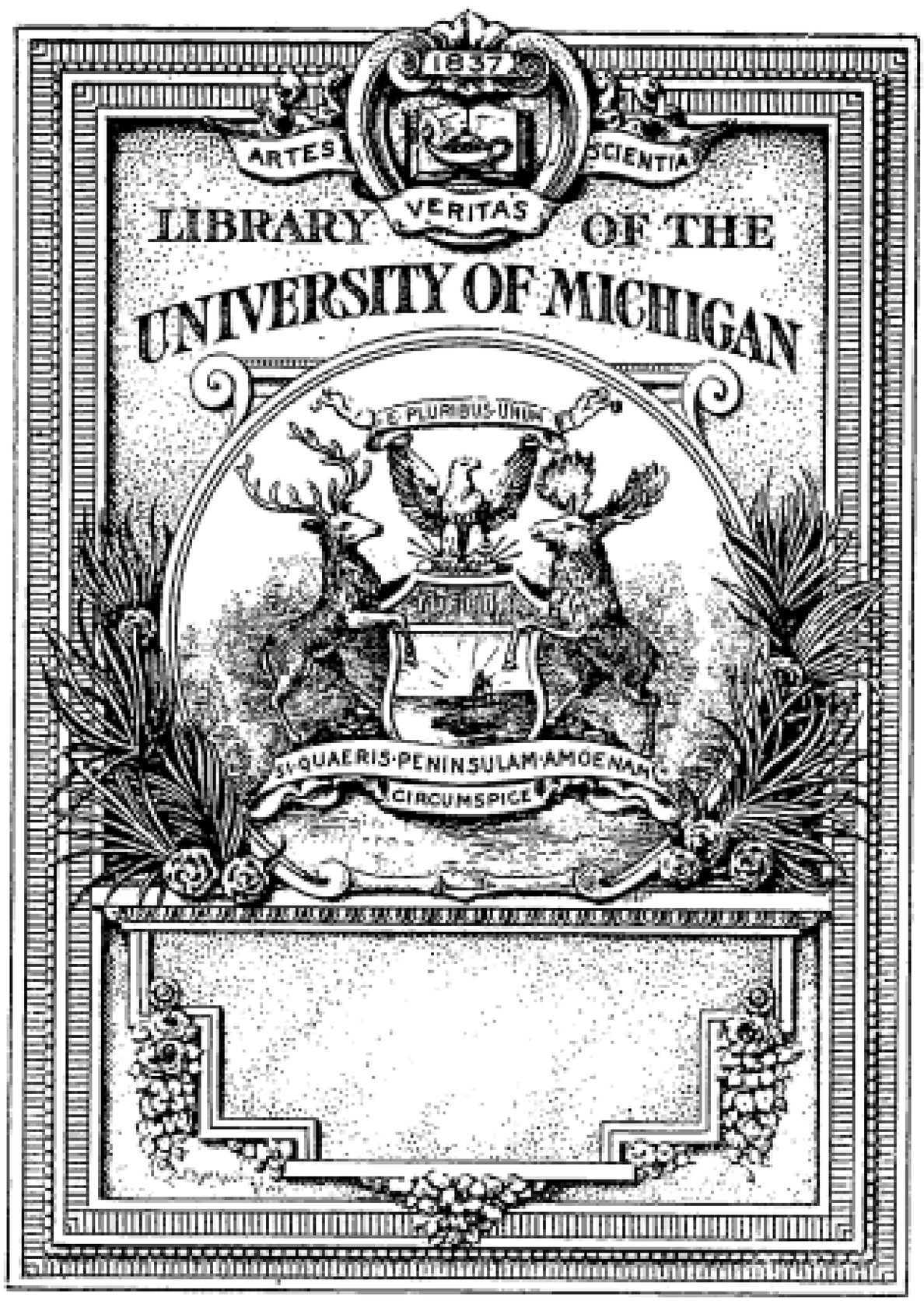
A 576189

Digitized by
UNIVERSITY OF MICHIGAN
Original from
UNIVERSITY OF MICHIGAN



Digitized by
UNIVERSITY OF MICHIGAN
Original from
UNIVERSITY OF MICHIGAN

H 613.5.3
J83a

Digitized by
UNIVERSITY OF MICHIGAN

Original from
UNIVERSITY OF MICHIGAN

41

From Dr Bradford
1 Dec 98

Hom

05

EVIDENCES

80325

OF THE

POWER OF SMALL DOSES

AND

ATTENUATED MEDICINES,

INCLUDING A

THEORY OF POTENTIZATION.

A DISCOURSE BEFORE THE

NEW YORK HOMŒOPATHIC SOCIETY,

MARCH 9TH., 1847,

BY B. F. JOSLIN, M. D.

NASHUA, N. H.:
PRINTED BY MURRAY & KIMBALL.

1848.

Digitized by UNIVERSITY OF MICHIGAN
Original from UNIVERSITY OF MICHIGAN

Digitized by
UNIVERSITY OF MICHIGAN

Original from
UNIVERSITY OF MICHIGAN

DISCOURSE.

GENTLEMEN,

Who, after due study of the writings of Hahnemann and a strict trial of his method of practice, has ever come to the conclusion that Hahnemann was an impostor and a visionary, and Homœopathy a cheat or a delusion? If any honest physician, after a careful trial, ever rejected the Homœopathic practice, he must possess a feeble intellect. As the sceptical portion of the medical profession have not made this examination, their prejudices are entitled to some respect. How shall they be prevailed on to undertake the requisite reading, and those experiments which are still more essential. Many feel themselves fortified in their present position by the testimony of antiquity, or the countenance of their fellow practitioners. Were I addressing such, I would commence with the following

FABLE OF THE ASS AND THE STEAMBOAT.—An ass heavily laden with a sack of letters directed to a distant town on the river, was met on his way by a fox, who apprized him that ease and expedition would both be promoted by transferring his burden to a steamer which had just stopped at the shore.

"This is unreasonable, friend Reynard," said the patient beast; "for my method of transporting the mail has been in operation three thousand years, yours only fifty. It is impossible that the combined wisdom of so many generations should not exceed that of one."

"Your reasoning," replied the fox, "can have no weight, unless there had been a race or races between steamboats and asses during the said three thousand years, and it had been decided that the ass always gained the race and was less fatigued. Now this trial of speed and strength must have been impossible before steamboats were invented."

Whilst the mail-carrier of the old line was staggering un-

Digitized by UNIVERSITY OF MICHIGAN
Original from UNIVERSITY OF MICHIGAN

der the weight of this argument and that of his letters, another ass overtook him, and having overheard the conversation, was enabled to bring timely aid to the confounded disputant.

"Master Reynard," quoth he, "you are not of an age and size rightly to decide such matters. Your facts and arguments may be unanswerable; but they should have no weight with any respectable ass. No respectable and learned ass should ever adopt the new method, until some other ass, still more respectable and more learned, shall have previously adopted it.

"It puzzles my brain," replied the fox, "to apply this rule to any useful purpose. I pity your hopeless condition. The practices of the respectable and learned asses could never be reformed, if each must wait till some ass more learned and respectable than himself should have set the example."

Moral. — The idol of one man is antiquity; that of another is respectability. The former rejects whatever was not in ages before him; the latter, whatever is not in the circle above him. The man who prefers caste to truth, and spurns useful discoveries not sanctioned by the head or the tail of some academy or fashionable clique, can only be pitied. But the man who venerates the shade of antiquity, and in matters even of science and art, is awed into ultra-conservatism by long-established opinion and usage, is entitled to some instruction. He does not consider that the *non-adoption* of undiscovered facts and unheard opinions is not equivalent to their *rejection*. There are many facts, and inferences from them, which former ages neither adopted nor rejected; and simply because they never so much as dreamed, either of the possibility of the facts or of the conclusions to which their future discovery would necessarily lead every sound and unprejudiced mind.

Example. — Homœopathy is fifty years old. The physicians of former ages never rejected the Homœopathic materia medica, for it was not known; and as the physicians who preceded Hahnemann knew but few of the symptoms which medicines excite in healthy persons, they had no means of determining whether medicines always relieve symptoms similar to those which they produce; they never tried this as a general law of cure. They never made any Homœopathic attenuations, and consequently never dreamed of instituting any comparison between their efficacy and that of crude drugs. Homœopathy was never rejected before the time of Hahnemann.

Before stating, in favor of this system, any speculative

Digitized by UNIVERSITY OF MICHIGAN Original from UNIVERSITY OF MICHIGAN

views, I will acknowledge that my own conversion was not effected by them, but by the following experiments. I took the third attenuation of a medicine, and, avoiding the study of its alleged symptoms as recorded in books, I made a record of all the new symptoms which I experienced. When this record was completed, I examined a printed list of symptoms, and was surprised to find a remarkable coincidence between them and those which I had experienced. I at first thought it probably an accidental coincidence. I repeated the medicine, and again found a coincidence equally striking. Another medicine was then tried, with similar precautions and similar results. There was a new set of symptoms, very different from the former, but generally corresponding with the printed symptoms of the medicine last taken. Thus the evidence accumulated, from week to week, until I became thoroughly convinced that such a number of coincidences could not, on the theory of probabilities, be accidental. There were thousands of chances to one against such a supposition. I *knew* that the attenuated medicines were efficient, and the Homœopathic materia medica, so far as I had tested it, substantially *true*.

