

The Wonderful World of Homoeopathy



Second Reader

That is worth living for

“You will be astonished, after ten years of real homoeopathic practice, that you have so few deformed babies; that they have all grown up and prospered; that their little defects and deformities have been outgrown, and that they are more beautiful than most children, because they have been kept orderly. The doctor watches and studies him, and feeds him a little medicine now and then, that the mother suspects is sugar, to keep on the good side of the baby. She need not know that it is medicine, or that anything is the matter with the baby. So he watches the development of that little one, and grows him out of all his unhealthy tendencies. The children that grow up under the care of the homoeopathic physician will never have consumption, or Bright's disease; they are all turned into order and they will die of old age, or be worn out properly by business cares; they will not rust out. It is the duty of the physician to watch the little ones. To save them from their inheritances and their downward tendencies is the greatest work of his life. That is worth living for. When we see these tendencies cropping out in the little ones, we should never intimate that they are due to the father or mother. It is only offensive and does no good. The physician's knowledge as to what he is doing is his own, and the greatest comfort he can get out of it is his own. He need never expect that anyone will appreciate what he has done, or what he has avoided. The physician who desires praise and sympathy for what he has done generally has no conscience. The noble, upright, truthful physician works in the night; he works in the dark; he works quietly; he is not seeking for praise. He does this when called to the house, and when members of the family bring little ones to the office. In this manner children can be studied and their symptoms observed and enquired into. Whenever the mother brings the child, expecting medicine, she may know that he is receiving medicine, but when she does not ask for medicine let her suspect that Johnnie is getting sugar so the doctor can get on the good side of him. That is sufficient.”

(James T. Kent, M.D., Lectures on Homoeopathic Materia Medica, Philadelphia 1905, Carbo vegetabilis, p. 376)

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A Letter from Hahnemann to Hering

Trust and Zealous Propagator of our Art!

An adverse fate has apparently caused to be lost and not allowed to reach you my two letters to you; the first, thanking you for electing me honorary president of the Hahnemann Society of Philadelphia, and for sending me a diploma; the second, giving a detailed account of my disagreeable relations with the German homoeopaths. The first was sent by the Prussian Post Office in Hamburg, the second by the homoeopath in Bremerlehe. I am now very much nearer to you on account of the sure and regular communication from this place through Havre.

I am in Paris, and I may say settled here. My incomparable second wife, a model of science, art, industry, with the noblest heart and intellect, and filled with unspeakable love for myself, from her youth honoured and valued by the most highly esteemed people here, Marie Melanie d'Hervilly, makes what remains to me of life a heaven upon earth, since the 18th January, 1835, in Köthen, and since the 25th June, 1835, in Paris. She is already so skilful in our divine healing art, and such a zealous student of it, that she has already effected a number of splendid cures of the most difficult chronic diseases among the poor. All this has made me at heart ten years younger, and for forty years I have not enjoyed such unalloyed health as since then. My Melanie anticipates all my wishes and needs without waiting for a hint from me - she is an angel in human form!

I have met here a number of so-called homoeopaths; they indeed confidently call themselves so, but are and continue to be mostly charlatans. But among the others in the provinces, of whom there is a considerable number, there are many good ones. The better homoeopathic school at Geneva wanted to persuade me to endeavour to convert those here by means of stirring appeals and controversial writings. But I never had any inclination for that sort of thing, and never shall have. I chose to act in another way. I cured, which of course they couldn't do, a number of very highly distinguished persons of the most serious diseases, which not only gained me immense renown (which is very remarkable in so short a time in this immense city), but which also put a stop to the persecution of the influential half-homoeopaths here who pursued me with scorn and calumny, and stirred up the honest converts to study our art in a genuine and thorough manner. Every Monday evening I invite the better sort to assemble in my beautiful drawing-room adorned with the finest collection of pictures, and I hold friendly converse with them on the most important points on which they need instruction, for I now speak French pretty fluently - which it was rather difficult for me to learn at my advanced age. All this shocked and silenced the Royal Academy of Medicine, who, before I came, had pronounced a sentence of excommunication against homoeopathy in a decree intended as an answer to a letter addressed to them by M. Guizot⁽¹⁾, the Minister of Public Instruction, in which he asks them whether hospitals and schools of homoeopathy should not be instituted. This ancient body, composed of so-called committees of allopaths, will eventually cut but a sorry figure in history of medicine. They are almost without exception the most barbarous bleeders and leech-appliers. They do, teach, and know nothing else. Broussais' false teaching has for the last twenty years turned them into shameless murderers; whilst Broussais himself is now beginning to repudiate his own doctrine and to incline to homoeopathy. In establishing his frightful blood-letting method he completely destroyed the whole system of drug-prescribing, so that the apothecaries here have a wretched part to play. The 1,300 French allopaths here give their patients, instead of medicine, nothing but a solution of gum Arabic, called *eau de gomme*, and subject them to a starvation diet. This will eventually prove very advantageous to homoeopathy.

The Griesselich schism, which has already spread extensively in Germany, has taken root here too. Everything that can prostitute the practice of the most difficult of all human arts, encourage caprice, avarice, and laziness, and destroy love for one's fellow-creatures, is

attributable to this false doctrine. Such a wicked perversion of our holy doctrine was unavoidable among the baser sort of men; it is full of attractions for them.

