAN'S PHYSICAL ORGANISM.

The electro-vital fluid, in the animal economy, is subject to the same principles of polarization as the magnetic current from the artificial machine, or the magnetism of the bar-magnet. In the material organism of man, the great nerve-centers—the brain, the spinal cord and the ganglions—appear to act the part of fixed magnets, charged with the electro-vital fluid. Indeed, there is much reason to believe that this fluid is elaborated within these nerve-centers—more especially within the brain—from the inorganic electricity of the outer world, which is supplied through the lungs in respiration, and conducted thence to these laboratories by a remarkably interesting process. These nerve-centers, viewed as magnets of electro-vitality, require to be regarded as having each a positive nucleus in the interior, on which are ranged the negative ends of the currents which go out from this positive nucleus in every direction to the surface of the medullary organ—so radiating, as it were, from center to periphery. And the nerve-lines and ramifications which issue from these great nerve-centers are polarized evidently in the same way—the electro-vital fluid being disposed with its negative ends to the positive surfaces

of the nerve-centers, and its positive or plus ends to the "vital organs," and especially to the surfaces of the organism as a whole. There are many other polarizations in the human system, subordinate to those mentioned above; but I have no room to speak of them in detail.



No. 1.—Polished walnut case, with brass-bound corners, and drawer underneath the helix. Size of case 10½ inches long, 9 wide, and 7½ deep. The brass works are nickel plated.

Veneered rosewood case, bound and ornamented with German silver. (See Kidder's Catalogue.)

ELECTRICAL CLASSIFICATION OF DISEASES.

There are two, and only two, primary classes of disease—those in which the electro-vital force is abnormally *positive*, and those where it is preternaturally *negative*. The former class comprises every variety and phase of hypersthesia, and the latter, every sort and degree of anæsthesia, or rather, of *azoödynamia*. *Inflammation* may be taken as a general repre-

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representative of the positive or hypersthenic class—those forms of disease in which there is too much electro-vitality, or in which the vital force may be said to be too active. *Paralysis* may stand as a general representative of the negative or azoödynamic class—those in which the vital action is too low or weak.

PHILOSOPHY OF DISEASE AND CURE.

In every part of the animal economy, polar derangements in the electro-vital principle are liable to occur. These derangements are always the real foundation of disease. They may be occasioned by a thousand agencies, which act as the *procur-ing* cause of disease; but the *proximate* and *sustaining* cause is polar disturbance—derangement of the electro-vital poles. Parts which, in health, are relatively positive, may become negative, and that which should be negative may become positive. Or again, a part, naturally positive to its counterpart, may become *excessively* so, and that which should be relatively negative may become negative to a *morbid degree*.

To correct these polar disturbances and restore the normal polarization is to *cure* the *complaint*. This is, under the treatment of most physicians, sometimes accomplished by the use of medicines, and by mechanical or surgical agency. We accomplish it by the proper application of the *poles* of our electrical apparatus. In cases where there is *virus* to be destroyed, or *abnormal growths* to be removed, we also secure the *chemical* action appropriate to these ends by the proper *selection of our current*. It often happens that *mechanical* or *surgical action* is demanded. In many *such* cases, we do not profess to secure normal polarization and consequent cure by means of electricity alone. Yet, in a large proportion of the cases where mechanical or surgical agency is usually thought to be indispensable, we are able to cure by electric action only, since by it we can exert very considerable mechanical force at will;

and can also, in many instances, attain much more happily, by means of electricity, the very ends or the *best* ends which would be aimed at by skillful surgical operations, and with the *modified forms* of *electricity simulates* the *action* or *effects* of the *various kinds of medicines used*; *cathartic, diuretic, diaphoretic, sedative, alterative, discutient, anodyne, astringent, tonic, stimulant, etc. etc.*

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PRINCIPLES OF PRACTICE.

POLAR ANTAGONISM.

When the conducting cords are of equal length, as commonly they should be, each of the two poles or electrodes produces a polar effect in the patient directly the opposite of that produced by the other. Also, at any point in either half of the circuit, if it be within the person of the patient, the polar effect produced is the very reverse of what is experienced at the corresponding point in the other half of the circuit. And further; each half of the current produces a polar effect, at every point in the parts of the patient through which it runs, the same in kind, though differing in degree, as is produced immediately under the pole or electrode with which it is connected; yet an effect antagonistic to that which is produced under the other pole, or at the corresponding point in the other half of the current.

IMPORTANCE OF NOTING THE CENTRAL POINT.

From the above observations, it will be plain that, when we wish to bring a diseased organ under the influence of the *positive* pole, we must carefully place our electrodes so that none of the organ, or none of the diseased part of it, shall appear on the positive* side of the *central point of the circuit*; it being understood that the current moves as nearly in direct lines as the best conducting medium will admit. Or again, if it be

* Study carefully *Polarization of the Circuit*, page 36.

desired to bring a diseased organ, or any extended part of it, under the influence of the *negative* pole, we must first calculate in placing our electrodes about where the central point will come, and then so apply them that no part of the lesion or disease shall appear on the negative* side of the central point; otherwise so much of it as lies on that side will come under the force of the wrong pole, and thus be affected in a way the opposite of what was intended. The characteristic influence of each pole is felt throughout its own half of the circuit.

DISTINCTIVE USE OF EACH POLE.

I have said that every disease is preternaturally either positive or negative. I have further said, that the application of either pole to a given part produces an effect the opposite of what would be produced in the same part by a reversal of the poles. The way is now prepared for me to announce THE CENTRAL PRINCIPLE of our system of practice. The reader will bear in mind that all acutely inflammatory or hypersthenic affections are electrically *positive* in excess—having too much vital action—being *overcharged* with the electro-vital fluid; and that all paralytic diseases, or those of sluggish, azoödynamic character, are electrically *negative*—having too little electro-vital fluid—too little vital action. It is a universal law of electricity that positives repel each other, and that negatives repel each other; but that positives and negatives attract each other. This is a principle of electric action every-where known, where any thing is known on the subject. *We appropriate it practically to therapeutic purposes.* Therefore, when I wish to repress or repel inflammation, which is electrically positive in excess, I put the positive pole to it; or, at least, I bring it under that half of the circuit with which the positive pole is connected, and as near

* Study carefully *Polarisation of the Circuit*, page 36.

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to the pole or electrode as possible. And because two positives repel each other, and also because the direction of the current is always from the positive to the negative pole, carrying the electro-vital fluid with it, either I must withdraw my positive electrode, or that excess of electro-vitality in the diseased part which makes it morbidly positive, and thus produces inflammation, must give way. I *will not* withdraw my positive pole, and therefore the positive inflammation *must* retreat and be dispersed. In treating this case, I will place my *negative* electrode either on some healthy part, or, if there be perceptible anywhere in the system a morbidly negative part, as is often the case, I will place my negative pole there. For example: if I am treating for *nephritis*—inflammation of the kidneys—when I do not perceive any part to be abnormally negative, I manipulate with my positive electrode over the inflamed kidney, having the negative electrode placed at the coccyx—lowest part of the spine. My positive pole repels the positive inflammation from the kidney; or, rather, repels from it that excess of electro-vital fluid which makes it morbidly positive and induces the inflammation, while the negative pole attracts the same towards the coccyx. On its way, it becomes more or less diverted to adjacent nerves; or, if gathered in the healthy part, under the negative pole, it is immediately dispersed by the normal circulation as soon as the electrode is removed. But if I find a *spinal irritation*, say in one or more of the cervical or dorsal vertebræ, and, at the same time, a stomach affected with *chronic dyspepsia*, accompanied with *constipation of bowels*, I will work over the inflamed or irritated spine with my positive pole, because I know from its irritation that there is an excess of electro-vital fluid in the part, making it improperly positive; and, with my negative electrode, I will, at the same time, treat over the stomach, bowels and liver; because I know, from the *inaction* of these organs, that there is a lack of vital force—a deficiency of the electro-vital fluid—

there, and that, consequently, they are too negative. Adopting this method, I accomplish two objects in the same treatment. *First*, my positive pole, applied to the spinal disease, repels from it the excess of electro-vital fluid which was there doing mischief; and, *second*, my negative pole attracts the same, along with the artificial or inorganic electricity, to the stomach and bowels where it is wanted, since negatives attract positives. Or I wish to rouse to action a *torpid liver*. Now, if I find *inflammation, or enlargement* of the spleen, as is commonly the case in *chills and fever*, I place the positive pole upon the spleen, at the left side, just below the false ribs, and the negative pole on the liver, which is best reached immediately below the ribs on the right side, and around backward and upward as far as to the spine. The positive pole repels the excess of electro-vitality away from the positive spleen, and so reduces the improper excitement there, while at the same time it rushes, by attraction, to the negative liver, under the negative pole, and makes that more positive, and so more active. In this way, I change the polarization of the parts, and, in so doing, remove the sustaining cause of the disease. You here perceive that I treat a positive part with the positive pole, so as to repel the excess of electro-vitality from it, and thus repress its excessive action; and that I treat a negative part with the negative pole, so as to attract the electro-vital fluid, along with the current from the machine, to it from under the positive pole, and thus increase the action by making it more positive.

But suppose I do what nearly all of the doctors do, who use electricity without any regard to polarity; that is, if treating acutely inflamed eyes, for example, apply the negative pole to the eyes, thinking thereby to make them more negative; or, if treating amaurosis, apply the positive electrode to the affected parts, thinking thereby to make them more positive! I say, suppose I do this same thing, do you not see that, by the fixed laws of electricity, I necessarily increase the evils that I

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would remedy? Do you not see that, by placing my negative pole on the already overcharged and inflamed eyes, I attract to them yet more of the electro-vital fluid, and so increase their positive condition and aggravate the inflammation? and that, by presenting my positive electrode to the eyes already more or less paralyzed, I repel what little electro-vitality there was there, and so make the nerves all the more negative and dead? And yet, I repeat it, this is precisely the plan of almost all the men who use electricity in therapeutic practice with any regard to its polarization. They treat a positive disease—rather a *hypersthenic* disease, (for they seldom know anything of the *electrical* states of diseased parts), with the negative pole, and an azoödynamic disease, which is negative, with the positive pole!—all directly antagonistic to science and success.

But the great mass of physicians, who attempt to treat electrically, have no knowledge either of the electrical condition of the various forms of disease, nor of the distinctive and peculiar effects produced by either pole of the artificial current; and consequently all their use of this powerful agent is entirely empirical—merely haphazard experiment.

I may have raised an inquiry a few moments since which ought to be answered. I said, in effect, that in treating a positive disease, such, for instance, as acute, inflammatory rheumatism or acute pleurisy, I would use the positive pole on the inflamed parts, and the negative pole on either some healthy part or on a morbidly negative part, if I could find such. So, too, I said I would treat a negative disease, such as amaurosis or torpidity of liver, with the negative pole, placing the positive pole on either some healthy or morbidly positive part. The query may have arisen, "By placing the one pole or the other on a healthy part, do you not derange the normal electro-vital action there, disturbing its healthy polarization?" I answer, yes, for the time being, I do; and if this disturbing force were to be steadily continued for any considerable time,

the disturbance would produce manifest and serious disease. But then, a pole or electrode, placed on a healthy part, we generally move, or ought to move, more or less, every few moments, which prevents the establishment of any perverted action in the part; and the moment the electrode is withdrawn, the normal polarization and healthy action are resumed.

USE OF THE LONG CORD.

It is often desirable to bring the entire parts of the patient, through which the current is made to pass, under one and the same kind of influence—such as shall make them all more positive or more negative. Especially is this true in many cases where we wish to run through but a *short* space. For this purpose, there is frequent advantage in using conducting cords of unequal length. As my views on this point have been disputed in certain quarters, I will endeavor here to place them in such a light that they shall not be rejected for want of being *rightly understood*.

I have previously remarked * that for practical purposes, it is sufficiently exact to consider the *magnetic circuit* as extending only from the *positive post*, around through the conducting cords, the electrodes, and the person of the patient, to the *negative post*. We will so regard it at present. This circuit may be viewed as one continuous magnet, made up of several sections or shorter magnets placed end to end—the positive end of the first to the negative end of the second, and the positive end of the second to the negative end of the third. In this arrangement, the negative end of the first section is the negative pole of the one whole magnet, and the positive end of the third section is the positive pole of the whole magnet. The minimum quantity of the magnetism is supposed to be at the negative pole, and the maximum quantity at the posi-

* *Polarisation of the Circuit*, page 36.

tive pole; and the quantity is supposed to increase, by *regular graduation*, from the negative to the positive pole. This being so, the quantity is *the same* in the positive end of either section and the negative end of the adjoining section, at their point of contact.

Now, in practice, the body of the patient, or so much of it as is embraced between the two electrodes, may be regarded as the *second* section in this magnet; and the cord connected with the positive post, together with its electrode attached, may be counted the *first* and *most negative* section; and the cord connected with the negative post, along with its electrode, may be the *third* and *most positive* section. And if this whole magnet be more and more positive, by regular degrees through all the sections, from its negative to its positive end or pole, then the nearer any given part of it, say the *second section*—the patient's person, may be to its positive pole in the negative post, so much the more *positive* that section or part will be. And the nearer such part or section may be to the negative pole in the positive post, so much the more *negative* it will be. If the cords be of equal length, the central point in the circuit or magnet will be in the second section—the person of the patient, midway between the electrodes; and that section will be charged with the *mean* quantity of the magnetic fluid. The *central point* will hold *exactly* the mean quantity. But if the cord in the *first* section be *two* yards long, and that in the *third* section be *four* yards, then section second—the patient's parts under treatment—will be nearest to the *negative* pole in the positive post, and consequently will be charged with much *less* than the mean quantity of the fluid, and will therefore be made so much the more *negative*. If, on the other hand, the cord in section *first* be *four* yards in length, and that in section *third* be only *two* yards, then the patient's body—section second—will be brought nearest to the *positive* pole in the negative post, and of course be charged with much *more* than the mean

quantity of the magnetic fluid, and hence will be made so much the more *positive*.

It is true that the positive and negative poles of section second—the parts of the patient between the electrodes—will not be *reversed* by any such changes in the length or relative positions of the conducting cords; nor is such reversal required in those cases where the use of the *long cord* is indicated. The only change of polarization called for in such cases, is that *all* the parts through which the current is to pass should, in greater or less degree, be affected alike, as being made more positive or more negative. Of course these parts will be so affected in different degrees—those nearest to the *short cord* the *most*; those nearest to the *long cord* the *least*.

The class of cases where the use of the *long cord* is more especially advantageous, comprises those in which it is desirable to run the current *out* of the patient at the shortest admissible distance from the positive electrode. For example, in treating *cynanche tonsillaris* (quinsy), if treating with the positive pole in the mouth, we would not wish to run the current further than to the back of the neck; or, if treating externally, we would not wish to carry the negative electrode further from the positive than from side to side. Here the *long cord*, with the negative electrode, would be a special advantage in subduing the inflammation. We would not care to *increase* the inflammatory action, as we should necessarily do on the positive side of the central point, by using cords of *equal* length.

Again, if treating a case of acute *enteritis*—inflammation of the intestines—we would not use the negative pole at the sacrum or the coccyx. Neither would we wish to reduce the strength of the lower limbs by carrying the negative pole to the feet. Nor, yet again, would we care to endanger the thoracic viscera by running the current from the abdomen up to

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the dorsal or cervical vertebræ. The true way, in such a case, would be to connect the negative electrode with a *long cord*, and then to run the current through the inflamed parts, and *out* somewhere from the lumbar vertebræ to the coccyx, by treating over the abdomen with the positive pole, and placing the negative pole on the lower parts of the spine.

As the cords that accompany the machine from the manufacturer are usually cut about two yards in length, every practitioner should supply himself with an extra cord, of at least three yards, to be used as the *long cord*.

THE INWARD AND THE OUTWARD CURRENT.

I have already said that when the conducting cords are of equal length, as for the most part they should be, the central point of the circuit will be in the person of the patient, about midway between the two electrodes. Now, since the current always runs from the positive to the negative the circuit will be in the person of the patient, about midway between the two electrodes. Now, since the current always runs from the positive to the negative pole, and makes its whole circuit in that direction, it will be readily seen that, from the place on the patient where the positive pole is applied, inward as far as to the central point, the direction of the current may properly be said to be *inward*; and that, from the central point to the place of the negative electrode, where the current comes out, its direction may be said to be *outward*. When, therefore, a part is treated with the positive pole, or when the part under treatment appears anywhere between the positive pole and the central point, it is not unusual to say, it is treated with the *inward current*. And when a part is treated with the negative pole, or when it appears between the central point and the negative pole, it is often spoken of as being treated with the *outward current*.

MECHANICAL EFFECT OF EACH POLE.

The *mechanical* effect of the forward end of the current, or that part of it which is under the negative electrode, is to relax, expand and weaken; while that of the rear end, under the positive electrode, is to contract and strengthen. A moving ship disperses the waters at its bow, but draws them in at its stern. The bullet shot from a gun, in passing through a plank, leaves the perforation closed where it enters in, but wide open where it comes out. Thus, in physics, the advance end of a moving body tends to disperse the element through which it is passing, while the rear end tends to its contraction. Analogous to this are the *mechanical* effects of the different ends of an electrical current in the living tissue. When, therefore, we wish to relax a muscle that is unnaturally contracted, as by rheumatism or otherwise, we must bring it under the forward end—the outward current—the negative pole. If we desire to contract ligaments or muscles that are abnormally relaxed, (not *atrophied*), as in prolapsus uteri, we must subject them to the rear end of the current—the positive pole. Parts that are unnaturally contracted are electrically negative in excess, and need to be made more positive. And parts that are unhealthily relaxed are too positive, and should be made more negative. We make a part more positive by applying to it the negative pole, and more negative by applying to it the positive pole. Parts *spasmodically* contracted are acute and positive; those *permanently* contracted are chronic and negative.

RELAXED AND ATROPHIED CONDITIONS.

I alluded above to a distinction between a *relaxed* and an *atrophied* condition of an organ. There is such a distinction, which should be carefully observed while treating parts so affected. An atrophied muscle or organ becomes soft and flabby from lack of nourishment. But this condition is not properly

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one of *relaxation*. It is rather a diminution—a *thinning out* of atoms, by wasting without replenishment. Such a condition is always negative, and requires treatment under the negative pole. On the contrary, relaxed parts, such as appear in prolapsus uteri, and in the sagging down of the diaphragm, with the thoracic and abdominal viscera, exhibit no lack of nutrition or of vital action. Relaxation is *loosening* of atoms from each other, more or less, without loss of aggregate weight; and implies a condition electrically positive in excess, and calls for treatment with the positive pole.

GENERAL DIRECTIONS OF THE CURRENT.

Negative affections, as a general rule, are best treated with the *upward-running* current—the positive pole being placed at a lower point than the negative. *Inflammatory* affections, and other *plus* conditions, for the most part, should be treated with the *down-running* current, keeping the negative pole at a lower point than the positive. But these rules admit of frequent exceptions, which every practitioner's experience will soon reveal.

The *downward* current, running *with* the downward and outward course of the nerves, tends to *depletion* and *weakness*, for the reason that it *runs off* from the system the electro-vital fluid. The *upward* current, on the other hand, running *against* the nerves, inward towards their source, feeds the system with fresh electricity, and gives a *tonic* effect. Yet for this purpose, it must not be too long continued, nor of too severe strength, lest it overtask and irritate the nerve-sheaths.

In treating a *paralyzed* organ, the current should commonly be run from a *healthy* part, whether that require it to be directed downwards or upwards. For example: In treating a paralyzed foot or leg, the positive pole should be upon the lower part of the spine—at the coccyx—or even under the sole of the opposite foot. It is best to alternate between these

positions. So in treating a paralyzed hand or arm, let the current be run from the upper part of the spine, and frequently also from the opposite hand. With the *negative* electrode, treat all over the paralyzed parts. Yet it is well, in these cases, often to *reverse* the direction of the current for a brief period at the close of the sittings, say one to two minutes, for the purpose of rousing the nervous susceptibility, and to prevent exhaustion from too continuously running off the electro-vital fluid.

TREATING WITH ELECTROLYTIC CURRENTS.

For decomposing and carrying off unnatural growths, as fistula, fucus, glandular enlargements and other tumors, it is often best to dilute the *electrolytic* quality of the galvanic current A B with one or both of the Faradaic currents, as by taking A C or A D instead of A B. But *malignant* and *poisonous* affections, as scirrhus and other varieties of cancer, and also cases of infectious virus, demand continually, or with but occasional exceptions, the primary galvanic current A B. In treating these malignant affections, the current should be run through as short a distance of *healthy* tissue as possible, yet so as fairly to reach the diseased part. And whether this part be brought, for a given time, under the one pole or the other, the opposite pole should be attached to the *long cord*, so as to throw the central point of the circuit, not in the person of the patient, but out on the long cord, thus bringing the entire organic parts through which the current is passed on one and the same side of the center, and so, under the ruling influence of the same pole.

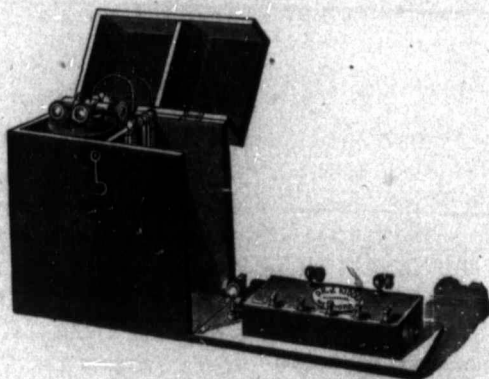
Those diseases which require the chemical or electrolytic currents should, for the most part, be treated under the negative pole, particularly those which need the galvanic current A B, and also old ulcers and *chronic irritation of mucus surfaces*. Glandular enlargements not of scirrhus character, and excrescent growths not poisonous, may often be reduced, and

perhaps sometimes cured, under the positive pole. But my own experience, even with these affections, is that it is better to treat them under the negative pole until they come to assume, as sometimes they will, an *acute* state, when the positive pole may be used with success. If, however, it appears desirable to produce a *cauterizing* effect, this must be done by persistent treatment under the negative pole of a strong A B or A C current, and if the disease be external, with a small pointed electrode.

POSITIVE AND NEGATIVE MANIFESTATIONS.

Acute diseases are to be regarded as electrically positive, and *chronic* affections as negative. The exceptions are rare, if any at all. *Malignant cholera*, which is eminently acute, might by some be considered as an exception. In negative diseases, there is a low degree of electro-vitality. And it has been remarked by careful observers, particularly in the Orient, that cholera rages with greatest destructiveness when no special electric phenomena have for a long time appeared in the atmosphere, and when the artificial electrical apparatus could be made to yield its sparks only with difficulty, or not at all. And again, after a thunder-storm, when the electric machine works again freely, the cholera is also found to abate quickly, and sometimes very greatly. The inference drawn from these facts has been that the prevalence of cholera is largely owing to a lack of electricity in the atmosphere, and consequently to a want of the animal electricity or electro-vitality in the system of the patient; and thence it might be concluded that cholera implies a negative condition of the system. I think there is a fallacy in this reasoning. There appears to me to be an unwarrantable assumption in confidently attributing the long absence from the heavens of marked electrical phenomena, and the failure of the electric machine to give its spark, to an unquestioned deficiency of atmospheric electricity. Electrical

manifestations take place only when the *plus* and *minus* conditions are existing, in relation to each other, somewhat near, or not very remote; and the visible phenomena appear when the positive and negative rush together, so as to produce a polar equilibrium. But suppose a *plus* condition to exist over a wide region, then, everything being *overcharged*, the visible



NO. 2. PHYSICIAN'S VISITING MACHINE.

No. 2 is a four coil apparatus, producing ten currents of electricity, of compact form, with an upright stopper battery, constantly ready for use many weeks without any attention. The coil-box stands upright in one end of the case where it is hinged. By springs underneath the hinges that fasten the coil-box to the case, the battery is connected to operate the coils when turned down to a horizontal position, as seen in the figure. If ever desired the coil-box can be detached and connected with any other battery by the two screw cups on the back part. This machine is about 6 inches long, $3\frac{1}{2}$ wide, and 6 inches deep, and has a metallic handle for carrying.

No. 3 is another form of Physician's Visiting Machine. It has ten currents of the same qualities as those of Machine No. 2; but the helix remains horizontal in the case, which is a little larger than that of No. 2. With rubber stopper battery.

phenomena would be as rare and as difficult of attainment as if all around were negative. How, then, can it be inferred, with any certainty, from such data, that there is a *deficiency* of electricity, rather than an *excess* of it?

In the case of cholera, for instance the first stage, or during the "rice-water" discharges, the condition of the system is, as

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in other acute affections, excessively positive; but that, as the collapse comes on, it rapidly subsides into an intensely negative state, thus assuming the chief characteristic of a chronic condition.

I have no doubt that the prevalence of cholera is often aggravated or mitigated by peculiar electrical states of the atmosphere. It appears altogether probable that such may be the fact; and I should presume that electrical treatment, properly administered, would be found eminently successful in this fearful malady.

Again, in *chronic rheumatism* there might, at first view, seem to be frequent exceptions to the rule last above stated; but the cases alluded to are not such. It is often the fact, during chronic rheumatism, that soreness and severe pain are felt, especially under the presentation of the negative pole, thus showing that these points require to be treated with the positive pole. But, in such cases, although the general disease of the system be chronic and negative, these sore and severely painful points have, for the time, risen in their electro-vital condition, and so become acute and positive. But when chronic rheumatism is attended with only a *dull* pain, and that chiefly under exercise of the parts, and with little or no increase of pain under an application of the negative pole of the A D current, medium strength, and with no swelling, then the pain, the stiffness and the lameness are all marks of the negative state, and the parts must be treated with the negative pole of the A D current, *strongly* at first, but diminishing in force, from time to time, as the patient becomes relieved.

Alkaline affections—those causing excessive alkaline secretions—are electrically positive. *Acid* or *acidulous* states are negative.

HEALING.

For healing wounds, burns, ulcers, irritation of mucous membranes, and cutaneous eruptions, the A D current is by

far the best. *Recent* wounds, contusions and burns are electrically positive. *Old* ulcers and irritations are generally negative.

DIAGNOSIS.

To make a correct diagnosis, it is needful to bear in mind the following general principles:

1. Where the organism is in health, the momentary application to the patient of the negative pole of the double Faradaic current B D—the best for diagnostic use—in good medium strength,* will be directly felt, yet will cause no pain. Whatever *muscular contractions* may be produced for the time, they are harmless, and need not be noticed. Wherever the electro-vital fluid is in *excess*, producing hyperæsthesia—too much vital action—the part is morbidly *positive*; and, excepting sometimes in the stomach and bowels, the B D current, of medium force, directed to that part under the negative pole, will produce *sharp pain*. But where a current of full medium strength can not be felt under the negative pole, there is a morbidly negative state—a deficiency of vital action—a condition of at least partial paralysis—anaesthesia.

2. In a state of health, different persons will have different degrees of sensibility to the electric current, depending on their varied nervous susceptibility. Again, the same person will be much less sensitive to the current when directed to the spine, particularly the lower part of it, and to the stomach, than when directed to most other parts. Also, where bones lie near the surface, the periosteum—the membrane immediately investing the bone—is apt to feel more sensibly under the electrodes than the muscular parts. But these variations soon become so familiar to the practitioner that he finds no difficulty in making the proper allowances for them.

*By a current of *good medium strength*, I mean one which, in the hands, is ordinarily felt rather strongly, yet not sufficiently so to produce distress.

In making an electrical examination, the two following questions present themselves to be answered: First, whether anywhere, and, if so, where is there a morbid electrical state in the body of this patient? Second, what is the electrical condition of that unhealthy part? Is it *positive* or *negative*?

These questions being answered, according to the tests just given, the well-instructed practitioner is prepared to go on and treat the patient judiciously, and with success, if success be attainable by any form of medication.

Let me next say, it is best, as a general rule, to make examination with the *negative pole*. The reason of this is that, since the current is always more energetic under the negative than under the positive pole, it makes itself more sensibly *felt* there than under the positive pole. Indeed, it will commonly be felt even to *painfulness* there, if the part were overcharged and inflamed before. Thus, under the negative electrode, the current readily detects any active disease. But, if we be making the examination with the *positive pole*, as we come upon any point more or less inflamed, the current, quick as lightning, rushes away from such inflamed part to the part under the stationary negative pole, carrying with it, for the time being, more or less of that excess of electro-vital fluid which was in force at the inflamed point; so that *no pain*, perhaps, is experienced there; and thus the disease escapes detection.

I am aware that it has been said by some of our practitioners, that it is not quite prudent to use the negative pole in hand for diagnosis, lest we possibly contract the disease from the patient; since, in that case, the current runs from the patient to the practitioner. They think it safer to use the positive pole in hand; so letting the current run from the practitioner to the patient. There is force in this consideration, without doubt, where the patient is affected with a poisonous or malignant disease. And where anything of this nature is apprehended, I would never examine with the negative

pole in hand. But these cases are commonly so manifest, or so easily determined by colloquial inquiry, that examination with the electric current is rarely if ever necessary. And when the disease is plainly not of a poisonous or infectious nature, I do not think there is any danger to be apprehended from the cause stated. I therefore prefer, as a general rule, to examine with the negative pole; and for the reason given above.

The temperature of the room and the adjustment of apparel should be the same as for treatment. To prevent improper chilliness, the room ought to be of such temperature that clothing is not required for bodily comfort—say, from 70 to 80 degrees, *Fahrenheit*. Seat the patient on a stool or chair, (a stool is most convenient), and yourself at his side, with your machine ready for use, on a table or bench before him, and a vessel of warm water within easy reach. If the patient be a man we let his trunk be disrobed, giving free access to the back, chest and abdomen. If the patient be a woman, let her be covered with a treating-robe, of which garments the practitioner should keep a supply. They are made much like a lady's plain nightgown; but large and loose, so as to serve ladies of any size, and give ample room to work the electrodes under them. Her skirts should be dropped *below the seat*, so far that their bands shall lie across her lap.

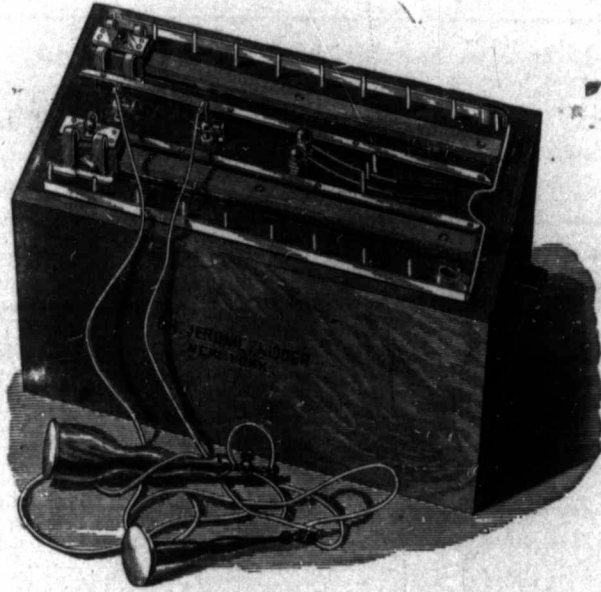
Let us now suppose the machine to be working. We will take the B D current. Let it be of good medium strength. We regulate the strength by the quantity of fluid in the battery, so far as *volume* is concerned, and by means of the plunger as respects *intensity*. The electrodes should be dampened with warm water. Let the *sponge-roll*, (a very thin expansion of sponge, quilted upon a muslin lining, and enveloping one of the tin electrodes), be made the positive pole, and be placed under the coccyx—lowest part of the spine. Then attach the *positive* cord; that is, the cord connected with the *negative* post, to another sponge-roll, to be held in the operator's right

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hand; or, what is better, attach it to a thin, flexible, metallic wristband, (brass is good, but metallic lace, such as is used in trimming *regalia*, is best), underlaid with wet muslin, and fastened around the right wrist. This brings the operator's hand into the circuit as the negative electrode or pole. Next, pass a moist, warm sponge all over the patient's back. Now, before the back becomes dry, press the points of the two fingers firmly, yet not uncomfortably, upon the back of the neck at the base of the skull; thence move gradually downward by frequent touches of the same firm but gentle character, keeping one finger on each side of the spinous processes, until the whole length of the spine has been, in this manner, passed over. If sharp pain or soreness be felt at any point, *note* that point; there is inflamed irritation there. Then return up to the right or left shoulder, and pass in like manner, by frequent touches with one or two fingers, over all parts of the back on that side of the spine, down to the hips. Then in the same way, examine the shoulder and back on the other side of the spine noting as before, every point, if there be any, where soreness and pain appear. After this, pass over the entire neck; then over the front parts of the thorax and abdomen down to the pelvic bones, everywhere watching for soreness and pain. Next go to the head. Wet the hair through to the scalp, because dry hair is a bad conductor, and change to a *very soft* B C current. Then go over all the head in the same manner as over the neck and trunk. Better *reverse* the poles on the head, by transposing the cords in the posts, so as to make the manipulating hand the *positive* pole. The head is, or ought to be, extremely sensitive. You need not do this, however, if the negative pole can be received on the head without discomfort, as it sometimes can be. Commence on the cerebrum, and then pass to the cerebellum!

If, in the examination of the spine, the practitioner finds it uncomfortable to bear in his fingers a current of sufficient

strength to be distinctly felt in that part of the patient, he may use the side-sponge cup on the spine. But let him *never use a current on another person* which he does not first apply to his own nerves, so as to know its intensity. Indeed, if one prefer to use the side-sponge cup through the whole process, he can do so although there is advantage in using the fingers, since, by their concentrated impressions he is more sure to detect disease than by the broader face of the sponge cup.



PRIMARY CELL BATTERY, SHOWN WITHOUT THE LID.

Primary Cell Battery, 18 cells, carbon and zinc elements, size of cells $2\frac{1}{2}$ inches long, horizontal length, $1\frac{1}{2}$ wide, $4\frac{1}{4}$ deep. Polished walnut case, 17 inches long, 7 wide, $12\frac{1}{4}$ deep.

Now, wherever there is found *soreness* or *lancinating pain* under the touch it is sure that the part is preternaturally *positive*—more or less so, according to the degree of painful irritability. On the other hand, if there be found a part

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evincing much *less* than the usual sensibility found in the *healthy* corresponding part of other patients, it may safely be pronounced torpid or paralytic, more or less. It lacks sufficient electro-vitality, is improperly *negative*, and needs to be treated with the negative pole.

It will often happen that diseased action is found in parts where the patient was entirely unaware of its existence until the practitioner's fingers or other electrode revealed it. Again, it will sometimes be found that there is no disease whatever in parts where the patient supposed disease to be active. But when we find patients to be especially nervous, it is not always best to tell them immediately just what our examinations have revealed to us—how severely or how little we think them diseased. It is sometimes better to humor, more or less, the patient's own views for a time; lest, by exciting him or her, we make a difficult case out of one that might have been mastered with comparative ease. In this matter discretion should guide us.

But let me say further, what I deeply feel, that neither do I think it right to *persistently* conceal from patients, especially those who are dangerously affected, a knowledge of their true condition. In my opinion, physicians often unwittingly incur an awful responsibility in this way, wronging their patients in the most vital and momentous of all interests—the interests involved in a due preparation for death. I believe the true way, in every such case, is for the physician himself, in a kind and soothing manner, to reveal to the patient, little by little, if need be, what he really thinks, or to ask the patient's pastor, or some other calm and judicious person to do it for him. I believe the visits of a discreet and affectionate pastor, or, in the absence of a pastor, of some other mild and Christian friend, to the bedside of the sick is, nine times in ten, not only no embarrassment to the patient's recovery, but positively favorable to it, and ought to be habitually encouraged, rather than restrained by medical practitioners.

PRESCRIPTIONS.

PRELIMINARY REMARKS.

The author wishes to caution the reader not to rely merely on the forms of treatment here prescribed, but to study thoroughly the principles taught in the preceding pages, until he shall have mastered them, and can judge for himself of the correctness of these prescriptions. It should be remembered, however, that the diseases here considered are viewed in their *simple* or *uncomplicated* states. Where complications exist, the treatment must be modified according to the judgment of the practitioner.

In these instructions, it is always to be understood that the treatment prescribed is with *cords of equal length*, except when the *long cord* is especially mentioned.

In most of the local diseases here named, particularly those which are electrically *negative*, it is desirable to supplement the local treatment prescribed with occasional *general tonic* treatment, where, in the judgment of the practitioner, it can be given without detriment to the local affection.

In all treatments, the electrodes should be moistened with warm water.

GENERAL TONIC TREATMENT.

Take the B D current, (A D is very good), of fair medium strength. Place the sponge-roll, N. P. (Negative Pole), at the coccyx—lowest point of spine—and manipulate with side-sponge cup, P. P. (Positive Pole), from the feet all over the lower limbs to and about the hips, occupying five to ten

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minutes. Then remove the N. P., substituting for the sponge-roll the end-sponge cup, and place this upon the spine at the lower part of the neck. Now manipulate with side-sponge cup, P. P., over the trunk generally, from the lower to the upper parts, giving special attention to the spinal column by treating it somewhat more than other parts: Treat the trunk some five to fifteen minutes. Next, keeping the N. P. still upon the back of the neck, treat with P. P. over the hands and arms; up to and about the shoulders. Treat here two or three minutes.

It has been customary, for the most part, in giving general tonic treatment, to make the P. P. stationary—placing it successively at the feet, the coccyx and the hands—and to manipulate above it with the N. P. But the better way is as directed above. The object is to reinforce the main nerve-lines and centers with electricity from without. The nerves branch off from their centers—the brain, the spinal cord, the ganglions, and the great plexuses—and run, in general, downward and outward from the trunk lines, in a manner somewhat analogous to the branches and twigs of an inverted little tree. If we place before us such a shrub, with the root upward and the branches pointing downwards, and then draw lines from the lowest point of the lowest twig to the outer ends of all the branches surrounding the main trunk, we shall see that our lines, instead of running in the general directions of the limbs will, for the most part, run *across* the twigs. But if we draw our lines from the outer extremities of the branches and twigs up to the root or near to the source of the trunk, we will find the lines, in the main, running nearly parallel with the branches. Now, let us substitute for this inverted tree the nervous system of a man, and remember that the electric current moves from the positive to the negative pole as nearly in straight lines as it can where there are good conductors, such as the nerves and muscles, and it will at once appear that in treating

the lower limbs, if we place our N. P. at the coccyx, and then manipulate with P. P. over the feet and legs, our electric lines are running from all the surface extremities of the nerve ramifications, wherever the P. P. is moving, directly into and along these fine ramifications, and, through the larger nerve-branches, up to the stationary N. P. Or, if we treat the *trunk* of the body by placing the N. P. on the spine, near its upper end, and then manipulate with P. P. from the lower part upward over the back, sides, abdomen and chest, our current strikes into the surface extremities of the nerves at every point where the electrode touches, and makes its way upwards, along the nerve-lines, to the great spinal cord under the N. P.—thus replenishing with fresh electricity all the ganglions, plexuses and nerve-trunks along the way. But if P. P. be made stationary at the lower end of the section under treatment, and we manipulate over the parts with the N. P., the current strikes from P. P., across the nerve branches and comes out at their surface extremities wherever the negative electrode moves—so reaching but indirectly and imperfectly the trunk lines and their centers.