The above mode of commencing and continuing the investigation, is that which I would recommend to all inquirers. The incredibility of the power of the small doses and of the attenuations, had been my greatest stumbling-block. This being removed by actual and direct experiment, I felt confidence in Hahnemann, and felt justified in making therapeutic experiments, to test his grand law of healing. The result was equally satisfactory, and gave me a firm confidence — which every year's practice has tended to strengthen — in the exact truth and inestimable value of the Homœopathic law, and the superiority of the Homœopathic method of practice over every other system and combination of systems.

My apology for designing to give a discourse mainly theoretical, is that the direct examination of Homœopathy is prevented by speculative objections. If Homœopathy were assailed only by facts, it has a magazine of facts sufficient for repelling the assault. To many minds, the facts of the new school seem incredible, because unsupported — as they think — by analogous facts, and inexplicable on any known principles. Even to the most observant men, these difficulties beset the very threshold of Homœopathic inquiry, and deter them from entering. Could such men be prevailed on to enter, their conversion would be secure. Not so with all. Some would be haunted with speculative difficulties, in spite of the testimony of their senses. A disproportionate activity

Digitized by UNIVERSITY OF MICHIGAN Original from UNIVERSITY OF MICHIGAN

of comparison would require analogies, and excessive causality would never be satisfied without scientific principles. Each case of medical scepticism requires its appropriate curative; which must have some specific relation to the dominant faculties. The man who believes nothing but what he *sees*, will never be cured by *thinking;* and the man who believes nothing but what he spins out of his own brain, "as spiders spin cobwebs out of their bowels," will never be cured by *observation*. Reasoning corrects reasoning. We must cure sceptical minds as we do diseased bodies — homœopathically; and be all things to all men, in the hope of gaining some to the cause of truth.

The three grand theoretical problems of Homœopathy, are: First, Why are diseases cured by similar irritants? Secondly, Why by minute or infinitesimal doses? Thirdly, Why best by medicine in an attenuated state? Or in other words, On what principle are medicines potentized? Of the first problem, I shall not now attempt to give the solution. It never presented any serious difficulty to my own mind, nor is it the principal stumbling-block to persons in general. I shall not stop to inquire, whether the known fact, that diseases are curable by agents which excite similar affections, is to be explained on the principle that two similar diseases cannot coexist, or on the principle that an impression on the vital forces excites them to reaction, or on the principle that the secondary effect of a medicine is the opposite of the primary; nor shall I attempt to consider, whether some of these principles may not in some sense be compatible.

One thing is evident; that is, that two vital actions in every respect similar, must involve the same parts, even to microscopic precision — the same tissues, the same fibres, the same particles. To employ a similar irritant is to meet the disease directly, in its very home, and either coincide with or oppose it, so far as the ultimate and practical effect is concerned. If the similarity is perfect, there can be no new action set up entirely foreign to the disease. As a strict homœopathic practice, then, does not tend to excite lateral movements, it must, as its ultimate effect, bring the system to a point either backward or forward of that to which the disease would have hurried it, but to a point — so to speak — on the same track. In other words, it must stay the disease or accelerate it, make it better or worse. This condition of action enables us and all men to compare the homœopathic results with unaided nature, as well as with the *antipathic* part of the old school practice. When the question is one of quantity, there is less uncertainty than when the

Digitized by UNIVERSITY OF MICHIGAN Original from UNIVERSITY OF MICHIGAN

question of quality is complicated with it. If homœopathic physicians generally made the disease worse, it would be a matter of notoriety. But if their agents have any efficiency, they must make it either worse or better. Let this general defence against the antipathists suffice, until they detect a decided and permanent aggravation — a making of the disease really worse — as the usual ultimate effect of homœopathic treatment. This we challenge them to detect.

Instead of confining ourselves to the defensive, it would be easy to maintain higher ground, and challenge a comparison between *results* obtained by opposites, and those by similars. Cold water transiently allays the irritation of a burn, but leaves it permanently irritable. Cathartics move the bowels, but leave them afterwards incapable of moving themselves. A plausible common sense tells the physicking physician, that he is removing costiveness; reason and experience should teach him that he is only stereotyping it. To relieve pain and nervous irritation, the community are perpetually drugged with opiates and other narcotics, which increase the sleeplessness and nervousness, and even the cough and pain, unless the drug is continually repeated. This last is the usual expedient. The blow has not weakened the disease: if it has not fatally stunned nature, she may eventually effect a cure.

If a patient would know the real effect which a medicine has produced, let him suspend its use. If the symptoms disappear whenever the medicine is taken, and reappear whenever it is omitted, the medicine is doing absolutely nothing towards a cure. Homœopathia can safely appeal to this test; for she uses no mere paliatives. A single homœopathic dose will — after a slight retrograde impulse — move the patient forward on the track of amendment, for hours, days or weeks, according to the nature of the disease, and bring him to a permanently advanced position, from which other doses will carry him forward to perfect and permanent health.

But whilst Homœopathia never sacrifices the future to the present, she, on the other hand, never sacrifices the present to the future: she arrests the most violent and rapid diseases, more forcibly and speedily than any other system.

To show the advantage of giving a medicine, which at the first instant, coincides with the disease, instead of one which at the first instant opposes it, I have deemed it sufficient to appeal to the results, and to give a plain rule for testing the two modes of treatment at every stage.

In regard to another branch of the old school practice, the

Digitized by UNIVERSITY OF MICHIGAN Original from UNIVERSITY OF MICHIGAN

revulsive or alopathic — which excites sufferings dissimilar to the disease — Homœopathia can appeal no less triumphantly to final results, in the most rapid and violent diseases, as well as in chronic ones.

But the comparison of intermediate results, at different stages, is attended with more difficulty, and is more likely to mislead the superficial observer, than in the case of the antipathic treatment. Here comes in the question of quality of disease, as well as quantity. The elements of the problem are heterogeneous, and often concealed. The disease, if apparently cured, is displaced by one or more dissimilar diseases, some acute, some chronic. An emetic cures a headache, and at the same time leaves a chronic inflammation of the stomach. A cathartic removes the contents of the bowels — which in ninety-nine cases in a hundred were doing no injury — whilst the cathartic leaves a chronic inflammation of the mucous lining, and a paralytic weakness of the muscular coat of the intestines. These practices account for the general prevalence of dyspepsia. The multitudinous arms of this polypus are not more nourished by nostrums than by prescriptions called scientific.

With these lateral impulses of the revulsive method, which throw the disease on some other track — and often on different tracks, some of them concealed in dark tunnels — the patient, if a man of intelligence and reflection, will often be led to doubt whether his apparent amendment is really of any advantage. An intelligent layman yesterday expressed to me his conviction, that "patients often find it as hard to get rid of the medicine as of the disease." When the new form of disease is chronic and latent, the patient often submits without complaint, to its future eruptions, as a new dispensation of Providence.

Homœopathy cures a disease without inflicting new ones, acute or chronic. But because the patient feels no explosion of the disease, no laceration of other parts by its fragments, he often doubts whether the medicine has acted. If the evil spirit has not torn him, he doubts whether it has been forcibly expelled.

The immediate morbid effects of a drug, people regard as the proper *working* of the medicine, and common sense — which is often another name for shallow reasoning — teaches them that the more a medicine works, the more it will do. They say, "Doctor, your medicine has not operated."

Experience has led people to expect some morbid effects from medicines. Morbid effects are regarded as the tests of

Digitized by UNIVERSITY OF MICHIGAN Original from UNIVERSITY OF MICHIGAN

energy, without considering whether these have any curative tendency.

If a man rides on a rough road, in a carriage without springs, he is very sensible of the motion, though his progress be only six miles an hour. Yet the jars contribute nothing to his progress. They are wasting the force destined to progression. On a smooth railroad, the passenger, seated in a closed car, gliding at the rate of twenty miles an hour, is scarcely sensible of any progress. To the great movements of the globe we inhabit, we are utterly insensible. Whirled around by the diurnal motion, a thousand miles an hour, or several hundreds, according to our latitude, and shooting along the earth's orbit seventy thousand miles an hour, we suffer no *jars*, we feel no progress. The vulgar eye perceives none; ancient *philosophy* perceived none.