But the day will come when a discerning posterity shall regard it with contempt - *parturiunt montes nascetur ridiculus mus* - the boasted effect, the real cure of serious diseases, does not take place. Hence I have never troubled myself about it. Bragging, boasting, promising grand things may for a while excite attention and gain adherents in many of the so-called arts (as formerly in the art of making gold), but in the healing art all this avails nought; here *cures* must be made. The public rightly demands *facta*, and that is just what Griesselichism cannot give.

I have made some improvements in the technicalities of our art, which I will now *first* communicate to you. Before Aegidi's suggestion I was in the habit of giving the globule or globules dissolved in water, so that the patient might take them or it in divided portions. Now, as my medicines are very powerful, I dissolve them seldom more than one globule in 7, 15, 20, 30 tablespoonfuls of water, and, because the patient has no distilled water (which, besides, after a few days becomes spoilt and ferments), I employ spring or river water for this purpose, mixed with 1/15th or 1/20th part of spirits of wine, or I put three or four small pieces of hard wood charcoal into the solution. This mixture, of which the patient affected with a chronic malady takes a tablespoonful every day or every other day, or, 1, 2, or 3 teaspoonfuls, is to be shaken in the bottle five or six times every time a dose is taken, in order to change the degree of dynamization each time. The effect of this is that the vital forces of the patient assimilates the remedy more kindly. When the patient has taken all the mixture, and the same medicine seems still to be required, I never repeat it in the same potency, but always in another, generally a lower potency. ⁽²⁾ Thus, for instance, I have often able to administer Sulphur daily for months at a time with the most astonishingly good effects. And so also all other well-indicated medicines, as long as they continued to do good.

But as there are some maladies which require more energetic action than can be obtained by internal administration or by olfaction - e.g., remains of apparently cured cutaneous disease, unattended morbid sensations, or old malignant affections of another kind, either external or internal - I use the same medicinal solution, which was prepared for internal administration and which proved most useful when so given, for external friction on a considerable surface of the skin *where it appears to most healthy*. A half or a whole tablespoonful at a time is to be rubbed on an apparently healthy arm, leg, or thigh by the patient himself or by a friendly powerful person, until the wetted hand becomes dry. It is inconceivable how much more one can do by this method. But this medicinal fluid must also be succussed five or six times before each application.

So much for this time. Probably you yourself have already adopted this plan in the case of old, obstinate diseases.

I do not know or learn much in my present circumstances, as I have very little time left for reading.

I am very pleased to hear about your fine institution, your Homoeopathy Academy in Allentown. Already you beat everything we can show in Europe in that way. Your *Correspondenz-Blätter*, nine of which you have kindly sent me, are very practical, and written in an excellent spirit. But be very careful that your colleagues write good German. Aphoristic brevity has its limits; it will not do to leave out the necessary articles nor yet the prepositions. That the Academy is German in its origin and should so remain is a patriotic arrangement, and is of advantage to the art, for it came from heaven on German soil, and may reckon on getting further additions from thence, when the unseemly follies which at present deform it, ad which

have their origin in impudence, ignorance, vanity and laziness, shall be exposed in all their nakedness and emptiness.

I thank you for the *Rhus vernix* and *Cistus canadensis* you sent me. I will endeavour to prove them. *But I would more particularly request you to send me the third trituration of Lachesis and Crotalus*, for the knowledge of which we are indebted to America and to you. How much have we not to thank you for besides!

It is a great grief to me that I cannot get the remaining third and fourth parts of the second edition of my *Chronic Diseases* published. Arnold (probably instigated by Trink), made me wait too long years for the first two parts; and then he could go no further, being impoverished by his own fault, and so he gave up the further publication. Must I, in the 82nd year of my age, go begging for a publisher? Ludwig Schumann refused it on account of want of means. I doubt if Köhler, in Leipzig, will accept it. ⁽³⁾ I have a large amount of valuable emendations and additions in manuscript. I trust you will get a capable man for your hospital, who, when he visits the patients, will collect the students around him, and dictate the examination of the patients to a clerk in their presence, and the changes observed at subsequent visits, and give a lecture of an hour or two upon them. Do not make post-mortem examinations of the bodies of allopathic patients, in order to obtain pathological preparations from them, for they can only furnish the results of medicinal mistreatments. The autopsies of persons who have died of natural diseases with hardly any medicinal interference can alone be instructive. The time of the students should not be wasted with anatomical subtleties, nor should botany or chemistry be carried too far. *Sit modus in rebus!* Schönlein's views - which, as I gather from your *Blätter*, are excellent - might, as you think so highly of them (I am not acquainted with them), be advantageously taught in your Academy. Do not fear any rival English institute; there are as yet no English translations of the chief works. To what works, then, could they refer their students?

I have, I am sorry to say, received no letter from you except your first one. Our good God will *certainly* bless your great undertaking. *I know Him!*

May you continue to enjoy the best of health, for the advantage of mankind, and may your dear family also prosper! I and my beloved wife send you our kindest regards, and I beg to be remembered to all your fellow-workers.

SAMUEL HAHNEMANN

Paris, Rue de Milan, Oct. 3rd., 1836.