COMMON COLDS.

Electrical Treatment.—Take the B D Faradaic current—moderate strength. If the affection be mainly in the head, give as follows:

First. *A face bath.* Let an earthen wash basin, nearly filled with tepid water, be placed on a table or chair before the patient, he holding the sponge-roll N. P. in his hands. Now let him bury his face in the water as long as he can hold his breath. At the instant after his face is in the water, drop into the water the tin electrode P. P. Repeat this process as often as he recovers his breath, some eight, ten, or a dozen times.

Second. Place the sponge-roll N. P. in the hands as before, and, making an electrode P. P. of your own hand, in the manner directed for *diagnosis*, clasp the nose of the patient

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between your thumb and finger, moving them up and down along the sides of the nose, and on the nose between the eyes, about five minutes.

Repeat the above forms two or three times a day.

If there be hoarseness or cough, or stricture of lungs, or soreness of chest, place N. P., with *long cord*, upon back of neck, and treat with P. P. over the front part of neck and breast, and wherever upon the thorax stricture or soreness appears.

If there be a feverish condition of the system, attended, perhaps, with pain in the head, place P. P. on the spine, a little below the cranium, and treat with N. P. *long cord*, all the way down the spine, and over the entire back, sides, thorax and abdomen. In this case let the current be rather mild, and be continued for a considerable length of time, with the view of bringing out perspiration. It is desirable that the patient should receive treatment in bed, perfectly protected from any cool air that might restrain or check perspiration. In these cases, I not unfrequently treat with a light B D current a full hour, unless perspiration start freely in shorter time, working over the trunk and limbs generally. But, while treating over the lower limbs, the P. P. should be upon the lumbar plexus, at the "small of the back." Treat once or twice a day until relief appears.

After the stricture and soreness of the lungs are removed, and the general febrile action is suppressed, it is desirable to give a *general tonic treatment*.

Medical Treatment:—

R.—Carbonate ammonia.....	ʒij.
Syrups, tolu.....	ʒij.
Syrups, prunus virginiana.....	ʒij.
Whiskey.....	ʒjv. m.

Sig.—One teaspoonful to one tablespoonful every three or four hours.

Inhale the vapor of vinegar alternately every two or three hours with the cough mixture.

℞.—Ammonia murias..... ʒjss.
 Antimony et potassa tart..... grs. j.
 Morphia sulphas..... grs. jss.
 Syrup, tolu..... ʒij.
 Syrup, zingiber..... ʒij. m.

Sig.—One teaspoonful every two hours.

℞.—Tinct. aconite rad..... gtt. xxx.
 Aqua..... ʒjv. m.

Sig.—Teaspoonful every hour or two, as indicated.

Homœopathic Treatment.—Common colds with fever, Aconite; in the chest, Bryonia; in the head, Hepar sul. and nux vomica; discharges from the eyes, Arsenicum.*

— CEPHALGIA. (*Headache.*)

Symptomatology.—This is very often a symptom of some other affection. Yet we often meet with cases where headache is the only perceptible ailment. Headache may be caused by congestion of the brain and its membranes. Organic disease of the brain by indulgence in alcoholic liquors, by a disordered condition of the stomach and bowels, imperfect menstruation, mental worry and excitement. It is also a symptom of fevers, and nearly all other acute diseases.

Electrical Treatment.—1. *Nervous headache.* Take the B D current—moderate force. Place P. P. on back of neck, just below the brain, and manipulate with side-sponge cup, N. P., all the way down the spine and over the back.

* Homœopathic treatment given in this work, was kindly furnished by HALSEY BROS., Chicago.

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It may often be necessary to apply the P. P. directly to the suffering part of the head. In that case, take the soft Faradaic current B C. If the fluid in the battery cell be fresh, use very little—just enough to reach well the platina plate and make the machine run. Wet the hair thoroughly to the scalp, where the electrode is to be applied. Seat the patient on N. P., or let him hold it in both his hands, (the former is the better way), and treat lightly over the affected parts of the head with P. P. Treat five to ten minutes, as may be required, and if the pain returns, repeat the treatment. Only a very light current can be safely applied directly to the brain, and that an *induced* Faradaic current.

2. *Sick Headache.* The *procuring* cause of this distressing disease is involved in considerable mystery. It seems, however, to be largely dependent on the secretion and discharge into the duodenum of an improper quantity of bile, and an irregularity in the peristaltic action of the upper part of the bowels, particularly of the duodenum, in which that action more or less is *reversed*, and thereby throws the biliary fluid up, through the pilorus, into the stomach. After a time, the stomach becomes nauseated by its accumulation; and the head, through nervous sympathy, is rendered electrically positive in excess, and thus is made to ache. Yet there are certain characteristics of the disease which this view does not satisfactorily explain, and which must remain unexplained until advancing science shall reveal to us more perfect light.

When this disease has become habitual and periodic, it is very obstinate, and requires persistent treatment—often for several months.

Take the B D current with moderate force. Place the N. P. on the spine, immediately above the kidneys, and treat with P. P. over the stomach and the duodenum, (lying transversely just below the stomach), five to ten minutes. Treat in this manner about twice a week.

It may sometimes be necessary to treat the head directly. If so, after the treatment above prescribed, add that prescribed for the head directly, in *nervous* headache, with this difference, viz: instead of seating the patient on the N. P., or placing the same in his hands, pass it over the stomach and duodenum, unless the former may be already too positive. In that case, let the N. P. be at the seat.

If there is congestion of the brain or spine, use B. D. current. Apply P. P. tongue instrument to the tongue N. P. over the neck, spine, chest, and body generally, ten to twenty minutes.

Medical Treatment:—

℞.—Sulphate soda..... ℥j.
Aqua pura..... ℥jv. m.

Sig.—One teaspoonful after meals.

℞.—Nitrite amyl..... gtt. xxv.
Alcohol..... ℥ij.
Aqua pura..... ℥ij.
Bromide potassa..... grs. 160. m.

Sig.—Thirty to sixty drops in water every three to four hours.

Should a cathartic be required :

℞.—Comp. syrup rhei..... ℥jv.

Sig.—One tablespoonful as indicated,

Homœopathic Treatment.—Nervous, Belladonna; neuralgic, Aconite and bryonia; sick, Nux vomica.

DEAFNESS.

Symptomatology.—Deafness may be caused by disease of the organs of hearing and their appendages by catarrh, and it is often seen in the low forms of fever, such as typhoid. In

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this latter case the hearing returns to the patient as soon as convalescence is well established—if at all.

The prognosis is very uncertain. This infirmity is often cured by our system, even when of long standing; and often, again, the treatment fails. The uncertainty arises from the difficulty in determining the exact pathological condition.

Electrical Treatment.—Take the A D current, mild force. Introduce the ear electrode as the N. P. when the disease is of long standing, or as the P. P. when it is of recent origin. Apply the opposite pole to the back of the neck. Treat five to eight minutes, once a day for three or four days, and afterwards three times a week. If no success appears within three weeks, it will probably be vain to expect it afterwards. To the tongue apply P. P. tongue instrument, N. P. ear electrode to the ears alternately five minutes each. If the tonsils are enlarged, apply N. P. over the tonsils. Use the current reverser constantly while applying to the tonsils, which will bring the tonsils under the influence of each pole alternately, one-half of the time producing a greater chemical or alterative effect. Treat each tonsil five to ten minutes, then apply N. P. to the neck, (back and front), five to ten minutes. If there is inflammation of the tonsils, apply P. P. to the tongue, N. P. *long cord* over the tonsils five to ten minutes, using B D current. If there is inflammation of the nasal organs, eyes, ears or brain, apply P. P. to the inflamed parts. N. P. *long cord* to any convenient part a few moments, using mild force while treating the most sensitive parts. *Noises in the head* treat the same as for deafness.

Medical Treatment:—

R.—Sweet oil of almonds..... gtt. xx.
 Balsam copaiba gtt. x.
 Tinct. opii..... gtt. v. m.

Let a drop or two fall into the ear night and morning.

R.—Sulphuric ether..... ʒj.

Place one drop in the ear every night. It may be introduced on cotton.

R.—Tinct. lobelia..... ʒj.
Tinct. opii..... ʒj. m.

If there is considerable pain in the ear, two to three drops on cotton introduced into the ear every six to twelve hours, will give temporary relief.

Homœopathic Treatment.—If from cold, Pulsatilla; catarrhal, Mercurius; buzzing or whistling noises, Nux vomica; sensations of obstructions, throbbing, dryness of the ear or discharges, Calcareo carbonica; nervous, Phosphorus, etc.

INFLAMED EYES.

Electrical Treatment.—If the disease be recent and acute, but not infectious, as from sewing or reading by lamp light or other irritation, take the B D current, of moderate force. Treat with the eye-bath, filled with tepid water, having the eye open in the water. Make the bath the P. P., and place the N. P. on the spine at the upper dorsal vertebræ. Treat each eye three minutes daily.

If the disease be acute and *infectious*, use the A C current some four to six times, and then change to A D. Apply the current as directed above.

If the disease be chronic, or the lids granulated, treat with A D, *very mild* current, applying the eye-bath, N. P., to the eyes, and place the P. P. upon the spine, at the top of the back. Treat each eye three to five minutes three times a week.

In cases of simple inflammation (not infectious), and that chiefly or entirely in the lids, it is often quite as well or better to treat over the closed lids with the finger, holding the sponge-roll P. P. in the same hand, or treat as follows: Use B D current. Apply the index finger of the right hand, holding the sponge connected with the P. P., to the eye, the fore finger of the left hand to the neck and ears transversely to the

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finger on the eye. Manipulate in this manner from ten to fifteen minutes. Should there be extensive inflammation of the eyes, face, etc., previous to giving the above treatment, apply N. P. long cord of the B D current to the feet, and P. P. over the spine, chest and each side of the neck, *between the clavicle and scapula*, twenty to forty minutes, to force the circulatory forces to the extremities. Also apply P. P. to the head, after moistening the hair, three to five minutes; mild force. Use the following medicines, in connection with the treatment, if desired, although this is seldom necessary.

Medical Treatment:—

R.—Zinci sulphas..... grs. jv.
Aqua rosæ..... ℥j. m.

Apply to inflamed or acute sore eyes twice a day.

R.—Tinct. arnica..... ℥j.
Aqua pura ℥j.
Tinct. opii..... gtt. x. m.

Apply to the eyes three or four times a day.

If granulated,

R.—Argenti nitras, four to fifteen grains to the ounce of water.

The strength of the wash to be varied according to the urgency of the symptoms. Apply with a camel-hair pencil on the upturned lids, about three times a week. Never apply while irritation exists by a previous application.

Homœopathic Treatment.—Excessive sensibility to light, burning tears and violent headache, Belladonna; ophthalmia acute, Aconite—a dose every two or three hours—or Mercurius, if there is agglutination in the morning; chronic, Calcarea carbonica, a dose twice a day. Consult the Stepping Stone of Homœopathy, by Ruddock, for full treatment.

AMAUROSIS. (*Paralysis of the optic nerve.*)

Symptomatology.—The symptoms are imperfect vision, flashes of light and dark spots appearing before the eyes, pain in the eye, and in some cases dilatation of the pupil.

Electrical Treatment.—Use B D current, moderate force, three or four times, and then change to C D. Apply the eye-bath, N. P., to the eye, and sponge-cup P. P. upon one of the upper dorsal vertebrae. Treat three to five minutes on each eye three times a week.

First give the electrical treatment, then the following:

Medical Treatment:—

B.—Ext. solid aconite pulv grs. xx.
 Aconitine grs. iijj.
 Axungia ʒj. m.

Take about half a drachm of this ointment and apply on the forehead just over the eyes, rubbing it in well with the hand; repeating from one to three times a day according to circumstances. Then take equal parts of bisulphuret carbon and hydrocyanic acid and mix. Fill an ounce bottle about half full of this mixture; shake it up; remove the cork and place the open mouth close to the open eye looking into the vial, that the eye may receive the evaporation. Hold it thus to the eye about one minute. Repeat three times a day. Keep the liver and bowels regular by means of proper remedies; calomel, podophyllin and leptandrin.

Homœopathic Treatment.—Zinc. met., Nux vomica, Chin., Bell., Hyos.

STRABISMUS. (*Discordance of the eyes.*)

If neither of the *rectus* muscles have been cut and cicatrized, and if the deformity be not congenital, it may ordinarily be cured.

Electrical Treatment.—Take B D current, with small pointed electrodes. If the eye be turned *inward*, insert P. P. in the outer angle of the eye, so as to bear upon the *rectus externus*, and N. P. in the inner angle, so as to bear on the *rectus internus*. Let the current be of such force as the patient can bear. Withdraw the electrodes frequently, to rest the eye, and then reapply them. Apply the current in this manner six to ten or twelve times at a sitting. The eye will soon become inflamed, but the inflammation will quickly go down. Treat daily, or on alternate days, as the eye can bear. After treating some ten or twelve times, if the organ does not come into place let it rest a week, and then resume the treatment as before.

If the eye be turned *outward*, treat in the same manner as directed above, except that in this case, the P. P. must be inserted in the *inner* and the N. P. in the *outer* angle.

If periodic squint, it probably arises from gastric derangement. Dentition, or ascarides neutralizing-cordial, and some of the preparations of santonine may be administered.

Homœopathic Treatment.—Gelseminum and Belladonna.

CATARRH. (*Chronic.*)

Symptomatology.—Chronic catarrh is an affection of the nasal cavities, pharynx and eustachian tubes causing deafness. The discharges are oftentimes of a foetid character and profuse in quantity.

Electrical Treatment.—If in the head, first give *face-bath*, as in common colds, except with *reversed poles* and changing to the A D current, *very mild* force. If in the throat or bronchial tubes, place the P. P. of the A D current, with *long cord*, on the back of the neck or in the mouth, and treat with N. P., *soft* current, upon the affected parts, eight or ten minutes. Also, attach N. P. of the A B or A D current to the tongue instrument. Apply to the tongue. Then apply P. P.

ear electrode to each ear alternately, three to five minutes. Then apply N. P. with a small sponge attached to a copper wire in the right nostril, P. P. ear electrode to the right ear three to five minutes. Change and treat the left nostril and ear three to five minutes. Use the current reverser constantly while treating the ears and nose, so as to produce a greater chemical and alterative effect on the mucous membrane of the eustachian tube; then change. Apply N. P. to the tongue, P. P. below the ear over the submaxillary gland, using the current reverser as above. Then apply P. P. to the back of neck about five minutes. Then take P. P. in the right hand and apply with the thumb and fore finger of the same to the nose and inner corners of the eyes five minutes. Alternate the treatment with B D current every other day.

Medical Treatment:—

R.—Sulphate aluminum..... grs. xx.
Aqua rosæ..... ℥ij. m.

Pour a little in the hand, and snuff it up the nose once or twice a day for a few days, then occasionally, until relief is obtained.

R.—Permanganate potassa..... ℥ss.
Aqua pura..... ℥viii. m.

Use as above, or dilute one-half in pure rain water (tepid), and use a nasal douche two or three times a week. Use No. 3 for ozena.

R.—White precipitate finely pulv..... grs. 8.
Sugar, white, in very fine powder.... grs. 460.

Mix thoroughly. Clear the nose by blowing it strongly. A small pinch of the powder may be snuffed up the nose once or twice a day, two or three times a week.

Homœopathic Treatment.—Arsenicum iod., Mercurius.

CATARRH. (*Acute.*)

Symptomatology.—Acute catarrh is an acute inflammation of the lining membrane of the nasal passages. What is commonly called a cold in the head is the most common form of this affection.

Electrical Treatment.—If in the head, treat as prescribed for common colds in the head. If in the throat, place N. P. somewhere on the dorsal vertebrae, and treat with P. P. tongue instrument in the mouth about five to ten minutes, and then with end-sponge cup externally upon the affected parts as much longer. Use B D current, in good medium strength, twice a day.

Medical Treatment:—

R.—Aurum triphyllum, Indian turnip.... ʒj.
Syrup, ginger..... ʒij m.

Sig.—One teaspoonful three or four times a day.

R.—Tinct. gelsemini..... ʒj.
Aqua pura..... ʒij. m.

Sig.—One to two teaspoonfuls three to six times a day.

R.—Syrup, ipecac..... ʒij.

Sig.—One-half to one teaspoonful every two or three hours.

Homœopathic Treatment.—Hepar sulphur, Aconite, Camphor, Nux vomica, Pulsatilla.

DIPHTHERIA.

Symptomatology.—Generally commences by chills, followed by feverish symptoms, headache, soreness of the throat, difficulty of swallowing, with a feeling of great depression. Sometimes the fever is absent, even when the throat lesions are great. The breathing is difficult. Upon examination of the throat the tonsils and other parts will be found swollen and covered with a peculiar

iar whitish gray deposit, which is highly characteristic of the disease; in some cases the tonsils present a hollow ulcer of a purplish color, the disease gradually extends to the air passages; the pulse is generally slow and easily compressible. There is in many cases diarrhœa of an offensive character. The membrane on the tonsils reappears after removal several times in succession, if of a malignant character, under medical treatment.

Electrical Treatment.—Use the A D current, strong force. Place the N. P., *long cord*, upon the lower cervical vertebra, and then treat, *first*, with the *tongue* instrument, P. P., in the mouth, as far back on the tongue as can be borne, ten to twenty minutes. *Next*, manipulate with sponge-cup, P. P., or the tin electrode filled with sponge, over all the front parts of the neck and throat, down to the chest, five to fifteen minutes.

In conclusion apply P. P. to the tongue, N. P. over the sub-maxillary glands, thorax and neck, generally five to ten minutes. The following treatment may also be given once or twice a day. Apply N. P. long cord to the tongue, P. P. over the sub-maxillary glands, thorax and neck, generally five to ten minutes.

Treat as often as once in two or three hours.

Medical Treatment.—Gargle the throat every one to four hours with the following:

℞.—Hydrastis canadensis pulvis	}	ss ʒj.
Piper nigrum pulvis		
Chloride sodium		
Sodæ boras.		
Aqua pura	}	ss ʒj. m.
Vinegar		
℞.—Cayenne pepper		ʒj.
Chloride sodium		ʒj.
Cider vinegar		ʒjv. m.

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Gargle the throat every hour or two, using the liniment as directed below.

Apply the following liniment to the neck freely, wearing a flannel cloth around the same.

℞.—Aqua ammonia.....	} aa ℥j.
Tinct. myrrh et capsic.....	
Tinct. opii.....	
Oil sassafras.....	℥ss. m.
℞.—Muriate tinct. ferri.....	℥j.
Quinine.....	grs. x to xx. m.

Sig.—Five to ten drops, largely diluted with water, every two hours.

Homœopathic Treatment.—Kali bichrom, Merc. iod., Gelsem., Arsenicum, Iod.

APHONIA. (*Loss of voice.*)

Symptomatology.—This disease may be caused by organic lesion of the vocal organs, such as ulceration; or it may be a purely nervous affection, or it may be produced by sudden and severe cold, especially if the vocal organs have been overtaxed by singing, etc.

This affection requires treatment variously, as it depends on one or another procuring cause.

Electrical Treatment.—If it be the result of recent "cold," inducing acute catarrhal irritation in the larynx, treat *first* as for *common cold*, and *close* the sitting as follows: Place N. P., *long cord*, of A D current, in good medium force, upon back of neck or in the mouth, and treat three to five minutes, twice a day, with P. P. over the front parts of the neck, mostly over the *larynx*—Adam's apple.

If it be from paralysis of the larynx, treat with B D current, rather strong force; placing P. P., *long cord*, on back of

neck or in the mouth, and work with N. P. over the *larynx*, and somewhat over the air tube of the neck generally. Treat five to ten minutes daily.

Medical Treatment:—

℞.—Tinct. nux vomica..... ʒss.

Sig.—Two to three drops three times a day.

℞.—Valerianate zinc..... grs. xx.
Extract taraxicum..... qs. m.
Fiat pilulæ, No. 40.

Sig.—One or two every three hours.

℞.—Phosphate iron..... grs. xxv.
Extract senna..... ʒj. m.
Fiat pilulæ, No. 25.

Sig.—One to three every four hours.

Homœopathic Treatment.—Causticum, if recent; Kali bich., Phos. and Merc., if chronic.

CROUP—SPASMODIC. (*Cyananche Laryngea*.)

Symptomatology.—Spasmodic croup may be known by the sudden attack, generally during the night when the child has been apparently well during the day, and its almost total disappearance on administering electricity and some active anti-spasmodic. Treat as in Diphtheria.

Medical Treatment.—

℞.—Tinct. belladonna ʒj.

Sig.—One to three drops every one to four hours.

℞.—Tinct. cannabis indica ʒj.

Sig.—One to three drops on sugar every one to four hours, alternately with No. 1.

℞.—Syr. sanguinariae acetatis comp. ʒj.

Sig.—Ten to 30 drops every half-hour, hour, two or three hours.

R.—Syrup ipecac ℥j.

Sig.—Ten to sixty drops, as indicated.

R.—Spirits ammonia ℥j.

Oil amber (rect.) ℥j. m.

Apply with the hand to the nerve centers along the back, particularly between the shoulders, night and morning.

R.—Oil stillingia ℥j.

“ cajeputi ℥j.

“ lobelia gtt. xxx.

“ lavender gtt. xxx.

“ cinnamon “ x.

“ sassafras “ x.

Alcohol ℥ijj. m.

As soon as the croupy cough begins, rub a little on the throat. Repeat every hour or two. Give one or two drops on sugar every hour. Continue until relieved.

Homœopathic Treatment.—Aconite, Hepar, Spongia.

CROUP. (*Pseudomembranous.*)

Symptomatology.—The symptoms of pseudomembranous croup are more insidious than spasmodic croup. The patient is restless, feverish, and inclined to expectorate, soon followed by cough and hoarseness. Expectoration increases, the sputa being of an albuminous character; the patient is better in the morning, but grows worse towards night, the pulse becoming quicker and the breathing difficult. The child throws back its head and grasps at the neck; the expectoration grows less, breathing more labored and the pulse quickened. The voice sinks to a whisper, and, unless relieved by treatment, soon becomes comatose and expires.

Treat croup, whether membranous or spasmodic, much the same as is prescribed for diphtheria, only, in the latter part of the form, treat less.

Electrical Treatment.—Apply P. P. of the A D to the tongue, N. P. over the back and chest; use cords of equal length, five to ten minutes, P. P. to the back of the neck, N. P. over the lungs, five minutes.

Medical Treatment.—

R.—Lobelia (herb green in color) ℥ij.
 Loaf sugar ℥ij.
 Aqua bulliens ℥iv.

Bruise the herb and mix. Steep, without boiling, about ten minutes, having the dish well covered. Strain, and add to each ounce one drop of bromine.

Sig.—One teaspoonful every half-hour, hour or two hours, according to the urgency of the case. Usually the dose is required every hour. Besides this, fill a teacup half full of boiling water and drop into it one drop of Bromine, not more than two drops, and hold the patient's face over this in such a manner that he will inhale the fumes that arise. This treatment with the Electrical will obliterate the disease. Ninety-six per cent. will recover, if not taken in the last stage of the disease.

Homœopathic Treatment.—Spongia, Ipec., Acon.

HEPITIZATION OF LUNGS.

Symptomatology.—Cough and difficulty of breathing; thick tenacious sputa; on percussing the thorax, there will be found an area of dullness corresponding with the affected portion of the organ. Auscultation gives a peculiar blowing or tubular sound, the air passing through only the larger of the air passages.

Electrical Treatment.—Take A D current, pretty strong force.

Treat in front, over the lungs, with P. P., moving N. P., *long cord*, on spine from neck to near the kidneys; that is, over all the dorsal vertebræ. If the current be severely painful, moderate it to endurance. Treat five to fifteen minutes, and apply P. P. to the back of the neck, N. P. over the chest, generally five to ten minutes. Treat two or three times a day. The following treatment may also be given every other day. Use B D current, apply P. P. to the back of the neck, N. P. over the body and extremities, generally five to ten minutes. If there should be indications of prostration, apply P. P. of the B D current to the feet, N. P. over the limbs and body, generally five to ten minutes, once or twice a day.

Medical Treatment.—Veratrum viride, Syrup ipecac, Digitalis, Muriate of ammonia, Alkalies, etc., may be used in the incipency of the disease. When more fully developed, Iodide potassa may be given in one to two grain doses, every two hours. Poultices and sinapisms may be applied over the parts affected.

ASTHMA.

Symptomatology.—Some of the symptoms of this disease are premonitory and by those subject to the affection give warning of an approaching attack. Among those are chilliness, loss of appetite and an uncomfortable feeling on going to bed. The attack generally begins after midnight; the patient is aroused from sleep by a feeling of constriction across the chest, labored breathing and impending suffocation, attended with a wheezing noise; he gasps for fresh air, makes strong, voluntary efforts to expand his chest. The exertion of breathing gives warmth to his body, and he perspires freely.

Electrical Treatment.—Use the A D current, medium force. Treat with P. P. over the shoulders and between the scapulæ, and with N. P. in front upon the lungs, heart and diaphragm. Treat ten to twenty minutes daily, for three or four days; after that, three times a week. In severe attacks

of asthma, it may be necessary to commence by giving a general tonic treatment, before giving the local, as directed above.

Medical Treatment.—

℞.—Tinct. gelseminum ℥ij.
 “ lobelia ℥j. m.

Sig.—Ten to fifteen drops every fifteen or twenty minutes.

℞.—Tinct. belladonna ℥j.
 Aqua pura ℥ij. m.

Sig.—One teaspoonful every two or three hours. Diet nutritious, with white or red wine.

Homœopathic Treatment.—Ipecac, Apen. lobel., Ant. tart.

PNEUMONIA. (*Inflammation of the lungs.*)

Symptomatology.—The chief symptoms are cough, difficulty of breathing, pain in the thorax, aggravated by coughing; pyrexia, pulse more or less quickened and hard, according to the severity of the attack, which, with dyspnoea, exists throughout the course of the disease. The skin is dry and hot at first; the expectoration is difficult and painful, but in a few days it becomes free, and the difficulty of breathing is somewhat mitigated. If the disease, instead of passing off by resolution, goes on to supuration, chills are experienced; the respirations become oppressed, and a feeling of weight is felt in a particular region of the lungs. The disease may terminate by gangrene, by induration, or by hepittization. The physical signs are in the first stage, diminution of sound on percussion, auscultation gives a dry crepitating rale. Second stage. When hepittization has taken place, the motion of the affected side is lessened, percussion dullness is apparent over the part in every attitude of the patient, auscultation gives a bronchial murmur. The respiratory murmur is louder in other portions of the

lungs, and the voice resonant. Supuration. The voice and cough are less resonant, and coarse mucus rale is heard.

Electrical Treatment.—Take the B D current, strong as the patient can bear, and treat briefly—say five to fifteen minutes, several times a day, until relief is experienced.

Place N. P., *long cord*, low on back of neck, and move P. P. over all the upper part of the lungs. Then remove N. P. to the lower dorsal vertebræ, just above the kidneys, and treat with P. P. over the lower part of the lungs. If typhoid symptoms attend, follow the above with placing P. P., medium force, on back of neck, close below the cranium, and N. P. at coccyx, five to ten minutes. Also, apply N. P. to the feet, P. P. over the shoulders, side of the neck, and over the body downwardly, and over the small of the back and kidneys, ten to twenty minutes. It may be advisable to apply P. P. tongue instrument occasionally to the tongue, N. P. over the back and chest, five to ten minutes, using mild force. If there is delirium, apply N. P., *long cord*, to the feet, P. P. in the right hand, apply the index-finger of the same to the eyes alternately, while the first or second finger of the left hand is on the neck, or in each ear alternately, and transversely with the finger on the eye. Manipulate in this manner ten to twenty minutes. Then apply the fingers to the ears five minutes. Then moisten the hair, and apply P. P. to the head three to five minutes, mild force. Repeat the treatment in whole or part as indicated, two or three times a day, until you get control of the disease. When under control, treat often enough to keep it under control.

Medical Treatment:—

℞.—Tinct. aconite rad ʒss.
Aqua pura ℥jv. m.

Sig.—One teaspoonful every hour or two alternately, with No. 2.

℞.—Tinct. belladonna..... ʒss.
 Aqua pura..... ʒjv. m.

Sig.—Use alternately with No. 1.

℞.—Tinct. veratrum virid..... ʒj.
 Syrup, ginger..... ʒijj. m.

Sig.—Four to eight drops every two or three hours, until the fever is controlled.

Cough mixture.

℞.—Ammonia carbonate..... ʒj to ʒj.
 Syrup, tolu..... ʒij.
 Syrup, ginger..... ʒij.
 Whiskey..... ʒjv. m.

Sig.—One to two teaspoonsful every three or four hours. Follow with tonic treatment and tonics when the fever abates.

Homœopathic Treatment.—Aconite, Phosph., Bryonia, Tart. emetic.

PULMONARY PHTHISIS. (*Consumption.*)

Symptomatology.—In the earlier stages of phthisis the symptoms are a slight dry cough, particularly in the morning; quickened pulse; a burning sensation in palms of the hands and soles of the feet; dryness of the mucous membrane of the mouth and fauces. Chills and fever. The temperature is elevated, particularly in the morning and evening. Menstruation is deficient. Hæmoptysis sometimes suddenly appears, succeeded by all the symptoms of well marked pulmonary phthisis. These symptoms are intimately connected with the deposit of tubercles in the lung, softening may not as yet have commenced. Emaciation and debility soon show on the patient. The hectic flush soon appears on the cheek; indeed the symptoms of this dread disease are too well known to many a home. Physical signs are dullness and a feebleness of the respiratory murmur

in the clavicular region. In fact it is agreed on by the majority of writers that a dullness in the clavicular region, together with an altered respiratory murmur, a quickened pulse, and a marked elevation of temperature has only one interpretation, viz.: Pulmonary Phthisis. As the disease advances, the tubercles soften and become diluted with broken down lung tissue; the expectoration of this matter gives rise to cavities or vomica. A careful examination of the chest at this time will give positive evidence of the existence of extensive lesions of the lungs. After the formation of cavities the peculiar gurgling rale is heard if the cavity contains any fluid. If a portion of lung is solidified, bronchial breathing and bronchophony is heard, the lung may be solidified in one part giving those latter signs, while another portion may contain a cavity giving all the signs of a breaking down of lung structure. In the last stage, or as called by some writers, the third stage, which commences when cavities are already formed, and unfortunately terminates with death, is marked by an increase of all the foregoing symptoms, the cough and expectoration grows worse. There are night sweats and a colliquative diarrhoea, the feet and ankles become oedematous, the vital powers gradually sink. All the functions of life fail, and death closes the scene.

After tubercles have been formed *extensively* in the lungs, and have *softened down* over considerable area, carrying the pulmonary tissue with them into a state of pus, there is commonly but little hope of successful treatment. But where they are restricted to comparatively small extent, and no ulceration exists, they may be decomposed and absorbed away, or be thrown off in expectoration, and the affected parts be healed.

Electrical Treatment.—If the case be a *recent* one, and acute fever, combined perhaps, with more or less inflammation in the lungs, use the A. C. current, in moderate force, yet all the patient can bear without special distress.

Place N. P., *long cord*, upon the upper dorsal vertebræ for treating the upper part of the lungs, or upon the lower dorsal vertebræ for treating their lower part. Then pass P. P. over all the affected parts. Treat in this manner five to fifteen minutes, daily, until the *inflammation* is suppressed, which will be indicated by an abatement of the extreme sensitiveness and lancinating pain under the electrode. Then, if *feverish* action continue high, remove the N. P. to the coccyx or to the lower part of the sacrum, taking the B D current, *mild* force, with cords of *equal length*, and treat, as before, with P. P. over the affected parts, and also over the thorax generally, and along down the spine to the lower dorsal vertebræ. Continue this treatment ten to fifteen minutes, daily, until the fever is removed, or nearly so. For this part of the treatment, it is best to use the hand as the P. electrode, and to diffuse the current over the whole palm of the hand wherever special soreness appears. It is better, also, that the patient receive the treatment in bed, secure from any chilliness or current of air, so as to facilitate perspiration.

If the case be one of long standing, and more or less of *pus*, or *pus* and *tubercles*, be raised in coughing, take the A D current, with equal cords and *very mild* force. Reduce the quantity of battery fluid if necessary. Now place P. P. at the coccyx and treat with N. P., (the hand is here much the best), over all the diseased parts. Change occasionally by removing P. P. to back of neck with *long cord*. The object is to bring the diseased parts under a very light force of the A D current, such as is especially healing in old ulcers and chronic irritation. But if this action should at any time *increase* fever or inflammation in the lungs, the poles must be reversed for one or two treatments. Use B D current in this stage of the disease, treat ten to twelve or fifteen minutes, daily, for three or four days, and after that, three times a week.

Medical Treatment:—

℞.—Rock candy ℥ij.
Whiskey, pure..... ℥vjj. m.

Sig.—One tea to one tablespoonful three to six times a day when the cough is troublesome. Also, preparations of the Hypophosphites, malt and Codliver oil, may be used as indicated. Tonics of bark and iron, phosphorus and strychnia, or Wheeler's Compound Elixir of the Hypophosphites (chemical food), may be used advantageously. If there are profuse perspirations:

℞.—Aromatic sulphuric acid..... ℥j.
Quinine..... grs. x to xxx.

Sig.—Mix, take ten to fifteen drops largely diluted with water, three or four times a day. The above preparation may also be applied to the spine with the hand morning and evening.

℞.—Salad oil ℥jv.

Apply with the hand over the chest and back, three times a week.

Use the following with the salad oil:

℞.—Aqua calcis..... ℥vjj.
Tinct. iod..... ℥j. to jj. m.

Sig.—One teaspoonful in a glass of sweet milk, three times a day.

Homœopathic Treatment.—Bryonia, Tart. em., Ferr. iod., Calc. iod., Phos., Ars., Aconite.

ANGINA PECTORIS.

Symptomatology.—There is sudden and lancinating pain in the region of the heart, producing intense suffering. The pain sometimes extends to head, arms or legs, with a feeling of

impending suffocation and death. There may be dyspnœa and lividity of the face. The extremities are cold, and the urine is passed in large quantities. There may be organic disease of the heart and thereby complicate the affection. Some writers give organic disease of the heart as one of the causes of Angina pectoris. The cause of the disease in many cases is very obscure.

Electrical Treatment.—If *neuralgia*, use B D current; if *rheumatism*, use A D. In either case, treat the heart with P. P., moderate force, placing N. P. at lower dorsal or upper lumbar vertebræ. Treat five to eight minutes, daily, until relief is gained.

Rheumatism of the heart may be distinguished from *neuralgia* by its occasioning irregularity in the cardiac contractions, commonly a sense of soreness and pain under pressure by the hand, and often perceptible enlargement of the organ, which neuralgia does not, and also by its pains being more constant—less fitful—than those of neuralgia.

Medical Treatment:—

℞.—Valerianate quinine grs. jv.
 Prusiate ferri “ vjij.
 Diaphoretic powder “ xij. m.

Sig.—Fiat pulvis No. 8. Take one powder every two hours. Apply one of the following preparations to the parts affected. Moisten a linen cloth and apply.

℞.—Fluid extract aconite ℥jss.
 Chloroform ℥ij. m.

℞.—Aqua ammonia 4. F. ℥ss.
 Chloroform ℥ss.
 Spirits camphor U. S. P ℥ijj. m.

Apply as above directed.

R.—Fl. ext. hyoseyamus ℥j.
 Valerianate ferri ℥j.
 Syrup, ginger ℥j. m.

Sig.—Twenty to thirty drops before each meal; used in neuralgic affections, anæmic and debilitated states or condition of females.

PALPITATION OF THE HEART.

Symptomatology.—Palpitation of the heart may exist in the various structural changes of that organ, yet it frequently exists without any organic lesion whatever. It requires extreme care and observation in many cases to be able to diagnose between organic disease of the heart and that which is purely functional. It is only by careful auscultation and percussion that we may be able to arrive at a correct diagnosis, and these means carefully applied, should be used in all cases to arrive at a correct conclusion. The differential diagnosis of purely functional cardiac derangement are, that in organic lesion the disease always advances, whilst that of functional is to occur at regular intervals; that active exercise always aggravates organic, but seldom increases and sometimes relieves functional derangement. Also, that the physical signs are soon developed in organic disease and remain permanently, while in functional derangement they seldom exist, and their appearance is apt to be irregular or periodic.

This is commonly a symptomatic or sympathetic affection—rarely idiopathic—and disappears on cure of the disease from which it proceeds. It usually denotes nervous weakness, and often general debility. *General tonic treatment* is indicated, as far as can be given without interfering with the proper treatment of any local affections on which the palpitation depends.

Electrical Treatment.—Use B D current, apply P. P. to the tongue, N. P. over the thorax and chest, generally three to

five minutes; then apply N. P. to the spine, three to five minutes. Change and apply P. P. to the back of the neck. N. P. over the chest, stomach, liver and spleen, five to ten minutes. Change and apply P. P. to the feet, N. P. over the body generally, five to ten minutes. Treat once a day or every other day. While treating chest as first directed use mild force.

Medical Treatment:—

R.—Valerianate ammonia..... ℥j.
Syrup, acacia..... ℥jv. m.

Sig.—One to two teaspoonsful three times a day.

R.—Valerianate ferri..... grs. xxx.
Syrup ginger..... ℥jv. m.

Sig.—One teaspoonful three or four times day.

R.—Tinct. prunus virginiana..... ℥ij.
Simple, syrup..... ℥ij. m.

Sig.—One-quarter to one teaspoonful every four hours.

Homœopathic Treatment.—Cactus gr., Carbo. veg.

TORPID LIVER.

Symptomatology.—Inactivity of the liver may depend on a number of causes: such as organic diseases of the organ, obstruction of the bile ducts, malaria in its many forms. The tongue is coated, the bowels are constipated, and the alvine evacuations are of a pale clay color. There may also be jaundice.