Up to the time of Hahnemann, medical philosophy was equally blind to the curative effects of medicines. Its attention was directed solely to the jarring, the *lateral* movements. If the drug purged, or sweat or vomited, or excited some other secretion or excretion, then, and then only, it operated. The real, the specific virtues, were overlooked. Rational medicine despised specifics, as the excrescences of science. With Hahnemann they constitute the whole structure. With him originated the first general law for the administration of specifics. This is Homœopathy. With his predecessors, every drug was pressed into the service of some evacuating group, or it was nobody and nothing. Even the arch-agent, mercury, was not permitted to enrol itself, without consenting to head a squad of silalogogues, i. e. spitting drugs. Yet this collateral effect is not curative. If mercury salivates *in* curing, it does not cure *by* salivating. If it purges in curing, it does not cure by purging; neither does rhubarb nor jalap nor any other cathartic, under ordinary circumstances. We might as well estimate the power of a steam-engine by the jarring of the boat, or that of a fire engine by the leakage from a hose, as that of medicine by the evacuations. Every motion is not progression; every accident is not proper action.

What a destruction of vital power, what a waste of medicinal energy, by such medical engineering! No wonder they are unable to make small doses operate. I shall proceed to show why the followers of Hahnemann *can* make small doses operate. This exposition will include the doctrine of potentization.

There are four *reasons* why Hahnemann's small doses operate. First, They act *directly on* the disordered parts.

Digitized by UNIVERSITY OF MICHIGAN
Original from UNIVERSITY OF MICHIGAN

Secondly, They act in the *right direction.* Thirdly, Disease renders the *parts peculiarly sensitive* to the appropriate medicine. Fourthly, The power of the medicine is exalted by a *peculiar mode of preparation.*

First: The Homœopathic medicine acts *directly on* the part which requires to be influenced, and not on other parts. It acts near at hand, and not at a distance. This circumstance is always favorable to strength of action, and gives small and near things more energy than great and remote ones. The moon has only the one twenty-eight millionth part as much matter as the sun, yet it has three times as much power to raise the tides of our ocean. The cohesion of one clean bullet pressed against another, will suspend it in spite of the attraction of the whole earth. The one is in contact with the thing acted on, the other is at a distance. This is precisely the relation which the Homœopathic medicine sustains to the revulsive. Revulsive operations are indirect, and often superficial. The machinery of the human body is vastly more complicated than any watch or chronometer, and those parts in which most of the vital processes are carried on, are inconceivably more minute and delicate than the machinery of any time-keeper. To make applications to the skin for an internal disease, is not direct treatment. You would not repair the wheels of a watch by scouring the case. But says one, I go deeper and to the real inside. I purify the intestines. Very well! That is like scouring the brass cap that covers the machinery. It is still a very indirect and superficial expedient. The steam-boiler affords an illustration of the difference between external and internal operations. Some boilers are pervaded by flues. These are mere continuations of the outer surface, as the mucous surface of the intestines is a continuation of the skin. To clear a flue is not cleansing the boiler; so to clear the intestines is not a purification of the system; as the venders of quack cathartics persuade many of the community. It is time for the regular physicians to discountenance such charlatanry.

The medical electricians think they reach the real interior, and apply the force at the right point. It must be conceded, that they use a force which is pervading, and analogous to, if not identical with, the vital forces. But the application of it is necessarily gross and ignorant. They expect to drive a steam-engine by directing a current of steam indiscriminately through all parts of the machinery. Infinitely more preposterous! They expect that a combinatio of engines with an infinite number of pistons, in an infinit-

Digitized by UNIVERSITY OF MICHIGAN Original from UNIVERSITY OF MICHIGAN

variety of positions — some moving too slowly, others too fast — will have its movements harmoniously regulated, by a great current of steam which shall sweep through the whole in one direction. I would warn the Homœopathic physician against listening to the delusive pretensions of medical electricity as now ignorantly practiced, or invoking it as an auxiliary. This warning may be the more necessary, as he is more a vitalist than a materialist, and attributes great importance to imponderable agents. If animal electricity is intimately concerned in morbid actions, it must be in a way so complicated, that all such projects for its regulation are crude and futile.

Homœopathic *medicines* are the only true *regulators* of animal electricity and of the human organism. The Homœopathic physician is the true engineer of this complicated machinery. Its minutest and most important parts are invisible to him, and equally so to every other anatomist and pathologist, the most learned and the most conceited. Not one of them, in his minutest dissections, has ever seen the real inside of nature, the real vital machinery, the elementary parts, much less the all important — the elementary — vital actions. Both are meta-microscopic. I would not found systems of vital engineering, upon such superficial examinations, nor expect perfect success in any attempt to repair parts so inconceivably delicate, with instruments as coarse as crude drugs. The Homœopathic physician can regulate the invisible machinery of this engine. His tools are delicate and appropriate, and he has learned the law which regulates their application to invisible parts. The infinitely wise and benevolent Contriver has furnished the engine with indices — called symptoms — which point to the particular manipulations required for its regulation. To complete the manifestation of his goodness in regard to this, he has, in the course of his Providence, and through the teachings of Hahnemann, instructed mankind in the use of these indices. To attempt to cure on theoretical principles, regardless of the paramount authority of these indications, is as unwise as to seek the hour of the day by attempting to determine by algebra the position of the wheels of a clock, instead of listening to its striking or looking at its hands. The remedy, selected in accordance with the unerring index, acts upon the very parts which require to be influenced. This contiguity, or proximity of the agent, would of itself render a small dose sufficient and a large dose unsafe.

Had it been customary with the older surgeons to extract *splinters* ftom the fingers by pounding them with a *hammer*,

Digitized by UNIVERSITY OF MICHIGAN Original from UNIVERSITY OF MICHIGAN

and some one had ultimately hit upon the expedient of doing it with a needle, should we not have heard a great outcry against the innovation? Says the old orthodox surgeon, "This small-dose system has no efficiency. I have been pounding here for two hours; and the splinter has barely started. My instrument is efficient, as you have evidence in the brusies. Do you think to dislodge the splinter with your insignificant homœopathic needle point? It is contrary to the experience of three thousand years; it is contrary to all analogy. I would as soon think of harnessing a musqueto before my gig. I have deliberately adopted this maxim, To believe nothing which is incredible, except on evidence which is overwhelming." The surgeon of the new school replies, "Your instrument is ponderous and powerful, but not efficacious. Its force is worse than wasted on the living and distant parts. You might pound the patient to a jelly, before the splinter would come out. If you happen now and then to hit it, you are just as likely to drive it in. My instrument is small but effective. The whole secret consists in applying the force at the right point, and in the right direction."

Allopathia applies her force at the wrong point; Antipathia, in the wrong direction; Homœopathia applies hers at the right point and in the right direction. This *right direction* is the second reason why a small dose suffices. For the proof that the Homœopathic direction is the right one, I rely mainly upon the testimony of experience. When treating of the opposite laws of cure, I have shown that when we at first move the system a little, in nearly the same direction, the ultimate results are incomparably better than when we attempt instantly to reverse its motion.

There are no absurdities in this. Analogies are in its favor. Medicine is the small *guiding* force; nature the strong impelling power. Nature might impel to destruction, if medicine were not at the helm. The ship's course is not reversed by stopping the wind, or opposing it, but by using it. The pilot does not attempt to *back* his ship against the wind, but turns her about by moving a few moments, nearly in the same direction. Suppose it were necessary to bring back into port, a ship sailing directly away from it before a strong breeze. What would be thought of the captain who should keep the sails and the helm in their old position, and direct all hands to apply oars, and with all their feeble might, paddle the ship back against the wind, stern foremost. I should infer, first, that he had been educated in the antipathic school; and secondly, that he had never read, that "ships,

Digitized by UNIVERSITY OF MICHIGAN Original from UNIVERSITY OF MICHIGAN

though great, and driven by fierce winds, are yet turned about by a very small helm."

Thirdly, The efficacy of a small dose — and the danger of a large one — is increased by the peculiarly *sensitive condition of disordered parts*. Suffering with a morbid action, similar to that producible by the medicine, they possess a preternaturally acute sensibility to its influence.

It is unnesessary to illustrate and confirm this principle by examples. They are obvious and numberless. The scalded hand is pained by a distant fire, the inflamed skin by slight percussion, and the inflamed eye by light. The agents, which now with feeble intensity, can severely aggravate the irritation, could, if applied with greater intensity, have originated the inflammation in the healthy parts. But the force which can barely aggravate the existing irritation, could not have irritated the parts when in their normal condition. That kind of irritant which, in the locality in which it acts and in the phenomena which it developes, resembles the cause of any disease, is found by experience to be its proper curative. The excitement which this, given in small doses, produces, is soon followed by melioration of the disease, and ultimately by permanent cure. The dose administered on such a principle should be exceedingly small, and the action of such a dose, given under such circumstances, is not incredible.

We sometimes hear of men — in sound health — going into the chamber of a patient, and swallowing a *tumblerful* of a solution which a Homœopathic physician had left to be administered in teaspoonful doses. This is a common sense — that is to say — a shallow — argument against Homœopathy, by very green philosophers. Suppose such a man should visit a patient whose eyes were inflamed, and exceedingly intolerant of light. He finds him in a dark chamber which has sixty-four panes of glass; but the patient declares, that it irritates his eyes to uncover a single one of them. The visitor declares this to be incredible and absurd; and proves to his own satisfaction the truth of his own position, by raising every curtain, and finding that his own eyes are not injured by the light. If the weak minded and uninstructed should be gathered into a school of elementary science, the man who swallowed the sixty-four teaspoonfuls should be placed in the same class with the man who uncovered the sixty-four panes. I know not his residence, but hope he will make it known before such a charitable institution is established.