⁽¹⁾ [It was through M. Guizot that Hahnemann was allowed by royal decree, dated August 31, 1835, to practise medicine in Paris. Commenting on this the *Temps* wittily remarked: "We need not be surprised at this, for Hahnemann is as good a *doctrinaire* as Guizot himself. His doctrine consists in prescribing medicines for his patients in as small doses as the *doctrinaire* Minister prescribes liberty for the country."]

⁽²⁾ [Hahnemann here means by *lower*, a *less* (not as formerly a *more*) diluted preparation, as we find on reference to his latest directions for repeating the medicine in the third part of the second Edition of his *Chronic Diseases*, published the following year. Indeed the directions given in this letter are a mere abridgment of what he says in that part of the work referred to. A translation of these technical changes in Hahnemann's practice will be found in my edition of the *Organon*, p. 295, note.]

⁽³⁾ [The three last parts of this edition of the *Chronic Diseases* are published by Schaub, Düsseldorf.]

(Letters of Hahnemann. Translated by Dr. Dudgeon. No. 47. To Dr. Hering. The Homoeopathic World vol. 26 (1891), p. 74-78)

Learning Homoeopathy

"It does not follow that, because you have been taught a thing, you know all about it; or that you have even absorbed all the [possibly limited] knowledge of the person who taught you. There is nothing absolute about what we call "a knowledge" of any great subject. It is an unstable quantity, even quality-apt to dwindle and die out, or, on the other hand, to augment by accretions.

Therefore, where the knowledge is really worth having, it is well to hark back to its beginnings, and investigate for oneself.

You see, if you learn from somebody, who learnt from somebody else, who again learnt from somebody else, the original teaching is bound to contract and get distorted. It becomes more or less a selection and re-selection, contaminated by the mentalities of all the sources through which it has dribbled down.

The remedy ?- go back to its beginnings for clarity of vision and precision of detail. Consult the original genius to whom the vision was vouchsafed.

The early homoeopaths were steeped in Hahnemann. They read him; they translated him : they wrote about him and the astonishing work that he had enabled them to do, whose fame spread rapidly throughout the whole world : we little realize, in these days, how far and wide. It surprises us to read of the 1,000-odd cases of cholera treated homoeopathically in different parts of Russia in 1830-31 with an absurdly minimal mortality : and of not only similar results in Austria, Italy, and Europe generally, but even in far Guatemala where a Baptist minister was imprisoned for "curing, gratuitously, a large proportion of cholera patients, when the local hospital treatment did not cure one". For our best teachings we have to go back, even today, to reproduce his and their teachings and experiences. And yet, who reads Hahnemann today ? - just the few, who automatically become leaders. One such was KENT of Chicago, that great teacher, who largely inspired what the French are already beginning to call L'Homoeopathie Anglaise. But Kent wrote to this effect. "I have originated nothing. I have only given the teachings of Hahnemann."

But, who has ever bothered about Hahnemann's most important message, urged in his Chronic Diseases ? These are out of print : mere scattered volumes, to be picked up, here and there, second- hand. And even then, difficult to grasp, for the reason we have several times indicated in these pages - a couple of phrases - words rather! - amazingly reducible, the most important of them, into the advanced teachings of modern science.

When we were children, a whole happy crowd of us, with many games to exercise our wits - we used to play at what we will term, Unconscious Distortion. The expectant players sat around while one, with a short story written out, beckoned No. 2 outside and read it through to him. Then No. 2 beckoned No. 3 outside, and repeated the story - as he remembered it. No. 3 in turn, repeated what remained with him to No. 4, each one unconsciously supplying deficiencies where memory failed. Presently the last to hear the story retold it to the assembly; when the original was read out, proving, amid roars of laughter, how widely it had, quite unintentionally been made to deviate from the original.

With us, "children of larger growth but children still", the same thing obtains. Facts retold, wander about and get inevitably distorted. It takes a Macaulay to read a page, or listen to speech or sermon, and be able to repeat it correctly, word for word. The majority hear; catch at points that interest them; grasp whatever appeals to them, at that stage of their development, as interesting, instructive, or likely to be useful.

Now, in the Correspondence Course, at last "completed", we have endeavoured to reproduce the actual teachings of Hahnemann, with lavish quotations and without any of the

modifications and distortions that have crept in since his day. As when ONE says, "Of course I prefer drops of tincture, or the useful medicated discs, each one absorbing precisely one minim of the tincture. Patients prefer them. And, after all, one wants something a little less intangible than those absurd globules which you see in pocket cases in the Hall of the L.H.H. in Hahnemann's own ridiculous little bottles. . . ." Or, again, "I find so-and-so good for such-and-such a condition. Mrs. A. was immensely improved by it, and Mrs. B. is very much like her as regards so-and-so." Or, when you find potencies, high or low, prescribed two or three times a day, for weeks on end, for chronic cases. Or when remedies are mixed or alternated, because the prescriber is too busy, or too indolent, or too ignorant to discover which one is really indicated. Or, when, as seems to be the practice across the Channel, one drug may be prescribed night and morning, another a.c. or p.c., and a third two or three times a week.