Electrical Treatment.—Take A D or B D current, full medium force. Treat with N. P. over the liver, at the right side, immediately below the short ribs, and thence backward and a little upward, as far back as the spine, holding P. P. on the left side, close under the ribs, for about ten to twenty minutes. Then remove P. P. to the spine, on back of neck,

ten to twenty minutes. Next, go with the P. P. to coccyx five to ten minutes; continuing, as at first, to manipulate with N. P. over the liver. Let the whole treatment occupy from twenty to forty minutes. Repeat the sittings about three times a week. If very torpid, daily.

Medical Treatment.—If the bowels are constipated, administer mild cathartics. Preparations of Magnesia, Seidlitz powders or Compound syrup of rhei and senna. Usually enemas are all that are required. Make a solution of Epsom salts. Inject. Or Milk and water. Soapsuds may be used. Never irritate the intestinal canal to relieve the rectum of fecal matter. Electricity and enemas will relieve the most obstinate cases.

Medical Treatment:—

Cathartic for children:

℞.—Creta preparata grs. xx.
Hydrargyrum chlor. mit..... “ v. m.

Sig.—Make five powders. Give one every four hours.

For adults:

℞—Pilulæ Hydrargyri..... ʒj.
Aloes pulvis..... grs. x.
Capsicum “ jv.
Extract nux vomica..... “ v.
“ colocynt, comp..... “ xxx. m.
Fiat pilulæ, No. 20.

Sig.—One pill night and morning.

℞.—Ext. belladonna..... grs. vj.
“ gentian..... “ xvijj. m.
Fiat pilulæ No. 15.

Sig.—One to two before breakfast.

Homœopathic Treatment.—Podophyllin.

HEPATITIS. (*Inflammation of Liver.*)

Symptomatology.—Pain in the right side, tenderness on firm pressure, hard and full, strong pulse, high fever and a considerable elevation of temperature, tension in the right side and a hacking, dry cough, constipated condition of the bowels, a pale and yellow appearance of the eyes and skin.

Electrical Treatment.—Use the B D current with what force the patient can bear. Place N. P. at the coccyx, and also somewhere on the trunk opposite to the inflammation. Then manipulate with P. P. over inflamed and sore part. Treat five to twenty minutes, once or twice a day. The following remedies may be used in connection with the treatment: Podophyllin, Leptandrin, Veratrum, Taraxicum, Sulphate soda, and Alkaline baths.

Homœopathic Treatment.—Podophyllin, Mercurius.

ENLARGEMENT OF LIVER.

Symptomatology.—Symptoms are pain in the hepatic region, jaundice and its accompaniments, and on percussion the area of the organ will be found to be enlarged. On palpation and manipulation the size and boundaries of the organ will be found to exceed its normal state. The tongue is coated with a whitish brown covering, and the bowels are constipated.

Electrical Treatment.—Take the A D current, with medium force. Place N. P., some five to twenty minutes, on left side, over the spleen; and then as much longer at the coccyx. Manipulate with P. P. over the liver. Treat about three times a week. If the enlargement be recent it will subside; if of long standing, its restoration will be slow, and somewhat uncertain.

Medical Treatment:—

R.—Chlorate potassa ʒij.
Aqua pura ʒv. m.

Sig.—One teaspoonful every two hours.

Homœopathic Treatment.—Bryonia, Merc., Nux vomica

BILIARY CALCULI. (*Gravel in Liver.*)

Symptomatology.—The patient is suddenly seized with severe pain in the region of the liver, passing towards the epigastrium. The pain is most excruciating, and lasts during the passage of the calculi through the bile duct. The face is bathed with perspiration, and there is vomiting and considerable prostration. The pain passes off suddenly, leaving the patient very much weakened. The alvine evacuations should be filtered through water and the presence of calculi detected.

Electrical Treatment.—Take A C current, strong as can be borne; and treat the inflamed and painful part with P. P., while N. P. is upon the right end of the duodenum. Treat eight to ten minutes, daily.

Medical Treatment:—

R.—Tinct. gelseminum..... ʒjv.

Sig.—Three to six drops every one, two or three hours, as indicated.

R.—Fluid extract hydrangea..... ʒjv.

Sig.—One-half to one teaspoonful two or three times a day. Especially adapted to the removal of renal calculi.

SWEET OLIVE OIL FOR REMOVING GALL STONES.

Dr. J. W. Babbit, of Ypsilanti, Mich., writes as follows to the *Medical Brief*: "I have suffered from the presence of gall stones as persons seldom suffer. For fifteen weeks, almost every day, one or more calculi passed, and the anguish was so great that the inhalation of chloroform appeared to me to be the only thing to keep body and soul together * * *. Finally, acting under the advice of Dr. Pitchers, of Detroit, I

took a remedy which brought away over one hundred crystallized globes, as large as a marrow-fat pea, at one evacuation. I have since treated more than a score of sufferers, with the best results, and to the satisfaction of all concerned. Remedy: Sweet olive oil, six to eight ounces. First empty the stomach by emetic, or by fasting; the latter way is preferable. Twenty or thirty minutes after swallowing the oil, which will give time for it to pass into the duodenum, recline upon the left side, with the hips elevated higher than the shoulders. The oil will find its way down the ductus communis and reach the enemy in its castle, to-wit: the gall bladder. Every calculus will be lubricated and slide out of the fount and through the intestines. Now, to be certain the desired result has been obtained, let the stools be dejected into a vessel half full of water, and the little green globules will be found floating on the water. No cathartic will be necessary. Nothing more needed.

Homœopathic Treatment.—Chelidon, Bell., Aconite, and the application of a large, hot compress over the seat of pain.

INTERMITTENT AND REMITTENT FEVERS. (*Ague and Fever.*)

Symptomatology.—Intermittent and remittent fevers occur in regular paroxysms of longer or shorter duration, or periods occasionally recurring every twenty-four, forty-eight, or seventy-two hours. Generally every seventh, fourteenth, or twenty-first day. A paroxysm is generally preceded by languor, lassitude, and pain in the bones. The tongue is covered with a white coating. Coating distinct. Chills or rigors are felt passing down the back and legs. The teeth chatter, the nails become purple, the skin assumes the appearance of goose flesh (*cutis anserina*). In the course of from thirty minutes to four hours these symptoms subside, and at first a mild fever succeeds, which continues to increase until the skin becomes dry and hot. The pulse rapidly increases in volume, and frequently the temperature rises rapidly. There is headache,

thirst and dryness of the secretions. The urine is scanty and highly colored. These symptoms vary in different persons and localities. Now begins the sweating stage. The skin is soon covered with a profuse perspiration, the pulse becomes soft and compressible, and the patient begins to feel decidedly better. In the remittent form the symptoms are much as above, but its chief characteristic is the almost entire absence of a well-marked apyrexia, or complete intermission of the symptoms, such as is seen in the intermittent variety. In other words, there is no complete subsidence and interval of the paroxysm.

Electrical Treatment.—Use the A D current. First, give *general tonic treatment*. Then close the sitting with a *strong current*, running from spleen to liver—P. P. upon spleen, in the left side, just below the ribs, and N. P. upon liver—best reached in the right side, close under the ribs, and around backward and a little upward as far as to the spine. The spleen is morbidly positive, and probably enlarged, while the liver is too negative. Treat spleen and liver in this transverse manner about five to fifteen minutes.

If the chills occur on alternate days, treat on the intervening days; if every day, treat about two hours before the chill is expected, or treat as above when the chill is on. I have broken chills of months' duration in twenty to thirty minutes, while shaking.

Medical Treatment:—

R.—Chinoidine	ʒij.
Acid, sulphuric, arom.....	ʒj.
Aqua fontana.....	ʒij.
Whiskey.....	ʒjv. m.

Sig.—One teaspoonful in a wine glass of water every two hours, during the absence of the fever, until broken. Repeat on the sixth, twelfth, eighteenth, and twenty-fourth days. Keep the bowels regular with vegetable pills. Electricity with first

prescription will cure nine-tenths of the worst cases in a few days.

℞.—Whiskey ʒvj. or oj.
Sweet flagroot ʒij. m.

Sig.—One tablespoonful in the absence of the fever.

Homœopathic Treatment.—China, Arsen.

NEPHRITIS. (*Inflammation of the Kidneys*.)

Symptomatology.—Fever and acute pain in the region of the kidneys, and dull pain in the thigh of the affected side. The urine is of a dark red color. The patient feels pain and distress in attempting to walk or sit upright. He generally lies easiest on the affected side. The skin is dry and hot. The tongue is coated with a dark brown coat; the pulse at first is hard and full, but in a short time becomes small, weak and quick.

Electrical Treatment.—1. *Acute.* If the urinary secretion be *reddish* and *scant*, with or without sedimentary deposit, let the inflammation be regarded as *acute*; and use upon it the B D current of good medium strength, or a little more, if the patient can bear it. The pain from the current will probably subside somewhat, and perhaps altogether, under treatment. Place N. P. at the coccyx or at the feet, or in a bowl of water, in which drop the tensus with N. P. long cord, and manipulate over the inflamed and sore parts with P. P. Treat five to twenty minutes, twice a day, if the case be recent, or once a day, if it be of some weeks standing.

2. *Chronic.* If it be an old case, and attended with a brownish or a brickdust-like sediment in the urine, it may be considered *chronic*, and should be treated with a moderate A D current, once in two days. Place P. P. at the coccyx, and treat with N. P. over the affected kidneys. There may be no sense of soreness or swelling, but *dull* pain. Treat ten to fif-

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teen minutes. But if the inflammation should rise to an active or acute state, *reverse the poles*. Use B D current. Apply P. P. over the kidneys, N. P. at the feet, ten to twenty minutes. Treat twice a day until relieved.

Medical Treatment:—

R.—Sweet spirits of nitre..... ʒj.
 Tinct. aconite..... gtt. xxx.
 “ gelsemium..... ʒj. m.

Sig.—Ten to fifteen drops every two or three hours, as the case may indicate.

R.—Infusion of marsh-mallow root. Use freely.

CYSTITIS. (Inflammation of the Bladder.)

Electrical Treatment.—Use B D current. N. P. *long cord* with the tensus in a mug of water. Then manipulate with the side-sponge cup over the small of the back and kidneys, ten to twenty minutes. Treat once or twice a day.

Warm sitz baths, and Hoffman's anodyne may be used advantageously with prescriptions for nephritis.

Homœopathic Treatment.—Aconite, Gelsemium, Terebinth, Couth.

DIABETES, OR SACHARINE URINE.

Symptomatology.—The symptoms are thirst, headache, a dry and parched condition of the mouth, pain in the region of the kidneys and great debility. The urine is limpid and greatly increased in quantity, and has a sweetish taste and smell. The urine in all suspected cases should be tested for sugar.

This disease occurs in two forms, *diabetes insipidus* and *diabetes mellitus*. In the first named form, the disease is readily cured. In the latter, it is very formidable, and is rarely, if ever, cured by medicines, especially when of long

standing. In this latter variety of the disease, the urea is absent from the urine, and in its place is found more or less of sugar, often large quantities, Dunglison says two and one-half ounces in a pint.

The electrical state of the disease, in both of these forms, is negative in excess.

Electrical Treatment.—1. *D. incipidus.* Use the B D current, of moderate force. Place P. P. at the coccyx or on the upper dorsal vertebræ, or on both in alternation, which is better, and treat over the kidneys with N. P. five to eight minutes, once a day, for three or four days. If this should fail to cure, as it seldom will, go on with the same treatment three times a week.

2. *D. mellitus.* Take the A D current, of mild force. Place P. P. as in *d. insipidus*, and treat the kidneys with N. P. about five to fifteen minutes, three times a week, supplementing this with *general tonic treatment*, once or twice a week.

Be patient and persevering. In bad cases, months will be required to effect a cure; but persistent effort, as above prescribed, will rarely if ever fail, unless the vital force is nearly expended.

Medical Treatment.—D. Insipidus.

℞.—Aletrin grs. xx.
Brandy ℥viii. m.

Sig.—One tablespoonful, made into brandy toddy, and given three times a day. Bathe the body with warm alkaline water three to six times a week.

D. Mellitus.—

℞.—Hypermanganate of potash ℥j.
Aqua pura ℥v. m.

Sig.—One teaspoonful three or four times a day in syrup or acacia or emulsion of elm.

℞.—Tinct. opii camph. ℥j.

Sig.—Fifteen to thirty drops two or three times a day. The diet should consist largely of wild game; also domesticated fowls and animals. All articles containing starch and sugar should be avoided.

Homœopathic Treatment.—Uran nit., Nit. acid, Phos. acid.

RENAL CALCULI. (*Gravel in the Kidneys.*)

Symptomatology.—The patient is suddenly seized with a severe lancinating pain in the region of the kidneys, passing downward along the course of the ureters to the bladder. The pain lasts during the passage of the calculi through the ureter, and ceases as soon as it reaches the bladder, whence it is discharged with the urine. The urine should be passed in a vessel and examined for the presence of calculi in suspected cases.

Electrical Treatment.—Take the A C current, of considerable force. Place N. P. low upon the bladder, and treat with P. P. upon the inflamed and painful point five to eight minutes, once or twice a day. If treating twice a day, continue not more than five minutes at a time.

Medical Treatment:—

℞.—Fluid ext. hydrangea ℥ij.

Sig.—One-half to one teaspoonful twice or three times a day.

℞.—Vinum colchici ℥j.

Holland gin ℥jv. m.

Sig.—One-half to one teaspoonful three or four times a day. If there is severe pain, ten to thirty drops of Tinct. opii. May be given as indicated.

Homœopathic Treatment.—Phos. acid, Cann., Merc.

DYSPEPSIA.

Symptomatology.—A debilitated condition of the stomach. The symptoms are uneasiness after eating, pain in the stomach, furred tongue, constipated bowels, palpitation of the heart, acid eructations, a feeling of distension in the stomach. The patient is at times compelled to loosen his clothing.

This is one of the most difficult of diseases to control by any of the ordinary modes of medical practice; and yet, under judicious electrical treatment, it is one of the surest to yield. The disease assumes various phases in different persons, and at different times in the same person, requiring varied treatment.

The pain, after eating, is severe; eructations of air, apparently from the inner surfaces of the stomach and bowels, or of gas from their decomposing contents, are large — often enormous. The stomach is much of the time acid, and, in some cases, sensibly cold, ejecting often a cold mucus. The bowels are habitually constipated. The patient is nervous, irritable, and subject to great depression of spirits. In this stage or phase of the disease, there is a negative condition of the digestive apparatus generally.

Electrical Treatment.—Treat with the A D current, in mild force, and expect the case to require considerable time. But, since there is no approach to uniformity among patients, no approximation to definite time can be stated. Give *general tonic treatment*, three times a week, and close each sitting with local treatment, having P. P. at the coccyx, and manipulating some five minutes with N. P. over the entire front parts of the abdomen and thorax, and over the liver.

It is sometimes found, in old cases, that there is no sensible acidity of stomach; but a *pyrosis*—a burning sensation in the stomach, or a little above, in what is usually termed “the pit of the stomach.” Treat this about five to fifteen minutes with the P. P., strong force; moving N. P., *long cord*, over the lower dorsal vertebræ.

Medical Treatment:—

This disease arises from three causes. First, mental depression. Second, an excess of lactic acid in the *primæ viæ*. Third, impairment of the pneumogastric nerve. Treatment in the first case: out-door exercise and brandy before each meal. Treatment in second case:

℞.—Aqua regia..... ℥j.
Syrup of ginger..... ℥j. m.

Sig.—Five to fifteen drops in a wine glass full of water twenty minutes before each meal. Indicated when there is indigestion, loss of appetite, and heaviness of the stomach. Aqua regia supplies a deficiency of chlorides. It is also a tonic, and stimulates the liver and kidneys.

Treatment in the third case:

℞.—Tinct. nux vomica..... ℥j.

Sig.—Three to five drops in a tablespoonful of water before each meal, especially when there is sick stomach and dizziness of the head.

℞.—Hydrastin..... grs. xxx.
Simple syrup ℥viii.
Muriate tinct. iron..... ℥j. m.

Sig.—Take one teaspoonful in water three times a day before meals. Keep the bowels regular by enemas of bran-water, salt and water, solution of epsom salts, etc. Eat ripe fruits, figs, etc.

Homœopathic Treatment.—Nux., China, Carbo-veg.

ACUTE DIARRHŒA.

Electrical Treatment.—Take B D current. Place N. P., long cord, upon the lumbar vertebræ and sacrum, moving it often along the spine, from a position opposite to the umbili-

cus down to the coccyx; and treat with P. P. over the abdomen, and more especially wherever pain or sensations of uneasiness appear. In severe cases, treat several times in a day—once in two to three hours, if required five to ten minutes at a time. Use current of full medium strength, if the patient can bear it.

Medical Treatment.—Flux and diarrhœa compound. The best in use.

℞.—Comp. spirits lavender..... ℥jv.
 Tinct. rhei..... ℥jv.
 Tinct. opii..... ℥jss.
 Oil cinnamon..... gtt. xxx. m.

Sig.—For an adult, one teaspoonful every two hours, until relieved.

Electricity, when properly used, is the most effectual remedy known. Treatment.—One application of electricity, daily, according to directions above, and one teaspoonful of flux or diarrhœa compound, morning, noon and night. A desperate case of three weeks duration cured in three days.

CHRONIC DIARRHŒA.

Electrical Treatment.—Take A D current, of *very mild* force. Place P. P. at the feet, and treat with N. P. over the lower limbs *briefly*; then over the bowels and stomach, both front and back, some five to fifteen minutes; then pass up with N. P. over the anterior parts of the chest, two or three minutes; and next, place N. P. low on the back of neck, with P. P. still at feet, five to ten minutes. Treat in this manner once daily.

If at any time the bowels should become unusually flatulent, and evacuations should increase in frequency, change the treatment. Place N. P. at back of neck, as before, and treat about five to fifteen minutes with P. P. (force increased to *moderate*

current) over the abdomen, daily, from one to three days, as may be necessary. After this, resume treatment as first above prescribed.

I cured Governor Yates of chronic diarrhoea, contracted in the army, of seven years standing in sixty days, under the electrical treatment. A few months after he was cured he stated that he had employed the best physicians on the continent (so considered), to treat him during the seven years, but without avail. He seemed to be astonished that there was such an agent, and that the medical profession were so ignorant of its valuable therapeutic properties or power.

Articles used for chronic diarrhoea: Gallic acid—dose, three to ten grains; Geranio, Tanic acid, one to four grains. Seldom needed with treatment named above.

Homœopathic Treatment.—Arsenicum, Verat. alb., Mercurius.

COLIC. (*Of whatever kind.*)

Electrical Treatment.—Use A D current, pretty strong force. In severe cases, introduce the rectum instrument N. P. *long cord*, or in mild cases, place sponge-roll N. P. *long cord*, at coccyx, and treat with P. P. over all the abdomen, five to ten minutes. It may be repeated, if necessary, in thirty minutes.

Medical Treatment:—

℞.—Chloroform	3x
Opium pulvis	grs. xvijj.
Capsicum pulv	3jss.
Hoffman's anodyne	3xv.
Alcohol	3xvjj. m.

Sig.—Five to ten drops every fifteen minutes, according to the severity of the case.

Colic pictonum, (lead colic.)

℞.—Sulphuric acid..... gtt xxx.
Aqua pura..... ℥j. m.

Sig.—Ten to fifteen drops in water, three to six times a day, for several days. During the time Lobelia emetics, vapor baths, and mild purgatives should be given. When the active stage of the disease has passed, give vegetable tonics, wine, porter, and a nutritious diet.

Homœopathic Treatment.—Colocynth. In children, Chamomilla.

CHOLERA. (*Malignant.*)

Electrical Treatment.—As in cholera morbus, keep the patient perfectly quiet. Use A D current, *full medium strength.*

In the early stage, or during the “*ricewater*” discharges, and down to the time of collapse, treat the abdomen and thorax with P. P. having N. P., *long cord*, on back of neck, not too near the head. After treating so a few moments—say five to ten minutes—remove P. P. to the back, and pass it along close upon each side of the spinous processes from the lower lumbar up to about the middle of the dorsal vertebræ. Continue this about five to ten minutes.

If *cramping* accompany the vomiting and purging, carry the P. P. a part of the time to the muscles in spasm, leaving N. P. still at the back of neck, with *long cord*.

Repeat the above processes as often as once an hour until symptoms improve. Then reduce their frequency as the case will admit of.

In the stage of collapse, place P. P., *long cord*, at the coccyx, and manipulate with N. P. over the entire trunk and arms, bestowing a larger share of treatment along the spine than elsewhere. Then remove P. P., *long cord*, to feet,

and work with N. P. all over the lower limbs and hips. Treat in this stage of the disease some ten to fifteen minutes at a time, and repeat it, as the case seems to demand, once in thirty minutes to once in two, four or six hours, until improvement or death shall ensue.

R.—Ozonize the air of the room by the use of permanganate potassa and oxalic acid, equal parts, mixed and put on a plate or saucer; add a few drops of water, and carry the same around the room, leaving it under the bed of the patient. Repeat the ozonizing three or four times a day, holding the dish at arm's length, and walking so as not to inhale the fumes, excepting as mixed with the air. Or the air may be impregnated with bromine, mixed with water, or a solution of carbolic acid or with ozone, by the use of gas and a Bunsen burner.

The following medicines may be used in connection with the treatment and disinfectants.

Medical Treatment:—

R.—Tinct. galls alleppo	ʒijss.
Tinct. opii	ʒijss.
Spirits camphor	ʒijss.
Ess. peppermint.....	ʒj.
Tinct. tolu	ʒj.
Chloroform	ʒj.

Sig.—Twenty to sixty drops in brandy every hour, until relieved.

R.—Gum guaiac.....	ʒij.
Prickly ash berries	ʒij.
Cloves.....	ʒj.
Cinnamon bark	ʒj.
Gum camphor.....	ʒj.
“ myrrh.....	ʒj.
“ kino.....	ʒss.

Reduce all to a coarse powder, and add one quart pure brandy. Let stand ten days or two weeks to digest, shaking the bottle two or three times a day. Strain and press out.

Add oil anise ℥j., oil pepper ℥j. to alcohol ℥iv. Shake well until dissolved, and add to the mixture.

Sig.—One or two teaspoonsful every five, ten, twenty or thirty minutes. In mild cases one teaspoonful every hour or two.

R.—Chloroform ʒij.
Tinct. camphor ʒij.
Tinct. opii..... ʒj. m.

Sig.—Ten to twenty drops every twenty or thirty minutes, as the case may be.

Homœopathic Treatment.—Rubini's camphor, Cuprum, Arsenicum, and Veratrum.

CHOLERA INFANTUM.

Electrical Treatment.—Use B D or A D current. Apply P. P. to the back of the neck, N. P. over the stomach and bowels, five to ten minutes. Then apply P. P. to the feet, N. P. over the limbs, five to ten minutes. Then apply P. P. sponge-roll to the coccyx, N. P. over the bowels and back, ten to fifteen minutes. The operator and assistant may take the sponges in their right hands and apply their left to the patient to modify the current so as to make it bearable to the patient. Repeat the treatment every six, twelve or twenty-four hours, giving the following:

Medical Treatment:—

R.—Ammonia aromatic spirits gtt. xv.
Tinct. catechu “ xv.
Ess. cinnamon “ xv.
Ess. anise “ xv.
Syrup, simplex ℥ijj. m.

Sig.—Five to twenty drops every half hour, on loaf sugar.

℞.—Beef's gall..... 3ss.
 Brandy..... ℥iv. m.

Sig.—One to two drops on sugar, every four hours.

Bathe the body with brandy in the early stages of the disease, and give weak ley, in small doses. *For a tonic:* Give muriate tinct. ferri, two to five drops, three times a day, in sweetened water.

Articles generally used with their maximum and minimum doses: Cannabis indica, gtt. i to x; Tinct. camphor, gtt. v to x; Tinct. nucis vomica, gtt. j to vj; Tinct. opii-champhorata and Oleum gaultheria.

Homœopathic Treatment.—Camphor, Arsenicum, Cuprum, Veratrum.

CHOLERA MORBUS.

Symptomatology.—The attack is generally sudden. The patient is seized with vomiting and diarrhœa, griping pains in the bowels, tenesmus, and cramps in the lower extremities. There is prostration and thirst. The pulse is frequent and small.

Electrical Treatment.—Keep the patient quiet as possible on his back. Use A D current, strong force. Place N. P., *long cord*, at coccyx, and treat with P. P. over abdomen, five to ten minutes, and repeat, if necessary, in thirty to sixty minutes. If there be cramps, touch the contracted muscles with the P. P., for a few moments, without disturbing N. P.

Apply P. P. to the nerve centers between the shoulders, N. P. over the stomach, liver and bowels, ten to twenty minutes.

Medical Treatment:—

℞.—Neutralizing cordial..... ℥ij.
 Tinct. of prickly ash berries..... ℥j. m.

Sig.—Thirty to sixty drops every fifteen to thirty minutes, till vomiting and purging cease.

℞.—Pulverized camphor..... grs. x.
 “ capsicum..... grs. xv.
 Oil peppermint..... gtt. jiiij.
 Morphine..... grs. j.

Mix thoroughly; divide into ten powders, and give one every half hour. The diet should consist of rice, eggs, broiled beef, or the essence of beef. Avoid exposure to the sun and violent exercise until completely recovered.

Homœopathic Treatment.—Rubini's Champhor, Aconite, Cuprum.

DYSENTERY.

Symptomatology.—Dysentery is characterized by frequent desire to go to stool, soreness and a feeling of weight in the lower part of the bowels. The diarrhœa is of a mucus character, tinged or streaked with blood. The pain and tenesmus increases, the skin becomes hot and dry, the temperature elevated, sometimes pain in passing the urine, which is scanty and colored. The tongue is coated and of a light color, which soon changes to a dark brown. Brain symptoms sometimes show themselves in children and young subjects, and gravely complicate the treatment.

Treat exactly as in *acute diarrhœa*, except that P. P. should be moved more over the *colon* and *rectum* than in diarrhœa.

Medical Treatment.—Give an emetic of ipecac or lobelia, if indicated.

℞.—Podophyllin..... grs. x.
 Neutralizing mixt..... ℥ijj.
 Pulvis acacia..... grs. x.

Sig.—Mix and give one teaspoonful every half hour until

free catharsis is produced. Afterwards give the following anti-periodic :

℞.—Chloride sodium..... ʒj.
 Quinine grs. x.
 Oil gaultheria..... gtt. vj. m.

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

℞.—Rhei pulvis. ʒj.
 Sodæ bicarbonas..... grs. x.
 Oleum anisi..... gtt. vjij.
 Saccharum alba..... ʒj.
 Aqua bulliens ʒvjj. m.

Sig.—One teaspoonful every three hours until the discharges change to yellow.

Homœopathic Treatment.—Merc. sol., Arsenicum.

CONSTIPATION OF THE BOWELS.

Symptomatology.—This disease may proceed from either a *negative* condition—a state of *atony* from lack of nutrition, or a *partial paralysis* of the bowels—or from a *positive* condition—a state of *relaxation* and consequent weakness of the muscular tissues of the bowels. In either of these cases, the peristaltic action of the intestines becomes enfeebled, and constipation ensues.

Electrical Treatment.—In either case, use the A D current, of medium force. In the first-mentioned case, place P. P. at back of neck, or in the mouth with tongue instrument, and treat with N. P. over liver, stomach and bowels; or place N. P. at the anus. Treat five to ten minutes.

In the second-specified case, place N. P. at back of neck or on the dorsal vertebræ, and treat with P. P. over the bowels five to eight minutes.

In both cases, repeat the treatment daily until relief is afforded. Or, if the case be *chronic*, treat daily for three or four days, and, after that, three times a week. It is well also to give *general tonic treatment* as often as once a week. The patient should be urged to retire and *invite* an evacuation regularly, about the same hour daily, whether success attend it or not. Enemas or soap-suds may be given to remove fecal matter.

Medical Treatment:—

℞.—Pilulæ hydrargyri..... ʒj
 Aloes pulvis..... ʒss
 Capsicum..... grs. jv.
 Colocynth comp..... grs. xxx. m.
 Fiat pilulæ No. 20.

Sig.—One pill night and morning.

℞.—Ext. belladonna..... grs. vj.
 Ext. gentian..... grs. xvijj. m.
 Make eighteen pills.

Sig.—One to four before breakfast, until corrected.

Homœopathic Treatment.—Nux, Bryonia and Sulphur.

HEMORRHOIDS. (*Piles.*)

Symptomatology.—Small reddish tumors found within and around the anus. They are divided into two classes, internal and external. External when outside of the anus, internal when situated within the anus. They sometimes bleed, and are then called bleeding piles. When the patient is of a scrofulous or tuberculous diathesis, piles may terminate in fistula; in some cases they cause constitutional disturbance, headache, loss of appetite, debility, etc.

Electrical Treatment.—If the case be recent, take the B D current; if old, take A D. Place the patient in a recumbent

position, and let the rectum instrument, P. P., be introduced, *wet*. Manipulate with N. P. along the spine upon the dorsal vertebræ. Where there is *prolapsus ani*, the sponge-roll, placed at the anus, may be used instead of the rectum instrument, particularly for the first few treatments. Treat once a day or every other day.

Medical Treatment:—

R.—Fluid extract ergot..... ℥j.
Aqua rosæ..... oj.

Inject one-half to one ounce after each evacuation of the bowels.

R.—Sulphur..... grs. xv.
Cream tartar..... ℥j.
Cane molasses..... ℥viii.
Holland gin ℥viii. m.

Sig.—From one tea to one tablespoonful, three times a day—well shaken before taken.

Ointment for same :

R.—Tannin ℥j.
Cosmoline, or axungia..... ℥j.
Sulphate zinc grs. vj. m.

Apply after each movement of the bowels. If the hæmorrhoids are confined to the upper portion of the rectum, and are accompanied with hæmorrhage, from five to ten drops of the oil of erigeron should be taken three or four times a day.

R.—Oleum erigeron..... ℥j.
Axungia ℥j.
Potassa nitratis pulvis..... ℥j.
Acidum tannicum..... grs. x.

Mix the lard, potassa and tannin thoroughly, dissolving the potassa; then add the oleum erigeron—mixing it well. Put

into large-mouthed vials for use. Anoint the parts after each evacuation of the bowels. The bowels should be evacuated by means of water enemas. Apply the ointment before retiring. Let fruit enter largely into the diet.

Homœopathic Treatment.—Hamamelis cerate or Aesculus cerate.

RHEUMATISM. (*Chronic.*)

Electrical Treatment.—Use the A D current *always* in rheumatic affections. If there be no visible inflammation or swelling in the diseased parts, approach such parts in the same manner as in acute inflammatory rheumatism, except with *reversed poles*. The parts affected require to come under the N. P. rather than the P. P., and to be treated with considerable force.

Where joints are being dislocated, treat the parts with N. P., quite mild force, so long as it can be done without exciting acute inflammation. If this should arise, it must be repressed with P. P.

Treat chronic rheumatism about three to six times a week.

Medical Treatment:—

℞.—Tinct. gum guaiac..... ℥jv.
Holland gin..... ℥jv. m.

Sig.—One to two teaspoonsful in water or milk, three or four times a day.

Liniment:

℞.—Oil lini..... ℥ij.
Oil organum..... ℥ss.
Spirits turpentine ℥ij.
Alcohol..... ℥ij.
Spirits ammonia..... ℥jss. m.

Apply to the parts affected two or three times a day. Remedies under the head of acute rheumatism may also be used. The following is the most simple, yet the most effectual medicine that I have employed in my practice for rheumatism:

R.—Sulphur flowers ℥j. to jj.
 Syrupus fuscus, (New Orleans molasses,
 dark color) ℥viiiij.
 Whiskey ℥viiiij. m.

Sig.—One-half to one tablespoonful three or four times a day.

Homœopathic Treatment.—Rhus., Bryonia, Aconite, Cimicifuga.

ACUTE INFLAMMATORY RHEUMATISM.

Symptomatology.—Generally manifests itself by chills, fever and thirst; the pulse is quickened and the temperature elevated; the joints swell and are very painful, and have a red inflamed appearance; movements of the affected limb causes great pain; the tongue is coated with a thick, white fur; the urine is high colored and very scanty; the bowels are constipated.

Electrical Treatment.—First ascertain if the kidneys be morbidly positive—urine scanty and too highly colored. If so, as is commonly the case, begin with the B D current, good medium force. Place N. P. at the pelvis, and treat over the kidneys with P. P. five to fifteen minutes. Let this be the commencement of every treatment until *this* difficulty is corrected. Also apply N. P. to the feet, or between the knees. P. P. over the kidneys five to ten minutes.

Next, change to A D current. If the disease be located in the hips or lower limbs, put the feet in warm water with the tin electrode N. P., or place the sponge-roll N. P. at the soles of the feet, and treat with P. P. upon and a little above the

affected parts; using such force of current as the patient can bear. The pain will commonly subside under treatment. If the disease be as low as the ankles or feet, use the *long cord* with N. P.

If the shoulders, arms or hands be affected, treat them on the same principles as are prescribed for the *lower* limbs; using the *long cord* with N. P. when the disease is below the elbows.

When the disease is in the hands or feet, or near to them, if the shoulders or hips be not involved, it is often necessary, after three or four treatments as above described, to *reverse the poles* for a few moments, giving an ascending current; but still using the *long cord* with N. P.

If the disease be located anywhere in the trunk, neck or head, treat the affected part with P. P., placing N. P. on some adjacent part of the spine, and usually at a point somewhat *lower down* than the disease.

For acute inflammatory rheumatism, treat two or three times a day. The length of time for each treatment must depend on the location and extent of the affected part or parts. In this matter, the practitioner must decide for himself, or infer from the time prescribed in the treatment of other inflammatory affections.

Use B D current. Apply P. P. to the inflamed joint. N. P., *long cord*, opposite mild force; increase as the inflammation decreases, from time to time, until you have controlled the inflammation. If there is a high state of inflammatory action with fever, etc., apply P. P. connected with the tongue instrument to the tongue. The part applied to the tongue may be wrapped with muslin and moistened before applying, which will render it more endurable and enable the operator to use greater force over the body if desired. Apply N. P., *long cord*, all over the body, working downwardly to the feet, until there is a marked change in the temperature and feelings of the patient. Treat ten to twenty minutes. This treatment is

admissible in all general inflammatory conditions of the system.

Repeat the treatment from one to three times a week or oftener, should the inflammatory action reappear. A tonic treatment may be given for a few moments occasionally, to equalize and harmonize the circulatory forces.

Medical Treatment:—

R.—Hamamelis in decoction..... Fl. ℥j. ʒ
every two hours alternately, with

R.—Tinct. cimicifuga rac..... ℥ ss.
Tinct. colchicum sem..... ℥ ss. m.

Sig.—Ten to twenty drops.

R.—Iodide potassa..... ℥ ss.
Holland gin..... ʒj.

Sig.—One teaspoonful three or four times a day.

R.—Propylamin..... gtt. xx.
Aqua menth. pip..... ℥j. m.

Sig.—One tablespoonful every two hours if acute. If chronic, same dose three times a day.

Topically.—Vinegar, poultices of elm powder, flaxseed meal, plantain leaves, etc.

Cathartics.—Podophyllin, Leptandrin, Taraxicum, Sulphate soda, Epsom salts, Citrate magnesia, Comp. syrup rhei et senna.

R.—Flowers sulphur..... ℥ ss.
Molasses..... ℥jv.
Whisky..... ℥jv. m.

Sig.—One dessert spoonful three or four times a day.

Homœopathic Treatment.—Rhus. and bryonia, alternately.

ASCITES. (*Dropsy of the Abdomen.*)

Symptomatology.—Ascites may be dependent on disease of the kidneys, heart or liver, known by swelling of the bowels, and a sense of fluctuation to the hand when rightly applied to the abdomen. The breathing is difficult; the bowels constipated; urine high-colored and scanty; the face heavy looking and bloated; skin dry and of a peculiar dirty sallow appearance. There is a dry, hacking cough, and sometimes low fever. As the disease advances, the patient can only get ease in a sitting posture. Albumen will be found in the urine in nearly all cases of abdominal dropsy.

Electrical Treatment.—Use the A D current, moderate force. Give *general tonic treatment*; then place P. P. with the feet in a vessel of warm water, or place the sponge-roll P. P. at the soles of the feet, and treat the affected parts a few minutes with N. P., to quicken the absorbents. If the disease be in the feet or lower limbs, use *long cord* with P. P. while treating them. Next, place N. P. upon the lower part of the bladder, or, what is better, immediately below the pubic articulation, and treat over the kidneys five to twenty minutes with P. P. Repeat the treatment about three to six times a week.

Medical Treatment.—Keep up an action of the bowels with the following :

R.—Extract colocynth comp	} ãã ʒss.
“ leptandrin	
“ mandrake	
Gamboge pulv	
Soc. aloes	
Rhei	} gtt. xv. m.
Oleum mentha pip.	
Fiat pilulæ No. 120.	

Take from two to four every night. Take in addition, one

or two pills of elaterium (Clutterback's $\frac{1}{10}$ grain), every morn-
ing if the patient can bear it, until all dropsical appearances
have disappeared. There are patients who cannot take the
pills oftener than once or twice a week, but can, and should
take the electrical treatment daily to strengthen, and pre-
vent a recurrence of the disease when the course is com-
pleted. Permit no relapses if you wish to succeed in curing
the patient. This will remove five gallons of fluids in sixty
hours (if the patient can spare and bear it). Bandage the
limbs daily (should they be swollen), or have the patient wear
silk elastic stockings. Use also, mineral and vegetable tonics,
such as Tinct. ferri, the barks, etc.

R.—Tinct. cinchona comp ℥ij.
Nitro muriatic acid..... ʒj.
Simple syrup ℥ij. m.

Sig.—One teaspoonful three times a day.

R.—Tinct. cinchona ℥jv.
Iodide potassa ʒj. m.

Sig.—One teaspoonful after each meal. I have, and shall
grade the prescriptions to teaspoonful doses generally, as per-
sons would be less liable to make mistakes. The following
may also be used:

R.—Potassa bi tartrate..... ʒjss.
Sulph. potassa ʒss.
Squills pulv..... ʒij.
Tartrate antimony..... grs. jj. m.

Sig.—One small teaspoonful every three hours in one-third
of a glass of water. Only three doses each day during two
days, and rest one. On the day off, give quinine every three
hours, and one teaspoonful of the spirits of nitre with one-half
teaspoonful of aromatic spirits of ammonia, every four hours
in water. Give brandy freely; light nourishing food, essence

of beef. Bandage the waist and bowels, and tighten each day as the water recedes.