The fourth reason why Hahnemann's small doses are effi-

Digitized by UNIVERSITY OF MICHIGAN Original from UNIVERSITY OF MICHIGAN

cacious is, that the power of the medicine is developed or exalted by a *peculiar mode of preparation.*

The *three grand doctrines* of Homœopathy are; First, The law, *Similia Similibus curantur* — Medicines relieve affections similar to those which they are capable of producing; Secondly, The doctrine of *dose* — Small doses are most safe and efficacious; Thirdly, The doctrine of *potence* — Medicines are peculiarly powerful after being subjected to sufficient friction or succession with a suitable quantity of some inert substance.

These doctrines have naturally *grown* out of *each other* in the above order. The primary action of the medicine coincides with the disease, and aggravates it. Hahnemann, observing these aggravations to be severe, protracted and dangerous, gradually reduced the dose to a safe point. The determination of this was purely a matter of experience. New experiments were essential, experiments in the use of medicines coinciding with diseases. Allopathic and Antipathic experience, with medicines acting on sound organs to produce revulsion, or on diseased organs in direct opposition to the disease, could never determine the appropriate Homœopathic dose. From a revolution in the therapeutic law, emanated a revolution in doses. From this revolution in poposology, emanated the grand discovery of potentization or dynamization. By the doctrine of potence, as discovered by Hahnemann, I mean no physical theory, but only a generalization of practical facts in relation to the reality of the increased power manifested by medicine after having been subjected to Hahnemann's processes. After stating the facts, I shall attempt to give a theory.

When the one-hundredth part of a grain of an insoluble substance was to be administered, the most convenient method was, to mix one grain of it intimately with ninety-nine grains of an inert substance, like saccharum lactis, and subsequently divide the mass into one hundred parts. Water, or alcohol — which in minute quantities is almost equally destitute of medicinal properties — served a similar purpose in reducing the dose of liquids and soluble substances. The diffusion of one drop of medicine through ninety-nine of alcohol afforded a ready and exact method of administering the one-hundredth part of the former.

But it was soon discovered that no rule of three, no simple doctrine of proportion, embraced the true theory of doses. The one-hundredth part of a grain thus prepared — instead of retaining only the one-hundredth part of the power of the original grain — had a pathogenetic or symptom-pro-

Digitized by UNIVERSITY OF MICHIGAN Original from UNIVERSITY OF MICHIGAN

ducing power, not many times more or less than the whole grain, and a disease-curing power greater even than the whole grain. I state the law thus indefinitely, because the ratios differ for different medicines; and, from the nature of the subject, cannot be determined with great precision for any.

Fortunately for humanity, there is one power of a drug which may be more nearly approximated by the doctrine of proportion, by the rule of three; and that is, the poisonous, the *death-producing* power.

Much of the scepticism that prevails among physicians in regard to the efficacy of small doses, arises from confounding the totally different laws which regulate *curative* and *poisonous* effects. If — as has been usual in the old practice, in many cases of severe disease — remedies were administered in doses which approached the extreme limits of safety, then to double *such* a dose might make the danger from its operation at least two-fold. Conversely, to reduce a poisonous dose by one half, might remove at least one half of the danger; but it by no means follows that another bisection would abstract one half of the salutary efficiency. In the case of specific medicines — and this is the only class which Hom-œopathy recognizes — the curative power diminishes much less rapidly than the dose, even in case of crude substances. Of this every old-school physician is aware, in regard to the alterative action of mercury.

That power is nearly proportional to quantity, is a proposition which might be entertained by the chemist or natural philosopher, by the mere physici*en* — the man engaged in considering physical and chemical properties or the mutual actions of inorganic matter — but not by the physici*an*, the man conversant with medical properties, with actions on living bodies. In the mechanical and chemical arts, one pound or one grain of any substance has only the one-hundredth part of the effect of one hundred. The doctrine of the proportionality of power to quantity seems on a partial view to be confirmed by an experience almost universal. Hence the Hahnemannic discovery of the amazing efficacy of infinitesimal doses, has to contend with a general and deep-rooted prejudice, especially among those whose studies have been confined to the properties of dead matter. The immense power of infinitesimal doses is almost equally incredible to the physician, unless he has tried his medicines in the potentized form.

The preparation of minute doses led to attenuations — that is, preparations containing little medicine in a given bulk. The first solution or trituration prepared by the pro-

Digitized by UNIVERSITY OF MICHIGAN Original from UNIVERSITY OF MICHIGAN

cess above described was called the first attenuation. The second was prepared from the first, as the first was from the crude article. The original purpose for which the trituration and shaking were employed, was to produce a uniform diffusion. On trying these preparations as medicines, Hahnemann unexpectedly discovered that they were peculiarly powerful. Hence they were called *potences* or dynamizations. Independently of all speculative reasoning, the experience of Hahnemann and other Homœopathic physicians has demonstrated, First; That a given weight of any drug in a *dilute* state, possesses a greater therapeutic power than the same weight of it in the crude or concentrated state. Secondly; That *Hahnemann's method* of diffusing a medicinal substance through a non-medical one, by successive steps or stages in regular progression, and with mechanical force, *developes more curative powers* than is developed in an equally dilute mixture or solution prepared in the ordinary way.

Physicians of the old school have made observations confirmatory of the former proposition, especially in relation to *mineral waters*. Prof. Daubney, of the University of Oxford, alludes to the unquestionable efficacy of certain mineral waters in England, in connection with the fact of their containing only one grain of iodine in ten gallons of the water. He adopts an extremely improbable and unscientific hypothesis, viz., that the iodine imparts its qualities to the other substances with which it is associated.

The truth that Hahnemann's processes are peculiarly efficient in the development of medicinal power, is established by the experience of thousands of intelligent and scientific physicians, who have had a thorough and practical acquaintance with the old medicines and the old method of treating diseases. Believing that theoretical objections prevent many from testing Hahnemann's potences, I shall attempt to give a

THEORY OF POTENTIZATION.

My view, expressed in the most general terms, is, that *Hahnemann's process developes the power of a drug by effecting a comminution*, and in no other way. This is the whole secret of that incredible power which experience proves his preparations to possess. Trituration and mixture with saccharum lactis promote this development, just so far as they promote comminution, and no farther. The successive steps of centigrade dilution promote this, by subjecting every particle of the medicinal substance to the mechanical, tearing-asunder operation of the non-medicinal one.

Digitized by UNIVERSITY OF MICHIGAN Original from UNIVERSITY OF MICHIGAN

One man, by Hahnemann's process, can, in a single day, effect a greater comminution of a substance, than could have been effected in a *direct* mixture and trituration, by the combined labor of the whole human race continually operating since the creation of Adam. The labor that built the pyramids is nothing in comparison to that of preparing even the eighteenth potence by such a process, that is, by thoroughly triturating one grain with a sextillion of grains. By Hahnemann's process, the eighteenth trituration is prepared by one man in eighteen hours, one hour being sufficient at each stage for a thorough trituration.

The whole world could not divide a medicinal powder so minutely, either by triturating it with one mass of saccharum lactis, or by triturating it by itself. For in the first case the labor would be enormous on account of the bulk. In the last case, the comminution would attain a limit, and the medicine would be left coarse compared with Hahnemann's.

To triturate one grain of medicinal powder with ninety-nine grains of a hard inert powder, like saccharum lactis, effects not merely a wider separation of its original component masses, but a *division* of those masses, and a division more minute than would be practicable by any amount of trituration of the medicinal powder per se. In subjecting one grain of the resulting powder to a similar operation with ninety-nine grains of saccharum lactis, in order to obtain the second trituration, we render the groups of medicinal molecules still smaller than in the first trituration. In forming still higher triturations, a reduction in the size of the groups of medicinal molecules must be effected by each successive operation.

The philosopher will not find it difficult to believe, that this division of the medicine might take place many thousands of times, without reducing it to the indivisible particles — the proper atoms — if such exist.

What effect may such division produce in the properties of a substance? This is an inquiry interesting both to the physician and the philosopher. The philosophers of future times will gratefully acknowledge their obligations to Hahnemann, for opening this new field of investigation. It is the destiny of Homœopathia, not only to effect a glorious revolution in the art of healing, but to lead to new views of the constitution of matter. She is to become the handmaid of physical science, as well as the mistress of practical medicine. Should the great thinkers and experimenters of the age, be once prevailed on to give to the alleged facts of Homœopathy that serious consideration, and that practical exam-

Digitized by UNIVERSITY OF MICHIGAN
Original from UNIVERSITY OF MICHIGAN

ination, which the testimony now existing in favor of its alleged facts, would induce them to give to any accredited physical science, and should they ponder upon the physical aspects of this new science, a vast amount of curious truth in regard to the laws of molecular action might soon be elicited.