Such prescriptions are brought to us from time to time, by patients who expect something startling from what we are to give them ! - without anything but a mix-up of drug-symptoms as guide. Where these things go by the name of "Homoeopathy", and when such prescribers call themselves "homoeopaths", the precise methods of Hahnemann come into undeserved disrepute. Some months ago, a charming little French doctor arrived with a message, "Dr. X. sends me. He asks you to teach me good Homoeopathy, as you taught him a year ago". And now, she writes, that she, in her turn, is teaching her doctor friends L'Homoeopathie Anglaise.

At risk of some repetition, we would like to reproduce from the summing up of No. 12 Correspondence Course :

It was in order to provide the earnest enquirer with an easy introduction to, and a chance of practising genuine Homoeopathy in its fullness - a bigger thing than is generally appreciated - and also to provide the teacher of Homoeopathy with actual data, instead of second-hand, or third-hand learning, where bits drop out, and fresh teachings are introduced by new teachers, themselves only half taught, that this attempt has been made to present the actual teachings of Hahnemann; not only the great Law of Healing, with the subsidiary Laws it imposes, but also its extension into the else difficult realms of Chronic Disease. The task has been arduous and long drawn out, because the more one reads and re-reads, the more one perceives and marvels at that astonishing Prescience now, at least, coming into its own, after 100 years of neglect and derision. But, "If physicians do not carefully practise what I teach, let them not boast of being my followers, and above all, let them not expect to be successful in their treatment".

So now, for the Healer who would follow on, the rest is INTELLIGENCE, - DILIGENCE, - GRIT."

(Margaret L. Tyler, Learning Homoeopathy, Homoeopathy Vol. 7, Nr. 3, 1938)

What Homoeopathy Means

"That likes seemed to cure likes was noted in the earliest times, but that similia is the law of cure is not generally accepted, even now in spite of an ever-increasing evidence in its favor. It seems that truth can only become truly active through conviction.

Science has greatly broadened the scope of homoeopathy so that it does more things now than formerly, but it does them no better. It was Hahnemann himself who predicted the successful treatment of cholera as well as demonstrated that of typhoid fevers. A little later homoeopathy triumphed decisively over every other method, including no treatment, in pneumonia, in the Vienna Clinic. Still later it surprised and confounded its adversaries by the record it made in yellow fever, while recently we have all seen how surprisingly efficient it can be in influenza.

We might recite victory after victory over acute diseases, epidemics and opposition only to finally realize that every day medicine remains firmly wedded to strongly materialistic ideas

and that sanitation is gradually showing us how much better prevention is than even the best of cures. At the other extreme surgery is removing one after another of the end-products of disease, so that at last we are left to choose whether it be better to rely upon the unfettered recuperative powers of nature, upon surgical relief or upon stabilizing the power of dynamic drug action, without which there can be no real homoeopathy.

The homoeopathist knows that the governing life principle but seldom reacts directly and specifically to strong measures, but will respond quickly and effectively to a similar or more or less synchronously acting force. It may be well to remember here that the calming down of disturbed vital action is a daily task that can not always wait upon the decision of the microscope or the knife.

To my mind there is necessarily a close relation between things able to excite and other things capable of calming down similar vital disturbances. Reaction, whether to drugs or disease, is clearly of a kind; it not only discloses susceptibility, but its speed is governed by its adaptability, the amount and convertibility of vital energy present and obstacles to be overcome. Viewed in this light there is certain to be a vast difference between recovery and cure, while susceptibility is finally resolved into one of the great miasms.

When the life forces vibrate in an unusual way, symptoms which we may finally call disease, appear; they serve as indices for diagnosis, prognosis and treatment, as the case may be. The coarser ones are of more diagnostic and the finer ones of therapeutic import. That they unfold gradually should argue strongly against a hasty prescription.

The mind which is trained to sense material things only takes to the giving of strong drugs like a duck takes to water. For it the supersensible world is a void, that absurdity of physics; it is not fitted to comprehend such ideas. This is the real reason why the dynamized potency looks absurd and impractical and its seeming effects are viewed with suspicion. Such ideas are viewed with a feeling akin to that which caused the burning of witches and the flagging out of sins, only we hate to admit that many of us are still bound hand and foot by such bigotry, narrow-mindedness and conceit. Because we can't rapidly see the other side we would fain make ourselves believe that there is no such thing.

I take it that many of you have come here with an open mind; not quite satisfied with your former results, you are looking for better things and perchance homoeopathy looks worth while. If this is your idea, let me beg of you to remember that all things contain only what we patiently work out of them, and homoeopathy is no exception.

All true science is really grounded in philosophy, and the only therapeutic guide which has stood the fire test of painstaking investigation is the natural law of similia, whose various aspects, ramifications and philosophy, dovetail most intimately with most of the sciences, in itself a fact of momentous import. It must be mastered from this point of view, which will then soon show how little it encourages the idea that adaptabilities of millennium of years can be lightly set aside by the brain-racking concoctions of the modern therapeutic laboratory.

Nothing happens without an adequate cause and successful remedial measures carry their own evidence of correctness. The use of simples as well as the selection of curative herbs by animals most assuredly arises from impulses themselves born of the promptings of and the involuntary obedience to this same law. In the nature of things it cannot be, nor is it otherwise.