Ovarian Dropsy.—Use A D or A E current; introduce the uterine electrode N. P. Apply P. P. over the tumor, ten to thirty minutes. Treat every other day with reversed currents. If at any time the parts become very sore and inflamed, use B D current, with N. P., long cord attached to the uterine electrode, or N. P. sponge-roll between the illii, P. P. over the abdomen. Use remedies prescribed for dropsy; one or another of them.

R.—Digitalis leaves (green in color) grs. jii.

Add to one teacupful of boiling water; cover, and let stand until cold; strain, take one-third at a dose on retiring until three doses have been taken. Use with medicines prescribed, one or another of them alternately, as indicated.

Homœopathic Treatment.—Apis, Apocynum; (from heart) Digitalis.

NEURALGIA.

Symptomatology.—A sharp cutting pain, following the course of the nerves of the body, generally of an intermittent character. In many cases there is more or less constitutional disturbance; the urine is scanty and high colored, the tongue coated, the liver torpid, the bowels constipated and the patient anemic.

Electrical Treatment.—If the disease be general in the system, moving from place to place, or causing transient acute pains here and there, give general tonic treatment, three times a week, for several weeks—perhaps a month or two, provided the case be an old one. This will invigorate the nervous system and equalize the electric action. *Relief* will be afforded soon; but for the sake of *cure*, the treatment of an old case should be continued as here directed. If the disease be *local*, use the B D current, with as much force as the patient can

bear without irritating painfulness. Treat the affected part, or parts, with P. P., placing N. P., *long cord*, upon some approximate healthy part, at a point a little lower down than the part in pain. The spine, when convenient, is commonly the best point for it. In treating the painful part, pass the electrode more or less also over the nerves adjacent to the one principally affected. Treat five to twenty minutes daily.

Or in addition to the above treatment it may be advisable to give the inward and outward treatment occasionally. B D current, P. P. to the tongue, N. P. over the body and limbs ten to twenty minutes. Use cords of equal length. Conclude by giving a tonic treatment as directed in another part of the work.

Medical Treatment.—Neuralgia of the stomach.

R.—Iodoform grs. **xxx**.
 Ext. nux vomica grs. **xx**.
 Ext. gentian qs. m.
 Fiat pilulæ No. 40.

Sig.—Give one pill two or three times a day.

Neuralgia of the head, face, etc.

R.—Aromatic spirits of ammonia ℥j

Sig.—Ten to thirty drops in water before meals.

Neuralgia Liniment.

R.—Chloroform ℥ss
 Aqua ammonia 4 F. ℥ss.
 Tinct. camphor made by U. S. D. ℥ijj. m.

Moisten a linen cloth and apply to the parts affected. Also inhale through the nose.

R.—Chloroform ℥j
 Gum camphor ℥ijj. m.

Apply to parts affected.

Neuralgia general:

R.—Belladonna	grs. v
Stramonium	“ vj.
Cannabis indica	“ vj.
Aconite	“ v.
Opii	“ x.
Hyoseyami	“ xv.
Pulv. glycyrrhiza	“ qs. m.
Fiat Pilulæ No. 60.	

Sig.—One pill once or twice a day.

Homœopathic Treatment.—Aconite, Bryonia, Spigelia, Tinc. val.

TRISMUS. (*Lockjaw.*)

Symptomatology.—Difficulty of swallowing, stiffness in the back of the neck, rigidity of the muscles of lower jaw and spine. In some cases all the muscles of the body are involved.

Electrical Treatment.—For traumatic trismus, use the B D current, of vigorous force. Let the wound be kept open and clear, except that soothing emollients may be applied. Place N. P. at the coccyx, or near it on the spine; and then treat, by firm but momentary touches of the P. P., over the lower maxillary—*pterygoid*—muscles and nerves; indeed, over the *entire* lower jaw and its articulations. Treat five to ten minutes, if necessary, or until the jaws relax.

Also apply P. P. to the tongue, N. P. over the neck, chest, spine and bowels, also to the limbs. Time for the general manipulations twenty to forty minutes. Treat three to six times a day for a day or two, to neutralize and destroy the irritation of the nervous system. The head should also be treated as directed in delirium of typhoid fever. Use A B, A C or A D. Then treat every day, or every second day.

Medical Treatment.—Tinct. lobelia administered in small doses every fifteen or twenty minutes with warm ginger tea

may be given. Or Tinct. cannabis-indica in five to ten drop doses every two to three hours. Spiritus frumenti with small quantities of Tinct. aconite should be used for sponging the body two or three times a day. Mild cathartics or enemas to regulate the bowels. Or ʒss. of tobacco added to one pint water, and make infusion. Inject every two or three hours until a depressing effect is produced.

COMMON CRAMP.

Symptomatology.—Although either the positive or the negative pole, applied to the healthy muscle, may produce spasmodic contraction, yet the negative pole contracts much more powerfully than the positive—a fact which shows an electrically *plus* condition in the nerves and muscles involved. Yet we know that cramps are more apt to attend a *low* condition of general vitality in the system than the opposite. From several considerations, which cannot be detailed here, I am led to think that cramps are produced, generally, at least, by a temporary or spasmodic *reaction* of the electro-vital force from an improperly negative to an excessively positive state in the parts affected.

Electrial Treatment.—My practice is, when the spasm is on, to treat the parts in cramp by momentary touches rapidly repeated, with the P. P. of the B D or A D current, good medium force, placing N. P. at the back of neck, if the disturbance be in an arm; or at the coccyx, if it be in the leg or in the abdomen or chest.

In treating parts subject to cramp while the spasm is *not* on, give them, along with other parts of the system, *general tonic treatment*. This elevates and equalizes the electro-vital action, and relieves the difficulty. If in the stomach apply P. P. to the back of the neck, N. P. over the stomach ten to fifteen minutes.

If there is cramp in the limbs anywhere, apply P. P. of the

A D or A E current to the tongue, N. P. over the affected part, and beyond the same, ten to twenty minutes. Then apply P. P. to the spine between the shoulders (upper part), N. P. over the body and limb, or limbs, ten to twenty minutes. Conclude by giving tonic treatment as usual. If in the stomach treat by applying P. P. to the back of the neck, N. P. over the stomach, liver and bowels, ten to twenty minutes. It may be advisable to treat as first directed in some cases or conditions of cramp. If the first does not succeed treat as directed here.

Medical Treatment:—

R.—Linseed oil.....	ʒj.
Essence peppermint.....	ʒj.
Tinct. opii.....	ʒj.
Spirits camphor.....	ʒj. m.

Sig.—One-half to one teaspoonful every fifteen to thirty minutes.

Homœopathic Treatment.—Rubini's Camphor pills.

TETANUS.

Symptomatology.—This is substantially the same thing as *trismus*, except that it extends to other parts, and often to nearly all the muscles of the organism. Under ordinary treatment, it is almost invariably fatal. I am not aware that it has been sufficiently submitted to *our* electrical system to determine satisfactorily the question of its amenability to it. Yet I see no reason to doubt that, in the most cases, when taken within reasonable time, it may be cured.

Electrical Treatment.—Use the B D current, in pretty strong force. Place the N. P., *long cord*, at the feet, and treat with P. P. from the medulla oblongata, or from the upper cervical vertebræ, all along down the spine, for several minutes—say, five to ten minutes. Then pass with P. P. over the

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whole trunk and limbs. Continue to treat until relaxation takes place, or all hope of relief departs.

Inward and outward treatment may also be given with the above. Apply P. P. to the tongue, N. P. over the body and limbs, twenty to forty minutes. When relaxation ensues, tonic treatment should be given every day or two; or this treatment may be alternated every day or two with first given.

Medical Treatment:—℞. Beef gall should be applied constantly to the wound if caused by one.

ERUPTIVE CUTANEOUS DISEASES.

Electrical Treatment.—Take the A D current, pretty vigorous force in acute cases; mild in chronic affections. If the eruption be inflamed and acute, use long cord with N. P.; if sluggish and chronic, use long cord with P. P. Move the two electrodes parallel to each other, upon the patient, about two or three inches apart; and pass them over all the affected surface. Repeat the treatment daily in acute affections, and three times a week in chronic cases.

Medical Treatment:—

℞.—Compound syrup stillingia ℥j.
Iodide potassa ʒij. to jv. m.

Sig.—One teaspoonful before each meal. Merrill's, of Cincinnati, is the best alterative and blood purifier that I have met with in twenty-five years.

The body should be bathed with strong soap suds twice a week, while using the stillingia. Toppical applications are so numerous and varied, that we will not attempt to dictate further than we should advise physicians to procure Fox, on skin diseases, or Anderson of Glasgow.

Homœopathic Treatment.—Rhus., Hepar. sul., Silica.

PARALYSIS.

Symptomatology—Loss of motion or sensation, and in many cases both in the body when the disease is confined to the side of the body it is called hemiplegia. If to the lower half of the body, paraplegia.

Electrical Treatment.—Take the B D current, medium force. If the paralysis be in a lower limb, place P. P., *long cord*, upon the lower lumbar vertebræ, so as to reach the hypogastric plexus, and treat with the metallic brush, N. P., five to eight minutes, over all the affected parts. Then close the sitting with *reversed poles*, about one to two minutes, having P. P., *long cord*, at the foot, and manipulating over the parts affected, and especially over the lumbar vertebræ, with N. P. This is to prevent depletion by *running off* the electro-vital fluid too much, and to force the electric current through the nerves in an upward and inward tonic-giving direction. If the disease be in an arm or hand, treat it in a manner analogous to the above; extending the treatment from back of neck to the affected parts.

In cases of *hemiplegia* or *paraplegia*, run the current from the healthy *side* of the spine, (in hemiplegia,) or from a healthy *part* of the spine, (in paraplegia,) to and through the paralyzed parts, by placing P. P., *long cord*, on spine, and manipulating with N. P. metallic brush commonly upon the parts paralyzed. Close the treatment with *reversed poles* for a moment or two, as in the preceding cases. *Old* paralysis requires considerable *time* to cure it. Treat about three times a week, occasionally omitting a week. A general tonic treatment may be given once or twice a week.

If there is hemiplegia apply P. P. to the base of the cerebellum, on the healthy side, N. P. over the diseased part of the brain three to five minutes, mild force. Using cords of equal length. P. P. may also be applied with ear electrode to

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the healthy ear, N. P. to the opposite ear, and over the diseased part of the brain three to five minutes. P. P. may also be applied to the tongue, N. P. over the body and limbs five to ten minutes. This treatment may be given once or twice a week in connection with the above, concluding with the tonic treatment each time.

Medical Treatment.—Keep the bowels regular by administering small doses of vegetable cathartics. Strychnia in the thirty-second to the sixtieth part of a grain may be given every two or three hours in connection with the treatment. If there is softening of the brain give phosphorus in doses of one to three drops, three or four times a day. Bathe the affected parts with diluted alcohol, whisky, or liniment used for diphtheria.

Homœopathic Treatment.—Merc. Alternate Rhus ix. Nux when from mercury.

SCIATICA.

Symptomatology.—Sharp lancinating pain in the course of the sciatic nerve in the hip, and downwards to the thigh. This is neuralgia in an ischiatic nerve, commonly the *great ischiatic*.

Electrical Treatment.—Use the B D current, strong as the patient can well bear. Place the foot in warm water with N. P., or place the spongé-roll N. P. at the sole of the foot, (the former is the best), and treat with P. P. over the painful part, and also, more or less, over adjacent parts. It is also well, in order to prevent too much exhaustion of the limb, to *reverse the poles* every third or fourth time; but in so doing, use the *long cord* with N. P., also give general tonic treatment occasionally.

I have found an inward and outward treatment to be beneficial, given once or twice a week (in some cases oftener), in connection with the above treatment, to establish an equili-

brium of the circulatory forces. Use A D or B D current, cords of equal length. Apply P. P. to the tongue, N. P. over the body and limbs, ten to twenty minutes. If the pain be severe, hypodermic injections of morphia may be used two or three times for temporary relief, until controlled or relieved by the electrical treatment, which relieves, and at the same time produces an alterative effect, in other words, as an anodyne and alterative. I have cured very severe and long-standing cases with electricity alone. Given relief and rest by electricity after they had taken hypodermic injections of morphia, and had also taken chloral for months to procure rest. I usually administer Bromidia, (Buttles & Co., St. Louis), to procure rest if necessary, instead of morphia and chloral, which will usually insure refreshing sleep.

Medical Treatment:—

B.—Ext. hyoscyami grs. ij.
 Ext. Indian hemp “ xx.
 Capsicum “ x. m.

Sig.—Form a mass, and make three grain pills; give one every three or four hours. If there is fever, aconite or veratrum may be given.

(B.—White pine turpentine ʒj.
 Ext. poke root grs. xx.
 Macrotin “ x.
 Apocynin “ xx. m.
 Fiat pilulæ, No. 38.

Sig.—One pill every five hours. Animal broth may be taken freely as a diet.

Homœopathic Treatment.—Colocynth, Acon., Bryonia (Chronic), Cimicifuga.

ERYSIPELAS.

Symptomatology.—Heat, swelling, and redness of the part. There is headache, fever, and the tongue is coated. The bowels are generally constipated. When it attacks the adjacent areolar and cellular tissues, it is called phlegmonous, and the inflamed parts become of a dark, purple color, terminating in abscess or in gangrene and death.

Electrical Treatment.—Take the A D current, medium force, in all forms of the diseases.

1. When acute, and characterized by high inflammation, with bright, smooth swelling, and spreading gradually and sometimes rapidly to surrounding parts; or when small vesicles appear on the inflamed parts, which dry up in little bran-like scales and fall off.

If it be located anywhere upon the face, place N. P., *long cord*, upon back of neck, and treat the parts affected with P. P. Treat about five to twenty minutes at a time, three or four times daily.

If it be located in the arm or hand, place the extremity in tepid water with N. P., *long cord*, and treat upon or just above the diseased part with P. P.

If it be in any part of the trunk, (which, in this form, is not so common,) place N. P., *long cord*, upon some point of the spine as near the diseased part as may be, but a little lower down, and treat the part affected with P. P.

In each of these cases, treat briefly, but frequently, as directed above.

2. When small, blister-like, serous vesicles—*phlyctæna*—appear, and the inflammation terminates in gangrene; or when there is such an infiltration of serum as to produce an œdematous condition, place P. P., *long cord*, upon some convenient healthy part, (the spinal cord, or other nerve centre which gives nervous service to the part affected, is best), and treat the

lesion with N. P., *light force*, five to fifteen minutes daily.

Medical Treatment.—

℞.—Muriate tinct. ferri ℥j.
Quinine grs. xx. m.

Sig.—Ten drops in sweetened water every two or three hours. It may also be diluted one-fourth to one-half, and applied to the parts affected as indicated.

℞.—Hydrarg. chloridum mit. grs. xx.
Simple cerate ℥j. m.

Apply to the parts affected two or three times a day. Liquid cuticle or collodion may be used topically as indicated. Poulting is seldom necessary.

Homœopathic Treatment.—Rhus., Apis., Bell.

HEMORRHAGE. (*Lungs, Nose, Uterus, etc.*)

Electrical Treatment.—Take B D current, strong force. Apply P. P. to the open blood-vessel, or as near to it as possible; placing N. P., *long cord*, to some adjacent part, and as nearly as practicable, in the direction from which the blood chiefly comes. Treat two to ten minutes as indicated.

Medical Treatment:—

℞.—Tinct. cannabis Indica (English). ℥j.

Sig.—Five to ten drops every three or four hours. Very effectual.

℞.—Salvia leaves pulv. ℥j.
Rosin pulv. ℥j.
Saccharum alba. ℥j. m.

Sig.—One teaspoonful three times a day, in water.

℞.—Oleum erigeron. gtt. xxxij.
Alcohol ℥j. m.

Sig.—One teaspoonful every three or four hours, in water, according to the urgency of the case.

Homœopathic Treatment.—Hamamelis extract.

OLD ULCERS.

Electrical Treatment.—Take A D current. If *torpid*, treat with mild force. Treat the sore with N. P., while P. P. is held upon some healthy part, and usually at a higher point. Treat five to fifteen minutes, three or four times a week. If *high inflammation* be present, this must first be reduced by applying P. P., in pretty strong force, with N. P., on a healthy part not far away. For this purpose, treat some five to twenty minutes daily. Then, when the inflammation is sufficiently subdued, treat as when *torpid*, with mild force and less frequently. It is best, when it can be done, to place the affected part in warm water along with N. P.; bringing the ulcer immediately above the surface of the water.

Medical Treatment:—

R.—Axungia or cosmoline ℥j.
 Oleum terebinth ʒj.
 Acidum sulphuricum ʒss. m.

Fiat unguentum. Mix the first two, then add the third. Apply to the ulcer. Use black salve for healing.

Black Salve.

R.—Cider vinegar oʒj.
 Cera flava ʒj.
 Axungia and resin āā ʒj.
 Rum ʒjv. m.

Saturate the vinegar well with tobacco; strain and evaporate to one pint. Then add the wax, lard and resin. Melt; remove from the fire; add the rum, and stir until cold.

Homœopathic Treatment.—Thiya cerate.

RECENT WOUNDS, CONTUSIONS AND BURNS.

Electrical Treatment.—Use the B. D. current, strong force as can be borne. Bring the lesion under P. P., and place N. P. at discretion, in view of the location of the injury. Treat five to eight minutes, twice or thrice on the same day. Unless the injury is very severe, no further treatment will be required. Healing will take place with little or no soreness or swelling. In severe cases, repeat the treatment whenever inflammation gets too high. If *fungus*—"proud flesh"—should appear, treat that with a small-pointed electrode, N. P., placing P. P. on a healthy part, not remote, using A C current, in pretty strong force.

Use B. D. current for recent wounds. Apply P. P. to the wound, N. P., *long cord*, upwardly from the wound, ten to fifteen minutes at intervals of half an hour, until relieved. Adhesive straps and liquid collodion may be applied to the wound to exclude the air and produce healing by first intention.

Medical Treatment:—

R.—Aqua calcis..... ℥jv.
Oleum lini..... ℥jv. m.

Apply as indicated. If *fungus*—"proud flesh"—should appear, burnt alum in fine powder, should be applied between times of treating with electricity.

R.—Carbolic acid crystals..... ℥jss.
Whiting qs. to form a paste.

Knead well. *A case treated.* A knife came in contact with the knee of the patient, severing the ligaments of the patella. It cut down into the joint under the patella, deep enough to allow two fingers to be inserted into the joint. The limb was made straight and firmly wrapped in this paste. In a few days the patient resumed walking.

Homœopathic Treatment.—Calendula.

ASPHYXIA. (*Suspended Animation.*)

Electrical Treatment.—Use B D current, pretty strong force. Place P. P. at back of neck—second or third cervical vertebra, and treat with N. P. over all the chest and along the lower margin of the ribs, so as to excite the pectoral muscles, lungs and diaphragm.

Medical Treatment.—In the absence of electricity resort to the following method for restoration: First, throw fresh air into the lungs, producing artificial respiration. Second, arouse the circulation, and restore to the body its natural warmth. To effect these results:

1. Remove from the mouth and nostrils all obstructions to the free passage of air to the lungs; loosening the clothing about the chest.

2. Extend the arms in the direction of the body above the head, bringing them as near together as practicable.—*Silvester method.*

Repeat the exercise of the arms and chest ten to fifteen times per minute, blowing into the mouth while exercising the same, and occasionally passing a bottle of ammonia past the nose. Rubbing and bottles of hot water may also be used to establish warmth in the body.

CANCER.

Symptomatology.—Cancers take on a variety of forms, distinguished by different names; but since they all require substantially the same electrical treatment, it is unnecessary here to describe them.

Electrical Treatment.—Begin with the A B current in pretty full volume. (The *volume* of the current is increased by increasing the quantity of battery fluid.) Use this for several weeks, and then change to the A D current. Treat daily. The time for each treatment must be determined by the judgment

of the practitioner; varying it according to the peculiar character and location of the disease.

If the cancer be on the face, or any part of the head or breast, place P. P. on the back of neck; but if it be in the stomach, uterus, or any of the abdominal viscera, place P. P. on spine, a little higher than the affected part. Then treat the disease with N. P., *long cord*, so as to run the current immediately *cut* from the lesion, and yet bring the latter on the *negative* side of the central point in the circuit; that is, within the negative half of the whole circuit.

Medical Treatment:—

R.—Chloride chromium..... ℥j.
Ext. stramonium..... ℥j.

Mix thoroughly. Spread upon leather sufficiently large to cover the whole tumor. Apply twice a day until the mass assumes a black appearance, then apply a poultice of flaxseed meal. If an eschar is produced, dress with Oxalate cerium anguentum until healed over.

R,—Permanganate potassa..... qs.

Apply as thick as the tumor, in a glass cylinder, until destroyed. Poultice until healed.

R.—Chian turpentine (pure)..... ℥jss.
Sulphuric æther (to dissolve)..... ℥¼ to ½
Syrup of acacia or ginger..... ℥vjj. ss.

Sig.—Mix. One teaspoonful before meals.

R.—Bruise and press the juice out of the full grown leaves of the common poke. Pour the same in a pewter basin or plate, and set in the sun until it evaporates to a wax or salve.

Procure the extract of the horse or sheep sorrell the same way. Also red clover blossoms.

Apply each separately or conjointly.

Medical Treatment:—If conjointly.

℞.—Ext. sorrel.....	℥ss.
“ poke.....	℥ij.
“ clover.....	℥ij.
“ stramonium	℥j. m.

Spread on thin leather, and apply once or twice a day until destroyed. Poultice with elm, flaxseed meal, or rum poultice made of light bread until healed.

℞.—Sanguinaria canadensis	℥ss.
Chloride zinc.....	℥ss.
Podophyllin	℥ij.
Extract stramonium.....	℥ss.
Carbo veg	℥ij.

Mix with water or hydrochloric acid, and apply on leather to parts affected, if not in the region of an artery or a motor nerve. When the cancer is destroyed, make a poultice of rum and bread. Apply until healed.

Cancer lotion:

℞.—Nitrate potassa.....	℥jv.
Aqua	oij.
Spirits nitre.....	℥ij.
Sulphuric acid.....	℥ij.
Tinct. opii.....	℥jv. m.

Apply twice a day on cotton cloth; moisten with lotus until destroyed. Protect the clothing by applying cotton or cloths. If cancer is open, apply the following:

℞.—Sorrel salve.....	℥ss.
Ext. stramonium	℥j. m.

Spread on thin leather and apply. Will remove a cancer, if persistently applied, until all the roots are destroyed. After removal, poultice until healed.

Homœopathic Treatment.—Hepar sul., Silicea.

ANÆMIA OR CHLOROSIS. (*Green Sickness.*)

Symptomatology.—Marked by paleness of the skin and mucous surfaces, and a peculiar whiteness of the conjunctiva. The face presents a bloated and sallow appearance. The patient is debilitated and cannot bear exertion. There is palpitation of the heart. The circulation is irregular and weak, and on exertion, the breathing becomes labored. In females the menses are irregular and deficient in color and quantity, in some cases entirely suppressed. There is vertigo, dizziness, and sometimes fainting. Neuralgia is a frequent concomitant of anæmia.

This is a disease mostly or entirely peculiar to young women who have not menstruated, and disappears on the establishment of the monthly periods.

Electrical Treatment.—Take the A D current. If any symptoms exist of an effort of nature to bring on the menses, note the *time* of them, and regard it, in the treatment, as the proper monthly period. If no symptoms of such a period are perceptible, the practitioner must *fix* upon a time for it, and regard it accordingly. About four to six days before the periodic time, commence to treat as follows, using a *moderate force*: Insert the uterine electrode, N. P., wet in warm water, per vagina, until it meets the uterus; and manipulate with P. P. over the dorsal and first two lumbar vertebræ, and more or less over the back on both sides of the spinal column, some five to twenty minutes daily, down to the period fixed upon for the catamenia to appear. If they do not start, let the patient rest for some four or five days, and then begin with *general tonic treatment*. Continue this three times a week, until within a little less than a week of the *periodic* time, when the same treatment with the uterine electrode as was at first employed should be resumed, and again be continued to the time assigned for the menses. If no success should appear, return, after a few days, to *general tonic treatment* as before.

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Let these forms of treatment be prosecuted until success crowns the effort. Ordinarily, not many months—perhaps not more than one or two months—will be required; especially, if the treatment be aided, on the part of the patient, by a good degree of moderate exercise in the open air, and a free, nourishing diet.

Medical Treatment:—

℞.—Elixir calisaya and iron.....	℥jv.
Whiskey.....	℥vjjj.
Phosphate of lime.....	℥ss.
Iron by hydrogen.....	grs. xv.
Aqua pura.....	℥vjjj.
White sugar.....	℥jv. m.

Sig.—One to two teaspoonsful three times a day.

Keep the bowels regular by enemas, or Ext. of dandelion, Comp. syrup of rhei. or senna, and usual doses as indicated.

Wheeler's Comp. Elixir of the Hypophosphites is an excellent preparation for anæmic or debilitated subjects.

℞.—Syrup of the iodide of iron..... ℥jj.

Sig.—Ten to twenty drops in water three or four times a day may be used.

℞.—Tinct. ferri chloridum..... ℥j.
Quinine..... grs. x. m.

Sig.—Ten drops in sweetened water three times day.

℞.—Phosphate iron..... grs. xxjj.
Syrup, ginger..... ℥jv. m.

Sig.—One-half to one teaspoonful three times a day.

℞.—Citrate quinine and iron..... ℥jj.
Syrup, ginger..... ℥jv. m.

Sig.—One teaspoonful every three hours.

Homœopathic Treatment.—Ferrum red. pulv.

NYMPHOMANIA AND SPERMATORRHEA.

Symptomatology.—Debility, pain in the head and back, palpitation of the heart, aching pain and a dragging sensation in the testicles, involving nocturnal and diurnal emissions of semen. In all suspected cases the urine should be examined microscopically for the presence of spermatozo.

The points to be gained are, to reduce the action of the amatorial organs of the brain and the secretions of the *testes*, and to contract and strengthen the tissue of the seminal vesicles and the prostate gland.

Electrical Treatment.—Take the B D current. First, treat the lowest part of the cerebellum, on both sides of the spinal cord, with a *mild* force; using P. P. upon these organs of amativeness, and N. P. on the dorsal vertebræ. Treat five to fifteen minutes. Next, increase the current to medium force; and, taking a handled cup or mug, holding a pint to a quart, mostly filled with tepid water, drop the *penis* and *testicles* into it, along with the tin electrode P. P., and move N. P., *long cord*, over the lumbar vertebræ. Treat in this manner five to fifteen minutes. Then place the P. P. on the pelvis, close above the penis, and again treat with N. P., *long cord*, over the small of the back, two or three minutes. Treat about three times a week.

Treat the head occasionally as follows: Before giving the above treatment use B D current, apply N. P., *long cord*, at the base of the spine, P. P. in the right hand. Manipulate with one finger of the right hand over the eyes, while the left hand is applied to the back of the neck, ten to fifteen minutes with mild force. Then apply the index finger of the right hand to the right ear. The index of the left to the left ear, five to ten minutes. If there is considerable excitement, irritation or inflammation of the brain, moisten the hair with water and apply P. P. of the B C or B D current to the head three to five minutes.

If a female, the sponge-roll may be placed between the labia. Apply a cloth, moistened with water previous to applying the sponge-roll. Otherwise treat the same as in males. Treat from three to six times a week.

Medical Treatment:—

R.—Alumen sulphate. ℥ij
 Camphor gum, pulv. ℥j. m.

Sig.—One-half teaspoonful twice a day.
 Remove the patient from exciting causes.

R.—Potassa nitratis. ℥ss.
 Alumen sulphas. ℥j.
 Camphor gum, pulv. ℥j.
 Axungia or cosmoline. ℥ijj. m.

Apply with heat, once or twice a day, over the pubes and genital organs. Wear a small sack of pulverized camphor on the small of the back, also on the lower part of the abdomen above pubes. Let the patient sleep on a hard mattress to prevent nocturnal emissions; the patient must sleep on one side. Put a good sized cotton thread spool on a piece of tape. Tie the same around the hips; let the spool rest about midway between the lowest lumbar vertebræ and coccyx, centrally between the illia. Should he or she turn on the back in their sleep, the spool will awaken them, if properly adjusted, and cause them to turn on the side, which will render them less liable to amorous dreams.

R.—Muriate tinct. ferr. ℥ij.
 Vinum ergot. ℥j. m.

Sig.—Ten to twenty drops in sweetened water, at 9 A. M., 3 P. M., and on retiring. Give the patient nourishing and digestible food; let him eat freely of celery, if obtainable, if not give some of the preparations of celery made from the seed,

containing three to five grains of the seed to the dose, and taken three times a day; or Celerina, Richardson & Co., composed of celery, coca, and viburnum verso.

Homœopathic Treatment.—Phos.

PROLAPSUS UTERI. (*Falling of the Womb.*)

Electrical Treatment.—Take the B D current, of good medium force, and give *general tonic treatment*, on alternate days, ten to fifteen minutes, passing briefly over the several parts. After this, treat five to twenty minutes with uterine electrode, in the manner prescribed for *menorrhagia*. Then close the sitting by removing the uterine instrument, substituting the sponge-cup as P. P., and treating with it externally, about five to ten minutes, over the pelvic region, while N. P. is stationed on the spine, at the first or second dorsal vertebræ.

On the *intervening* days, treat only with the uterine electrode, as above described.

Elevate the hips to an angle of forty-five degrees, for a few moments, on retiring, so as to throw the womb out of the pelvis and up into the abdomen. Place the hands firmly to the abdomen above the pubes with sufficient pressure to maintain the womb in situation until you lie down with the hips slightly elevated, which will take the strain off the overtaxed and weakened nerves and muscles, and strengthen the same by rest; rest being one of nature's great restorers. Astringent lotions may be injected in vagina once or twice a day, as follows: Alum water; Tannin in solution; Tinct. kino, diluted; Tinct. myrrh, say, ʒss. to ʒj. to one pint water. Injected with mild force, and small quantities each time, two or three times a day.

LEUCORRŒA. (*Whites.*)

Electrical Treatment.—Take A D current, *very mild force*. Introduce the vaginal electrode, N. P., until it meets the

uterus, and manipulate with P. P. over the dorsal vertebræ five to twenty minutes, three times a week. Once or twice a week, on the intervening days, give *general tonic treatment*. Omit treatment altogether for one or two weeks, once in two to three months. Considerable time is often required for the cure of old cases.

Medical Treatment:—

℞.—Fluid extract caulophyllum..... ℥j.
 “ “ buchu..... ℥j. m.

Sig.—One teaspoonful three times a day before meals. Use as a vaginal injection the following :

℞.—Permanganate potassa..... grs. j. to iij.
 Aqua pura..... ℥j. m.

℞.—Permanganate potassa..... grs. v. to x.
 Aqua pura..... ℥ij. m.

Having previously injected warm water to cleanse the parts, inject No. 2 once or twice a day.

Homœopathic Treatment.—Alumina, Sepia.

MENORRHAGIA. (*Excessive Menstruation.*)

Electrical Treatment.—If the menstrual flow is apt to terminate in hemorrhage, it is best to give *general tonic treatments* about three times a week, between the periods; and during the last four or five days before color is expected to appear, to take the B D current, medium force, and treat the uterus directly, once a day, with the uterine electrode P. P., while moving N. P. over the dorsal vertebræ, about five to fifteen minutes, at the close of *general tonic treatment*.

If there be no *hemorrhage*, properly, but only too profuse or too long-continued flow of catamenia, the discharge may commonly be stopped by one or two treatments, of eight to ten

minutes each, with the uterine electrode, as prescribed above.

Medical Treatment:—℞. Tinct. Cannabis Indica (English.)

Sig.—Five to ten drops every four hours.

One or two doses usually sufficient to control the hemorrhage. Not advisable to arrest it entirely during the time of menstruating. Should they cease too soon, apply P. P. of the B D current, on the spine between the shoulders, N. P. over the bowels and limbs, ten to fifteen minutes, once or twice a day.

AMENORRHEA. (*Suppressed Menstruation.*)

Electrical Treatment.—Treat as for *chlorosis*. But if the case be recent—the effect of taking cold—begin, in the first few sittings, to treat ten to twenty minutes as for common cold; then conclude the sitting by treating, about as many minutes, in the same manner as prescribed for *chlorosis*.

Medical Treatment:—

℞.—Tinct. cimicifuga ℥j.

Sig.—Ten to twenty drops every two or three hours.

℞.—Tinct. aloes ℥i.

“ ferri chloride ℥j.

Fluid extract ergot ℥j.

Ess. wintergreen ℥j.

Syrup, simplex ℥jv. m.

Sig.—One teaspoonful every six hours. Not indicated in inflammation of the uterus or pregnancy.

℞.—Wintergreen leaves ℥j.

Aqua pura oʒ. m.

Sig.—Steep until the strength is extracted. Strain, and drink one ounce every three or four hours for four days before menstruation is expected.

Homœopathic Treatment.—Puls. sepia.

DYSMENORRHOEA. (*Painful Menstruation.*)

Electrical Treatment.—If the disease be occasioned by uterine displacement, obstructing the *os uteri*, the organ must be restored to its normal position. This can best be done by mechanical action. But it is most commonly occasioned by irritation of the mucous membrane lining the interior cavity of the uterus. Mucous surfaces, under *chronic* irritation, are electrically negative. Therefore, in this case, if it be an *old* one, taking the A D current, *very mild force*, apply the uterine electrode, N. P., to the *os uteri*, and treat over the lower dorsal and upper lumbar vertebræ with P. P., *long cord*. Treat five to fifteen minutes, three times a week.

But I should add, that recovery from this infirmity, when occasioned by uterine irritation, will be much aided by commencing each sitting with a *general tonic treatment*, and closing with the treatment just above prescribed.

The last described form of dysmenorrhœa is sometimes attended with spasmodic contraction of the *os uteri*, thus preventing the catamenial flow. This may be readily relieved by applying P. P. to uterus, and N. P. to lower dorsal and upper lumbar vertebræ.

Medical Treatment:—

℞.—Tinct. gelsemini ʒj.
Spirits frumentum ʒij. m.

Sig.—One-half to one teaspoonful every two hours.

℞.—Valerianate ammonia ʒj.
Syrup, simplex ʒjv. m.

Sig.—One-half to one teaspoonful every two or three hours.

℞.—Tinct. opii, gtt., five to fifteen, as indicated.

℞.—Ext. solid hyoscyami grs. x.
 “ gelsemin “ v.
 Quinine “ xx. m.
 Fiat pilulæ No. 10.

Sig.—Take one pill every three or four hours.

Homœopathic Treatment.—Collinsonia, Sabina, Seneecin.

EPILEPSY.

Symptomatology.—The patient falls suddenly, and is seized with convulsions. The senses are suspended, and the subject paralyzed. The features are distorted, and the eyes fixed. During the convulsions the tongue is bitten, and a bloody, frothy mucus issues from the mouth. The tongue, on examination, presents old cicatrices, the results of former attacks, and this condition of the tongue is highly diagnostic of true epilepsy. The attacks return at stated periods, and generally increase in severity as the patient grows older.

A few of the many causes of the disease named are as follows: Teething, irritation of; menses, suppression of; head, injuries of; spermatorrhœa; masturbation, etc.

Electrical Treatment.—If from teething, wrap the metallic part of the tongue instrument with muslin or cambric several times around the same. Moisten with molasses. Use B D current, mild force. Apply P. P. to the tongue, N. P. in the left hand of the operator. Apply the right hand to the patient's neck, throat, jaws, etc., to remove irritation. If the gums are very much swollen, precede with lancing. If from worms, use A D current. Apply P. P. to the tongue. Manipulate with N. P. over the stomach, bowels and limbs, ten to twenty minutes, or apply P. P. sponge cup to the back of the neck; N. P. over the body generally ten to twenty min-

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utes. Repeat as indicated. If a menorrhœa (suppressed menstruation), as directed in another part of the work. If spermatorrhœa, as directed in another part of the work.

Medical Treatment:—Worm medicine.

R.—Santonine	grs. xxv.
Podophyllin	“ jvss.
Populine	“ xxv.
White sugar	3jss. m.

Sig.—Mix thoroughly, and put in a ground stopper bottle. Dose for a child from one to three years old, one to three grains on retiring, for two or three days, when a small dose of castor oil may be given; or a dose may be given every four hours for a day or two, and followed with oil, if indicated.

R.—Hydrocyanate ferri	3j.
Pulv. valerian	3jj.
Fiat pilulæ, No. 120.	

Sig.—One pill night and morning.

Cases yield to the treatment in four, six, nine and twelve months. Use electricity on principles laid down in the work for conditions as manifested from time to time. The treatment has been used successfully in chorea, neuralgia and other severe nervous affections.

Prescriptions for the last named diseases:

R.—Hydrocyanate ferri	grs. jx.
Sulphate quinine	“ vj.
Extract opii	“ ss.
Conserve roses	“ qs. m.

Sig.—Make nine pills. One pill every three hours.

R.—Hydrocyanate ferri	grs. xxxvj
Sulphate quinine	“ xxjv.
Extract opium aqueous	“ jj.
“ valerian alcoholic	“ x. m.

Sig.—Make thirty-six pills. Take one every three or four hours, as indicated. (See Tilden's *Journal of Materia Medica*, P. 166-7-8.)

Homœopathic Treatment.—Ignatia, Bell., Cuprum.

IMPOTENCE.

Electrical Treatment.—Take the B D current, moderate force. Treat exactly as in spermatorrhœa, except with *reversed poles*, using the *long cord*, with P. P. Treat thrice a week. Also, P. P. to the nerve centers between the shoulders, and N. P. over the stomach, liver, bowels, pubes and limbs, to the knees, fifteen to twenty minutes alternately, with the first-named treatment, medium force. General tonic treatment should be given once or twice a week

Medical Treatment.—℞. Dilute phosphoric acid.

Sig.—Three to six drops to be given two or three times a day.

℞.—Tinct. cantharides gtt. j. to jv. two or three times a day.

℞.—Elixir of pyrophosphate of iron and soda.

Sig.—One to two teaspoonsful three times a day.

Used in a numerous class of subjects of a nervous, delicate organization.

DIZZINESS OF OLD AND CORPULENT PEOPLE.

Electrical Treatment.—Use A D current, apply P. P. to the tongue, N. P. over the body generally down to the pubes, ten to fifteen minutes. Then apply N. P. to the inner part of the thighs three to five minutes. Then hold the sponge-roll between the thighs, and apply P. P. over the kidneys ten to fifteen minutes. This disease is caused by the kidneys failing to secrete the uric acid. It is therefore retained in the blood

and carried to the brain. Frequently people fall dead with this disease, simulating apoplexy. Treat once or twice a day for a day or two. Afterwards, two or three times a week.