Most physicians have practically accorded some virtue to *comminution*. Else why do the pharmacopœias direct a small quantity of opium and ipecac. to be triturated with a large quantity of sulphate of potash, a salt which they regard as inert, but valuable in *Dover's powder*, by its hardness, in effecting the comminution of the opium? They have not so distinctly acknowledged its value in the comminution of ipecac., nor reflected on the mechanical importance of great mass in the disintegrating agent. But still, they are generally satisfied, that there is some peculiar charm in the pulvis ipecacuanhæ compositus, and that its effect is very different from that of its components, separately triturated and simultaneously administered.

The old materia medica furnishes a striking instance of latent power developed by comminution, in the instance of *mercury*. Quicksilver, or pure mercury, when in mass, is acknowledged by the old school to be an *inert* substance, and when swallowed by ounces to produce, usually, no other than a mechanical effect.

Yet this inert substance is the active ingredient of the pilulæ hydrargyri, the blue pills. Latent mercurial power is here developed, by triturating the mercury with two or three times its weight of conserve of roses, or some mixture containing sugar, starch or mucilage. The mercurial globules are rendered invisibly small; and this minuteness is the secret of their activity.

The same explanation applies to those few cases in which some mercurial effects have been detected after the use of large quantities of the pure metal in mass. It is easy to believe that a certain portion might become *comminuted in the stomach* or intestines; especially since it has been discovered, that saline solutions, when placed in a bottle with mercury, divide it into globules. These are coarse compared with our potences, but vary in size with different salts, as hydro-chlorate of ammonia, sulphate of potash, &c.

Even on the supposition that oxidation could take place in forming blue pill, the principal or only cause of the activity would be comminution; as is evident from the similarity of the different mercurial preparations, when given in small doses — the only case in which the proper specific effects can be eliminated and determined. Even the old-school

Digitized by UNIVERSITY OF MICHIGAN
Original from UNIVERSITY OF MICHIGAN

physicians give blue pill, calomel and corrosive sublimate, almost indiscriminately when they aim at proper mercurial effects, by means of small doses. If so active an agent as chlorine is not capable of masking or essentially changing the mercurial power, what could be expected of three or four per cent. of oxygen, except to favor the comminution? In regard to exaltation of proper mercurial power—exclusive of caustic, cathartic and other extraneous properties — chlorine can act on no other principle. In the smaller doses and higher attenuations of the new school, the similarity of different mercurial preparations is still more manifest, even with that nice discrimination of medicinal properties which is peculiar to Homœopathy. The old school uses mercury much oftener, but knows much less about its medicinal properties.

Where is the evidence that the mercury of blue pill is oxidized? What chemist has detected the oxygen? If it existed, chemistry could separate and exhibit it. No one has pretended to do this. The pharmaceutist can urge nothing but *presumptions*. Murray says, "There is every reason to believe that an oxidation of the metal is effected, and that the medicinal efficacy of the preparation depends on this oxide. Quicksilver, in its metalic state, being inert with regard to the living system, the activity of the preparation itself is a presumption of this; but it is farther known, that by agitation with atmospheric air, quicksilver affords a portion of a grey powder, soluble in muriatic acid, and which must therefore be an oxide, metalic quicksilver being insoluble in that acid." These are his reasons. They are founded on two false assumptions; the first, that the comminution of a substance can have no effect on its medicinal activity; the second, that comminution can have no effect on its solubility. At the same time he inconsistently alleges, that it is sufficient to effect its oxidation, even when the parts are "divided by the interposition of any viscous matter." If comminuted globules, when perfectly naked, cannot be dissolved in a powerful acid, what reason is there to suppose that when enveloped in a viscid substance, almost impermeable to air, they can readily combine with atmospheric oxygen? One would suppose such an envelopment an awkward expedient for effecting their oxidation.

The *color* of blue pill affords no evidence of oxidation. Color, in numberless other instances, depends on division and mode of aggregation, without any change of composition; as we see in substances chemically identical, such as snow compared with water, and charcoal compared with diamond. Again, the discoloration of mercury is not pro-

Digitized by UNIVERSITY OF MICHIGAN
Original from UNIVERSITY OF MICHIGAN

portional to the duration of exposure, but to the amount of friction, and commences almost instantaneously when the first attenuation is formed by a rapid machine. Such should not be the facts, if the discoloration depended on oxidation.

That mercury *will* in certain cases produce its specific effects *without oxidation*, is the opinion of the latest and most respectable writers on materia medica and chemistry. Pereira relates that the *vapor* from several tons of mercury in the hold of a vessel, salivated two hundred men, and destroyed all the dogs, sheep and poultry on board, and even the mice. He says, in opposition to those who had supposed an oxidation, that he "believes with Buchner, Orfila and others, that metalic mercury, in the finely divided state in which it must exist as vapor is itself poisonous."* Here is a distinct recognition of the power of pure mercury to produce the specific effects of blue pill. That these effects were poisonous, was owing to excessive dose. Hahnemann has taught us how to develope curative power by a still finer division, and to cure the most violent disease in a man, by a dose that would not injure a mouse. Pereira, in another passage, with some inconsistency refers to the occasional effects of masses of mercury in the bowels as resulting from oxidation. The Homœopathist, who knows how small a quantity will act, will find no difficulty in attributing them to partial comminution; especially as there may be present some saline or other substances which conduce to the detachment of globules.

Graham, one of the highest and latest authorities in chemistry, alludes to one kind of medicinal mercury which is demonstrably a pure metal, and to mercury triturated with fat, syrup, &c.—as in forming mercurial ointment and blue pill—as undoubtedly existing in a state of *division merely*, and not of oxidation. The passage is this. "The salts of the red oxide, are reduced to the metalic state by copper and more oxidizable metals, and by the proto-compounds of tin. The precipitated mercury often presents itself as a grey powder, in which the metalic globules are not perceived, and remains in this condition while humid. Mercury in this *divided state* possesses the *medicinal qualities* of the milder mercurials, and has often been *mistaken for black oxide*." * * "There can be *no doubt* that it is in this *divided* state, and *not* as the black *oxide*, that mercury is obtained by *trituration* with fat, turpentine, syrup, saliva, &c., in many pharmaceutical preparations."†

---

*Pereira's Materia Medica, p. 585.
†Elements of Chemistry, by Thomas Graham, F. R. S. L. & Ed. p. 448.

Digitized by UNIVERSITY OF MICHIGAN
Original from UNIVERSITY OF MICHIGAN

The grey powder above alluded to, will run into liquid mercury when the water evaporates. The invisible globules require for their permanent preservation a coating less volatile, as oil. This is a proof that the oxidation of mercury does not readily take place, even in this state of minute division. This also teaches us the actual function of viscid substances, in the blue pill mass, and unguentum hydrargyri. It is, to divide, and keep divided.

Hahnemann's process effects and preserves in the globules, a separation which is wider compared with their diameters, and a division inconceivably more minute, and consequently enhances — to an extent never before conceived of — their salutary energies.

If physicians in all ages had given mercury in no form but that of undivided quicksilver, and in half pound doses, they would at this day ridicule the man, who should pretend that he had seen powerful alterative effects from the occasional repetition of three or four grain doses of blue pill, each containing one grain of divided mercury. We can conceive with what sincere contempt, those old-school, half-pound prescribers would have viewed such pretensions, when put forth by a few individuals, and with what affected contempt and half-concealed indignation, when the new doctrine and practice were rapidly overspreading the civilized world. They would say, "It is contrary to the experience of thousands of years, to all analogy, to all reason. Away with your transcendental, infinitesimal nonsense! It is well-known that mercury acts only by its mechanical properties —its fluidity and weight. Half a pound will force its way through the bowels, will remove obstructions and purge off the vitiated secretions. You will never clear the system by your grain doses."

To many a conservative champion of old drugs, we might say, This is your portrait and no caricature. "Name changed, the fable speaks of thee." You ridicule the alleged power of Hahnemann's comminuted mercury, simply because you and your predecessors have never tried mercury in a state of more minute division than that in which it exists in blue pill, or hydrargyrum cum creta. If you have developed latent power, by reducing it to globules of a certain degree of minuteness, why may not he have increased the power on the same principle, by rendering the globules still smaller? What you have imperfectly done with mercury, he has done to an extent inconveivably greater, with all his medicines. Your most comminuted medicines are coarse compared with his.

Digitized by UNIVERSITY OF MICHIGAN Original from UNIVERSITY OF MICHIGAN

Some have gratuitously alleged, that Hahnemann's doses may answer for Germany, but not for the United States. It seems that according to some undiscovered facts, or for some unspeakable reason, the excitable Americans require large doses.

Others have argued, that the small doses can have little effect in Germany; because a man in that country once swallowed a jack-knife, and was not killed by it. As the allegation of the first party is on a par with the argument of the second, I leave them to settle their dispute, so far as it relates to medical geography.