How easily we carry a load of nascent poison until vital resistance falls, when it suddenly expands its scavenger hosts and overwhelms us. In a panic we hunt microscopic life into its remotest recesses and consult the pathological findings of the dead house for an explanation;

but an indefinable something has escaped us. The distress signals thrown out by nature can't be answered, because in our mad rush after material things we have not learned her code.

It took ages to realize how the apparently sinking ship on the horizon proves the earth's rotundity. Just so, you who see mostly with the pathological eye, objective phenomena exclusively or mental states only, etc., all partial and often variable factors in the sum of evidence, must finally come to see these are but expressions of a single central disturbance before you can grasp the full significance of sickness and how it must be handled.

We speak glibly of the liver being out of order or the kidneys affected, of fevers, apoplexies, blood pressure, and so on interminably, as though these things really explained something, which needs only to be adjusted when the machine will run again, just as it did before. Worse than all we have gotten the laity to believe the same thing and some of you may even think it is so too. It is really difficult to think of anything more lamentable, than to have chased away evil possession only to have made room for the physical mechanic who dabbles first with this organ then with that. It never seems to occur to him that the central life giving power is showing distress by the only signs it is capable of making, and which must be read as a unit of expression.

I might harp on the subject of telling you how to read life a long time, and you be none the wiser unless I tell how you may go about it; which is, after all, not telling you what to do, but only hinting at how it may be done. This should open to your minds a glorious vision, which can be yours also, not for the asking, but by the most strenuous getting of knowledge. You must persevere, work and then work some more. At last understanding will come and you will know.

Your knowledge of your patient must be of the most comprehensive sort. You must discover his attitude towards his surroundings, the elements, mobility, or anything that affords him an opportunity to express himself; for it is him that you are dealing with, and not his big toe or his nose. He reacts to disturbing factors in his own way which you must learn if you wish to succeed. His mentality moves along certain lines; these you must learn if you wish to be of the utmost service. His symptoms take on a definite course or expression, this you must grasp if you wish to help. His whole action bespeaks an underlying life principle which shows the man, him that you must know if you wish to cure radically and finally.

You will coapt these elements and see what the picture reveals in its totality of expression. It may look like a part of this proving or that clinical record; if it does, beware and step warily for it is not a true likeness and will disappoint you. A real cure is not made by the lopping off of symptoms, however entertaining it may sometimes be.

The general symptoms being worked out to a few remedies by the use of a good repertory, the correct selection is made by consulting the materia medica text so that the sense of the finer symptoms may correspond to those of some one of these provings.

A single dose is given and the effect awaited. In very acute affections the response will come in a few minutes or hours. If the disease is of a more prolonged nature from the fourth to the twelfth day will develop a crisis and show us our bearings. In chronic disease periods of aggravation may come and go like waves even until the sixteenth week, while the patient shows a gradual general improvement. When, however, each of these waves is followed by increasing weakness the case is usually hopeless.

Theoretically, there should be no repetition of the dose as long as reaction lasts, but practically many of us are guilty of rather indiscriminate dosing. This arises mainly from three causes: inability to visualize a true perspective of the disease; ignorance of what constitutes reaction and impatience. The larger the number of doses or remedies given the greater is

evidently the uncertainty of the prescriber or the more firmly is the disease fixed upon the organism.

A weekly Miss, aged 19, had repeated chills at irregular times, across the hips, followed by heat with sweat. The nose was obstructed, yet there was occasional slight nosebleed, with hawking down of post-nasal mucus. There was a craving for piquant things and a sense of dryness of the lower legs with restlessness of the whole limb. From day to day she showed the characteristic step ladder temperature, sordes appeared on the teeth, and the right inner conjunctiva became red. She tried to escape from bed and a generally aggravation after midnight appeared. Here you will easily recognize the coming of a severe type of typhoid, but the indications for *Arsenicum* were so clear that I decided to give a single dose in spite of the warnings of authors against giving this remedy too early. For several days there was no change, then a slight aggravation came on, followed by a steady improvement so that by the twenty-first day her temperature returned to normal.

A laundry worker, aged fifty, was suddenly attacked by a violent transfixion pain in the epigastrium, spreading backward and upward to the cervical spine and along the left clavicle. She sat bolt upright in bed, gasped for breath and was overcome by a deathly agony. There was considerable left ventricular dilatation and a loud mitral regurgitant sound heard over the area. Four doses of *Aconit* dmm. quieted her for twenty-four hours only; then came a relapse with the information that she had drunk much cold water while overheated, but *Bellis* did nothing. Because of the symptom, "Gaps, fears to lose the breath and die," *Latrodectus* was now chosen. The first few doses relieved her greatly and in one day she felt pretty well. This shows what can often be accomplished even in the presence of an irremovable lesion.

A lady aged 87, complained of burning in hands and feet. A hard ache with soreness in the right lower leg < lying on it. Cloudy weather causes stupidity with rheumatic pains < on the right side. She received a single dose of *Sulphur* followed by plenty of *Sac. lac.*, and at the end of twelve weeks wants more of the same remedy because it still helps her greatly.

J. R. V., aet. 60, dismissed from John Hopkins Hospital as incurable from enlarged liver. Malaria years ago. Shoulders stiff, ache and get cold. Dyspnoea. Tongue feels coated. Chills in the evening. Memory bad. Easily worried. Water is tasteless. Can't sleep with much cover. Right foot cold. Pale about mouth. Gray stools. Constriction about waist. Aggravation from cold and lying on left side. He received a single dose of *Natrum mur.* 12, and at the end of seven months he is still improving, more rapidly of late, having gained seven pounds in six weeks.