℞.—Scilli martima ℥j. to ℥ij.
Spirits nitre dulc..... ℥jv. m.

Let it stand four or five days. Shake it daily.

℞.—One teaspoonful three times a day.

Homœopathic Treatment.—Acon., Bell., Nux vomica, Bryonia, Puls.

INFLAMMATION, SORENESS, OR TENDERNES OF THE FEET, FROM
WHATEVER CAUSE.

Electrical Treatment.—Fill a wash-bowl nearly full of tepid water. Put the feet in the same. Use B D current, apply N. P., *long cord*, under the toes, P. P. to the heels, five to ten minutes. Reverse and apply N. P. to the heels in the water, P. P. over the feet five to ten minutes. Remove N. P. and apply between the feet, in front of the ankles, apply P. P. to the outside of each foot five minutes. Treat once a day for two or three days. The hands, if inflamed, may be treated about the same way, and the same length of time. A weak solution of alum-water, tannin, or aromatic sulphuric acid may be used. Apply on retiring.

OTTITIS. (*Inflammation of the Ear.*)

Symptomatology.—Pain in the ear, sometimes of a very acute character. The ear in all cases should be examined with a speculum. The disease may terminate in supuration if not treated in the early stages of the disease.

Electrical Treatment.—Use B D current. Take P. P. in the right hand, apply one finger of the same to the inflamed ear, N. P. in the hand of the patient, opposite inflamed ear, treat in and about the ear five to fifteen minutes. P. P. may

be applied to the jaw and neck five to ten minutes. Supposing the above treatment to have been for the right ear and left hand of the patient, change and treat same way for inflammation of the left ear, or N. P., *long cord*, attached to the tongue instrument, and apply to the tongue, while the operator holds P. P. in one hand and applies the index finger of each hand to the ears, having previously dipped the ends of each in water. Treat five to ten minutes. Then apply N. P. to the base of the spine, or to one limb, or between the feet, and treat the ears as before, five to ten minutes with P. P. Treat once or twice a day until relieved.

Medical Treatment.—R. Introduce into the ear lint saturated with equal parts of Tinct. lobelia and aconite, to which may be added three to five drops of laudanum if the pain is severe.

ORCHITIS. (*Inflammation of Testicles.*)

Symptomatology.—Pain, heat and swelling in the affected organ. The pain is of a very acute character. The scrotum is red, and the veins on its surface prominent.

Electrical Treatment.—Use the B D current, place the scrotum and P. P. in a mug of water. Manipulate with N. P., *long cord*, over the abdomen, hips and back, ten to fifteen minutes, once or twice a day until relieved. In addition use:

Medical Treatment:—

R.—Tinct. arnica.....	ʒij.
“ humulus lupulus.....	ʒij.
“ polygonum punctatum.....	ʒjv. m.

Make a bran poultice by saturating with the tinctures, and apply as indicated.

R.—Arnica flowers, hops and smart-weed, in the above proportions may be boiled together. When cold apply.

EPISTAXIS. (*Bleeding of the Nose.*)

Electrical Treatment.—Use B D current. Take P. P. in the right hand, apply two fingers of the same, one on each side of the nose, N. P., *long cord*, on the back of the neck, which usually arrests bleeding in two to five minutes. Should bleeding recur, treat as directed, every fifteen to thirty minutes.

Medical Treatment.—Styptic for hemorrhage. (Topical.) Red or styptic powder, composed of iron and alum. (See American Dispensary.) Perchloride of iron has been used quite successfully, administered in epistaxis, hemoptysis, hematemesis, menorrhagia, uterine and other hemorrhages of a passive character. The dose is from five to ten drops in an ounce or two of water, and repeating it every one, two or three hours until relieved. Or Tinct. cannabis indica (English), three to five drops every half hour until two or three doses have been taken.

GASTRITIS. (*Inflammation of the Stomach.*)

Symptomatology.—Vomiting, pain in the region of the stomach, together with a burning sensation. The pulse is hard and wiry, the temperature is elevated, there is tenderness on pressure over the region of the stomach. The tongue is dry and red, the urine scanty and high colored; the vomiting persistent, every substance taken into the stomach being rejected, if the disease is about to terminate fatally the vomited matter assumes the appearance of coffee grounds.

STOMACH. (*Inflammation of.*)

Electrical Treatment.—Use the B D current, apply P. P. over the stomach, N. P., *long cord*, on the spine below, five to twenty minutes. Then apply P. P. to the neck, N. P. over the stomach, five to ten minutes. Then P. P. to the tongue, N. P. over the stomach, three to five minutes. Treat once,

twice, three times, or oftener the first day or two. If there should be determination of blood to the head, apply N. P. to the feet. Moisten the hair, and apply P. P., mild force, to the head, three to five minutes. Then apply P. P. to the back of the neck, sides of the neck, between the *clavicle* and *scapula*, five to ten minutes to each point or part named. Treat two or three times a day. *Change as conditions change, spending less time and treating less frequently* in this and all other diseases. Let the patient drink freely of elm water. The tincture of arnica and aconite, or veratrum may be given in small doses alternately, every hour or two. Let the diet be light and digestible. Enemas of gruel, beef tea, etc., should be given if the stomach will not tolerate food.

CEREBRO SPINAL MENINGITIS.

Symptomatology.—Characterized by pain passing up and down the spine, tenderness on pressure over the spinal column, headache, fever, delirium, rigidity of the muscles of the neck and back, almost constant symptoms. In some cases there is tetanic, convulsions and paralysis. The body may be bent backwards opisthotonos, or forwards emprostotonos, or there may be only a simple rigidity of the muscles. The patient has difficulty in swallowing, the bowels are very constipated, and in some cases there is vomiting. The respiration is slow and irregular. The patient sometimes dies suddenly of asphyxia.

Electrical Treatment.—(See Wood's Practice for an elaborate description of the various forms of meningitis, myelitis, etc., etc.) If there is a tetanic condition of the system generally, use A D or B D current. Apply P. P. to the tongue, N. P. all over the body and limbs, ten to fifteen minutes. Devote one-half of the time to the spine, commencing at the base of the brain, and treating downwardly to coccyx. Use cords of equal length. If the above treatment does not relieve the patient, apply N.

P. to the feet, P. P. to the upper part of the spine, ten to fifteen minutes. Then apply P. P. *between* the *clavicle* and *scapula*, on each side of the neck, five to ten minutes. Then moisten the hair, and treat the head three to five minutes, mild force. The above treatment is for the first treatment given in a bad case. In milder cases, occupy less time. Repeat the treatments or portions as seemeth best. I should have stated, while treating the head, the eyes and ears should also be treated as directed for congestion or inflammation of the brain, etc., five to ten minutes.

When reaction takes place, give *general tonic treatments* once or twice a day, with *stimulants* and *tonics*. *No person except a physician should attempt to give this treatment*, and not he unless conversant with the *principles taught in this work*. The bowels should be relieved by enemas of water, a solution of Epsom salts, castile soap-suds, etc. Diet should be light, but nutritious. Aconite, belladonna and dextro-quinine may also be used. Never use quinine if there is inflammation or congestion of the brain.

Homœopathic Treatment.—Hyoscyam., Hellab.

INFLAMMATION OF THE SPLEEN.

Symptomatology.—Deep-seated pain, wiry pulse, tongue coated with a white covering, the temperature considerably elevated, the bowels costive. Inflammation of the spleen is intimately connected with malarial diseases.

Electrical Treatment.—Use B D current, apply P. P. over the spleen, N. P. over the liver, on the back or at the coccyx ten to thirty minutes, dividing the time between the three points of application. Use cords of equal length. Treat three to six times a week.

Medical Treatment:—

℞.—Valerianate ammonia ʒj.
Aqua pura ʒiii.

Sig.—One-half to one teaspoonful three or four times a day.

℞.—Leptandrine..... grs. xv.
 Conserve of roses..... qs. m.
 Fiat pilulæ No. 20.

Sig.—One to three pills two or three times a day.

℞.—Tinct. gelsemini gttss. iij. to vj.
 every three hours.

SPLEEN. (*Enlargement of.*)

Symptomatology.—When the organ becomes enlarged there is an increase in the area of dullness, and by careful palpation we are enabled to make out the increased bulk of the organ.

Electrical Treatment.—Use A D current, apply P. P. to the tongue, N. P. over the spleen and below it, ten minutes. Then apply P. P. to the back of the neck, and N. P. over the spleen as before, ten minutes. Then apply P. P. to the spleen and N. P. over the liver, ten minutes. Then N. P. at coccyx, P. P. over the spleen, ten minutes. Treat three to six times a week.

Medical Treatment:—

℞.—Iodide of iron and syrup of manganese. ʒj.

Sig.—Five to ten drops every two or three hours alternately with No. 2.

℞.—Tinct. gelsemini, gtt., three to six, alternately with No. 1.

OVARIES. (*Inflammation of.*)

Symptomatology.—Pain and tenderness in the region of the ovaries. The pulse is quick and the temperature elevated. The tongue is coated with a whitish covering, and the bowels

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are constipated. Menstruation is painful, irregular and small in quantity.

Electrical Treatment.—Use B C or B D current. Attach P. P. *long cord* to the *vaginal electrode*; introduce per vagina to the uterus. Apply P. P. over the ovaries ten to twenty minutes. Treat once or twice a day, or apply P. P. over the ovaries, N. P. *long cord* at the coccyx, ten to twenty minutes. The treatments may be alternated daily, or every other day, until relief is obtained. Inject a solution of Epsom salts into the vagina once or twice a day, using mild force. Hamamelis, or a poultice of hops, may be applied over the ovaries.

PRURITUS. (*Of the Vulva.*)

Symptomatology.—Intense itching and irritation of the external organs of generation. It is very often seen in pregnancy.

Electrical Treatment.—Use B D or B E current. Attach N. P., *long cord*, to the *vaginal electrode*, introduce per vagina. Apply P. P. over the pubes groins and kidneys ten to twenty minutes daily, if not pregnant. Also use a solution of Hydrate chloral ʒj, water ʒjv. m; dissolve and saturate cotton and apply between the labia two or three times a day.

Medical Treatment:—

R.—Gum camphor..... ʒss.
Hydrate chloral..... ʒss. m.

Triturate in a mortar until fluidity follows. Add simple cerate four ounces. Apply to the parts affected if the skin is not broken.

R.—Permanganate potass..... ʒj.
Aqua pura ʒvjjj to xjj.m.

Inject per vagina, one ounce on going to bed.

SCROFULOUS OPHTHALMIA. (*With Intolerance of Light.*)

Electrical Treatment.—Use electricity as directed for chronic sore eyes.

These are among the worst cases that physicians meet with in practice.

Medical Treatment:—

R.—Oleum morrhua	oj.
Fluid ext. scrofularia	ʒjv.
“ “ phytolacca	ʒij.
“ “ Iris versic	ʒij.
Tinct. cinchona comp.	ʒij.
Syrup, iodide ferri	ʒvjj. m.

Sig.—One teaspoonful three to six times a day.

R.—Argenti nitras	grs. x. to xx.
Aqua rosæ	ʒj. m.

Paint the lids among the eye-lashes while the eyes are closed. In all cases of scrofulous ophthalmia or granulated eye-lids, bathe the eyes morning and evening with tepid or cool salt-brine, medium strength. Let it go into the eyes.

TYPHOID FEVER.

Symptomatology.—The patient complains of pain in the head, and back chills. The tongue is covered with a brown or yellowish coating. There is in the beginning constipation of the bowels, which may soon change to diarrhœa. The pulse is accelerated, and there is a marked elevation of temperature. There is a petechial eruption on the abdomen. The bowels are bloated and tympanitic. There is delirium generally, and the lips and teeth are covered with brown sordes. The urine

is scanty and of a dark red color. The bowels continue to bloat; the evacuations are sometimes watery, and at others dark, offensive and bloody. There is cough and a crepitant rhoncus. If the disease is about to terminate fatally, the symptoms will increase in severity. The patient becomes stupid, with low muttering delirium, picking at the bed clothes. And frequently there may be hemorrhage from the bowels to such an extent as to cause death. Again, the ulceration of the bowels may be so great as to allow their contents to escape by perforation into the cavity of the abdomen, causing at first pain, but soon subsiding. The patient soon is in a state of collapse, covered with a cold, clammy sweat; the pulse ceases, and death follows.

Electrical Treatment.—Use B D if the fever is high. Apply P. P. tongue instrument to the tongue, N. P., *long cord*, all over the body and limbs briskly five to ten minutes. If there are indications of delirium treat the head as directed in congestion or inflammation of the brain. Then change and apply N. P. of the A D current between the illia or at coccyx. Manipulate with P. P. side-sponge cup over the abdomen ten to thirty minutes. Then apply N. P. to the feet, P. P. over the kidneys ten to fifteen minutes, using cords of equal length. Change and apply P. P. to the feet and N. P. over the spine and bowels upwardly five to fifteen minutes, let ten minutes of the time be devoted to the spine. Repeat the treatment or portions that seem to be indicated twice a day, once a day or every other day, or three or four days, as required. For inflammation of the stomach use B D current, moderate force. Here let me caution you concerning the use of electricity in the treatment of inflammatory conditions wherever located, that you must not use any current of sufficient force so as to produce an unpleasant sensation, if you do, you will aggravate and irritate the parts to which it is applied; but begin with a very mild, or light current, increase the force in proportion to

the subsidence of the inflammation, thereby producing under the treatment a never-failing *anodyne* or *soothing* effect, especially when B D and the *long cord* are used with P. P. applied to parts inflamed. Apply P. P. over the stomach, N. P. *long cord*, on the spine opposite, or at the coccyx, ten to twenty minutes. Then apply P. P. to the back of the neck, N. P. over and below the stomach five to ten minutes. It is not politic to commence the treatment of this disease with hydragogue cathartics. They, like undigestible food, are almost certain to prove disastrous to the patient. After giving the electrical treatment the body should be bathed in vinegar and water, whisky and water, or soda water. If the bowels are constipated, give milk and water injections, or inject a solution of epsom salts, soap-suds or warm water. If the stomach is engorged with indigestible food, give an emetic of ipecac or lobelia, having previously given one-half to one pint of warm ginger tea. Alternate the tea with the emetic every fifteen or twenty minutes, until the contents of the stomach have been ejected. Bathe the body frequently if there is fever. Do not administer medicines that will prevent the free use of acids. Beef tea, pearl sago, weak gruel, fresh milk, the acid of cider vinegar, pickles and lemonade, should be used freely, if craved by the patient.

Pure whisky as a stimulant and neutralizer of the poison is indicated, more or less during the sickness, unless the person has a natural desire, or an acquired appetite for the same. Administer the usual tonics in the absence of the fever. The tonic effect of electricity is much better however. Tonics may be used with electricity.

R.—Sulphurous acid, dilute..... ʒij.
Syrup orange peel..... ʒijj. m.

Sig.—Of this compound give from twenty to thirty drops every three or four hours, until cured, (excepting when the patient is sleeping.)

Rest is nature's great restorer. No wrecks, no losses, under the electrical and medical treatment for fifteen years past. The following may be used in the absence of electricity or in conjunction with it in cases of emergency. It has never been necessary to use it in connection with electricity in my practice.

Take equal parts of finely pulverized elm bark and white sugar, sufficient to make one quart of thin mucilage. Inject one pint of warm water into the rectum to remove all fecal matter. After the bowels have been evacuated, inject one pint of Argenti nitras, made after the following:

R.—Argenti nitras. ʒss. to j.
Aqua font. oj. m.

Let the patient retain this two or three minutes, when it may be evacuated. Then inject again one pint of warm water and retain a short time. After this is evacuated, inject one pint of the elm mucilage, more or less, according to age of the patient. This should be retained as long as possible. When giving the enemas place oil-cloth under the patient to protect the bedding. In all cases of flux or diarrhoea this treatment will prove beneficial.

In ulceration of the bowels repeat every fifth day until cured.

I prefer the following treatment to the above for involuntary evacuations of the bowels. Use B D current, apply P. P. sponge-roll to the coccyx. N. P., *long cord*, over the bowels and spine five to fifteen minutes, two or three times a day, until arrested. Should irritation follow the treatment, reverse the current and treat as above.

Medical Treatment.—Tinct. gelsemini, aconite, veratrum, dovers. or diaphoretic powder, should be used to control the fever during the intervals of treating. When tonics are indicated give general tonic treatment.

Homœopathic Treatment.—Bryonia, Rhus., Gelsem., Baptisia.

ABSCESS OF ANTRUM.

Symptomatology—There is deep seated pain in the face, ear and temporal region; swelling and redness of the cheek of the affected side, fever and headache and formation of pus. The pus generally makes its escape through the thin bony wall in front; sometimes it makes its escape into the nasal passages, and is discharged. It has also been known to escape through the hollow left by the extraction of a molar tooth from the upper jaw.

History and Treatment.—Male, aged forty-five; profession, a painter; complained of considerable uneasiness in the temporal region in and around the right ear, for three weeks, when he took to his bed and sent for his physician, who diagnosed his case neuralgia, and treated him about eleven days for the same, during which time he had no rest except when under the influence of morphia injected in the neck. On the afternoon of the eleventh day of his confinement to his bed I was called to see him; found a high state of inflammatory action in the temporal region, face, fauces, etc.; right side of his head extremely sensitive to the touch, also right side of his face. He complained of excruciating pains in, around and above the ear and temple, also in his cheek and right side of his neck. He stated that he felt as though the right side of his head was enlarged, swollen, etc., which I could not discover; the right side of his face was considerably swollen, extending downward. Along the jaw-bone to the chin, the parotid sub-maxillary and sub-lingual, and neighboring parts were very much swollen, sufficiently to obstruct the nasal cavity, stretched back into the pharynx, so as to interfere with respiration.

Electrical Treatment.—First. Used B D current, and P. P. attached to the tongue instrument applied to the tongue, and applied N. P. over the body and limbs generally fifteen minutes. This was to force the blood from the center to the sur-

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face, which relieved the head proportionately, thereby producing an anodyne and alterative effect; used cords of equal length. Changed.

Second. Applied N. P., *long cord*, to the feet, P. P. to the back of the neck and between the shoulders ten to fifteen minutes. Then applied P. P. to the sides of the neck *between* the *clavicle* and *scapula* five to ten minutes each. This also was to produce a sedative effect.

Third. I then took the P. P. in the right hand and applied the index finger of the same to the tympanum of the right ear, or as nearly so as the conditions would admit of. Index finger of the left hand to the left ear. Commenced with a very mild force and increased as the sensitiveness diminished, five to ten minutes.

Fourth. Changed and applied the index finger of the right hand to the eyes alternately, whilst applying the left hand to the back of the neck five to ten minutes; commenced with a mild force and increased as before. I also applied the index finger of the right hand to the right eye, index of the left to the left ear three to five minutes. Changed to cords of equal length.

Fifth. Applied N. P. to the left hand of the patient, P. P. over the temple and side of the face five to ten minutes. If the parts are very sensitive apply the right or left hand to the inflamed organs or parts, P. P. to the back of the same, to modify the current. I should have mentioned the fact that while the tongue instrument was being used with the P. P. I applied N. P., *long cord*, over the face, neck and jaw, also in and around the ear; manipulated in this manner ten to fifteen minutes. Reversed the currents or poles, and treated as before ten to fifteen minutes. The patient went to sleep under the treatment and slept several hours, when he awoke he was given a teaspoonful of bromidia. The treatment and two teaspoonfuls of bromidia caused him to rest ten hours out of

twelve. When I called to see him I found a marked improvement. The anodyne and alterative effect of the electricity had worked wonders. I repeated the treatment every six to twelve hours, causing the patient to sleep and snore each time. Consuming less time each treatment. Abscess broke within forty-eight hours after the first treatment, and discharged a large quantity of very foetid matter, and the patient improved rapidly enough to go riding within a week from the time of giving the first treatment. I will state, for a time after the abscess broke, I treated him daily as follows, to keep up an action in the parts diseased, to assist nature to repair the damages done by inflammation, etc. I used A D current, applied N. P. tongue instrument to the tongue, P. P. to the face, ear, back of the neck, over the sub-maxillary gland, etc., fifteen to thirty minutes; reversed the treatment about half of the time and used cords of equal length. At the present writing, a few weeks since the attack, he has resumed business.

Medicines used were, anodynes, alteratives and tonics.

CARBUNCLE.

Symptomatology.—Pain, heat, swelling in some part of the body, generally some spot on the neck, shoulder or nates. The swelling assumes a red, angry appearance, a small supurating point appears at the summit, which after a short time grows larger, showing a gangrenous, dirty-looking surface, somewhat resembling a piece of dirty sponge. There is more or less constitutional disturbance, such as fever, chilliness and headache. The tongue is covered with a brownish white covering.

Electrical Treatment.—Use A B current, apply P. P. to the tongue, N. P., *long cord*, over the diseased and inflamed parts ten minutes. Change to A D, use as directed above ten minutes, then change to B D current. Apply N. P. to the spine over the seventh cervical vertebræ, at the base of the spine or feet (latter preferable). Manipulate with P. P. over, around,

and on each side of the neck *between* the *clavicle* and *scapula* ten to thirty minutes. Treat every two, three or four hours, which will relieve the patient of his severe suffering within twelve hours and enable him to rest comfortably, comparatively speaking. After having gotten control of the inflammatory action treat often enough to keep control until cured. For drawing and healing use Black salve. Poultices of elm, linseed meal or bread and milk may also be used.

BOILS.

Electrical Treatment.—Use B D current, *cords of unequal length*, treat on the same principle. Cords or conductors of electricity are cords or conductors of electricity that are two yards long, more or less. Conductors of electricity of unequal length are one cord or conductors of electricity two yards long, more or less; and one cord or conductors of electricity four yards long, more or less; or conductors of electricity used in such a manner as to make the conductors of electricity of unequal length in the treatment of acute and chronic diseases. Cords of *equal* length may be made practically of *unequal* length, by the operator passing the current through parts of his own body, as for instance by holding the electrode of one cord in one hand, while he applies to the patient an electrode held in the other hand. When matter has formed make an incision deep enough to remove the same. Heal with the Black salve.

Homœopathic Treatment.—Hepar sul., Silicea, Sulphur.

FELONS.

Electrical Treatment.—Use the same current, B D, and treat on the same principles. The felon may be treated in a basin of water.

Homœopathic Treatment.—Silicea, etc.

APOPLEXY.

Symptomatology.—Generally preceded by headache, ringing in the ears, dizziness and vomiting; the respiration is labored, the face is swollen, the eyes fixed, the blood vessels of the head and neck beat rapidly and forcibly, the breathing is loud and sonorous, and it is impossible to arouse the patient from this comatose state. The attack is sudden, and in many cases the person drops dead at once.

Electrical Treatment.—Use B D current, apply P. P. to the tongue, N. P. over the body generally five to fifteen minutes; also, P. P. to the spine, N. P. at coccyx five to fifteen minutes; also, treat the head as directed for congestion or inflammation, three to five minutes; also, apply P. P. to the back of the neck, N. P. over the stomach and bowels five to ten minutes. When reaction takes place give *general tonic treatment*. Repeat the treatment, or portions of it, as indicated.

Medical Treatment:—

R.—Hydrocyanate ferri..... ʒss.
 Pulv. valerian..... ʒj. m.
 Fiat pilulæ No. 60.

Sig.—One pill night and morning. From three to six months is required to cure the disease. If a female use—

R.—Hydrocyanate iron..... grs. xxvj.
 Sulphate quinine..... “ xxjv.
 Ext. opium aqueous..... “ jj.
 Ext. valerian alc..... “ x. m.

Make thirty-six pills. Take one every two or three hours, as indicated. (See Tilden's supplement to the *Journal of Mat. Materia*, P. 167).

Homœopathic Treatment.—Acon., Bell.

JAUNDICE.

Symptomatology.—Caused by the deposit of the coloring matter of the bile in the skin and other tissues. The skin is dry, the urine is also colored a dark brown, by the presence of the bile the bowels are constipated and the evacuations are of a light or ash color. The symptoms vary in almost every case. Sometimes there is pain in the region of the liver. Jaundice is seen in many diseases, such as malarial fevers, affections of the liver, organic diseases of the stomach, involving the neighboring organs. It may be caused by the arrest of a gall-stone in the biliary passage, or from any cause obstructing the free passage of the bile from the liver.

Electrical Treatment.—Use A D current, apply P. P. to the tongue, N. P. over the stomach and liver, mild force. Treat five to ten minutes.

Then treat the liver as directed for torpidity, once or twice a day. On retiring, take three or four grains of calomel. In the morning take two teaspoonsful of sulphate magnesia. Repeat every day or two if indicated.

Medical Treatment:—

℞.—Tinc. cinchona comp. ℥jv.
Bromide potassa dissolved. ℥j. m.

Sig.—One teaspoonful three or four times a day. If the jaundice is produced by gall-stones, give an emetic, and follow with a spirit-sweat and cathartic.

℞.—Podophyllin grs. iv.
Gelsemin. “ j.
Potassa-bitartrate “ xx. m.
Fiat pulvis No. 12.

Sig.—One powder every two or three hours until it produces an action on the bowels.

R.—Fluid ext. hydrangea, in half to one teaspoonful doses, may be given once or twice a day.

Homœopathic Treatment.—Mercury, China.

VOMITING.

Electrical Treatment.—Use A D or B D current, apply P. P. to the base of the brain, manipulate with N. P. over the stomach and bowels ten to fifteen minutes. P. P. may also be applied to the cerebellum three to five minutes (mild force.) Then change and apply N. P. to the liver, P. P. over the spleen five to ten minutes.

Medical Treatment.—Vienna cholera drops, composed of Spirits of camphor and Tinct. secal cornutum. Sig.—Three to five drops on sugar every fifteen or twenty minutes. In severe cases it may be given every ten minutes.

R.—Tinct. capsicum..... ʒj.
Syrup, ginger..... ʒijj. m.

Sig.—One-half to one teaspoonful every two hours.

R.—Oil capsicum..... gtt. xx.
Conserve of roses..... qs. m.

Fiat pilulæ No. 40, to be given in wafers. One pill may be given morning and evening, oftener if indicated. It is said that it will control vomiting in morning sickness and cholera.

Homœopathic Treatment.—Ipecac, Nux.

CANKER IN THE MOUTH.

Electrical Treatment.—Use A D or B D current. Wrap around the metallic part of the tongue instrument a piece of linen cloth, moisten with water, apply P. P. to the tongue, N. P., *long cord*, over the neck, front and back, face and jaws ten to twenty minutes, once or twice a day. Alternate with the following daily, until cured. Apply N. P., *long cord*, to the

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tongue, P. P. to the back of the neck, sides, jaws and face ten to twenty minutes.

R.—Muriate tinct. iron..... ℥j
 Quinine gr. ℥. m.

Sig.—Five drops in sweetened water every hour or two. Also gargle the throat with a solution of chlorate of potassa two or three times a day. Use the following alterative:

R.—Comp. syrup stillingia..... ℥jv.
 Iodide potassa..... ℥j. m.

Sig.—One teaspoonful three times a day.

Homœopathic Treatment.—Merc., Acid nig., Glycerole of ac., Mur.

CRICK IN THE NECK.

Electrical Treatment.—Use A D current, apply P. P. on the tongue, N. P. over the painful and contracted muscles ten to twenty minutes. Treat two or three times a day if necessary. One treatment usually sufficient.

Medical Treatment.—Use the following liniment:

R.—Aqua ammonia..... ℥j.
 Tinct. myrrh et capsici..... ℥j.
 “ opii..... ℥j.
 Oil sassafras..... ℥ss. m.

Apply with the hand to the parts affected, two or three times a day.

Homœopathic Treatment.—Aconite, Arnica.

CHILBLAINS.

Electrical Treatment.—Use B D current, place the feet in a wash-bowl of tepid water, with the N. P., *long cord*, to the toes, P. P. at the heels, about ten minutes; reverse the N. P.

at the heels; apply P. P. over the toes and instep about ten minutes. Treat three times a week.

Medical Treatment.—Apply the following to the feet during the intervals:

R.—Aromatic sulphuric acid..... ℥j.
 Quinine..... grs. x. to xx.
 Aqua pura..... oj. m.

Apply with the hand morning and evening, or ung creosotum.

Homœopathic Treatment.—Quaker, Embrocation.

BRONCHITIS.

Symptomatology.—Physical signs are sometimes slight dullness on percussion. Auscultation shows the respiratory murmur to be weakened, and in some cases, to be entirely suppressed. There is sonorous, sibilant, mucus rales in various combinations. The sonorous and sibilant rhonchus is most marked in the early stages of the disease; the mucus in the second stage. In the capillary form the fine mucus rale is present.

There are two forms of this; the acute and chronic. In the acute form there is hoarseness, slight chills, and quite a high fever and a sensation of rawness, heat and soreness of the bronchial surface, a persistent cough and expectoration of a frothy mucus, sometimes tinged with bright blood. In the forms of the disease, which is generally seen in young children and old people, the small capillary tubes, as well as those of larger size, are affected. In those cases the pulse is frequent, temperature elevated, a cyanotic appearance of the face, the breathing is difficult, great dyspnoea and a marked tendency to asphyxia. In these cases the vital forces soon become exhausted, unless relieved, terminates in delirium, coma, and death.

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Electrical Treatment.—Use B D or A D current. Apply P. P. tongue instrument to the tongue. N. P. over the neck, chest and back ten to fifteen minutes daily. Give general tonic treatment two or three times a week. Inhalation of vapor of warm water and the syrup of the hypophosphites may also be used.

Homœopathic Treatment.—Phosphorous, Aconite.

BREAST. (*Ague in.*)

Electrical Treatment.—Apply P. P. of the A D current to the back of the neck, N. P. over the breast five to ten minutes. Change and apply P. P. of the B D to the breast, N. P. to the spine, between the shoulders or at the base of the spine. Manipulate with P. P. over the breast affected ten to twenty minutes, once or twice a day. Stomach and liver treatment may also be given.

Medical Treatment:—

℞.—Tinct. humulus lupulus.....	℥ij.
“ polygonum punct.....	℥ij.
“ anthemis cotula.....	℥ij.
“ arnica.....	℥jv. m.

Apply to the breast by moistening a cloth and laying on the same, or with the hand. If the patient has fever Tinct. aconite, belladonna or veratrum may be given alternately to control it.

PROLAPSUS ANI. (*Falling of the Rectum.*)

Electrical Treatment.—If the rectum protrudes replace and connect the anal instrument with the P. P. of the B D current, well oiled, and introduce into the rectum. Apply N. P. over the bowels and spine five to fifteen minutes, once a day. If the rectum is inflamed apply P. P. sponge-roll to the coccyx, N. P., *long cord*, to the spine and abdomen ten to twenty min-

utes, beginning with a mild force and increasing gradually while treating. Repeat the treatment once or twice a day until relieved. Astringent solutions of alum, kino, or tannin may be used on going to bed after the inflammation is under control.

Medical Treatment:—

℞.—Tinct. myrrh..... ℥j.
Water ℥vj to vjij. m.

Inject one ounce on retiring.

WATER-BRASH.

Electrical Treatment.—Apply P. P. of the B D current on the tongue, N. P. over the stomach and liver. Also P. P. to the back of the neck, N. P. over the stomach and liver, five to ten minutes each, every day or two.

Medical Treatment:—℞. Trisnitrate of bismuth in ten to twenty grain doses, taken at meals, may be used advantageously.

Homœopathic Treatment.—Carbo veg.

BOWELS. (*Excessive discharges from.*)

Electrical Treatment.—Use B D current, apply P. P. sponge roll to the coccyx, manipulate with N. P. over the abdomen and spine five to fifteen minutes. Flux and diarrhoea comp. may be given every two to four hours in one-half to one teaspoonful doses. One treatment and one dose of medicine usually suffices to check the discharges. Treat when necessary. If irritation of the bowels follow the treatment, reverse the currents.

Homœopathic Treatment.—Arsenic, Verat, Nux.

GOITRE.

Electrical Treatment.—Use A D current, apply P. P. on the spine between the shoulders, N. P. over the goitre ten

minutes. Reverse the treatment ten minutes. Treat daily for a week. Then every other day until cured. Use the following ointment:

Medical Treatment:—

R.—Ext. phytolacca..... ʒvj.
Adeps or cosmoline..... ʒjv. m.

Then add:

Muriate ammonia..... ʒjj.
Iodide potassa..... ʒjj. m.

Apply with the finger to the goitre night and morning. Or the following may be used:

R.—Cosmoline..... ʒvjijj.
Binioidide of mercury..... ʒss. m.

Apply once or twice a day with the fingers, or alternate every other day or two or more, with No. 1.

Homœopathic Treatment.—Gunther's goitre powder, Sapis albus.

ALOPECIA. (*Hair falling off.*)

Electrical Treatment.—Apply P. P. of the A D current on the upper part of the spine or hands of the patient or at the base of the spine; wet the hair and apply N. P. to the head, mild force, three to five minutes. Treat three to six times a week. If the treatments produce an uncomfortable feeling in the head, apply the N. P. to the base of the spine or feet, and treat downwardly with the P. P. ten to twenty minutes. Use the following restorative:

Medical Treatment:—

R.—Sulphur lotum..... ʒj.
Plumbi acetas..... ʒj.
Ammonia muriate..... ʒjj.

Glycerine	℥ij.
Spirits myricæ	℥viii.
Jamaica rum.....	℥jv.
Aqua pura.....	oj. m.

Shake before using. Apply once or twice a day. Use rain-water for wetting the hair.

Homœopathic Treatment.—Calenduline.

COLIC IN CHILDREN.

Electrical Treatment.—Use B D current, mild force, apply P. P. between the shoulders, N. P. over the bowels and limbs to the knees five to fifteen minutes. If the child is restless let an assistant apply one hand to the nerve centers on the spine, then apply P. P. to the back of his hand, while the operator holds the N. P. in his left hand and applies his right hand over the stomach and bowels, as above. The application in this manner modifies the current so as to be felt by the assistant and operator but not by the little patient, unless too great a force is used. Treat once or twice a day until relief is obtained. The following may be used:

Medical Treatment.—

℞.—Tinct. gelseminum.....	℥jv.
Ess. peppermint.....	℥v.
Syrup, simplex or ginger.....	℥ij. m.

Sig.—For a child two to six months old five to ten drops every half hour; six months to three years, ten to thirty drops.

Homœopathic Treatment.—Chamomilla, Colocy.

WORMS. (*Common round.*)

Symptomatology.—The symptoms are various. The appetite is irregular, and the bowels are sometimes bloated. Irriti-

table temper. Picking at the mouth and nose; irritation about the fauces. The urine at one time will be scant and of milky appearance. At others, very copious and limpid. The irritation may be so great as to affect the nervous system and cause convulsions. If the worms are of the variety that infect the rectum, there will be constant itching and irritation, and at times a slight mucus discharge. They may also be found at times in the linen of the patient.

Electrical Treatment.—Use A D current, apply P. P. to the tongue or back of the neck, N. P. over the stomach and downward to the thighs ten to twenty minutes every day or two.

Medical Treatment.—

R.—Santonine grs. xxx.
 Podophyllin “ x.
 Hydrastine “ x. m.
 Fiat pulvis No. 20.

Sig.—Take one powder three times a day until the desired effect is produced. In some cases it may be advisable to give a small dose of castor oil the second or third day.

Homœopathic Treatment.—Santonine.

ASCARIDÆ OR PIN WORMS.

Electrical Treatment.—Use A D current, apply N. P. sponge roll to the anus, P. P. over the back and bowels ten to twenty minutes. If there should be considerable inflammation in the rectum, reverse and apply P. P. to the rectum, N. P., *long cord*, over the bowels and back ten to fifteen minutes before giving the first treatment.

Medical Treatment:—

R.—Argenti nitras grs. viij.
 Aqua distillata ℥vj. m.

Use as an enema. One ounce at a time when the worms are troublesome.

Homœopathic Treatment.—Cina, Santonine.

CORNS. (*Clavi Pedis.*)

Electrical Treatment.—If there is tenderness or inflammation, place the foot in a basin of water with N. P., *long cord*, under the toes, using B D current, apply P. P. over the inflamed parts ten to twenty minutes. Treat once or twice a day until the soreness is removed, and apply the following mixture:

Medical Treatment:—

R.—Alcohol.....	ʒj.
Nitro-muriatic acid.....	ʒss.
Oil rosemary.....	ʒij.
Chloroform.....	ʒij. m.

Apply and scrape around the corn with a dull knife until it is lifted out. For tetter or ring-worm apply with a brush. Repeat the treatment should the corns reappear.

Homœopathic Treatment.—Calc., Sulph., Arn. *If inflamed*, Verat. vir.

WHOOPIING COUGH.

Symptomatology.—A convulsive, suffocative cough, returning in regular paroxysms, marked by a prolonged, stridulous inspiration, together with a peculiar tracheal rattle, and by short, quick efforts at inspiration. These whooping inspirations are repeated in succession, and thus the paroxysm continues often for some minutes, followed by the expectoration of small quantities of mucus, and the paroxysm passes off, and the respiration becomes comparatively easy.

Electrical Treatment.—Apply the P. P. of the A D or A E current to the nerve centers of the spine or to the back of

the neck, N. P. over the front part of the neck and chest five to fifteen minutes; change, and apply P. P. to the tongue, N. P. over the neck and upper part of the spine five to ten minutes. Treat two or three times a day.

Medical Treatment:—

R.—Spirits ammonia..... ℥j.
Oil succini rect..... ℥j. m.

Apply with the hand to the nerve centers along the back, particularly between the shoulders, night and morning.

R.—Linseed oil..... }
Whisky } āā ℥j. m.
Honey..... }

Sig.—For a child, from one-third to one teaspoonful when the cough is troublesome.

R.—Tinct. Opii..... ℥ss.
Oil succini rect..... ℥ss.
Aqua ammonia..... ℥ss.
Oleum oliva..... ℥ss. m.

Apply with the hand, as in No. 1.

Homœopathic Treatment.—Bell., Drosera, Ipecac.

DEBILITY OF THE GENITAL ORGANS.

Electrical Treatment.—Drop the scrotum and testis with the N. P. of the B D current into a mug of water, apply P. P. on the cerebellum, mild force, two to three minutes. Then apply P. P. to the back of the neck and down over the nerve centers between the shoulders, five to ten minutes. Then apply P. P. over the hernial rings and spermatic cords two to three minutes each. Conclude by reversed currents P. P. in the mug of water, N. P. over the spermatic cords, upwardly, five min-

utes each. Also N. P. to the spine five minutes. Treat two or three times a week.