If I may be pardoned for treating the last party's argument with all the seriousness with which it appears to have been offered, I would say; It has three fallacies. It confounds mechanical and vital effects, regarding them as varying in the same ratio; it confounds hurtful and curative effects, regarding them as varying in the same ratio; and it confounds the effects of fine powders with that of dense masses.

We might say to the whole class of similar reasoners, The pebbles in a turkey's gizzard are infinitely less coarse compared with your medicines, than yours are compared with ours. We find finely divided quartz, i. e. silicea, to be a powerful medicine. You deny it for no better reason, than that its *coarser* forms are insoluble and inert. You appreciate only the chemical composition, and neglect the mechanical condition. Your blind and headlong philosophy jumps to a conclusion over the wide gulf that separates the massive integral from the inconceivably comminuted.

This kind of philosophy is a hobby extremely useful for riding over facts. Some Grecian genius invented her for that purpose. Since Bacon exposed her defects, she has been in little demand except in the old medical school — a school however that can boast many true followers of Bacon, and wise observers of nature.

A practical physician, of the Baconian stamp, once remarked sarcastically, that he knew of "nobody that had so much leisure to study philosophy, as a *sitting goose. She had nothing to do, but to sit and think.*"

The old school is now engaged in this dignified and sublime process of *incubation.* She is taking precisely this method of hatching truth, and unhatching error. With an obstinacy and perseverance worthy of a better cause, and with eyes closed to surrounding nature, she sits on the nest and thinks; she sits and broods over lifeless stones — mistaken for eggs — in the fond hope of a progeny, which shall one

Digitized by UNIVERSITY OF MICHIGAN Original from UNIVERSITY OF MICHIGAN

day march forth upon the earth, and drive the young Homœopathic chickens back into the shell. Without stirring from her nest to examine the living creatures around her, this sedentary animal has, by the mere inherent power of reason, by long meditation, arrived at the conclusion, that those creatures are sheer phantoms. Without experiment, she has, by the mighty power of sitting without movement, and thinking with closed eyes, demonstrated that Hahnemann's egg will never hatch. Moved by compassion for her hopeless condition, and the disappointment in which her maternal solicitude must eventuate, in vain do we offer her a real egg, for *actual trial.* She rejects the proffered treasure, and repulses the benevolent donor with hisses of contempt and indignation. What has she to do, but to *sit and think?* If any one disturbs this calm and philosophical repose, and urges her to action and vision, what has she to do, but to *hiss?*

That doses of Hahnemann's attenuated medicines possess inconceivably more power than equal quantities of crude substances, is demonstrable by *experience.* This truth can never be shaken by any theoretical objections, or any inability of its advocates to explain its reasonableness. If nature presented nothing analogous, this one fact would still stand unshaken. But there are

Reasons why Comminution should develope Therapeutic Power. — To break a body into fragments increases its *surface.* This augments with every succeeding fracture. A pebble of a grain weight has an immense surface when reduced to an impalpable powder, by simple friction in a mortar. But were it converted into some of the high, and inconceivably fine, preparations, by Hahnemann's process, the stony surface alone — independently of the sugar — might exceed the surface of the globe we inhabit.

The old-school physicians know nothing of the effect of such expansion; they can allege no experience. They cannot deny that such expansion may develope valuable properties in silex and other apparently inert substances, and render active drugs infinitely *more medicinal*, and infinitely *less poisonous* than in the crude state in which they administer them.

Philosophy can allege no reason against this development, exaltation or modification of properties. *Physical science* presents many *analogous phenomena.* — A plate of mica is rendered electrical, by splitting it into thinner laminæ. The free electricity of a body is confined to the surface. The interior contains none. A hollow prime conductor can receive and retain as much free electricity as a solid one of the same

Digitized by UNIVERSITY OF MICHIGAN Original from UNIVERSITY OF MICHIGAN

superficial extent. The quantity of electricity which a given body can receive may be indefinitely increased. When a large solid ball is divided into smaller ones, much of what was interior becomes surface, and the same weight of matter can receive more electricity. A magnetic bar has no apparent magnetism in the interior, and none at the middle of its surface; but when broken in the middle, it there becomes magnetic, instantly and spontaneously. A collection of small bars at some little distance from each other, is susceptible of being rendered more powerfully magnetic than one large bar of the same weight: in other words, small magnets can be made more powerful than a large one of the same size.

I would recommend these analogies, as "aids to reflection" for those closet speculators, who, averse to the labor of Homœopathic experiment and the light of direct observation, are sitting quietly in their shady rooms, pondering over the a priori improbability of naked facts, and, after the legitimate period, bringing forth the conclusion, that to make power out of littleness, is contrary to all reason and analogy.

A bundle of rods has been regarded as an emblem of associated strength. But mechanical notions might often mislead in physics and therapeutics. In drawing offthe electricity of a prime couductor, a single wire directed toward it at a certain distance, may have a hundred times as much power as a compact bundle of thick wires. The single point is put in a favorable state by induction; but the neighboring points by counterinductive influence mutually tend to *neutralize the action* of each other. The electroscope shows a striking contrast between the power of a solitary point, and the comparative inefficiency of many. But when the wires of the fasciculus are widely separated, and presented simultaneously, they no longer occasion this mutual neutralization, and their combined efficiency will be found to have increased, a thousand-fold or more according to their number and mutual distance. The round numbers above employed are not to be understood as the result of any calculation. Instead of exaggerating, they are far within the limits of what could be realized.

The above facts in relation to pointed conductors, and the neutral zone of a magnet, show that certain *properties* possessed by small groups of molecules are removed, *masked*, or rendered latent, by the *proximity* of similar groups. They show that properties or powers are created or *developed* by the *division* of substances, or the separation of the parts of a mass, and again destroyed or rendered latent by the reunion of those parts.

Digitized by UNIVERSITY OF MICHIGAN Original from UNIVERSITY OF MICHIGAN

I believe this physical principle to be extremely comprehensive and important in its applications, and to afford a key to the explanation of that astonishing development of power which takes place during the preparation of Hahnemann's attenuations. In the crude state of drugs, the medicinal power of any particle of the drug is weakened or annihilated, by the presence of many similar particles in its immediate vicinity; the particles at the *surface* being the only ones which are not thus surrounded, and consequently the only ones which possess *activity*. If a medicinal drug is by solution divided into molecules sufficiently small to be admissible into the smallest bloodvessels, and is in that state introduced into the blood, and glides along the inner coats of the vessels, making its specific electrical impression on the nerves, I believe it would be only the superficial parts of each molecule that would exert any action. The interior parts would be powerless, like the interior of an electrical ball or the middle of a magnetic bar.

This want of action would not be from want of *contact*. If absolute mathematical contact were requisite, no particle of matter could ever act on another. Neither nature nor art has ever brought two particles of matter into strict and absolute contact. That degree of proximity which produces repulsion, cohesion, affinity, or any other physical, chemical or vital action, that is not manifested at sensible distances, is called contact. When we bring the hand so near a body as to feel repulsion, we say it is in contact. This case affords man his primary idea of contact. When two polished leaden balls are by mutual pressure made to cohere, we are sure there is contact, because we felt repulsion, both prior and subsequent to the coherence. Yet there is no absolute contact in these cases. By a still stronger pressure, the hand may be brought still nearer the ball, the balls still nearer each other. All action is at some distance, though that distance is sometimes infinitesimal.

The surface of a medicinal particle may act when within a certain distance of the nerve; the whole interior might be inert, though it were brought much nearer the nerve than the surface is when the surface acts.

If this is so, it explains why *division gives power*; for it gives greater surface. If we reduce the diameter to a thousandth part, we increase the total surface a thousand-fold, if to a millionth a million-fold, &c.

Of all artificial methods of minutely dividing matter, that of Hahnemann is the most efficient; and effects a comminution otherwise unattainable by art. Why then is it in-

Digitized by UNIVERSITY OF MICHIGAN
Original from UNIVERSITY OF MICHIGAN

credible that it should have developed powers never before dreamed of? Who can say that if ponderable matter were made sufficiently fine, it would not exhibit as astonishing powers as light, caloric or electricity? Who can say that these imponderable agents do not derive their activity from that very circumstance?

The higher attenuations are, in one sense, *imponderable* agents. Their medicinal part has no appreciable weight.—Like light, caloric and electricity, they possess great activity. Like them they can never accumulate in the system in ponderable, poisonous masses. Like heat and electricity, they escape as readily as they entered. They leave none of their material to clog or corrode the machinery.

A man betrays great ignorance, who accuses an acknowledged Hahnemannian of charging the system with poisons or with leaving it *charged* with anything. He might as well suppose that a man lately arrived from a hot and distant country had, during his residence there, become more and more charged with heat, and had brought an excessive quantity of it with him; or that a metallic conductor by the frequent transmission of electricity, becomes thereby charged with lightning; or that a three days' speaker in Congress must sit down full of wind; or that a steam engine by long working becomes charged with steam, or an undershot wheel with water.