An elderly maiden lady of 68 years, confined to her chair for two years from rheumatic stiffness of back, hips and ankles with soreness of the bone. Pains from the ovarian region down the face of the thighs. Numbness of both hips down outside of thighs to toe < in heels and < at night. Vertigo in morning, seeming to ascend into the head, with momentary blindness. Easy sweating. Night sweats on back, upper arms and thighs < after 11 p. m. Formerly had migraine beginning over either eye and moving to the opposite side, < in the sun. As of cold water flowing over hips and thighs. Itching eczema on ankles. Severe constipation. Puts feet out of bed at night. Aggravation from cold winds, drafts, dampness, cold and exertion. Better, continued motion. She received a single dose of *Sulphur* 12 on November 1st, 1919, and is still improving. She now walks well, goes up and down stairs and out on the street. Here a single dose is still acting at the end of seven months.

A merchant, aged 60, forgetful, irritable and fidgety. Weak attacks. Easy sweating; foul footsweat. Sore, stiff neck; soreness of small of back. Pains ascend from nape to vertex. Sleeplessness. Emptiness at stomach. Oxalates, phosphates, spermatozoa and a trace of sugar

in urine. Sour flatulence. Nightmare. A single dose of *Silica* 12. At the end of six weeks no sugar in urine, and wants more of that same medicine which has especially helped him lately.

Mrs. L. P. M., aet. 68, wakeful at night. Irritable caruncle at meatus. Ulcer on heel. Numbness of hips and lower lips < on lying down. Cold feet at night in bed. Oppressed breathing if lies on left side. Red conjunctiva. Blisters between toes. She received two doses of *Sulphur*, first 12, then in three months the cm, and in nine more weeks the mm. The caruncle was cured and only sudden bloating attacks and as of a weight on chest with shortness of breath on every exposure to wind, cool air or fatigue remained. The arterio-sclerosis remains the same, but these attacks of dyspnoea have been relieved more than she, her friends or her two allopathic physicians believed could be done by a single dose of *Actaea spicata* 12.

Man aet. 40, has had flu followed by a dull heavy then a cutting pain at heart going downward and backward. Choking attacks on falling to sleep. Dim vision in lamplight. Like drops of water floating before vision. Vertigo on stooping. Aggravation: lying on left side; after eating. Heat. Has taken much aspirin. *Kali carb.* mm. At the end of seven months he remains well and looks unusually well.

Woman, aet. 56, backward going pain (to scapula) in liver, epigastrium and right chest; it compels motion and is < stooping or touch. Sense of hardness in gall bladder. Heaviness at heart. Sweat about waist; clammy sweat. Clothes feel wet, as of a cold cloth across shoulders. Craves sweets. A little food fills her up. Burning working in bowels. Acrid leucorrhoea. Urine stiffens or destroys the clothes. Aching like a band about ankles. Soreness all over; every bruise her. Anxious dread. Aggravation: ascending. April 4, 1920. Received a single dose of *Sepia* mm; the symptoms were irregular until June 1st, when a rapid improvement set in; *Sepia* characteristically acts this way.

I wish to emphasize that we will obtain the best results by far by scrupulously avoiding any repetition or change of remedy as long as improvement continues, even intermittently, even if it runs into many months; but in order to do this the prescription must be most accurately fitted to the symptoms and we must know how to wait intelligently upon the ceasing of the reaction which we have called forth.

Do these results look strange and improbable to you? Then you have not sensed the real meaning of my arguments, and it is up to you to learn more about such things, only do not go at them with a lot of preconceived opinions and prejudices, or your work will all be in vain." (C. M. Boger, M. D., What Homoeopathy Means, The Homoeopathic Recorder vol. 35 (1920), p. 501-507. Read before the annual meeting of the International Hahnemannian Association, Cleveland, June, 1920.)

Children

"The first thing a new born child does, is, it screams, and, as we can clearly hear, in a burst of anger and displeasure at the unwelcome change.

It is the first sign that there is a human soul within. No animals scream when born, not even monkeys, neither the mother nor the child.

A well-trained ear will know by the sound what the child means by its cry, also when it is older. In sleep the face shows the state of mind. We should avoid wakening a child or making it scream.

In our endeavors to find out even the slightest traces of a true image of the case before us, we must avoid all rough handling as much as the case will allow. Children will never afterwards trust; they cannot forget or forgive a stranger. Let the mother do as much as possible. We gain very little, if anything, by forcing their mouths open to see what we can just as well hear.

Does it ever tell what to give?

Hohenheim, the greatest master of the healing art before Hahnemann, says in the pledge, he proposes for young men before allowing them to go and heal the sick: Never leave a woman in the hour of her need, and never use force with a child.

An America the first was realized, may it be the land where the second also is acknowledged. Young children who can talk, tell their ailments better than older persons, but we must warn the mother before hand never to resort to such suggestive queries, as: Does it not this or that to you? Do you not feel such or such a thing? As Hahnemannians, we ought to know that such inquiries never give us a true image of the case."