Females.—Introduce the vaginal electrode, N. P., and treat as above.

Medical Treatment:—

R.—Aromatic sulphuric acid..... ℥j.
Quininegrs. x to xx. m.

Sig.—Five to ten drops in sweetened water before each meal. Also apply one part of the mixture to four of water to the *testicles* of the male, and over the ovaries of the female.

R.—Muriate tinct. ferri..... ℥j.
Wine of ergot..... ℥ij. m.

Sig.—Five to fifteen drops in sweetened water, three times a day. Also use Tinct. Phos. and Nux Vom.

CYSTITIS. (Inflammation of the Bladder.)

Symptomatology.—Acute pain and a feeling of tension in the region of the bladder; difficulty of urinating with constant desire to do so. Also tenesmus and irritation of the bowels. Mucus and sometimes pus will be found in the urine.

Electrical Treatment.—Use B D current, apply P. P. to the tongue, place N. P. *long cord* with the tensus in a mug of water five minutes. Change P. P., and apply over the lumbar region five to fifteen minutes. Change and apply N. P. to the base of the spine, P. P. over, above, and on each side of the pubes five to ten minutes. If a female, treat as above except apply the sponge roll between the labia, over the urethra, having previously moistened a cloth and applied to the parts named: Treat one, two, or three times a day until relieved. Make an infusion of marsh mallow root, of which let the patient drink freely. Benzine may also be given in doses of three to six drops in water three or four times a day. Topical

applications of the same may be made two or three times a day.

Homœopathic Treatment.—Aconite, alternate Canth.

HYDROPHOBIA.

Symptomatology.—This disease arises from the bite of a rabid animal. The wound generally heals in the usual way, and it is many days after the healing of the wound that the disease manifests itself. The symptoms are loss of sleep, restlessness, anxiety, headache, a horror of water, convulsive spasms and foaming at the mouth.

Electrical Treatment.—Use A B or A D current; bring the wound under the influence of the N. P. to neutralize and destroy the virus; apply P. P. on some adjacent part above and on a line with the wound. Treat ten to twenty minutes daily. Also apply P. P. to the tongue, and N. P. all over the body and limbs ten to twenty minutes. Treat twice a day for a week; then once a day, every other day, or two or three days until cured. Treat the head two or three times a week, as directed for congestion, inflammation, or delirium. Bath the wound constantly with the spirits of ammonia. Take from five to ten drops inwardly, well diluted with water, three or four times a day, or alternate with the following:

Medical Treatment:—

℞.—Muriate tinct. ferri ℥j.
Aqua pura ℥ijj. m.

Sig.—One-half to one teaspoonful three or four times a day, or alternate tri-weekly with

℞.—Permanganate potassa grs. x.
Aqua pura ℥ij. m.

Sig.—One teaspoonful three or four times a day. Make a strong solution of the permanganate, apply on lint to the wound.

GLAUCOMA.

Electrical Treatment.—Use A D current. Attach the cord connected with the P. P. to the eye-cup, fill the cup with tepid water, apply the same to the affected eye. Then apply the N. P. to the back of the neck, patient's hands and ears, two to five minutes, dividing the time between the three points of application. Change and apply N. P. to the base of the spine; take P. P. in the right hand, manipulate with the index finger of the same over the eyes and temples, whilst applying the left hand to the back of the neck. Treat five to ten minutes. Repeat the treatment three times a week.

Medical Treatment.—Sig.—Oil of sassafras, one to two drops, taken on sugar, three to six times a day; or a tea made from sassafras bark, and taken in teacupful doses three times a day. I have found the above treatment to be more effective than any other.

Homœopathic Treatment.—Bell., Kali., Hy.

MILK. (*Suppressed or Deficiency of.*)

Electrical Treatment.—Give general tonic treatment, then apply P. P. of the B D current to the nerve centers on the spine, N. P. over the breasts ten to twenty minutes daily, or every other day, with nourishing food, milk and wine, and moderate exercise; production usually follows in a few days.

Homœopathic Treatment.—Acon. or Bell., *with fever*; Bell. *with brain symptoms.*

"A 'Lacteal syrup' has been prepared under the direction of Dr. Ludlum from the plant *Coriandrum Sativum*, which has been used in the United States for twelve years past for increasing the flow of milk, with ample success in most instances. It may be obtained at all pharmacies."—*Lady's Manuel*, by Ruddock.

MANIA-A-POTU. (*Delirium tremens.*)

Symptomatology.—Constant wakefulness, wild, incoherent talk. The whole body is in a state of tremor. The patient imagines that some person is going to kill or injure him, beholds imaginary persons or wild animals, which greatly terrifies him and produces great mental distress and excitement. The pulse is generally soft, the face flushed, and the eyes suffused.

Electrical Treatment.—Use B. D. current, apply N. P. to the feet, P. P. at the back of the neck, between the shoulders, ten to twenty minutes. Then apply N. P. to the stomach, liver and bowels, ten to fifteen minutes. Then apply N. P. to the feet, moisten the hair and apply P. P. to the head three to six minutes, *mild force*. Then take P. P. in the right hand and apply one finger of the same to the right ear, finger of the left to the left ear, alternating from left to right five to fifteen minutes. P. P. may also be applied between the *clavicle* and *scapula* by the sides of the neck, five to ten minutes. Also apply P. P. to the tongue, N. P. over the throat, neck, back, chest, and stomach, five to ten minutes. Last named treatment has a tendency to destroy the morbid appetite. However, it would be more effectual to give the general inward and outward treatment. Treat once or twice a day, or every one, two, or three days.

A general tonic treatment should be given three or four times a week. The following may be used in connection with the treatment:

Medical Treatment:—

R.—Tinct. quassia.....	ʒj.
“ colombo rad.....	ʒij.
“ cascurilla.....	ʒij.
“ gentian.....	ʒij.
Aromatic sulphuric acid.....	ʒjss.
Aqua pura.....	oj. m.

Sig.—One-half to one teaspoonful three times a day.

B.—Tinct. opii ℥jss.
Fluid ext. gelseminum ℥j. m.

Sig.—Give fifteen to twenty-five drops morning and evening.

B.—Solid extract cannabis indica 3ss.
Fiat pilulæ No. 15.

Sig.—Give one every two or three hours, until sleep is induced, or Battle & Co.'s bromidia, in teaspoonful doses, every hour or two.

Homœopathic Treatment.—Bell., Stram., Nux vom., Hyos., or strong coffee in large doses.

GIDDINESS. (*Vertigo Simple.*)

Electrical Treatment.—Use B D current, apply P. P. to the neck, N. P. over the stomach, liver and bowels, ten to fifteen minutes. Then apply P. P. to the spleen, N. P. to the liver, five to ten minutes. Change and apply N. P. to the feet, P. P. over the lumbar region ten to fifteen minutes. Treat daily or every other day. Let the patient inhale from a bottle of aromatic spirits of ammonia, a moment or two at a time, every ten to twenty minutes. Administer ten to twenty drops, largely diluted in water, every half hour. Spiritus frumenti may also be given. Conclude by giving a general tonic treatment if indicated.

Homœopathic Treatment.—Bell., Nux vom., Puls., Acon., Gels., Bry.

SCABIES. (*Itch.*)

Symptomatology.—This disease is caused by an insect which burrows itself in the skin between the fingers and other soft parts of the body. A vesicular eruption, which is accompanied by itching, makes its appearance between the fingers, and forms a light brown scab if allowed to dry.

Electrical Treatment.—Give an Electric, Turkish or water bath. Wipe dry, and anoint as below; or, apply P. P. of the A B or A C current to the tongue, N. P. all over the body and limbs ten to twenty minutes, once a day, for two or three days. Use the following

Medical Treatment:—

R.—Bicarbonate potassa..... ℥j.
Sulphur..... ℥j.
Axungia ℔j.

Melt the lard, add the powder, and stir until cold. Wash the body thoroughly in strong soap-suds before going to bed; wipe dry and anoint it all over, heating by the fire. Wash in the morning. Wash and anoint in the evening. Usually three applications will effect a cure.

Homœopathic Treatment.—Hepar sul. Apply Hepar-sulph-kali lotion.

GLOSSITIS. (*Inflammation of the Tongue.*)

Symptomatology.—Pain, heat and swelling in the tongue, headache and fever. On making an examination of the mouth the disease may be detected.

Electrical Treatment.—Use B D current, apply P. P. to the tongue, N. P., *long cord*, to the neck, front and back, each three to five minutes. Then apply over the submaxillary glands, jaws, etc., five to fifteen minutes on each side of the neck. Alternate with N. P. on the tongue. Treat two or three times a day.

Ice, elm-water, lemonade, etc., may be taken freely.

HYDROCEPHALUS. (*Dropsy of the Brain.*)

Symptomatology.—The pulse is soft and quick, the tongue is covered with a light coat. In the early stages of the disease the bowels are constipated, but in the latter stages there is diarrhœa. If it is a child the hands will be raised to the

head and the sleep will be disturbed, the patient starting up with sudden screams. In many cases the head is bathed with a profuse perspiration. Paralysis and convulsions often accompany this disease.

Electrical Treatment.—Use B D current, cords of equal length, apply N. P. to the feet, moisten the hair and apply P. P. to the head three to five minutes, mild force; then apply P. P. to the back of the neck and on each side of the same five to ten minutes; then take the sponge cup or electrode P. P. in the right hand, and apply the index finger of the same to the tympanum of the right ear, the index finger of the left to the left ear. Having previously dipped the ends of the fingers in water, treat five to ten minutes; then apply the index finger of the right to the right eye, the index of the left to the left ear five minutes; then the index of the right to the left eye and index of the left to the right ear five minutes; then apply the index of the right to the eyes alternately two or three minutes, while the left hand is being applied to the head generally, very mild force; then change and apply N. P. attached to the tongue instrument to the tongue, P. P. over the head two to three minutes, mild force. Treat once a day every other day, or two or three days, as indicated. (See dropsy, for remedies, in another part of the work).

Homœopathic Treatment.—Apis., Bell.

VARICELLA. (*Chickenpox.*)

Symptomatology.—Manifests itself by small pointed transparent, red vesicles, many of which become pustular. They generally run their course in from five to six days without producing any very marked constitutional disturbance. There may be slight fever.

Electrical Treatment.—Apply P. P. of the A D current to the feet, N. P. generally from the feet upwardly, ten to twenty minutes. Change and apply P. P. to the tongue, N. P. over

the body and limbs ten to twenty minutes. Should there be high fever use the *long cord*, while giving the inward and outward treatment. Treat as indicated. Use remedies prescribed for eruptive diseases, scarlet fever, etc., in another part of the work. Rest, pure air, nourishing food, panada, etc., are indispensable to rapid recovery.

Homœopathic Treatment.—Aconite and rhus., Bell. Anoint with camphorated cosmoline to allay itching.

CONGESTION. (*General or local.*)

Electrical Treatment.—First give general tonic treatment if the brain and lungs be not congested. Then apply P. P. of the B D current to the tongue, N. P. over the body and limbs ten to twenty minutes. If the brain or lungs are congested omit the tonic treatment, and give the inward and outward treatment, by applying P. P. tongue instrument to the tongue, N. P., *long cord*, all over the body and limbs five to fifteen minutes. Then apply N. P. to the feet, P. P. to the back of the neck, sides of the neck, *between the clavicle and scapula*, ten to fifteen minutes, divide the time with the three points of application. Moisten the hair and apply P. P. over the head, using a very mild current, three to five minutes. Manipulate with the fingers to the ears, eyes and ears, eyes and back of the neck, five to ten minutes. Treat once or twice a day, every day or every other day, three or four days. When tonics are indicated, tonic treatment is also indicated. If local congestion exists anywhere, treat on the same principles. After equalizing and harmonizing with electricity, use remedies that will maintain an equilibrium.

Homœopathic Treatment.—Belladonna, Aconite.

NERVOUS PROSTRATION OR GENERAL DIBILITY.

Electrical Treatment.—Use B D current, apply P. P. to the feet, N. P. over the limbs upwardly. Treat each limb ten

minutes. Then apply sponge roll to the coccyx, N. P. all over the body, more especially to the spine, ten to twenty minutes. Then apply P. P. to the hands, N. P. over the arms, between the shoulders, and on the neck up to the base of the cerebellum five to ten minutes. Moisten the hair and apply N. P. over the head, very mild force, one to two minutes. If, at any time, the patient should complain of a fullness of the head, reverse the current a few moments with N. P. to the feet; P. P. to the head, and back, and sides of the neck will relieve. Treat from three to six times a week. Administer elixir calisaya iron, phos. and strychnia, whisky and rock-candy mixed, of which one teaspoonful mixed with water, may be taken from three to six times a day, or Wheeler's compound elixir of the hypophosphites alternately every two or three hours, with the whisky and candy, with exercising the lungs by inspiring deeply and expiring slowly. Nourishing food, with one-half to one pint of sweet milk, taken three times a day, with out-door exercise, will generally restore the lost energies in a few weeks.

Homœopathic Treatment.—Phos., China.

PERITONITIS. (*Inflammation of the Peritoneum.*)

Symptomatology.—Hard wiry pulse, an increase in temperature, a sharp pain in the abdomen over the part inflamed, the tongue is covered with a light brown coat, the abdomen becomes tympanitic, and frequently there is vomiting and nausea. The patient lies on his back, and pressure on the abdomen causes great pain; the skin is hot and dry, the urine high colored and scanty. If the case is about to terminate fatally the extremities become cold, the eyes have an anxious expression, the body is bathed with a cold, clammy perspiration, and the patient expires. The following we conceive to be a rational explanation of the cause of the inflammatory conditions: We find that the circulatory forces have receded from the sur-

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face and extremities to the peritoneum, which has produced extensive inflammation. Inflammation will always be in proportion to the recession of the forces, nervous force and circulation to the parts inflamed. Therefore, we find that the polar conditions have changed, the surface has become negative, and the peritoneum extremely positive, for the reason that electricity or nerve force in excess in any part of the body is positive and heat, and invites to itself the blood, which is negative; the blood acting as fuel to fire. Death would be the inevitable result if the conditions were not changed. But how change them by giving remedies to act through mediums that are suspended? I think not, but the application of electricity to equalize and harmonize the forces and maintain an equilibrium upon the law of attraction and repulsion, that a greater force repels a lesser. Treat as follows:

Electrical Treatment.—Use B D current, apply N. P., long cord, to the feet, P. P. over the kidneys ten to twenty minutes. Then apply P. P. over the stomach, ten to twenty minutes, mild force, increasing as the inflammation decreases. Change, and apply N. P. sponge roll to the coccyx, P. P. over the stomach and bowels, ten to twenty minutes. Then apply P. P. to the spine, commencing at the base of the cerebellum downwardly, over the spine and kidneys, ten to twenty minutes. Change, and apply P. P. to the sides of the neck, between the clavicle and scapula, five minutes each. Then apply N. P. between the ilia, just below the last lumbar vertebrae, or at coccyx, P. P. over the abdomen ten to twenty minutes. The above is for the first treatment and a severe case. *Less inflammation, less treatment, and less time.* Treat every one two, three, or more hours, as indicated. (Signal, a return of inflammation). Get control of the disease by treating frequently the first day or two, afterward often enough to keep control of it. Twelve to forty-eight hours is all the time required to control delirium; also to control inflammations,

no matter where located, with the electrical treatment and usual medicines. The above statements are based on fifteen years experience with electricity. The following treatment may also be given occasionally:

Apply P. P. to the tongue, N. P. over the body and limbs, five to ten minutes. When the usual tonics are indicated, give general tonic treatment as directed in another part of this work, three to six times a week.

Medical Treatment:—

R.—Quinine	grs. xl.
Gelsemin	“ jj.
Capsicum	“ xl.

Mix, divide into sixteen powders, give one every two or three hours. For fever, give aconite, gelsemini or veratrum to assist in controlling it. A poultice of hops or linseed meal may be applied to the bowels.

When convalescent, give

R.—Muriate tinct. iron.....	ʒj.
Quinine	grs. xx. m.

Sig.—Five to ten drops in sweetened water, may be given every two or three hours. Bathe the body once or twice a day with weak lye and water, vinegar and water, or whisky and water. Equal parts.

Homœopathic Treatment.—Aconite, Bryonia, Mercurius.

EMPHYSEMA.

Symptomatology.—Air in the cellular tissues. There are three ways by which air may make its way into the cellular tissues.

“By a wound of the integument. By the development of gas within its cells.

"By a fistulous opening through the lung communicating with the plural cavity."

The disease may be confounded with empyema, from which it may readily be known by the resonance on percussion. The swelling is uniform and light, yielding a peculiar crepitant sound on pressure.

Electrical Treatment.—Use A D current, apply P. P. to the back of the neck, N. P. over the chest, stomach, liver, spleen and bowels, ten to twenty minutes. Change, apply P. P. to the tongue, N. P. as above, five to ten minutes. N. P. also to the spine five to ten minutes. Change, and apply P. P. sponge-roll to the coccyx, N. P. over the body generally, ten to twenty minutes. Treat three times a week.

Medical Treatment:—

℞.—Syrup squilla..... ℥j.
 " senega..... ℥j.
 " lobelia..... ℥j. m.

Sig.—One teaspoonful every hour or two.

For an external application:

℞.—Oleum tigilei..... ℥j.
 " olivia..... ℥j. m.

Apply with the finger over the chest and sternum especially, once or twice a day, until a pustular eruption is produced. Omit application for a day or two before reapplying.

PERICARDITIS AND ENDOCARDITIS. (*Rheumatism affecting the Heart and its Membranes.*)

Symptomatology.—Pericarditis is caused by the metastasis of inflammation from other parts of the body, such as acute rheumatism, pleurisy, pneumonia, etc. It is also said to be an idiopathic affection. The symptoms depend much upon the stage of the disease. There is fever, frequency of the pulse,

pain in the region of the heart, cough and difficulty of breathing; auscultation gives a grating or friction sound. In the second or stage of exudation the pulse is irregular, pain, dyspnoea, cough, and a tendency to faintness. The face has an anxious expression. The urine is high colored and scanty; there are friction sounds and valvular murmurs, due to endocarditis.

In the third stage, or stage of effusion, there is bulging of the precordial region, displacement of the apex of the heart upwards. The area of dullness will be changed and enlarged. The heart sounds will be indistinct and muffled. If adhesions of the surface of the heart to the pericardium should take place the action of the heart will be tremulous and unsteady.

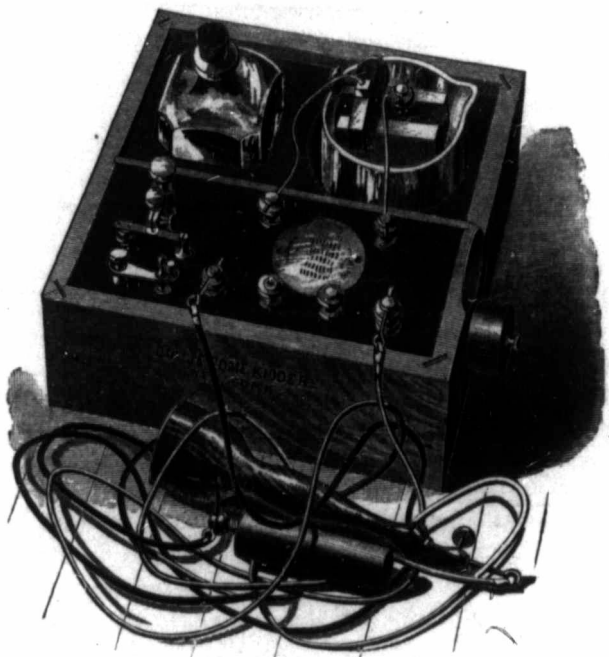
Endocarditis, as well as pericarditis, may be caused by metastasis of inflammation from other parts of the body, such as rheumatism, pleurisy, pneumonia, etc. The symptoms are: the patient lies on his back, there is pain and uneasiness in the precordial region, with a sense of fullness; the skin is hot, temperature elevated, pulse quickened and irregular, cough, dyspnoea, the face livid, and a tendency to fainting.

The physical signs are the normal systolic murmur will change, according to the stage of the disease; an increase in the heart's action, producing a grating and bellows sound.

Electrical Treatment.—Use B D current, apply P. P. tongue instrument to the tongue, N. P. over the body, generally five to fifteen minutes, once or twice a day. Every alternate treatment, use N. P., *long cord*, over the body, as before. N. P. may be applied to the coccyx, P. P. over the chest, left side especially, five to ten minutes. P. P. may also be applied to the back of the neck, N. P., *long cord*, over the chest, stomach, and bowels, five to ten minutes. If there is soreness in the region of the kidneys, apply N. P. to the feet, P. P. over the kidneys, ten to fifteen minutes. A part or the whole of the above described treatment may be given at a sitting. Bathe the body in weak lye water, vinegar and water,

or soda water once or twice a day. For fever, use tinct. veratrum, aconite, or gelsemini. When tonics are indicated, give general tonic treatment. Also some of the preparations of Peruvian bark. Dextro-quinine preferable.

Homœopathic Treatment.—Aconite, Bryonia, Spigelia.



NO. 4. OFFICE AND FAMILY MACHINE, SHOWN WITHOUT THE LID.

No. 4 has three coils, and six variations of the qualities of the currents, and is operated by one open battery, which is for weeks and months constantly ready for use, without changing the fluid, and a bottle accompanies, into which the fluid can be poured whenever desired. Arranged to use the second coil in the primary circuit, when desired.

The Apparatus No. 4 and No. 5 are most in demand. Though presenting a good appearance, they are not made for show. The coils of all the genuine Dr. Kidder machines are constructed with reference to the medical qualities of electricity without regard to expense—thus DIFFERING from all the other induction apparatuses which are constructed to get up a *hurt* influence from the cheapest possible coils.

MUMPS. (*Parotitis*.)

Symptomatology.—Characterized by a painful swelling just below the angle of the lower jaw, sometimes on both sides. The bowels are costive. The tongue is covered with a white coat, and the urine is high colored and scanty. Metastasis may take place, and the disease be transferred to the mammary glands in the female (which is very rarely the case), or to the testicles in the male.

Electrical Treatment.—Use A D current, apply P. P. to the tongue, N. P., *long cord*, over the parts enlarged and inflamed, five to fifteen minutes. Change and apply N. P. to the back of the neck, P. P. over the parts inflamed five to fifteen minutes. Treat once or twice a day. Should the disease attack the testicles, place the same, with the P. P. of the B D current in a mug of water, apply N. P., *long cord*, over the spermatic cords, abdomen and back, ten to twenty minutes, from one to three times a day. The N. P. may also be applied to the back, P. P. over the spermatic cords and abdomen, five to fifteen minutes.

Fluid extract hamamelis may be applied to the testicles as indicated. Tinct. belladonna, five to ten drop doses. Tinct. gelsemini, two to six drops in water. The tinctures may be given alternately, every two or three hours.

Homœopathic Treatment.—Merc. cor., Acon., if fever; Bell., with brain implication; Puls., with inflammation of testicles or breasts. Bell. cerate.

ENURESIS. (*Incontinence of Urine*.)

Electrical Treatment.—Use B D current, apply P. P. to the scrotum, N. P. over the abdomen, kidneys and back, ten to fifteen minutes, once or twice a day. Administer an infusion of lycopus virginicus as indicated, or

R.—Tinct. belladonna ʒss.
Aqua pura ʒjv. m.

Sig.—One teaspoonful every three hours.

Homœopathic Treatment.—Cantharides, Equisetum, Gelsem.

STRANGUARY.

Electrical Treatment.—Use A D current, attach N. P., long cord, to an urethral insulated silver-plated tip, electrode, introduce to the obstruction, then apply P. P. over the spine and kidneys ten to fifteen minutes, medium force, once or twice a day; or, place N. P. with the tensus in a mug of water, apply P. P. over the spine and kidneys, treat as above. Administer an infusion of marsh-mallow adlibitum. Tinct. belladonna may also be given in three to six drop doses, three times a day.

Homœopathic Treatment.—Camphor, Nux vom., Bell., in children; Aconite, from cold.

BLADDER. (*Paralysis of.*)

Electrical Treatment.—Use B D current, apply P. P. between the shoulders and on the cerebellum, N. P. over the kidneys, spermatic cords, pubes, scrotum, etc., ten to fifteen minutes, once or twice a day. It may be advisable to treat with P. P. and scrotum in a mug of water, with N. P. over the kidneys and spine, pubes and spermatic cords, once or twice a week, ten to twenty minutes each time. Also administer tinct. nux-vomica and cantharides in small doses, alternately every two or three hours. Apply P. P. on the tongue, N. P. with the tensus in a mug of water five minutes before giving the above named treatments.

Homœopathic Treatment.—Nux vomica, Aconite.

COUP-DE-SOLEIL. (*Sun-stroke.*)

Symptomatology.—The patient falls down suddenly after exposure to the sun's heat.

Electrical Treatment.—Use B D current, apply P. P. to the

tongue, N. P. over the body generally ten to twenty minutes, two or three times the first day, or until reaction takes place; also, P. P. to the neck, N. P. over the stomach, liver and bowels ten to fifteen minutes; also, N. P. to the feet, P. P. to the *head, eyes, ears, etc.*, mild force, as directed in other parts of the work. After reaction has taken place give general tonic treatments, as indicated with the usual remedies. Valerianate ammonia may be given in teaspoonful doses from one to three times a day in water. Should there be irritation of the stomach, apply N. P., *long cord*, opposite on the back, or at the base of the spine, P. P. over the stomach ten to fifteen minutes; also, P. P. on the back of the neck, N. P. over the stomach five to ten minutes. Treat once or twice a day.

Homœopathic Treatment.—Glondine, Bellad.

PYÆMIA. (*Blood Poisoning.*)

Symptomatology.—Chills, fever, etc., a quickened pulse, high temperature, the tongue is coated with a brown covering, the bowels are relaxed, and there is in some cases a well marked diarrhœa; abscesses form in various parts of the body, but generally in the joints, lungs and liver, with more or less sickness at the stomach, etc.

Electrical Treatment.—Use A B, A C or A D current. Apply P. P. of the A B current to the tongue, N. P. over the body generally, ten to twenty minutes. Change to A D current, apply P. P. to the feet, manipulate with N. P. over the limbs ten to fifteen minutes. Then apply P. P., sponge-roll, to the coccyx, N. P. over the body, ten to twenty minutes. Treat once or twice a day, until improvement manifests itself. After which treat three to six times a week. If there should be irritation of the stomach, treat as directed for irritation or inflammation of the same. Stimulants may be used in proportion to the gradation of debility. Quinine, alcoholic liquors, pure whisky preferable, carbonate ammonia, alteratives,

mineral acids, muriate tinct. iron, nitromuriatic acid and tinct. iodine, (see article on Snake-bites and Zymotic diseases), may be used, one or another of them, as required, with nourishing food and pure air, and a disinfectant for the room, composed of permanganate, potash and oxalic-acid, equal parts, put in a saucer and moistened with a few drops of water occasionally.

LEUCOCYTHÆMIA. (*White cell blood.*)

Symptomatology.—Produced by hypertrophy of the spleen, liver and lymphatic glands, in consequence of defective circulatory forces.

Electrical Treatment.—Use A D and B D currents. Apply P. P. of the A D current to the tongue, N. P. over the body and extremities generally, ten to twenty minutes. Then apply N. P. to the feet, P. P. of the B D current over the spleen and liver, spine and abdomen, ten to twenty minutes. Change and apply P. P. of the B D current to the feet, N. P. over the limbs and body generally, ten to twenty minutes. Treat three to six times a week. Nitromuriatic acid, quinine and some of the preparations of iron should be administered, and special attention to hygienic measures given.

OPIUM POISONING.

Electrical Treatment.—Use A D current, apply P. P. to the back of the neck, N. P. over the front of the neck, chest, stomach and bowels, ten to twenty minutes, medium force, then apply N. P. to the feet, P. P. over the spine and kidneys ten to twenty minutes; then apply P. P. to the head, eyes and ears, as directed for congestion of the brain, five to ten minutes. Change and apply P. P. to the feet, N. P. over the body, generally ten to twenty minutes. Repeat the treatment as indicated, until restoration or death ensues. If treatment is given before the patient is deprived of consciousness, it will seldom fail to restore life.

Strong coffee, ipecac, etc., may be administered.

Homœopathic Treatment.—Zinci sulphas, Antim. tart.

UTERINE INERTIA. (*In Parturition.*)

Electrical Treatment.—Use B D current, apply N. P. to the sacrum, P. P. over the abdomen ten to fifteen minutes. Repeat the treatment every hour or two, using sufficient force to produce contraction of the abdominal muscles.

POST PARTUM HEMORRHAGE.

Electrical Treatment.—Use B D current, apply P. P. sponge-roll between the labia, N. P., *long cord*, over the body generally and upwardly ten to twenty minutes, or introduce the vaginal electrode and treat as above. Treat every hour until arrested. Tampons composed of pieces of cotton cloth, moistened with cold water, may be introduced per vagina, until filled; let them remain a few hours before removing and refilling; cloths may also be moistened in cold water and applied over the uterus. Stimulants should be given freely (whisky preferable), fluid extract of ergot or tincture of cannabis indica (English) may also be used.

SEA SICKNESS.

Electrical Treatment.—Use B D current, apply P. P. to the back of the neck, N. P. over the stomach, liver and bowels ten to fifteen minutes; change and apply N. P. over the liver, P. P. over the spleen ten to fifteen minutes; N. P. may also be applied to the feet, P. P. over the spine ten to fifteen minutes. If there should be considerable prostration a tonic treatment should be given in conclusion. Treat two or three times a day. If the foregoing treatment fails to relieve, apply P. P. to the stomach, N. P., *long cord*, opposite on the spine, treat ten to twenty minutes.

Medical Treatment.—Oxalate cereum, brandy, whisky, camphor, etc., may be used with the treatment.

Homœopathic Treatment.—Nux, Ipecac, Bell., Cocculus.

WRITERS' CRAMP.

Electrical Treatment.—Use B D current, apply P. P. tongue instrument to the tongue, N. P. over the arm, generally to the finger ends, five to ten minutes. Change and apply P. P. to the back of the neck, N. P. over the affected arm as before, five to ten minutes. Treat three to six times a week. Tinct. of bark, iron and strychnia may be given in teaspoonful doses three times a day.

Homœopathic Treatment.—Rhus., Bry.

HAY FEVER.

Electrical Treatment.—Use B D current. Apply P. P. to the back of the neck, N. P. *long cord*, over the nose, by holding the electrode in the right hand and applying two fingers of the same, one on each side of the nose, three to five minutes, then apply N. P. over the front part of the neck and chest five to ten minutes, then apply N. P. to the base of the spine or feet, P. P. to the nerve centers, between the shoulders, five to ten minutes. Change. Hold P. P. in the right hand and manipulate with the fingers of the same over the eyes while the left hand is on the back of the neck, five to ten minutes. Treat daily for a week, then every other day until cured. If there are any other remedies that are of any value use them also.

Homœopathic Treatment.—Arsen. iod., Hepar sul., Sabadilla.

NUMBNESS OF THE LOWER EXTREMITIES.

Electrical Treatment.—Use B D current. Apply P. P. to the feet, N. P. over the limbs upwardly, fifteen to twenty minutes for each limb. Treat once a day, or every other day, until

relieved. The treatment will force the blood upwardly to the heart and lungs for fresh oxydization, and strengthen the weakened and engorged veins of the extremities. Also give a general tonic treatment once or twice a week. Use tonics, stimulants and alteratives.

Homœopathic Treatment.—Nux vomica.

OBESITY. (*Fatty degeneration.*)

Electrical Treatment.—Use A D current, apply N. P. sponge roll to the coccyx, P. P. over the abdomen, *strong current*, twenty to thirty minutes, using the current reverser while applying to produce a greater chemical and solidizing effect. In the absence of the reverser, reverse the currents ten to fifteen minutes each way. Treat three to six times a week. A general treatment may also be given once a week by applying the P. P. to the back of the neck, N. P. over the stomach and bowels ten to twenty minutes; change and apply N. P. to the feet, P. P. over the lumbar region ten to fifteen minutes. Should the treatments seem to weaken the patient at any time give general tonic treatments as indicated. I think the above treatment far preferable to the anti-fat remedies in use, and not injurious. Diet, lean meat and food containing neither sugar or starch.

Homœopathic Treatment.—Calc. carb. Diet restricted to non-starchy food.

SYNOVITIS.

Symptomatology.—Inflammation of synovial membrane of the joints. There is pain, heat, swelling and redness in the joint; there is fever and the bowels are constipated; the urine is high colored and scant. In severe cases the constitutional disturbance is well marked.

Electrical Treatment.—Use B D current. Apply P. P. to the inflamed and enlarged joint, N. P., *long cord*, opposite. Change positions of the electrodes frequently. Commence with

a very mild current, increase as the soreness and inflammation diminishes. Treat ten to twenty minutes every two or three hours the first day or two, or until the inflammation is removed. See treatment for rheumatism, which may be required in connection with the above. I will here state that the reactionary effect of an electrical treatment in general or local inflammatory conditions, may in some instances, seem to aggravate the disease for the time being, on the principle only as a cathartic or emetic would seem to make the patient worse, because the various kinds of medicines simulate the variously modified forms of *electricity*.

DISEASE OF THE HIP JOINT. (*Morbus Coxaris*)

Symptomatology.—Pain in the joint and knee of the affected side, particularly of the knee. On examination, the eye will readily detect a change in the contour of the hip. The nate of the affected side will be flattened by flexing the leg and making percussion with the closed hand on the knee of the affected limb. The patient will complain of pain in the hip.

Electrical Treatment.—Use the A D and B D current alternately. Apply P. P. to the groin, N. P., *long cord*, opposite on the hip, ten to twenty minutes. Reverse and treat about the same length of time, treat three to six times a week. Treat so as to pass the current through the parts affected as nearly as possible. Give the following treatment twice a week: Apply N. P. of the B D current to the foot, P. P. over the diseased hip, twenty to thirty minutes. The P. P. may also be applied to the nerve centers five to ten minutes, or otherwise as indicated.

Medical Treatment:—

R.—Compound syrup stillingia..... ℥vjjj.
Iodide potassa..... ℥jj. to jv. m.

Sig.—One teaspoonful every three or four hours, or iodoform and iron may be used in solution or in pills.

POTT'S DISEASE. (*Spondylitis*.)

Electrical Treatment.—Use B D current, apply P. P., tongue instrument, to the tongue, N. P., *long cord*, to the spine, commencing at the base of the cerebellum downwardly to the base of the spine ten to fifteen minutes, mild force; change, use cords of equal length, apply N. P. to the feet, P. P. to the cerebellum two or three minutes, then P. P. to the spinal column five to ten minutes. Treat three or four times a week until the soreness and inflammation are removed from the vertebræ. Then alternate every other day, two or three days, with the general tonic treatment until cured, which will rarely disappoint you in the incipiency of the disease. Counter irritants may be applied to the spine.

GANGRENE.

Symptomatology.—The symptoms of this lesion are a cessation of pain in the part, the flesh assumes a dark purplish brown color, changing rapidly to black.

Electrical Treatment.—Use A D current, apply P. P., tongue instrument, to the tongue, N. P. over the parts diseased, ten to fifteen minutes; change, and apply P. P. to some healthy part, probably to the nerve centers on the spine, N. P. over the parts diseased, ten to fifteen minutes. Treat daily until relieved. Other treatments may be given as indicated. Tonics, alteratives and stimulants, anodynes and narcotics, probably cathartics may be used.

Homœopathic Treatment.—Arsen. alb. and Carbol. lachesis.

HERNIA.

Symptomatology.—There is a well marked swelling in the groin or scrotum. The only swelling likely to be mistaken for hernia is hydrocele, from which it may be known by its peculiar form, hydrocele being of a pyriform shape. Hydrocele is semi-transparent. On grasping a hernia with the hand and

the patient coughing, there is an impulse communicated to the tumor which is not the case if the tumor is a hydrocele.

Electrical Treatment.—Use A D current, medium force, apply N. P., sponge-roll, to the coccyx, P. P. over the hernia, five to ten minutes. Then apply N. P. to the spine, between the shoulders, P. P. below and upwardly over the hernial ring, five to ten minutes; reduce the protrusions before giving the treatment, if there are any. Treat three to six times a week for a week or two. After two weeks treatment discontinue, if there is no improvement. Use trusses also.

Homœopathic Treatment.—Acon, Bell.

LOSS OF THE SENSE OF SMELL. (*Anosmia.*)

Electrical Treatment.—Use B D current, medium force. Connect N. P. with a small copper wire, to one end of which fasten a small piece of sponge, moisten and introduce the same into one side of the nose. Apply P. P. to the back of the neck and cerebellum, one to three minutes. Change to the opposite aperture of the nose and apply as before, one to three minutes. Then take P. P. in the right hand and apply the index fingers of each hand to each ear and N. P. to each aperture of the nose, one to three minutes each. Treat once a day for a week or two. If the sense of smell is not restored abandon the treatment.

If the sense of taste is impaired, apply N. P., tongue instrument, to the tongue, P. P. to the back of the neck and cerebellum. Treat five minutes daily, with medium force, until restored.

Homœopathic Treatment.—Hepar sul., Arsen, Acon.

HEAD. (*Cold in.*)

Electrical Treatment.—Use B D current, apply N. P. to the base of the spine, moisten the hair and apply P. P. to the head three to five minutes, mild force. Then take P. P. in

the right hand, manipulate with the index finger of the same over the eyes, whilst the left hand is being applied to the neck, five to ten minutes. The index fingers of the hand may also be applied to the ears. Moisten the ends of the fingers before applying. Treat five to ten minutes. Treat once or twice a day.

Medical Treatment:—

R.—Tinct. aconite..... gttss. xxx.
Aque pura..... ℥jv. m.

Sig.—One teaspoonful every half hour, hour or two, as indicated. Stimulants may be administered on retiring. Tonics during the day.

Homœopathic Treatment.—Hepar, Sul., Nux. vom.

THRUSH. (*Apthæ.*)

Electrical Treatment.—Use A D current, apply P. P. to the tongue, N. P. over the neck, chest, stomach and spine ten to twenty minutes daily until relieved. Gargle with a solution of chlorate potassa, ℥j. to ℥j. to four ounces of water three to six times a day. Borax, alum, and golden seal (*hydrastes canadensis*), may also be used in various ways.

Homœopathic Treatment.—Mercur., Borax, Hydras.

PTYALISM. (*Salivation.*)

Symptomatology.—The symptoms are a blue line on the gums immediately surrounding the teeth, which are sometimes loosened, the mucous membrane of the mouth and tongue is ulcerated, there is a profuse discharge of saliva, the breath is very foetid, the cervical glands are sometimes enlarged.