These last agents are analogous to the comminuted medicines, in regard to the non-lodgment of material. In another respect, the comparison fails. The action is not mechanical, but vital; not a gross impulse, but a delicate influence; not proportional to mass, but to activity. It is the action of an imponderable agent on the imponderable elements of life.

I believe that the principle thus applied to the development of medicinal power, presents no anomaly, but is applicable to other properties, as well in the nascent as in the evanescent condition of bodies.

Minute microscopic bodies in their nascent state, often exhibit properties which are masked by the presence of additional particles, whenever the dimensions have increased to a certain extent. I have seen this beautifully exhibited in *crystallizable* substances in solution. When one part of saturated tincture of camphor is mixed with five parts of alcohol, and the crystallization observed with a solar microscope, the smallest nascent crystals which are visible, are seen to approach each other by mutual attraction, and to rotate on their axes, so as to unite by their mutually attrac-

Digitized by UNIVERSITY OF MICHIGAN Original from UNIVERSITY OF MICHIGAN

tive poles. These compound groups then present similar phenomena, in their mutual approach, their rotation and union. I have witnessed similar phenomena in nitrate of silver and other crystals. Large crystals of the same substances exhibit no such attraction or polarity. Even ice, which in large masses has no magnetism, may exhibit magnetic properties when beginning to form minute crystal in the atmosphere.

The theory of potentization, so far as above given, consists of two parts; one relating to comminution, as the result of certain processes; the other, to power as the result of comminution.

I have shown; First, that Hahnemann's processes produce a comminution almost infinitely surpassing any which is practicable by any other method; Secondly; that comminution developes latent power.

I have incidentally alluded to another advantage which comminuted medicines possess, in the delicacy of the human organism. The invisible vessels and pores are, in all probability, inconceivably more numerous and minute than the visible ones. It may be in these narrow recesses of the system, that nature carries on her most important operations, and disease lays her foundations. To modify those operations, and overturn those foundations, it may be important, that medicine should enter straits impassable and chambers inaccessible, by any substances whose parts are as gross as those of ordinary powders and solutions. For this additional reason, the powders and solutions prepared by Hahnemann's method—which divides the medicine into parts inconceivably smaller — may possess peculiar power. The comminution effected in ordinary medicines by solution in the mouth, the stomach and the blood, leaves them coarse in comparison with medicines which may be prepared by Hahnemann's processes.

There is still another advantage which small medicinal particles may have over large ones: viz., that when in contact with any living part, the *average distance* of their whole surface — as well as substance — from the points of contact, is less than it would be if they were in one group. This advantage might be very great, if medicinal action, like other forces, varies inversely as the square, or some higher power of the distance.

In endeavoring to explain the efficiency of Hahnemann's potences, I have, hitherto, not specially adverted to the distinction between *liquid* and *dry* preparations. We find repeated solution with succussion, and repeated mixture with

Digitized by UNIVERSITY OF MICHIGAN Original from UNIVERSITY OF MICHIGAN

trituration, to develope similar powers, and have reason to believe the principles similar. *As a part of the theory of potentization*, I shall attempt to give a

THEORY OF SOLUTION.—It is generally believed, that the simple solution of a medicine, effects the minutest division of it which is practicable, and that no dilution of any dissolved substance, can divide its parts into parts still smaller. In calling in question the correctness of this notion, I am aware of the strength of the *prejudices* to be encountered — prejudices both of the senses and intellect. For deciding such a point, there is no adequate delicacy in human vision nor in the instruments of physical research; nor is the human mind so constituted, as to be capable of any adequate conception of the minuteness of ultimate atoms, or of the infinite diversity of magnitude existing among infinitesimals. When a body is divided into parts so small as to elude microscopic vision and our most delicate tests, it is difficult to conceive of any farther division. Yet these parts may still be divided such an inconceivable number of times, that we may call the number infinite. The change thus produced in a medicine may be appreciated by means of those nerves on which it has a specific action, but not by means of any instrument less delicate.

The unparalleled *sensibility* of these nervous electroscopes or pharmascopes, is exemplified in the powerful action of some homœopathic solutions, in which the chemist, with his comparatively coarse — but in his own estimation most delicate — tests, can detect no medicine, and in which he could detect none, were they concentrated millions of millions of times. Yet millions of persons, including Homœopathic physicians and their patients, have repeatedly experienced the efficiency of such attenuations. The number, competency, integrity and unanimity of the witnesses, are such as would secure the reception of their testimony on any other subject.

If we can sufficiently divest our own minds of the prejudices of the grosser senses, let us imagine a saturated aqueous solution of any salt, to consist of hard, solid masses of salt, suspended at equal distances in the water, which exceeds the salt in quantity. Each mass of salt consists of innumerable particles. It is impossible to make them smaller either by the continued action of the affinity of the water, or by any mechanical force, whilst the *quantity of water* remains the same. If they were sundered, they would instantly reunite. For, any division of the solids into smaller solids, would diminish their mutual distance, and conse-

Digitized by UNIVERSITY OF MICHIGAN Original from UNIVERSITY OF MICHIGAN

quently increase their mutual attraction; whilst the quantity of water which surrounds each mass is diminished in quantity, and hence has less attractive force to resist the reunion of the solids, than it had when they were in larger masses; and even then it was but just sufficient to keep them separate. Therefore any division would be followed by instantaneous reunion, both on account of an increase in the cohesive forces, and a diminution of affinity.

Another piece of salt cannot be dissolved in the water, for the same reason that the pieces already in it cannot be divided; that is, the saline masses cannot be suspended within a *given distance.*

Heat expands the liquid and increases the solvent power, partly by weakening cohesion, and partly by removing the solids to a *greater distance* from each other, so that new solids may be received. Either evaporation or cold reduces their distance and effects their reunion and precipitation.

Thus the hypothesis of a suspension in complex groups, each consisting of numerous particles, is in strict accordance with the known phenomena of solution.

It is also analogous to the doctrines of modern *chemistry* in relation to the union of molecules in all compounds. Simple molecules unite to form compound ones; and in many instances it requires the union of many atoms of each constituent to form the smallest possible particle of a given compound. In the most attenuated solution, this compound, as it is not decomposed, must exist in groups which are large compared with atoms. For convenience, I use the language of atomic theory: upon the truth of this, however, my hypothesis does not depend; any more than the truth that great constituents of the universe are arranged in groups, depends upon the solution of the question whether the division of matter must ultimately attain a limit, or whether even the moon is or is not an atom.

Astronomy presents facts analogous to those supposed in the above hypothesis of solutions. The worlds of the universe are separated by large interstices. Two nebulæ may appear to our eye as homogeneous as a solution; and yet each is a group of solar and planetary groups, whose mutual distances are inconceivably great compared with that of the planets of each group, and yet inconceivably small compared with the distance of the nebulæ. A nebula is a single body, in a truer sense than are two stars of different nebulæ. The solar system is one thing in a stricter sense than are two planets of different systems. So I have referred to the groups in a solution as bodies, because widely separated ascompared

Digitized by UNIVERSITY OF MICHIGAN Original from UNIVERSITY OF MICHIGAN

with their components. It is possible that there may be included in each group — as there are in a nebula — different orders of groups, which determine the points of easier division. We know that to be to a certain extent true in chemical compounds, as solution does not divide them in all parts indiscriminately, else it would destroy their peculiar chemical properties.

I have hitherto considered saturated solutions. Before proceeding to attenuation in any higher sense, I will — for those who may not consider the subject too dry, and who desire the most precise ideas — explain more fully some of the molecular actions above referred to.

What is cohesion? When are molecules united in one group? When is the group divided? In what sense is medicinal power at the surface?

Cohesion is attraction between bodies or particles of the same kind at insensible distances. In molecular action, I make no attempt to distinguish the cases in which polarity is manifest, as in crystals; for all cohesion may depend on the polarity and even the magnetism of molecules.

If a group of atoms exists as a little solid body in a solution, and we are able, by adding more liquid, to break it into two groups or bodies, in what sense are they two until they get beyond the sphere of cohesion? If still in contact, they are one group. In the mechanics of infinitesimal bodies, we must use the term contact in a stricter sense. The contact of the infinitesimal solid parts of a solution, is such a degree of proximity as excludes the solvent liquid.

The view which I take — and which is calculated to remove one of the greatest obstacles to the reception of Homœopathic truth — is, that the ultimate particles of a dissolved medicine are not separately invested with the menstruum or solvent liquid, but united in hard and complex masses — masses which, in a saturated tincture or solution, are of great magnitude and little activity, when compared with those in Hahnemann's attenuations. The free medicinal agency resides exclusively at the surface of the group, the latent at the surface of each particle. I make no attempt to decide, whether the medicinal power is or is not a modification of electricity or magnetism; or whether, like the former, it resides on the whole surface, or, like the latter, on certain parts.— On either supposition, division will have a similar effect in increasing the extent of active surface. Electricity and magnetism are known to be in one sense identical, but to avoid circumlocution they are referred to as distinct.