(Constantin Hering, M. D., Analytical therapeutics Vol. 1, Symptoms of the Mind (1875), p. 343)

The proper diet of children

"The therapeutics include also the dietetics, and in cholera infantum it becomes very important to see to it that the proper nourishment is given to the children. The better the dietetics of a child have been understood, and the more proper the nourishment has been from its birth, the less liable will it be to be attacked violently by the ordinary diseases of children during the hot weather. There are general dietetic rules for children laid down in the books, and it is all well to know them, but they lead to generalizations; each individual child wants its own individual diet, adapted to its own individual constitutional condition. The administration of crude substances supposed to be wanting in the organism is based on 'materialism;' the substances so wanting, or supposed to be wanting, can at best only be supplied by food containing them in a greater proportion than its ordinary nourishment did. The instinct of children will very frequently indicate the requisite nourishment, which then should never be withheld, if it is even contrary to speculative science. In properly nourished children we will rarely ever find a bad case of cholera infantum, and the more we have studied carefully the proper diet of each individual child under our care, the less will they be liable to diseases of the digestive organs. Many cases of children come under the treatment of the physician which he has never seen before, and the more general experience he has gained about the proper diet of children, the easier will he be able to detect what mistakes have been made in each individual case, and he will at once endeavor to correct the erroneous diet."

(A. Lippe, M. D., Philadelphia, Cholera infantum, The Homoeopathic Physician vol. 4 (1884), p. 174-175)

The Relation of Diet to Homoeopathic Remedies

Homoeopathy is so rich in remedial agents that its practitioners often tend to rely on their remedies alone, disregarding hygiene and other adjuvants to cure. Especially do they fail to work out diets in detail for their patients. It is essential that they bother to do this for a number of reasons. In the first place, for the *psychological effect* upon the patient. Patients want to feel that every scientific care is being given them, and that the doctor takes flattering pains with them; and secondly they need something to *do*, a call other *active* co-operation on their part. And further, without any remedy of any kind, diet can do wonders for many types of cases.

Let us consider for instance the value, without any remedy, of strict diets in such diseases as: diabetes, nephritis, high blood pressure, renal colic and the uric acid diathesis, arthritis, gallstones and jaundice, gastric and duodenal ulcer, mucous colitis, visceroptosis, constipation, obesity, and last but by no means least, tuberculosis and cancer. Every homoeopathic physician must be grounded in the classic dietary treatments. He must know how to influence acidity, strong urine, asthma and eczema by dietary means.

It is good training for us, and a method of experimental control of our remedies, to start chronic patients who have some one of the above-mentioned diagnoses, on diet and regimen plus Sac. Lac. without any remedy, and see how far you can improve their condition. Thus do

we learn what scientific commonsense will and will not do. Meanwhile you are getting closer to the patient's true simillimum, and can give it in prepared ground, with startling and enlightening effect.

Diet can often replace the use of remedies - a valuable help for the homoeopath. Take a patient who has been 'living on' soda bicarbonate for years. Teach them that soda, chemically alkaline, produces acid physiologically in the stomach, and train them to substitute lemon juice and the citrus fruits in general, and watch. You will be amazed that so simple a means will work so well. Meanwhile the soda intoxication symptoms will pass off, and your case values will begin to be clarified.

From the start the physician must also remove articles of diet and habits of eating which hold the patient back from cure, and which cover the spoor on the trail to a 'totality', and thus to healthful progress. He learns in this quest the patient's idiosyncrasies to food. As every homoeopath knows, these are of great help and import. In this connection there is a wise rule: chronic cases should *not* eat to excess that substance which they especially crave, whereas acute patients *may* - and *should* - eat largely of what they crave, if the craving comes on with the illness. The most extraordinary lapses from classical procedure show admirable results when this rule is followed. But be sure that it is a true craving, an unusual circumstance, individualizing the patient's reaction to the (so-called) acute disease. The craving for and aversions to food in chronics will, of course, give you sound generals for your hierarchy of symptoms. If the remedy is given in chronic cases it will, little by little, enable the patient to assimilate the food he craved, at the same time modifying the craving. For example, I have an Argentum Nitricum patient who craved sugar and was ill from it, and who, under that remedy no longer craves it but can eat it with impunity. Similarly, I have a Calcarea child, who, after Calc. Carb. ceased craving chalk and indigestibles and can assimilate lime from the food.

Several interesting points arise in connection with being made ill by specific articles of food. Try at first to see whether it is a combination of foods which disagree, or just one given element of diet. A wise teacher once told me that almost anyone could eat almost anything if they ate it by itself. Next, in the case of certain acids, try giving cream cheese or cottage cheese with them. For instance, those whom strawberries disagree con often take strawberries if cream cheese is eaten at the same time; and similarly with tomatoes. This also applies to shellfish in some patients. Beware the combinations of acids and sugars, or starches with meat, in people with delicate digestions. Buttermilk will often so alter the colon's flora and fauna that putrefaction is regulated and much can be digested which hitherto did not agree. The famous German homoeopath, Dr. Schlegel the elder, told me that if everyone would drink buttermilk the race would profit enormously, and if they would add honey (formic acid) and radishes (which are anti-uric acid), even more trouble would be saved. Remember that onions help to keep blood pressure down (Italians with their garlic and onions rarely have hypertension).