Electrical Treatment.—Use B D current, apply P. P. to the tongue, N. P., *long cord*, over the jaws, neck, front and back, ten to twenty minutes; once or twice a day until relieved.

Medical Treatment.—Gargle with a solution of the chlorate potassa, iodide potassa, borax or fluid extract of hydras-

tes canadensis. Small quantities of one or another of them may be taken internally two or three times a day. Flower of sulphur may also be applied to the diseased parts and taken internally.

Homœopathic Treatment.—Mercur., Kali., Chlor.

HYPERÆSTHESIA. (*General and local.*)

Electrical Treatment.—Hyperæsthesia general: Use A C or B D current, apply P. P. to the tongue, N. P., *long cord*, to the body and extremities generally, five to fifteen minutes. Change and apply P. P. to the back of the neck, N. P. over the body and extremities as before, ten to fifteen minutes. Treat once a day or every other day until relieved.

Hyperæsthesia local: Use B D current. If in the bowels, apply N. P., *long cord*, sponge roll at the coccyx, P. P. over the stomach and bowels, mild force, ten to twenty minutes. If there is hyperæsthesia of the bowels, there will also be hyperæsthesia of the spine and kidneys. Therefore, change and apply N. P., *long cord*, between the thighs or knees, P. P. over the spine and kidneys, ten to twenty minutes. Treat daily until relieved. If there should be an irritable state of the brain, treat the head as directed for delirium, etc.

Monobromide of camphor, in doses of three to five grs., properly prepared, may be given three to six times a day, or fluid extract of conium, three to five minims, as above.

ENTERITIS. (*Inflammation of the Bowels.*)

Symptomatology.—Deep-seated pain in the bowels, particularly in the umbilical region, tenderness on pressure over the bowels. The pulse is hard and wiry, the tongue covered with a dark brown coating, and the skin hot and dry. There is diarrhœa, and the abdomen becomes tympanitic. There is also an elevation of temperature. The sudden cessation of pain and tenderness on pressure, are indicative of gangrene.

Electrical Treatment.—Use A D current, if from typhoid fever, or if there is inflammation of Peyers gland, apply P. P. sponge roll to coccyx, or introduce the anal electrode per rectum, well oiled, N. P., *long cord*, over the bowels and spine fifteen to thirty minutes, mild force. Change. Use B D current, apply N. P., *long cord*, to the lower dorsal vertebræ, P. P. over the bowels, ten to twenty minutes, mild force. Change and apply N. P. to the coccyx, P. P. over the bowels and lumbar region ten to twenty minutes. Treat from one to three times a day, daily, or every other day, as indicated. Poultices of hops may also be applied to the bowels. Dover's or diaphoretic powder, veratrum or aconite may be used to assist in controlling the feverish or inflammatory action.

Homœopathic Treatment.—Acon. and Bell., alternate Bry.

METRITIS. (*Inflammation of the Uterus.*)

Symptomatology.—Deep seated pain in the pelvis, hard and wiry pulse; pressure over the uterus causes pain. On examination per vagina, the uterus is found to be tender on manipulation, hot and sometimes enlarged.

Electrical Treatment.—Use B D current. Apply N. P., *long cord*, to the spine over the upper lumbar vertebræ, P. P. over the uterus ten to twenty minutes, mild force. Change and attach the vaginal electrode to the *long cord* connected with the N. P., introduce the electrode per vagina, until it meets with resistance from the os uteri. Apply P. P. over the uterus and lumbar region ten to twenty minutes. Change and attach P. P. to the instrument and apply N. P., *long cord*, over the uterus and lumbar region ten to fifteen minutes. Treat daily until relieved.

Medical Treatment.—Tinct. belladonna may be given in doses of five to ten drops, two or three times a day, or veratrum veride, gtt., one to two, every two or three hours. Spirits æther nitrous in teaspoonful doses two or three times a day.

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Tinct. cannabis indica, in five to ten drop doses, twice a day. Cannabis indica will arrest menstruation, therefore it should not be given at such periods.

Homœopathic Treatment.—Acon., Bell.

VICARIOUS MENSTRUATION.

Electrical Treatment.—Use B B current. Apply P. P., tongue instrument, to the tongue, N. P. over the body and extremities generally, ten to fifteen minutes, mild force. Change and apply P. P., sponge-cup, to the back of the neck, N. P. over the body generally, as before. Change and apply N. P. to the feet, P. P. to the head, as directed in congestion or inflammation of the brain, three to five minutes. Alternate the above treatment every other day with the general tonic treatment until relieved.

Medical Treatment:—

℞.—Elixir calisaya, iron and strychnia . . . ℥jv.

Sig.—One small teaspoonful three times a day, before meals.

Homœopathic Treatment.—Bryon., Hamam.

POISONED WOUNDS AND ZYMATIC DISEASES. (*The Value of Iodine in their Treatment.*)

Symptomatology.—Poisonous wounds caused by bite of rattle snake, rabid dog, cut made by a dirty knife, stepping on a rusty nail, etc. The bite of many wild animals, and in some cases also the domestic, are poisonous to the human system. A short time after the production of the wound the parts inflame, swell, and become of a red or greenish color, there is fever, and in some cases headache, in many cases the absorption of the poison into the circulation is so rapid and death follows so soon that there is no time for local symptoms to show themselves. This is notably the case in bites of some poisonous reptiles. Again, as in bites of rabid animals, the

local lesion may be of comparative insignificance. The constitutional disturbance in some cases is very severe, and very often abscesses form in various parts of the body.

The following article by H. M. Gauthier, M. D., St. Paul, Minnesota, was published in the *Chicago Medical Review*, September 20, 1881, pp. 4 to 20:

"A short time ago I published in the *Chicago Medical Review* an article on the use of iodine in diphtheria. The treatment therein described seems not to have been thoroughly comprehended by many, as I have received numerous letters of inquiry on the subject. For the purpose of rendering my system of treatment more comprehensible, I propose in the present article to take up the use of iodine, not only in diphtheria, but also in other zymotic diseases. I do not make a positive diagnosis of diphtheria until I have found the characteristic diphtheritic exudation. The place on which this appears is painted with tincture of iodine. This painting is done at least twice a day until every particle of the exudation is destroyed. The general treatment, if the patient be an adult, is ten to twelve drops of the decolorized tincture of iodine, or eight to ten drops of the common tincture if the former tincture is not at hand, in a little water, and such doses are given every hour until the fever disappears, as it generally does within twelve to twenty-four hours. After that time the same doses are given every two hours, and after a while every three hours, until the patient is fully recovered. No treatment otherwise, castor oil if needed. By this very simple treatment, I maintain that diphtheria is easily managed. The only trouble is how to apply sometimes the local throat treatment.

"As a rule, I would say the treatment of diphtheria with iodine gives better results than ague with quinine. I have certainly been much better pleased with the former than with the latter. Diphtheria treated early will yield sometimes within twenty-four hours. The worst cases have never lasted

in my experience more than eight days. I do not consider a case desperate until there is dyspnoea, accompanied with cyanosis. I do not believe in the existence of cases that kill the patient at once. I have examined many such, and found by the throat that the disease had been present several days. I have treated as many as seven and eight at a time in the same building. I have treated diphtheria in Louisiana, in Manitoba, in Illinois and in Minnesota, and I have had much about the same results in the disease everywhere since 1865, the time when I adopted my present treatment.

"The way in which I came to use iodine in diphtheria is as follows: Twenty-eight years ago I went with a French party to establish a settlement in Iroquois County, Illinois. The county was literally alive with serpents, and fevers were very prevalent. The prairie rattlesnake figured prominently, consequently rattlesnake bites were of frequent occurrence. Such bites were almost sure death to man, and hardly ever failed to kill horses or cattle. I tried ammonia and other remedies without avail. I then heard of the experience of Dr. Brainard, of Chicago, on local application of iodine by absorption under a glass tube as described in the United States Dispensatory. I tried it without result. On dogs it was a success, for the reason that dogs, as a rule, recover any way from a rattlesnake's bite, although they swell to an enormous size. I tried iodine internally, and simply painted the bitten parts frequently with tincture of iodine and covered them up with an emollient poultice when possible, which proved to be perfectly successful. Since that time I have never lost a case by rattlesnake bites. I have treated men, women and children; have treated them early and late, when they were swollen all over the body, when the eyes were glassy; sometimes when they were vomiting blood and apparently in the throes of dissolution, and they would recover and do it quickly, so much so that I concluded it was never too late to

treat a prairie rattlesnake bite. Allow me to cite two examples. Two children, one American, the other French, both of them ten months old, were bitten at one year's interval between each case. The history of one case will tell the story for both, as they are identical. A child ten months old had been left alone in the yard in the afternoon. In the absence of the mother a rattlesnake came and bit the child on both hands ten or twelve times. I saw the case about one hour after the accident. The child had turned blue all over. From head to foot there was but a small spot of natural color, half the size of the hand, between the shoulders. I had given an unfavorable prognosis with such cases, but nevertheless it recovered very quickly. I do not remember to have found it necessary to treat a rattlesnake bite longer than a consecutive period of two days. The colony lost so heavily in horses and cattle by rattlesnakes that I was prevailed upon to try my hand upon them. I had a lay assistant who managed to give his patients about one dessertspoonful of tincture iodine, properly diluted, and paint iodine over the bitten parts, but no poultice. They all recovered, commonly within twelve hours. I have successfully treated at least one hundred and fifty, and about one hundred to one hundred and fifty animals for rattlesnake bites.

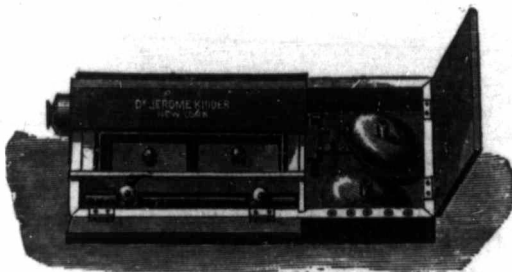
Diphtheria and rattlesnake bites are classed by some authors as analogous diseases. Here I may be allowed to give to the medical public some little experience I have had with the so-called zymotic diseases. Eight or nine years ago, in Aurora, Ill., a farmer, while cutting green stalks of corn cut himself very slightly over his knee. He did not mind that for several days; but all at once, finding it very painful, he concluded to come to me himself, a seven-mile trip. He ordered his horses, and went in an upper room to dress himself. But before his horses could be harnessed he was taken with such pain as to be unable to move or be moved. They sent for me in a hurry. When I arrived I found the patient almost insane with pain;

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he could not allow the people to walk on the ground floor of the house. The cut on his knee was small, not deep. It did not look much inflamed. His lips and nose were white and cold; no swelling worth mentioning. I applied iodine to the cut, covered it up with emollient poultice, and gave pretty frequent doses of iodine internally. In two hours the man was comparatively easy; he could be undressed, brought to the main story of the house, and speak instead of howl. Four days after he rode to my office, and I closed the cut on his knee with a strap of plaster; no further trouble.

“Six years ago, while in St. Paul, a man aged fifty, strong and hearty, came to me for malignant pustule. I treated him with iodine locally and generally, beside emollient poultice, and he fully recovered. Five years ago I was sent for, a weak, anæmic, little girl, five years old. The right side of her face was hideously swollen, but not red. From the chin to the roots of the hair appeared a small brown track that looked exactly like the chain stitch of a sewing machine. The family claimed it was the result of the bite of a poisonous spider. I applied locally, and gave internally the iodine treatment; she recovered well, but not near as rapidly as the cases of rattlesnake bite. One of my daughters, aged twenty, had the same misfortune of being bitten on the hand by a spider; she got well, but not rapidly. Six years ago, a man while handling ice cut his hand slightly with the ice tongs. The next day he felt deathly sick. Two hours after I was at his bedside; he was perfectly unconscious, and was a well marked case of tetanus. I gave him a hypodermic injection of decolorized tincture of iodine and painted very freely and frequently the scratch on his hand with the tincture of iodine, covering it up with a poultice. After a while he recovered his senses to a certain extent. I then injected into his mouth, with a small rubber syringe, some tincture of iodine, properly diluted, and by that means gave him pretty free doses. On the second or third day the con-

tractions of the muscles began to give way, on the fourth day he came on foot to my office to pay me his respects. He has never experienced any further trouble. I do not claim that these last few isolated cases will constitute proof that iodine is a specific in all such diseases, but it may be well to try; particularly in such cases as do not admit of treatment in the present state of medical science. Why not try the same treatment in rabies canina. It would not be a new thing in syphilis. It seems well worth trying in dissection wounds. As for diphtheria and prairie rattlesnake's bite, it is not a theory but a certainty."



A superior Pocket Induction (Faradaic) Apparatus, having very expensive coils so as to get the desired ranges in the qualities of currents, in a very small space. It operates by means of very little bisulphate of Mercury, gives very strong power, and is more satisfactory in its operation than any other pocket apparatus made in any country. (See award by the American Institute in their catalogue.) Two handles and sponge-clasps with conducting cords accompany each apparatus.

STERILITY.

Electrical Treatment.—Use B D current, apply P. P to the tongue, N. P. over the uterus, pubes and thighs ten to fifteen minutes, then apply N. P. between the thighs, P. P. over the cerebellum and neck five to ten minutes, or attach the N. P. to the vaginal electrode, introduce per vagina and treat the cerebellum and neck five to ten minutes. Conclude by giving a general tonic treatment. Treat three to six times a week.

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Medical Treatment.—Phosphorus, tonics, alteratives and stimulants may also be used.

Homœopathic Treatment.—Phos., Baryto c., Cann., Sep.

NIGHT SWEATS.

Symptomatology.—Night sweats are found accompanying many debilitating diseases, more particularly phthisis. The patient awakens in the early morning and finds his skin and linen bathed in a cold clammy perspiration.

Electrical Treatment.—Use B D current, apply P. P. to the feet, N. P. over the body, generally ten to twenty minutes, once a day.

Medical Treatment:—

B.—Aromatic sulphuric acid..... ℥j.
Quinine..... grs xx. m.

Sig.—Five to ten drops in sweetened water every two or three hours.

Or better still.

B.—Aromatic sulphuric acid..... ʒij.
Dextro-quinine..... ʒj.
Whisky, pure..... ʒjv.
Simple syrup..... ʒij. m

Sig.—One teaspoonful every two hours.

Homœopathic Treatment.—Chin., Arsen., Phos. ac., Muc.

ANCHYLOSIS. (*To prevent and to cure.*)

Electrical Treatment.—Use A D current. If in the knee, apply P. P. to the tongue, N. P. above, around and below the joint, (sponge to prevent) metallic brush and sponge to cure, five to ten minutes. Then apply P. P. to the back of the neck, N. P. over the joint, ten to twenty minutes. Then apply P. P. to the hip, N. P. over the joint, as before. Then manipu-

late with P. P. and N. P. over the joint, holding them opposite each other while treating the joint. Use strong force as the patient can bear. Treat ten to twenty minutes. If at any time during the treatment there should be too much irritation produced, use *long cord* to remove the same, which may be applied as last named, or apply N. P. to the foot of affected limb, P. P. over the joint. Treat once or twice a day. It requires from one to three months to cure a bad case of ankylosis, and only a few treatments to prevent ankylosis in any joint in the incipiency of the disease. Iodoform and iron in solution or in pills may be given two or three times a day, or compound syrup stillingia and iodide potassa.

BREAST. (*Lacteal tumors of.*)

Electrical Treatment.—Use A D or A B current, apply P. P. to the tongue, N. P. over the breast, ten minutes. Change and apply P. P. to the back of the neck, N. P. over the breast as before, ten minutes. Then apply P. P. to one side of the breast, N. P. opposite, making applications around the breast so as to pass the currents in various directions through the tumor, using cords that are of unequal length to the extent of the diameter of the base of the breast, which will bring the tumor under the influence of the short cord connected with the P. P. Treat ten to fifteen minutes. Treat daily or every other day.

Medical Treatment:—Discutient and alterative lotion.

℞.—Nitrate potassa,	ʒij.
Aqua	oj.
Spirits nitre.	ʒj.
Sulphuric acid.	ʒj.
Tinct. opii.	ʒij. m.

Apply once or twice a day on cotton cloth moistened with the compound until discussed. Protect the clothing by applying cotton or cloths.

SYPHILIS.

Symptomatology.—The primary symptoms of syphilis is a small, excoriated sore, with indurated edges, situated on the mucus membrane of the penis, called chancre. It has been called by various designations, such as Hunterian chancre, hard chancre, etc. The other symptoms are a copper-colored sore throat, a copper-colored eruption on the skin, a notched appearance of the teeth, nodes on the bones, enlarged and indurated glands, hemicranial pains, pains in the bones of the legs, falling of the hair, eyebrows and beard, ulcers of the tongue, thickening of the periosteum in various parts of the body.

Electrical Treatment.—Use A D current, drop the tensus with the N. P. into a mug of water, apply P. P. over the kidneys five to fifteen minutes, then apply P. P. over the hernial rings on each side of the abdomen down to the pubes five to ten minutes, then attach P. P. to the tongue instrument, using A B current, five to ten minutes. Treat once a day or every other day until the ulcers are healed. For buboes, apply P. P. to the same, N. P., *long cord*, opposite on the back. Treat each ten to fifteen minutes daily, as above.

Medical Treatment.—Keep the bowels regular by using salts or podophyllin, follow with two or three grains of dextro-quinine every three hours for nine hours.

℞.—Compound syp. stillingia ℥jv.
Iodide potassa..... ℥jj. m.

Sig.—One teaspoonful three times a day before meals. If the patient is debilitated give the following tonic:

℞.—Muriate tinct. ferri..... ℥j.
Quinine..... grs xx. m.

Sig.—Ten to fifteen drops in sweetened water three times a day, after meals; cauterize the sores with solid nitrate of silver; use the yellow wash three times a day. If there are buboes anoint with iodine ointment.

Yellow wash:

℞.—Corrosive sublimate..... grs ij.
Aqua calcis..... ℥ij. m.

Used in syphilitic cases.

Black wash:

℞.—Hydrarg. chloridi mit..... grs xx.
Aqua calcis..... ℥ij. m.

Used in similar cases to above formula.

The following alterative should be used for three months; if a bad case, six months:

℞.—Compound syrup stillingia, Merrill's,
of Cincinnati..... oj.
Iodide potassa..... ℥ij. to jv.

Sig.—One teaspoonful three times a day.

SYNCOPE OR FAINTING.

Electrical Treatment.—Give general tonic treatment; then apply P. P. of the A D current to the back of the neck. Manipulate with N. P. over the stomach and liver ten to fifteen minutes. Unloosen the clothing, sprinkle cold water on the face, moisten a cloth in cold water and apply to the forehead. Continue treatment and applications as indicated until relieved. The following may be given:

Medical Treatment:—

℞.—Aromatic spirits of ammonia..... ℥j.

Sig.—Fifteen to sixty drops in water every hour or two. Also inhale from the bottle, two to five minutes at a time, two or three times an hour.

Homœopathic Treatment.—Camph., Ign., Iod., Chin., Verat.

SCARLET FEVER, MEASLES, ETC. (*Eruptive diseases.*)

MEASLES.

Symptomatology.—Measles generally begins with catarrhal fever, lasting from one to three days. A rash then appears on the skin, at first in small dots, which, in a short time coalesce, forming patches of a crescent or semi-lunar form and of a dark leaden red color, first on the face and thence spreading downwards over the body and extremities. At the end of three or four days they disappear by desquamation of the cuticle.

SCARLATINA.

Symptomatology.—The symptoms are an increase in temperature, thirst, and a quickened pulse. About the fourth day there is some swelling of the face, and irregular patches of a light red color make their appearance on different parts of the body. In from four to five days the rash disappears and the cuticle falls off in brawny-like scales. In the severe forms of the disease there is soreness and ulceration of the throat, delirium and pain in the head, vomiting, a very high temperature, the skin is dry and hot, the tongue is dry and florid along the edges. There is great thirst. The glands of the lower jaw become painful and swollen, the rash assumes a dark, purplish color, and great prostration and a debilitating diarrhoea. The ulcers of the throat assume a dark sloughing and livid appearance. The temperature rises rapidly, coma and death soon follow.

Electrical Treatment.—If the fever is high use B D current. Apply P. P., tongue instrument, to the tongue, N. P., long cord, all over the body and limbs five to fifteen minutes. Should the eruption recede at any time, use cords of equal length and A D as above directed, to bring the eruption to the surface. When tonics are indicated give tonic treatment also.

Treat once or twice a day until you get control of the disease, and often enough to keep control of it. Use the following during the sickness:

℞.—Dry digitalis leaves (green in color) in
fine powder.....grs. ℥j.
Zinci sulphas..... “ ℥j. m.

Sig.—Put into four ounces of spearmint tea. Shake up well. Give a child one teaspoonful every two or three hours until cured. Adults, three or four every two or three hours.

In small-pox use the following in connection with the medicine: Apply over the chest and stomach with oleum tiglii in sufficient quantity to draw the eruption there. This will usually prevent pitting of the face in small-pox, and secure a favorable prognosis in a majority of cases. If there is fever give aconite and belladonna alternately every hour or two. If cough,

Medical Treatment:—

℞.—Carbonate ammonia ʒij.
Syrup, wild cherry..... ʒij.
Syrup, ginger..... ʒij.
Syrup, tolu..... ʒj.
Whisky (pure) ʒijj. m.

Sig.—Two-thirds of a tablespoonful every three hours.

Bathe the body with whisky and vinegar, equal parts, once or twice a day. Or weak lye-water, soda-water, etc. Give nourishing food, electrical and medical tonics, also stimulants.

MASTODYNIA.

Symptomatology.—Phlegmonous inflammation of the breasts, terminating in supuration, generally occurs in women after parturition. A short time after delivery the woman may have a slight chill, followed by some fever, together with pain, heat, and swelling in the breast. The pain is of a throbbing

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character, indicating the formation of pus. In a few days the abscess points and opens spontaneously or is opened by the knife of the surgeon.

Electrical Treatment.—Use A D or A E current, apply P. P. to the tongue, N. P., *long cord*, over the breast, five to ten minutes. P. P. may also be applied to the back of the neck, N. P. over the breast as before, or N. P. may be applied to the coccyx, P. P. over the breast five to ten minutes. If caused by suppressed menstruation, remove the cause by treating as directed for the same in another part of this work. If from cold use the following:

Medical Treatment.—℞.—Valerianate ammonia grs. one to three every hour or two, or tinct. gelsemini gtts. three to six in water every two hours.

PANCREATITIS. (*Inflammation of the Pancreas.*)

Electrical Treatment.—Use B D current, apply P. P. to the tongue, N. P., *long cord*, on the spine, back of the epigastric region, behind the stomach. Treat from right to left, downwardly over the left hypochondric region, ten to fifteen minutes. Then apply P. P. on the spine, back of the stomach, N. P. over the stomach, right to left, as before, ten to fifteen minutes. Treat daily until relieved.

Medical Treatment:—Valerianate ammonia one to three grain doses three or four times a day. Tinct. belladonna five to ten gtt. doses every three hours. Sinapisms may also be applied to the spine if indicated.

PUERPERAL FEVER. (*Childbed Fever.*)

Symptomatology.—Chills and fever, and sometimes peritonitis coming on a few days after delivery. The pulse is quickened, and the temperature elevated. The tongue has a peculiar slimy appearance. The patient becomes delirious. In some cases there is persistent vomiting.

Electrical Treatment.—If there is inflammation of the peritonæum or internal organs of generation use B D current. Attach P. P. to the vaginal electrode, introduce per vagina and apply N. P., *long cord*, over the bowels and lumbar region ten to twenty minutes, mild force. Change and apply N. P., *long cord*, to the coccyx, P. P. over the bowels ten to twenty minutes. Change and attach N. P., *long cord*, to the vaginal electrode, introduce per vagina and apply P. P. over the kidneys and bowels ten to twenty minutes. Treat two or three times a day until relief is given, afterward as indicated. If the lochia should at any time become suppressed apply N. P. of the A D current, to the vulva or per vagina, P. P. over the bowels and kidneys five to fifteen minutes, once or twice a day, until relieved; follow with emollient injections to cleanse the parts, twice a day; favor the flow of milk by applying P. P. to the back of the neck, N. P. over the breasts, five to ten minutes each, once or twice a day.

Should the head become involved with indications of delirium, treat as directed for delirium, congestion or inflammation of the brain. If the lungs, as for pneumonia, Tinct. gelsemini, veratrum or aconite may also be used. When tonics are indicated, give general tonic treatment; also dextro-quinine in one to three-grain doses, every two to three hours, with nourishing food, beer, whisky, light wine, etc.

HÆMATURIA. (*Hemorrhage from the Bladder.*)

Symptomatology.—Hæmaturia sometimes occurs in certain epidemics, such as cholera, severe malaria fever, and in typhoid fever when the blood is in an impoverished condition; may be caused by the presence of a stone in the bladder or ulceration of the lining of the mucous membrane. The bladder should be searched for stone. Hemorrhage coming on after exercise or exposure, accompanied by twinging pain in the penis, there can be but little doubt that the hemorrhage in this

case is from the bladder When the hemorrhage is from the kidneys the first urine voided is clear, the blood passing away in small clots toward the close of micturition.

Electrical Treatment.—Use B D current. Apply P. P. with the tensus in a mug of water, N. P., *long cord*, over the bowels and kidneys ten to fifteen minutes. Treat two or three times a day. If a female, treat the same way, except, apply P. P. between the labia, over the urethra. Administer tincture cannabis indica, English, in five drop doses on sugar every hour until two or three doses have been given, if required; or chloride sodium in one-fourth teaspoonful doses every hour, or oil erigeron in five drop doses on sugar every thirty minutes.

HEMATEMESIS. (*Vomiting of Blood.*)

Symptomatology.—Generally attacks women, particularly those of a full habit, and at times when the menses are suppressed. The attack is generally preceded by rigors. Pure blood is seldom vomited, unless caused by a corrosive poison or violence. There is a sense of pain and weight in the region of the stomach, which may be accompanied by a cough.

Electrical Treatment.—Use B D current, apply P. P. to the tongue, N. P., *long cord*, over the stomach, three to five minutes. Change and apply N. P. to the base of the spine, P. P. over the stomach, five to ten minutes. Also P. P. over the stomach, N. P. opposite, five to ten minutes. Treat once or twice a day. Tincture of cannabis indica may be given in five drop doses on sugar, every hour or two until ten to fifteen drops have been given. Alum-water or salt and water, in small quantities, one or the other, every hour, should the first named treatment fail, which is not likely to.

MELANCHOLIA. (*Derangement of the Mental Faculties.*)

Symptomatology.—A mental disease, or one of the various forms of insanity, marked by gloom, mistrust and mental de-

pression. The patient becomes incapable of attending to his business, shuns society, and seeks solitude. Takes a gloomy view of life, talks of committing suicide. This class of patients are insane on one particular point or train of ideas.

Electrical Treatment.—Use B D current. Apply P. P. to the tongue, N. P. over the spine generally, commencing at the base of the brain and treating downward five to ten minutes, then apply P. P. to the back of the neck, N. P. over the chest and bowels five minutes; change, and apply N. P. to the coccyx, moisten the hair and apply P. P. to the head, generally three to five minutes, mild force; then manipulate with P. P. over the eyes and ears five to ten minutes; conclude by giving a tonic treatment of five to ten minutes. Treat once a day. Divert the mind and thoughts of the patient from his real or imaginary troubles by change of air, scenery and associates. Tonics and stimulants, with light nourishing food, should be given in reasonable quantities.

LETHARGY. (*Stupor, Coma.*)

Symptomatology.—A profound sleep, from which it is almost impossible to rouse the patient. The patient lies with his eyes closed, but opens them when spoken to or called by name, and almost immediately closes them again.

Electrical Treatment.—Use A D current, medium strength. Apply P. P. to the back of the neck, N. P. over the lower part of the chest, stomach and bowels five to ten minutes; change, and apply N. P. to the coccyx, P. P. to the spine five to ten minutes; then apply P. P. to the eyes, ears, etc., as directed in other parts of this work, five to ten minutes; N. P. may be held in the hands of the patient and P. P. applied between the shoulders five minutes; conclude by giving a general tonic treatment if indicated. The above treatment may be given every three to six hours, with stimulants and tonics, until relieved. One to two treatments generally sufficient.

Homœopathic Treatment.—Opium.

SCURVY.

Symptomatology.—The countenance is pale and the patient complains of great debility, loss of appetite, irregularity of the bowels and periodic fever. Petichæ or ecchymosis, often of a large size, and of a bright red color, but soon becomes purple. These spots sometimes bleed, but the hemorrhage is generally from the internal mucous membranes, recurring at stated periods of the day. The disease may prove fatal from sudden effusion of blood into the pulmonary tissue, or from the mucus surface of the alimentary canal, and bladder.

Electrical Treatment.—Use A D current. Apply P. P. tongue instrument to the tongue, N. P. over the face, jaws, neck and shoulders ten to fifteen minutes. Then apply N. P. to the feet, P. P. to the face over the parts diseased, also to the sides of the neck, *between the clavicle and scapula*, five minutes each. Treat three times a week, eating freely of fruits and taking outdoor exercise. Use as a tonic five to fifteen drops of muriate tinct. ferri, largely diluted with water, three to four times a day. Apply also to the diseased parts, once or twice a day, some of the tincture slightly diluted. Also give the following alterative:

Medical Treatment:—

B.—Compound syrup stillingia..... ℥jv.

Iodide potassa..... ʒj. to ʒj.

Sig.—One teaspoonful three times a day before each meal. Should hemorrhage of the lungs or bowels occur: If from the lungs, apply P. P. of the B D current to the tongue, N. P., *long cord*, over the lungs and spine five to ten minutes, once or twice a day. If from the bowels, apply P. P., sponge-roll, to the coccyx, N. P. over the bowels and spine, ten to fifteen minutes, once or twice a day. Also give the following: Oil erigeron, in five-drop doses, on sugar; or tinct. cannabis indica (English), as above, every thirty minutes, until two or three doses have been given.

℞.—Argenti nitras grs. ij.
 Gum acacia ʒj. m.
 Fiat pilulæ No. 32.

Sig.—One pill every hour for hemorrhage of the bowels.

Eat acid fruits, such as oranges, lemons, etc.

Homœopathic Treatment.—Bryonia, Ferrum.

TENESMUS.

Symptomatology.—A griping pain in the bowels, with a constant desire to go to stool.

Electrical Treatment.—Use A D current, apply N. P., *long cord*, to the coccyx, P. P. over the bowels and back, ten to fifteen minutes. Change and apply N. P. between the ilia, below the lower lumbar vertebræ, P. P. over the bowels, ten to fifteen minutes. If there should be a bearing-down sensation in the bowels, treat as follows before giving above named treatment: Apply P. P. to the coccyx, N. P., *long cord*, over the bowels and spine, ten to fifteen minutes. Then give treatment as first described. Treat once or twice a day.

PHLEGMASIA DOLENS.

Symptomatology.—Inflammation of the veins of the lower extremities, supposed to be caused by the pressure of the child in utero upon the iliac veins. Generally makes its appearance a few days after delivery. The patient complains of pain in the inguinal region, extending to the leg. On examination of the limb, the skin will be found tense, shining, and painful to the touch. On passing the hand over the affected part, numerous irregular prominences will be felt underneath the skin. The pulse is quickened, temperature elevated, and the patient complains of thirst. The bowels are generally constipated, the tongue coated with a white fur, which, as the disease advances, becomes of a brownish color, and the teeth and lips covered with dark sordes. The secretion of milk is

generally interrupted. Sometimes the disease assumes a periodic character.

Electrical Treatment.—Use A D current, apply N. P., *long cord*, to the coccyx, P. P. over the bowels and kidneys, ten to thirty minutes. Change and apply P. P. to the foot of the affected limb, N. P. over the limb upwardly and over the bowels and spine, ten to twenty minutes. This is to force the blood and serum from the limb, and to cause them to pass through their natural channels. Treat once or twice a day. If the bowels are constipated, give enemata of water, soap-suds, etc., to relieve them, or epsom salts in teaspoonful doses, every four hours. If there is fever, give aconite or gelsemini, etc. The limb should be bandaged. Perhaps some of the dropsical remedies may be admissible. [See dropsy for the same in another part of this work.]

Homœopathic Treatment.—Pulsat., Silicea.

GASTRODYNIA. (*Neuralgia of the Stomach.*)

Treat as for dyspepsia.

Symptomatology.—A neuralgic affection of the stomach and closely connected with dyspepsia, appetite is generally impaired. There is a peculiar gnawing pain in the region of the stomach, extending to the back, and a sense of constriction, sometimes there is vomiting; the bowels are generally constipated and there is headache. If constipated, treat as for constipation.

Medical Treatment:—

R.—Valerianate quinine..... grs jv.
 Prussiate ferri..... “ vjij.
 Diaphoretic powder..... “ xjj.
 Fiat pulvis No. 8.

Sig.—Take one powder every two hours until relieved.

Homœopathic Treatment.—Arsen., Nuxvom.

MENINGITIS. (*Inflammation of the Membranes of the Brain.*)

Symptomatology.—Headache, defective appetite, constipated bowels, vertigo, with a hard bounding pulse, the eyes have a wild and anxious expression, ringing in the ears, which increases as the disease advances. In the early stages of the disease the pupil of the eye is contracted, but in the later stages is much dilated, and light becomes unbearable, the eye brows are corrugated and the eyelids closed to shield the eyes from the light; the skin is hot and dry, the temperature very much elevated; there is vomiting and perhaps convulsions; the patient grows worse, delirium terminating in subsultus picking at the bed clothes, coma, stertuous respiration and death. Prognosis are very unfavorable.

Electrical Treatment.—Use B D current. Attach the long cord to the N. P., place the same between the feet, apply P. P. to the spine, sides of the neck, between the clavicle and scapula, ten to twenty minutes; then change to cords of equal length and apply P. P. to the tongue, N. P. over the body generally, five to ten minutes; change, and apply N. P. to the feet, moisten the hair and apply P. P. over the head, mild force, three to fifteen minutes; then manipulate over the eyes, back of the neck, eyes and ears, as directed for delirium, etc., five to fifteen minutes. Treat one to three times a day. Aconite, gelseminum and belladonna are admissible. When tonics are indicated give general tonic treatment.

Homœopathic Treatment.—Aconite, Arnica, Bell., Bry.

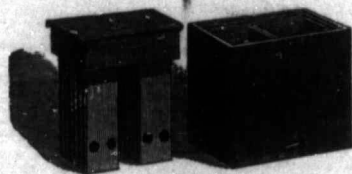
TONSILITIS OR QUINSY. (*Inflammation of the Tonsils.*)

Symptomatology.—Inflammation of the tonsils is generally preceded by rigors or chills. The bowels are constipated, the tongue covered by a light coating. The patient expectorates a viscid mucus, and complains of sore throat. The breathing and deglutition becomes difficult, and articulation very painful or altogether impossible.

Electrical Treatment.—Use A D or B D current. Apply P. P., tongue instrument, to the tongue, N. P., *long cord*, over the tonsils, ten minutes each. Change. Use cords of equal length, apply P. P. to the tongue, N. P. over the neck, back, chest and bowels, five to ten minutes. Then apply N. P. to the feet, P. P. over the spine and kidneys five to ten minutes. Treat two or three times a day.

Medical Treatment.—Use remedies prescribed for diphtheria. See Diphtheria.

Homœopathic Treatment.—Hepar sul., Bell., Merc. iod., Lachesis.



SMALL AND POWERFUL GALVANO-CAUSTIC BATTERY. PATENTED, 1876.

Dr. Kidder's Galvano-Caustic Batteries are unequalled as to their efficiency and convenience of operation. The elements are made movable horizontally in their relation to the fluid of the cells, so as to substitute continuously battery fluid which has recovered its allotropic power from having been released from action. One of these forms, consisting only of two cells, each $3\frac{1}{4}$ inches long, $2\frac{1}{2}$ wide and $4\frac{1}{2}$ deep, will retain a platinum wire No. 19 at a white heat constantly for more than a quarter of an hour.

HYSTERIA.

Symptomatology.—The attack is sudden and irregular; almost wholly confined to females and to those of the nervous type. There is a sense of suffocation, the patient cries and laughs alternately. A ball (Globus Hystericus) appears to rise in the throat and choke her. There is clonic spasms of the muscles. The urine is pale and limpid and secreted in large quantities. The only disease likely to be confounded with hysteria is epilepsy, from which it may be distinguished by the absence of the frothing at the mouth and the biting of the tongue, signs never seen in hysteria, and only seen in epilepsy.

An attack of hysteria may be terminated in its incipiency by dashing cold water on the face and exposed thorax, a proceeding that is of no avail whatever in epilepsy. The disease is seldom met with before puberty, and in many cases has its origin in deranged uterine action.

Electrical Treatment.—Use B D current. Apply N. P. long cord to the feet, P. P. over the kidneys, ten to fifteen minutes. Then apply P. P. to the back of the neck and between the shoulders five to ten minutes. Moisten the hair and apply P. P. to the head two or three minutes, mild force. Change and apply N. P. to the coccyx, P. P. over the uterus, ovaries, etc., ten to twenty minutes. Change and apply P. P. to the back of the neck, N. P. over the thorax, chest, spleen, stomach, liver and bowels, ten to fifteen minutes. N. P. may be applied between the thighs, P. P. over the lumbar region, five to ten minutes. If there is considerable irritation of the organs of generation, N. P. may be attached to the vaginal electrode and introduced per vagina until it meets with resistance from the os uteri, and P. P. applied over the kidneys five to ten minutes, also over the ovaries five to ten minutes. If at any time the parts become weakened under the treatment, reverse the currents and treat about the same length of time. Conditions may indicate tonic treatments and tonics, if so, they should be given also, as required. Treat once or twice a day until relieved, afterward three to six times a week until cured, omitting portions of the treatment from time to time as indicated.

Medical Treatment :—

R.—Tinct. assafoetida.....	} aa ℥j.
Sulphuric ether.....	
Whisky.....	

Sig.—One teaspoonful every half hour, hour or two.

R.—Bromidia in teaspoonful doses may be given every hour or two until sleep is induced, or

R.—Hyoscyamies..... grs. x.
 Nitrous æther..... ʒjss.
 Alcohol..... ʒjv.
 Aqua fontana..... ʒx. m.

Sig.—One tablespoonful three or four times a day.

Homœopathic Treatment.—Aconite, Ignatia, Hyos.