You will readily anticipate the application of the above

Digitized by UNIVERSITY OF MICHIGAN Original from UNIVERSITY OF MICHIGAN

principles to attenuations. When a drop of pure tincture is shaken with ninety-nine of alcohol, the newly added alcohol exerts its affinity as an antagonist to the cohesion of the solid medicinal groups, and effects their dismemberment to a greater extent than was possible in the primary solution. This process commences instantly, before the diffusion is complete. But to simplify the investigation, let us suppose the drop to be uniformly diffused before any disintegration of the groups commences. The groups would be at nearly five times their original distance, and each group would be surrounded by one hundred times as much alcohol as in the primary tincture. This state of things could not remain a moment; especially if the disruptive power of the affinity of this increased quantity of alcohol, were aided by a mechanical succussion, as strong as that to which the tincture has been subjected. For the equilibrium before existing between cohesion and affinity, will be disturbed by that increase of the latter which results from the increase of the liquid; and the suspended solids will each be sundered into numerous smaller solids. But it is not divided into its smallest particles; nor could it be by the most violent succussion. The vibrations caused by jars, transiently increase the distance of some particles of each group and approximate them to the liquid, and thus give affinity a preponderance over cohesion. In this way succussion aids division. But to carry division by this means beyond a certain point, effects no permanent change; as the particles will instantly reunite by the preponderance of cohesion over affinity. As power is developed on a similar principle by successive dilutions, it is unnecessary to pursue this subject any farther.

Power is developed on the same principle as in dry preparations. The affinity of the liquid enables us to dispense with part of the mechanical force: yet all that I have said in regard to the relative labor of comminuting by Hahnemann's method as compared with any former one, applies equally to liquid preparations.

His *discovery* of a new *law* in the science of therapeutics, and his *invention* of a new *process* in the art of pharmacy, have led to unprecedented *results*. The most insoluble bodies are dissolved, inert substances rendered medicinal, and the most virulent poisons harmless; whilst drugs of intermediate activity have their salutary powers exalted, and their noxious effects obviated.

The main *objects* of this discourse, have been to show,—That small doses are efficacious when given in accordance with the Homœopathic law; That medicines prepared by

Digitized by UNIVERSITY OF MICHIGAN Original from UNIVERSITY OF MICHIGAN

Hahnemann's process are in a state of extremely minute division; That on this comminution their peculiar efficacy depends; And that the development of power by separation of parts is not an anomaly, but is in accordance with known laws of nature.

[Just as the printing of the above paper is nearly completed, I find in the Bridgewater Treatise of Dr. Prout — than whom few have more profoundly studied the molecular constitution of bodies — the following passage, which is in accordance with some of the above views:

"In this respect, therefore, the views we have advanced accord generally with those at present entertained; and the only point in which they differ, is in supposing that the self-repulsive molecule, as it exists in the gaseous form, does not represent the ultimate molecule, but is composed of many of them. With respect to the nature of the ultimate sub-molecules of those bodies which we consider at present as elements, as, for instance, of oxygen, they may naturally be supposed to possess the most intense properties or polarities. Indeed such sub-molecules may be imagined to resemble in some degree the imponderable matters, heat, &c., not only by their extreme tenuity, but in other characters also; and this very intensity of property and character may be reasonably considered as one, if not the principal reason, why they are incapable of existing in a detached form. Lastly, are not these ultimate and refined forms of matter extensively employed in many of the operations of nature, and particularly in many of the processes of organization." B. F. J.

7, *Amity Street, March 27th*, 1847.]

Digitized by
UNIVERSITY OF MICHIGAN

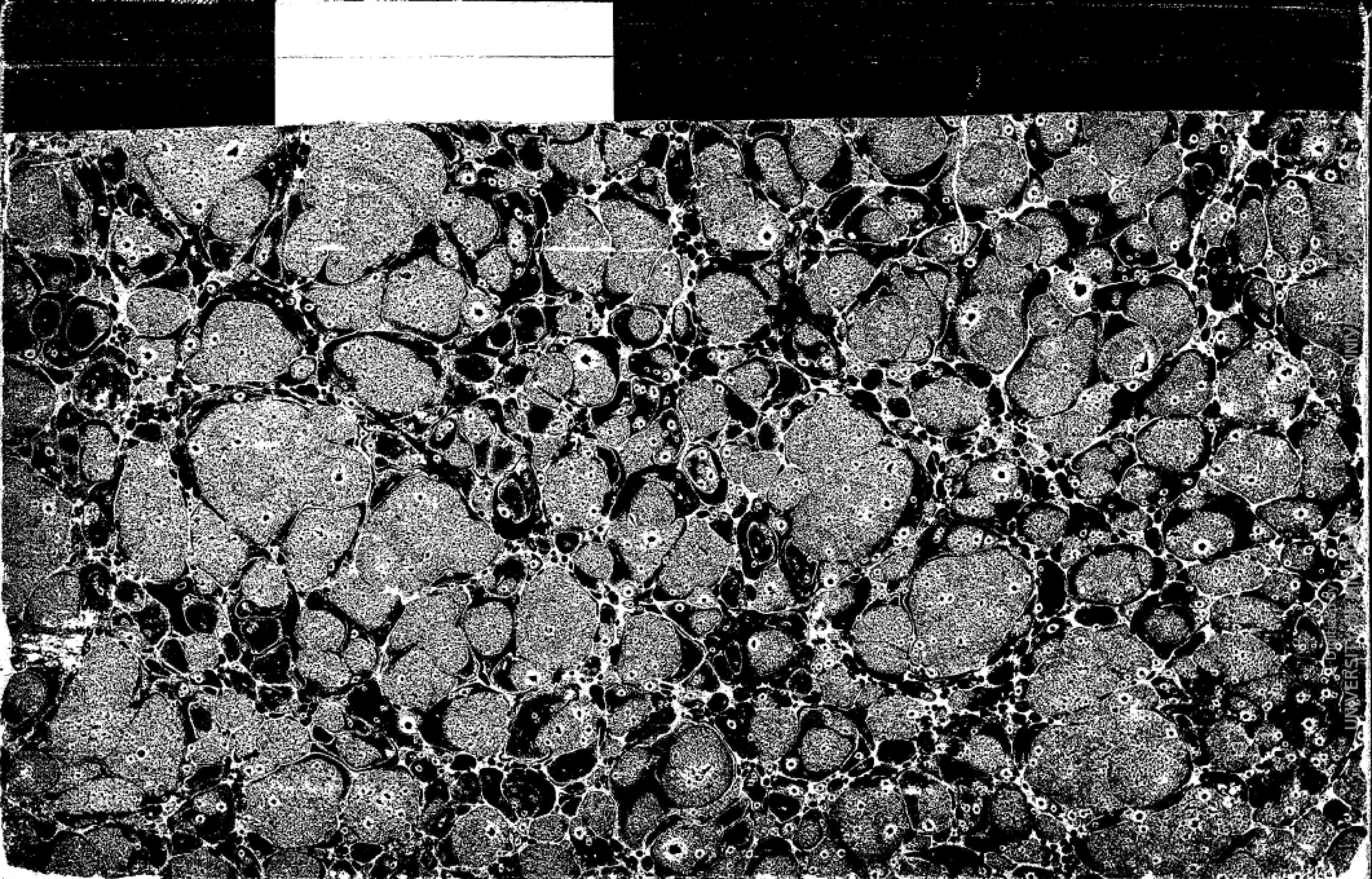
Original from
UNIVERSITY OF MICHIGAN

Digitized by
UNIVERSITY OF MICHIGAN
Original from
UNIVERSITY OF MICHIGAN

UNIVERSITY OF MICHIGAN
3 9015 02018 0017

Filmed by Preservation 1990

Digitized by
UNIVERSITY OF MICHIGAN
Original from
UNIVERSITY OF MICHIGAN



41

From Dr Bradford
1 Dec 98

Hom

05

EVIDENCES

80325

OF THE

POWER OF SMALL DOSES

AND

ATTENUATED MEDICINES,

INCLUDING A

THEORY OF POTENTIZATION.

A DISCOURSE BEFORE THE

NEW YORK HOMŒOPATHIC SOCIETY,

MARCH 9TH., 1847,

BY B. F. JOSLIN, M. D.

NASHUA, N. H.:
PRINTED BY MURRAY & KIMBALL.

1848.

Digitized by UNIVERSITY OF MICHIGAN
Original from UNIVERSITY OF MICHIGAN

41

From Dr Bradford
1 Dec 98

Hom

05

EVIDENCES

80325

OF THE

POWER OF SMALL DOSES

AND

ATTENUATED MEDICINES,

INCLUDING A

THEORY OF POTENTIZATION.

A DISCOURSE BEFORE THE

NEW YORK HOMŒOPATHIC SOCIETY,

MARCH 9TH., 1847,

BY B. F. JOSLIN, M. D.

NASHUA, N. H.:
PRINTED BY MURRAY & KIMBALL.

1848.

Digitized by UNIVERSITY OF MICHIGAN
Original from UNIVERSITY OF MICHIGAN