SUSPENDED RESPIRATION WHILE IN SLEEP. (*Cause and treatment.*)

Symptomatology.—The cause of suspension, in my opinion, is a suspension of nerve force. May be produced from various causes, principally from defective lungs. Hence the failure to take a sufficient quantity of oxygen or electricity into the lungs to keep the circulatory forces in motion, especially the blood, twenty-five pounds, more or less of which must make its revolution through the system in from three and a half to four minutes. I believe that *electricity positive and negative*, on the principle of *attraction and repulsion*, circulates the *blood* and is the physical life of man, or motive power of the body. (Why! power gone, no respiration, no life.) Treat as follows:

Electrical Treatment.—Use B D current, apply P. P. to the back of the neck, N. P. over the thorax, bronchia, lungs, stomach, liver, spleen, and bowels, ten to twenty minutes. Change and apply P. P. to the feet, N. P. over the body and extremities generally, fifteen to thirty minutes, mild force. Treat daily or every other day, as indicated.

Medical Treatment:—

R.—Tinct. nux vomica..... ʒss.
 “ peruvian bark..... ʒjv. m.

Sig.—One teaspoonful in water after each meal.

LOCOMOTOR ATAXIA.

Symptomatology.—Loss of the coördinating power of the muscles of the lower or upper extremities, dependent on structural lesions of the posterior columns of the spinal cord. The earliest symptoms are cutaneous hyperæsthesia, with shooting pains in the limbs, deep seated pains in the trunk, the spinous and transverse processes of the spinal column, and the muscles are tender to the touch; the motor nerves of the eyes are in some cases, particularly when the disease attacks the upper extremities, affected, producing strabismus and disturbance of vision. These symptoms are soon followed by loss of the coördinating power of the muscles, the patient, on attempting to walk, cannot place his feet as he intended; he has a sprawling gait, the knees bend under him, and he complains of fatigue; on exertion the muscles are spasmodically contracted, the want of harmony in the muscular movements increase, and the patient, if standing, on closing his eyes cannot maintain an erect position, but falls to the ground; as the disease advances the muscles of the upper extremities become affected, and the patient can only grasp objects with difficulty. The causes of the structural lesions of the cord, producing ataxia, are exposure to cold, severe excesses, masturbation, syphilis, typhoid fever in a severe form, exhausting hemorrhages, prolonged lactation and a hereditary tendency.

Electrical Treatment.—Use A D current. Apply P. P., tongue instrument, to the tongue, far back, moderate pressure, N. P. over the cerebellum, very mild force, perceptible only to the patient, one minute; then apply N. P., commencing at the base of the cerebellum downwardly over the spine and limbs, five to ten minutes; then apply N. P. to the arms, each three to five minutes; then apply N. P. over the front part of the body three to five minutes; change and apply N. P. to the feet, P. P. over the cerebellum, one to two minutes, mild force;

then manipulate, holding P. P. in the right hand, with the index fingers of each over the eyes and back of the neck, eyes and ears, as directed in other parts of this work, five to ten minutes, mild force. Treat two or three times a week. A tonic treatment may be given alternately with the above two or three times a week, of ten to fifteen minutes each time. The treatments are to equalize and harmonize the circulatory forces of the system. Faugeor's compound iodized cod liver oil may be given in small doses three times a day.

FACIAL PARALYSIS.

Electrical Treatment.—Use A D current, apply P. P. in front of the ear, N. P. over the parts affected. Commence with mild force, increase until contractions or an effect is produced on the paralyzed muscles. Treat five to ten minutes. Change, apply P. P. to the cerebellum, N. P. to the parts affected, three to five minutes, mild force. Change and apply P. P. to the opposite ear from the paralyzed muscles, N. P. over the parts affected, three to five minutes. Treat once a day or every other day, as indicated.

Medical Treatment:—

R.—Tinct. nux. vomica.....	3ss.
“ cinchona co.....	ʒij.
Whisky	ʒij. m.

Sig.—One teaspoonful after each meal.

INTUSSUSCEPTIO, OR INVAGINATION OF THE BOWELS.

Electrical Treatment.—Use A D current. Apply P. P. sponge-roll to the fundament, N. P. over the bowels generally, over the region of the invagination especially, ten to fifteen minutes. Change and apply N. P., *long cord*, of the B D current on the back opposite the invagination, P. P. to the bowels over the region of the invagination, ten to twenty min-

utes. This is to prevent inflammation, thereby preventing adhesions. Treat every two or three hours if indicated. A general tonic treatment may be given once a day. If the invagination is upward, the inward and outward treatment may be given once a day. Use A D current, cords of equal length, apply P. P. to the tongue, N. P. over the body generally, ten to fifteen minutes, or apply P. P. to the back of the neck, N. P. over the bowels ten to fifteen minutes. (Use medium force). Treat once or twice a day. The following remedies may also be tried: Inject one to two pints of tepid water per rectum, to displace the air in the bowels, then inject about one-half of a sedlitz powder, acid (dissolved in water), in a few moments the opposite half of a sedlitz powder, alkali. Immediately after injecting press a cotton roll to the fundament for a moment or two, when the enemas may be allowed to pass off. Or use a force pump, and force air into the bowels per ani. Or let two strong men or women, as the case may be, take the patient by the limbs, raise them perpendicularly and give the patient a good shaking down towards the head, the head being where the feet are usually found. The patient may be kept in this position one to three minutes at a time. Whilst in this attitude the third person should knead the bowels thoroughly with his hands. This procedure may be repeated every hour. I have no faith in cathartics, believing them to do more harm than good. It may be necessary to give opiates or auodynes to relieve pain, the less the better.

BRAIN. (Morbid condition of. How treated.)

Electrical Treatment.—Use A D current, apply N. P. to the tongue, P. P. over the head generally, cerebellum especially, one to three minutes, mild force. Change, apply P. P. to the tongue, N. P. to the ears, sides of the head, one to three minutes each. Then apply N. P. to the base of the brain, downwardly over the spine, three to five minutes.

Change and apply N. P. to the nasal apertures, each *one minute*, P. P. over the head, cerebellum especially, two minutes, mild force. Change and apply N. P. to the coccyx, P. P. over the eyes and back of the neck, eyes and ears, as directed in other parts of this work, five to ten minutes. Conclude by giving a general tonic treatment. Treat three times a week. In addition to the above treatments, P. P. may be applied to the back of the neck, N. P. over the thorax, chest, stomach, liver, spleen and bowels, five to ten minutes.

Medical Treatment:—

R.—Iodide potassa.....	3j.
Aqua pura.....	ʒij.
Whisky.....	ʒij.
Comp. syrup stillingia.....	ʒij. m.

Sig.—One tea to dessertspoonful three to six times a day.

CHOREA. (*St. Vitus Dance.*)

Symptomatology.—Marked by almost constant involuntary movements of the muscles of one side of the face. The arms are thrown into various contortions. There may be lameness of one leg, which partly deprives it of its natural motion. The appetite is lost, and the bowels are generally irregular.

Electrical Treatment.—Use B D current, apply P. P. to the tongue, N. P. to the back, chest and arms or hands, five to ten minutes, mild force. Then apply N. P. to the feet, P. P. over the spine and lumbar region, five to ten minutes. Then apply P. P. to the head, mild force, three to five minutes. Then apply P. P. to the eyes, back of the neck, eyes and ears, five to ten minutes. Change and apply P. P. to the feet; let the patient hold N. P. in the hands five to ten minutes. Treat once a day, every other day, to three or four days, as indicated.

Medical Treatment.—An infusion of wintergreen leaves may be taken in tablespoonful doses three or four times a day,

with tonics, anti-spasmodics, egg-nog, nourishing food, and moderate outdoor exercise.

TO DESTROY THE FOUL ODOR OF THE BREATH, FOUL ODOR OF THE AXILLA, AND THE FOUL ODOR OF THE FEET.

Electrical Treatment.—Use A D current, apply P. P. to the tongue, N. P. over the stomach, five minutes. Then apply N. P. over the axilla, each five minutes. Then apply N. P. over each foot five minutes. If the person cannot bear the tongue instrument, P. P. may be applied to the back of the neck, or on the spine, between the shoulders. Treat three to six times a week.

Medical Treatment:—

℞.—Permanganate potassa..... grs. xv.
Aqua pura..... ℥jv. m.

Sig.—One teaspoonful three times a day.

For the axilla and feet:

℞.—Permanganate potassa..... ℥j.
Aqua pura..... ℥viii. m.

Apply a small quantity to the axilla and feet two or three times a day. This will destroy the odor.

A FEW OF THE MANY ALMOST MIRACULOUS CURES PERFORMED BY ELECTRICITY, WITH MEDICINES AS AUXILIARIES, WITHIN THE PAST FIFTEEN YEARS, TO OCTOBER, 31, 1881.

APHONIA, OR LOSS OF VOICE.

A case of three months standing, where the patient could not speak above a whisper, the voice was restored in three weeks. The wife of Rev. S. G. Hair, cured in 1868.

H. C. Edwards, merchant, had flux for three weeks, at the expiration of that time had seventeen passages of blood a day. The day I took the case I gave him one treatment daily, and three doses of flux or diarrhœa comp. Cured him in three days, in the year 1868.

D. J. Noble—Lumbago of thirty years standing, cured in a few days; 1869.

Christian Rader was kicked by a horse on the side of his head; suffered daily for three years; was cured by one application of electricity, about the middle of July, 1870.

Granville Gibson was attacked with acute sore eyes August 22, 1867; three days afterward destruction of the under part of the lids commenced; by the fifth day sloughed off. The destruction of the cornea commenced with increased pain and inflammation day and night, so that he could not rest a moment. He stated that he could only compare the corrosiveness of the disease to a consuming fire. On the afternoon of the eighth day of attack he was conducted into my office, blind and distracted with pain. Within one hour from the time I commenced treating him with electricity he went from my office seeing, and was free from pain. I treated him daily, used no medicines, for ten days, afterwards every two or three days for two or three weeks, when his eyes were restored to their normal condition so that he could, with his rifle, shoot a squirrel off the top of the tallest tree in the forest, which he did within thirty days from the time of taking the first treatment. Physicians who saw the case, said it was the worst case of acute sore eyes that they had ever seen in a practice of thirty years; and that was not all, they also said all the batteries in the universe would not save his eyes.

Wm. Welch was attacked with ague in the fall of 1867, which continued for eleven months under the use of the usual remedies and patent medicines. I took the case, broke up the

ague in three days, and cured him in six weeks without the use of medicines.

Elisha Miles was journeying on horseback in September, 1869, his horse stumbled, fell to the ground and fell upon one of his feet, which bruised and sprained it so severely that twenty-four hours afterward he was obliged to walk on crutches, as he could not bear his weight upon his foot. He entered my office in that condition. Within thirty minutes from the time I commenced treating him, he went from the office free from pain and without crutches, and continued to do so. I applied electricity as for inflammation of the feet. Used B D current, *long cord*.

ACUTE AND CHRONIC DISEASES.

Typhoid fever, spinal meningitis, diphtheria, scarlet-fever, measles, pneumonia, etc., yield alike to the treatment; for instance: A child of Mr. Bowers, aged seven years, took typhoid fever, grew worse under the treatment of three physicians for twenty-eight days. The twenty-eighth day of attack his temperature was one hundred and five degrees, had involuntary discharges from the bowels every twenty minutes. When he drank water it passed through him onto the bed; had also *Subsultus tendinum*. I took the case under the above circumstances. The evening of the twenty-eighth day arrested the discharges and reduced the fever and temperature to a normal condition within forty-eight hours; continued treatment about fifteen days. He made a good recovery within a reasonable time.

A REMARKABLE CASE.

LITER, ILL, March 4, 1878.

Editor Courier: As a plain farmer, when there is so much being said in the papers about the wonderful cures effected by different doctors, I wish to give you the simple facts of a remarkable case in our neighborhood, and hope you will publish

it in the *Courier*. On the 9th of last month one of my neighbors, Mrs. J. M. Wilson, had fourteen spasms; her right arm was totally paralyzed, and her right leg partially so, and she was speechless and blind. She had two doctors attending her, but she remained in that condition for six days, when the doctors gave her up to die, and friends supposed, of course, she would die. Some one, however, suggested, as a last hope, that Dr. Tipton, of Jacksonville, be sent for to try electricity on her. He came out here on the afternoon of the 15th, and gave her a dose of lightning from his little box. In twelve hours after he did so, her speech, consciousness and sight returned. The next day he came back again, and each day for four days, when she had so far recovered as to have full use of her right leg and pretty good use of her right arm and three fingers, Dr. Tipton thought his further attention unnecessary, and the case was again turned over to Dr. Rickey, and she has since been rapidly getting better, as predicted by Dr. T.

Now, Mr. Editor, I think this case so remarkable that it is certainly worthy of being published, and I hope you will do so. All the neighbors around here know about the case, and I think Dr. Tipton and his little lightning box a wonderful pair. B.

Mrs. Wilson made a rapid recovery, and has attended to her household duties ever since.

Electrical Treatment.—Used A D current, applied P. P. to the tongue, N. P. over the body and extremities generally, twenty to thirty minutes. Changed and applied N. P. to the feet, P. P. over the spine generally, lumbar region especially, ten to fifteen minutes. I then took P. P. in the right hand, and with the index fingers of each hand, manipulated over the eyes, back of the neck, eyes and ears, ten to fifteen minutes. I then applied P. P. of the B D current to the cerebellum, mild force, five minutes. Changed and applied N. P. to the

patients hands, P. P. to the back of the neck, five to ten minutes. The above treatment, with slight variations, were continued to the close. Find treatment for the other cases in this work under their appropriate headings.

A CARD.

To the Editor of the Journal: Being a skeptic regarding the working of electricity in cases of this kind, I consented, on Saturday, to allow Dr. A. W. Tipton to apply his battery to a large and painful carbuncle on my neck; and, for the benefit of those who may become afflicted in a like manner, I would say that I received immediate relief, and am getting well of an affliction which another physician told me "would have to take its course, and run ten days." H. C. SINCLAIR,

Ashland, Ill.

The foregoing cases are given only to show what can be done with that wonderful, unseen, all-powerful agent, electricity, the motive power of the universe, the life principle of every thing animate and inanimate. Physical life of man and beast.

Extract from the daily *Jacksonville Journal*, December 17, 1877:

WORTHY OF NOTE.

"We are always glad to speak a good word for worthy enterprises, such, especially, as tend to benefit or enlighten mankind, and contribute to the interests of our city and community. That the one we now speak of is of that class, no one conversant with the facts can for a moment doubt. Therefore, we take pleasure in referring to Dr. A. W. Tipton's Electric Institute as one of the established and successful institutions of Jacksonville. A few years since, the Doctor opened up his establishment in this city, and with energy and perseverance has, since that time, manfully and successfully battled against

the stubborn superstitions of those uneducated in his system of practice, and the many other barriers that usually attend the introduction of new theories, until he has gained for himself an enviable reputation as a physician, and a permanent and profitable business in our community. •

“During the past year he has substantiated his theory most effectually by treating and curing numerous acute diseases throughout the city and county, such as diphtheria, pneumonia, fever, etc. In fact, several cases of that dreaded and almost universally fatal disease, diphtheria, have come to our knowledge of late, that had been pronounced incurable by other physicians, when Dr. Tipton applied his electricity, and speedily cured them. The fact that the Doctor has lost but one case in eight years, in acute diseases of any kind is, in our mind, the strongest evidence of the value and efficiency of his system of practice.”

We would also refer you to the same journal, September 14, 1874, June 9, 1875, April 16, 1878.

Extract from the Jacksonville Business College and English Training School Quarterly Report, 1881:

“We would call attention to the announcement in another column, of Dr. Tipton's forth-coming medical work. If the Doctor's success as an author is to be measured by his success as a practitioner, we have no doubt his work will be a great triumph. The Doctor has now been practicing in this city for over ten years and has, by electricity as a chief curative agent, performed almost miraculous cures in acute as well as chronic diseases.”

SUMMARY AS TO DIFFERENT PHYSIOLOGICAL
QUALITIES OF ELECTRICITY.

BY DR. JEROME KIDDER.

CURRENTS of different qualities have not only different characters of sensation, and different effects on muscular irritability, as recognized by all who have carefully scrutinized in regard to these varied electrical phenomena, but also ONE QUALITY even when so weak in POWER as not to produce any pain, but rather a pleasant sensation, will show flashes of light when properly applied, as with large surface of wet sponge over the closed eye.

Secondary currents produce light to the eye, that is, they exercise the function of the optic nerve *without producing pain*, only when the tension of the current is increased to a certain degree in ratio with the diminished quantity. This effect is shown *best* by using the negative sponge at the eye, and having not very slow, but moderately slow interruptions by the vibrating armature, as produced by Dr. Kidder's apparatus, yet the proper quality as regards tension or pitch is requisite.

ANOTHER QUALITY of current, even when the current is made strong enough to produce pain, will show no light to the eye—will not exercise the vital function of the optic nerve.

The preceding facts show conclusively that electricity can be varied in quality so as to produce different effects on different vital functions.

IT MUST NOT SEEM STRANGE to find electricity produced in many different qualities to have varied effects. There are, indeed, other facts recognized as true, and which might seem stranger still—for it is well known to all chemists that the same proportion and kind of atoms may form substances

so different in their nature as to be recognized as entirely different substances. For example, spirits of turpentine and oil of bergamot are identical in composition, being composed of ten atoms carbon, and eight of hydrogen, and the difference is recognized as merely that of the allotropic conditions and arrangement of the atoms. Also, LIGHT is recognized as the effect of vibrations or wave motions in the ether, which is everywhere; and the different colors result from the different length of these waves. (See Prof. Draper's *Chemistry* and other scientific text-books.) And yet, even the difference in the character of the vibrations or wave lengths of the ether gives a difference in their chemical effects; for, indeed, it is known to be chiefly the yellow ray which causes the absorption of the carbon from the carbonic acid gas in the atmosphere into the solid form of a tree, by the influence of the sunlight falling upon its leaves. And it is the indigo ray which is chiefly concerned in causing hydrogen and chlorine to unite by passing light through a glass vessel containing a mixture of the two gases.

ALSO, SOUND results from VIBRATIONS in the atmosphere or other media. Yet sounds may have differences in pitch, and also differences in qualities of tones, having the same pitch. Its effects are what the spirit of man receives as jarring discords or sweet harmonies, and successions and qualities of tones, that inspire the emotions of courage and hope, or produce solemn and mournful feelings.

Considering the fact that mere variations or modifications in vibratory or wave motions produce differences in effects, we should not think it strange, but should rather EXPECT, that the magnetic influence which excites the electricity in metallic helices would produce currents modified in qualities, by varying the physical condition of those helices; for, by varying the helices, we vary the medium of vibratory or wave motions resulting from polarizations, whose phenomenon is electricity.

It is because the terms *quantity* and *tension*, as applied to electricity, do not express the real distinction in its qualities, that the terms are so generally misunderstood when thus used. The term *intensity* is often misused for power, but the difference is as plain as the difference between *loudness* and *pitch* in regard to sounds. A musical string *conditioned* for a given pitch *does not change that pitch* by a greater or less force of the blow causing it to vibrate; it simply changes its *loudness*. And in regard to electricity, the magnetic force upon the helix determines the power or strength of the induced current; but the intensity or tension, that is *quality*, is determined, not by the amount of magnetic force upon the helix, but by the *physical construction of the helix itself*.

UTERUS, ELECTRICAL CONDITIONS OF. IN ANTEVERSION AND RETROVERSION, OR ANTEFLEXION AND RETROFLEXION.

In each there appears two opposite electrical states, positive and negative, or relaxed and contracted. To meet these two opposite electrical conditions use the vaginal and bell-shaped electrode, or combination, hinged or jointed electrode invented by me and manufactured by the Jerome Kidder Manufacturing Co., 820 Broadway, New York. One-half of the combination electrode is composed of hard rubber, the other half metal, nickle plated. For retroversion introduce the electrode per vagina until it comes in contact with the os uteri, and the metallic part of the bell in contact with the contracted muscles of the uterus, which is easily ascertained by digital examination before introducing the electrode. Use A D Current. Attach the long cord connected with the N. P. to the combination electrode. Then attach the short cord connected with the P. P. to the side sponge cup holder and apply the same to the cerebellum three to five minutes, mild force. Then apply P. P. to the nerve centers between the upper part of the shoulders, five to ten minutes, turning the combination electrode a little at a time one way or another so as to bring the metallic part of the bell in contact with all of the contracted muscles of the uterus. Then apply P. P. over the lumbar region, five to ten minutes. Change cords and attach the short cord connected with the P. P. to the vaginal electrode, introduce the same so as to bring the metallic part of the bell in contact with the relaxed muscles of the uterus, turning the instrument as before while treating. Then attach the long cord connected with the N. P. to the side sponge cup holder and apply the same over the abdomen, five to ten minutes. Then let the patient hold the sponge in her hands five minutes. Then apply the N. P. to the upper part of the spine, five minutes. Treat daily, using cords of equal length

every other day, from one to two weeks. For anteversion treat on the same principles. Then change to cords of equal length and treat the same way three times a week, and every alternate day give general tonic treatment. The following treatment may be given in connection with the tonic treatment for retroversion: Use B D Current. Apply P. P. over the abdomen, especially the lower part. N. P. over the spine, upwardly, ten to fifteen minutes.

Medical Treatment:—

℞.—Elixir Calisago Iron and Strychnia... ℥jv.

Sig.—One teaspoonful before each meal.

The following may be injected per vagina, directed to the relaxed parts of the uterus:

℞.—Permanganate Potassa..... ʒj.

Aqua Pura..... ℥xvj. m.

Inject one ounce on retiring; or

℞.—Tinct. Myrrh..... ʒij.

Aqua Pura..... oj. m.

Inject two ounces of the mixture.

PRESS REVIEWS.

[FROM J. J. LAWRENCE, A. M., M. D., ST. LOUIS.]

No progressive physician can afford to be without this work. **ELECTRICAL MEDICATION** gives the result of fifteen years' clinical experience in the use of electricity as a curative agent. Full of practical and easily followed directions for the treatment of acute and chronic diseases with electricity and medicines.

[FROM E. O. NEIL, M. D., M. R. C. P. S. ENG.]
Member Royal College Physicians and Surgeons, England.

ELECTRICAL MEDICATION.—By A. W. Tipton, M. D., Jacksonville, Ill.

An elegantly bound and handsomely printed work giving the electrical and medical treatment of diseases (acute and chronic), containing many good and practical suggestions as to the application of electricity. The work also gives the general treatment and symptomatology of diseases in a concise and practical manner.

[FROM THE MEDICAL BRIEF, ST. LOUIS, APRIL, 1882.]

ELECTRICAL MEDICATION.—By A. W. Tipton, M. D., Jacksonville, Ill.

This elegantly bound and handsomely printed work, of 256 pages, is really a very valuable book. It contains not only the electrical but also the modern medical treatment of nearly

all diseases. There are no surplus words—it is concise and practical. We advise all our readers to get a copy of this book. Address Dr. A. W. Tipton, Jacksonville, Ill.

[FROM THE JACKSONVILLE (ILL.) JOURNAL, APRIL 26, 1882.]

ELECTRICAL MEDICATION.—By A. W. Tipton, M. D., Jacksonville, Ill. Printed by Chas. J. Johnson, Chicago, Ill.

This in many respects is one of the most remarkable medical works of the age. It is destined to have a large sale, and to bring electricity as a curative agent into greater prominence than it has heretofore secured. No physician can afford to be without a copy of this *unique medical treatise*. Dr. Tipton is to be congratulated upon the success which has attended his efforts to embody in a book of average proportions the results of his careful study and experience in the application of electricity medically, during a successful practice of over fifteen years, as also upon the unqualified endorsements which his work has received from some of the leading medical journals of the country. We understand that the first edition is already about exhausted, and that a second edition is now in press. The work is elegantly printed, and in every regard attractive.

[FROM THE HOMCEOPATHIC NEWS, ST. LOUIS, APRIL, 1882.]

A REVISED AND ENLARGED EDITION OF CLARK'S NEW SYSTEM OF ELECTRICAL MEDICATION.—By A. W. Tipton, M. D., Jacksonville, Ill.

Many are familiar with the smaller edition of this work. The new one comes in fuller form, much enlarged and revised. Many additions have been made in respect to treatment, and we especially notice the insertion of prescriptions, homœopathic and allopathic which may be of service. The homœopathic list is not, however, as full as it might be. The same

general arrangements of the contents is followed in this edition, though each department has been more generally extended. The authors views on the use of the long cord are forcibly stated, and the directions for the use of the positive and negative pole are very concise and clear. Following a statement or general outline of first principles, theory and practice, specific rules are laid down for the treatment of diseases. To those using the electrical form of treatment these prescriptions are especially useful. Physicians desiring to adopt the battery in their practice will find this a comprehensive and practical work. The author is well known as a gentleman of ability and distinction in this department of medicine.

[FROM THE JACKSONVILLE (ILL.) COURIER, APRIL 29, 1882.]

A remarkable volume made its appearance in this city recently. The title of the book is "A Revised and Enlarged Edition of Clark's Electrical Medication," by A. W. Tipton, M. D. The mechanical execution of the work is a model of excellence. It contains the symptomatology of diseases, and specific directions are given for the treatment of a hundred and sixty-five different diseases, acute and chronic, by electricity, followed also by allopathic, eclectic and homœopathic treatment for the same. The author presents the volume, not as a competitor of other systems of electrical practices, but as an independent system. Under the head of "Progress in Electrical Science" we find new views and theories presented not found elsewhere. It is well understood that electricity has been utilized and its importance appreciated. But that this agent has been applied to the healing art, or that it can be, with the effects claimed by the author, is not generally admitted by the profession. But within the last month many of the leading medical journals of the United States, and

some of the most eminent physicians, are giving this volume endorsement and praise; and from our knowledge of the author's wonderful success with the agent (electricity), we might exclaim, "it works in a mysterious way its wonders to perform."

[FROM THE AMERICAN MEDICAL DIGEST, APRIL, 1882.]

ELECTRICAL MEDICATION.—By A. W. Tipton, M. D., of Jacksonville, Ill.

This work, according to the author in his preface, is a revision and enlargement of Dr. Daniel Clark's work on electrical medication, "and was prompted chiefly by a desire to bring this system in its practical bearing more prominently before the medical profession." From reading this work we were impressed with the author's *true discipleship*, and his specific adaptation of electrical medicine to almost every malady to which man is heir. We were glad to notice that the author admitted that electricity would not supplant medicine or the practice thereof in either school; for he supplements the electrical with the medical treatment throughout. Whether the psychological theories advanced are correct as exhibited in the introductory chapters, we must leave to the clergy to solve; but that there are positive therapeutic virtues in electricity we are ready to admit, and are always glad to read any literature on this subject which may tend to further enlighten the profession in the application of this subtle, powerful agent, which works in a "mysterious way, its wonders to perform." We congratulate the author on the appearance of his work, which is a gem, typographically, and we trust will meet with sufficient approval from the profession at large to fully remunerate the author for his labor, and require him at no distant date to give us additional facts in another "revised" and enlarged edition of his unique work.

[FROM THE MINNESOTA MEDICAL MIRROR, CAMBRIDGE CITY, APR. 1882.]

A REVISED AND ENLARGED EDITION OF CLARK'S NEW SYSTEM OF ELECTRICAL MEDICATION.—By A. W. Tipton, M. D., Jacksonville, Ill.

A very finely gotten up work, printed on extra heavy calendered paper and with better than ordinary binding. A glance at the title will fail to attract much attention, from the fact that physicians so universally attach very little importance to the electrical agent in the treatment of disease. This we are convinced arises, to a considerable extent, from their want of knowledge as to the proper method of applying it. Several years ago we made some use of the battery but having no definite conception of its right use, failed, of course, to produce much impression, other than on the minds of the patients. With this imperfect test the electric machine was set aside, though the idea unvoluntarily remained that it ought to possess a great influence over the nervous system at least. We would advise our readers who have not already a copy of this book to get one; a perusal of the preface and introduction will elicit an interest. The very liberal and reasonable deductions of the author are convincing at once, that he is not "riding a hobby" or teaching any peculiar "system", but that his long and proper application of electricity has demonstrated erroneous opinions, and added to the science of treating disease.

He would not have the battery supercede the practice of medicine, but teaches how it may *become a valuable aid*.

[FROM THE AMERICAN MEDICAL JOURNAL, ST. LOUIS, APRIL, 1882.]

A REVISED AND ENLARGED EDITION OF CLARK'S NEW SYSTEM OF ELECTRICAL MEDICATION.—By A. W. Tipton, M. D., Jacksonville, Ill.

In point of binding, paper, print, and general make-up,

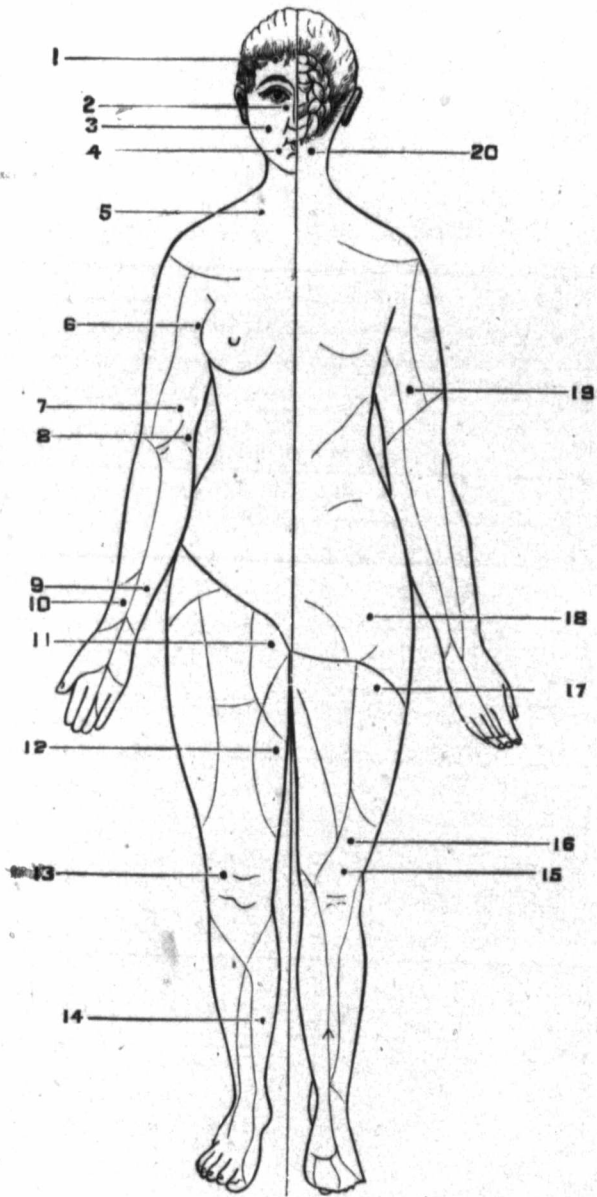
this is one of the finest books I have ever seen. It is a beautiful book. It contains two hundred and fifty pages of reading matter, of the most interesting and practical character. The subject of electrical medication is presented in a different manner from that to be found anywhere else. And no matter how many works we may have upon the subject of electricity, we need this also. It does not teach us so much about the caring for and handling of batteries, but it shows how diseases are controlled and cured with electricity. And the author does not depend upon electricity alone in the treatment of disease. Throughout the entire work, the electrical treatment of each disease is carefully detailed, then the medical treatment is given; and that regarded as the most appropriate to aid in the cure is recommended, let it be allopathic, homoeopathic or eclectic. In this book we have a practice of medicine characterized by variety—electricity, and all therapeutic agents employed by all branches of the profession. While we may not be able to endorse all the author's views, we do know that he makes many practical suggestions and that his medical treatment recommended is exceedingly simple and practical. The book is unlike anything of the kind, and cannot fail to interest any reader.—Endorsed by *The Weekly Medical Counselor*, Chicago.

[FROM THE G. E. MEDICAL JOURNAL, ATLANTA, GEORGIA.]

A REVISED AND ENLARGED EDITION OF CLARK'S NEW SYSTEM OF ELECTRICAL MEDICATION. By A. W. Tipton, M. D., Jacksonville, Ill.

When a man writes a book in which he has something to say, and says that something in a way which carries conviction to the reader that the writer knows whereof he writes, and also presents the topics in clear, perspicuous ideas and forms, we say that man has written a useful book. Dr. Tipton has

accomplished this important work, because he has made the subject of Electrical Therapeutics clearly and comprehensively plain to his readers in the way he has discussed the philosophy and principles of electricity, the nature and value of the different currents, the way they do their work, how they are modified, the varied manipulations of them to obtain results of a special kind and quality, the management of the instrument. In addition to the above we find a common sense and practical view taken of electricity and galvanisms as aids and auxiliary to drug therapeutics in the management and cure of disease, both acute and chronic. This is our opinion of the book before us. We have read it with pleasure, with profit, and recommend it earnestly to our readers. There are some novel ideas in it which we regard valuable. Dr. Tipton has presented these subjects of Electrical Therapeutics in a manner that will not fail to interest every reader, nor has he made a humorous bobby out of it.



KEY TO ANATOMICAL CHART.

-
1. Branch of seventh nerve supplying the frontal muscles.
 2. Branch of seventh nerve supplying levator labii sup.
 3. Branch of seventh nerve supplying zygomatic-minor.
 4. Branch of seventh nerve supplying orbicularis oris.
 5. Phrenic nerve supplying diaphragm.
 6. Musculo cutaneous supplying biceps and brachiales.
 7. Musculo cutaneous supplying brachiales internus.
 8. Ulnar nerve supplying muscles of forearm and hand.
 9. Radial nerve supplying muscles of thumb and fingers.
 10. Ulnar nerve. Palmaris brevis adductor digitorum.
 11. Obturator nerve supplying sartorius and adductor.
 12. Crural nerve supplying adductor longus, etc.
 13. Crural nerve supplying vastus extensus.
 14. Musculo cutaneous nerve supplying flexor digiti.
 15. Popliteal nerve supplying solens.
 16. Popliteal nerve supplying gastrocnemius externus.
 17. Gluteus nerve supplying adductor magnus.
 18. Intercostal nerve supplying lumbar muscles.
 19. Circumflex nerve supplying triceps.
 20. Occipital nerve supplying posterior muscles of neck.

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- D 3 CURRENT MACHINE..... \$15
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- No. 4.—OFFICE AND FAMILY MACHINE, \$18 to \$20
- No. 5.—HYDROSTAT TIP BATTERY, \$27, open \$24
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PRICE: No. 1, \$1.75; No. 2, \$1.50; No. 3, \$1.75; No. 4, \$3.00; No. 5, \$1.50; No. 6, \$3.00; No. 7, \$1.75; No. 8, \$1.50; No. 9, \$1.50; No. 10, \$1.50; No. 11, \$1.50; No. 12, \$1.50; No. 13, \$2.00; No. 14, 75c; No. 15, \$1.50; No. 16, \$1.00; No. 17, \$3.00; No. 18, \$2.50; No. 19, \$2.50; No. 20, \$3.00; No. 21, \$3.00; No. 22, \$4.00; No. 23, \$3.00.

On receipt of price in Post Office Money Order or Draft will forward by Express; or, on receipt of one-fourth price of any machine will forward by Express, C. O. D. balance. Express charges and Collection added.

A. W. TIPTON, M. D.,
JACKSONVILLE, ILL.

KIDDER'S EXTRA APPLIANCES,

FOR

ELECTRO-THERAPEUTIC USES.

The metallic parts of all these Extra Appliances, except the platinum attachments for caustic uses, are finely nickel plated.

Nos. 1, 3 and 11 have handles of polished cherry.

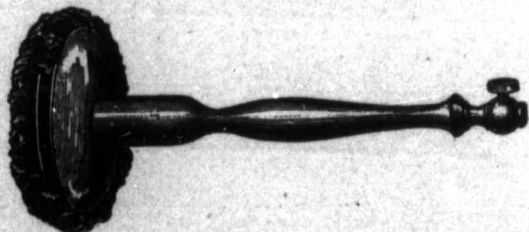
Nos. 4, 5, 6 and 12 have handles or insulated parts of vulcanized rubber.

No. 13 is insulated by catheters.

The handles to all the other instruments are of fine rosewood, highly polished.



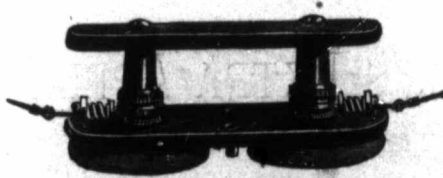
No. 1.—Sponge Holder, with brass cylinder for convenience of localizing one pole while the other pole is in both hands for large surface.



No. 2.—Improved Sponge Holder. To fix the sponge on this holder, unscrew the handle B by turning the *handle itself*. Place the sponge on the outside surface of the lower plate D, and bring the edges of the sponge over the edges of the plate, clasp it with the plate C, and hold altogether by screwing on the handle B.



No. 3.—Side Sponge Holder, to use under a loose gown.



No. 4.—Carbon Sponge Holders, for both the positive and negative electrodes



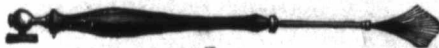
No. 5.—Ear-Electrode with holes at point to sew on small sponge.



No. 6.—Another form of Ear Electrode, with rubber funnel-shaped insulator.



No. 7.—Glass Eye-Cup, to be filled with water.



No. 8.—Metallic Brush for Anæsthesia.



No. 9.—The same, shown with brush pushed within its cylinder for protection when not in use.



No. 10.—Tongue Electrode.



No. 11.—Rectal Electrode.



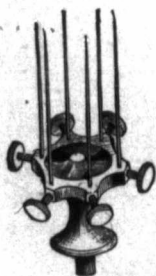
No. 12.—Uterine Electrode.



No. 13.—Bell-shaped Uterine Electrode.



No. 14.—Vaginal Electrode.



No. 15.



No. 16.

Holders of Needles for Electrolysis.



No. 17.



No. 18.

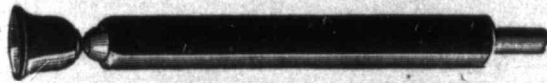


No. 19.



No. 20

Platinum Cutters and Burners to be used with the Galvano-Caustic Battery.



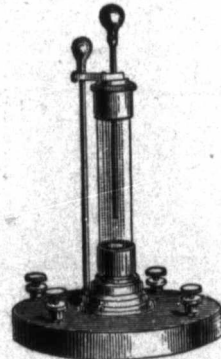
DR. TIPTON'S COMBINATION BELL-SHAPED VAGINAL ELECTRODE.
Price of instrument with holder, complete, \$10.00



No. 21.—Hammond's
Aesthesiometer.



No. 22.—Carroll's
Aesthesiometer.



No. 23.—Rheostat.