In idiosyncrasies of preference, rather than actual aggravations, ingenuity will save much trouble. Your child or patient who will not take milk may enjoy it if carbonated water is added, or if milk and cream are mixed half-and-half with ginger ale or sarsaparilla. The difference between hot and cold milk may also change the dislike.

Those who need iron, who also claim that cabbage gives them gas, can often take raw cabbage with sour cream dressing. Spinach puréed with egg chopped on it will tempt the anti-green child. Cider and war apples are marvellous for thinning the arthritic patient. Brown sugar, molasses, maple syrup and honey will not harm him in the way that other sweets will. These hints may seem trivial but they work

In addition to buttermilk and lemon juice, there is another sphere where diet aids materially in cleansing the system. White of egg with lemon or orange juice makes a detoxifying liver wash for the bilious. The egg albumen forms albuminates with the toxins which accumulate in the liver. Tea made from red clover blossoms and drunk, two quarts daily, can help the cancer patients and appears to cleanse the system (an old German adjuvant).

Then there is important relationship between certain foods and the best action of our remedies. For example, Aconite and acids do not agree, coffee antidotes the action of Nux Vomica. These relationships are legion and can be found in Clarke's *Dictionary of Materia Medica* and in many other of our classics, under the separate remedies.

Other theoretical problems of interest come up under this subject. For instance, we use articles of food as remedies. What reaction, if any, may these have on patients sensitive to them, even in the crude, comestible form? And vice versa, can we aid the suitable remedy by giving its unpotentized counterpart as a food simultaneously? Should we not prove the whole range of vegetables, fruits and other foods, so that when we find a patient with an idiosyncrasy to a food we can compare his case with the proving of the offending substance, and see whether it may not fit and aid? These foods should be proved on those with a sensitivity to them." (Elizabeth Wright Hubbard, M.D., A brief study course in homoeopathy, 4th edition Bombay 1954)

Mistakes made in homoeopathic prescribing

"Some years ago I was in the company of a number of distinguished physicians and surgeons of the orthodox school. Most of them had important titles to their names. They all resided in the consultants' quarter. The conversation turned to avoidable failures in medicine and surgery and each of the distinguished men unburdened his conscience. One said: "I killed So-and-So by making such and such a mistaken operation"; another one chimed in: "I made a worse mistake by doing so and so and killing that poor devil." Similar confessions were made with regard to medicinal treatment. Of course, mistakes are unavoidable. He who makes no mistakes never does anything useful.

Even the best and most careful homoeopathic prescribers make avoidable mistakes in treatment, and every conscientious homoeopath should occasionally review not only his successes but also, and particularly, his failures.

Some little time ago a distinguished lady came to me complaining of headaches, difficulty in walking, etc. She and her family had been under the care of one of the most eminent homoeopathic doctors, who took unending trouble with her case. He went into all her symptoms with the greatest thoroughness, examined her thoroughly in exactly the same way in which a physician of the orthodox school would have examined her, and prescribed for her. She returned to him repeatedly and he was unsuccessful time after time. At last she came to me.

Before going into her case with a view to finding a suitable medicine based on the totality of her symptoms, I acted, as I always do, in accordance with Hahnemann's often-expressed demand that no medicine should be prescribed for a patient until all ordinary and common-sense matters had been carefully studied and gross faults of living, diet, etc., had been eliminated. The homoeopathic physician had overlooked this injunction and had assumed that her diet was fairly normal. He had merely told her that she should not take too much meat and avoid some of the most common mistakes of diet. I took down carefully and in full detail everything she was eating and drinking at the various meals and in between. I asked her how many pieces of sugar she put into her tea, whether she took it strong or very strong, hot or very hot, much or little milk, how much condiments she used, and so forth and so on. I discovered that her trouble was largely due to an extremely faulty dietary.

Most patients, however faulty their diet, imagine that there is no fault to be found with it because they have always followed it. She had been living on a diet extremely poor in vitamins and mineral elements, a diet which produces diseases of every kind in laboratory animals, as has been shown by some distinguished experimenters, such as McCarrison, Plimmer and others. With the greatest reluctance she agreed to reform her diet completely and take large quantities of ordinary bran from the corn chandler's which is rich in all the vitamins and mineral elements, an adequate of liquid, etc. In addition I gave her some homoeopathic medicines which were probably chosen less well than those selected by her distinguished homoeopathic physician. She improved promptly. Obviously her trouble was largely nutritional.

Some time ago another lady came to me who had lost the sight of the left eye. She had been to an able homoeopathic doctor who had prescribed for her without considering the all-important question of diet, excretions, etc. The lady was of an apoplectic type, several relatives of hers had died from heart disease or a stroke and it was highly significant that not only the left eye was suffering but that the left ear was rapidly becoming deaf. It had been discovered that a clot had formed in the eye, obstructing the apparatus of vision. Such a clot can be dissolved or be absorbed by means of *Arnica* and various other homoeopathic remedies which probably had been given. Very likely the trouble of the left eye and the left ear was due to the hardening of the arteries within the skull, affecting the brain. She was constipated, lived on a heating diet, likely to produce arteriosclerosis, and took hardly any liquid. I put her on a suitable diet to bring down her blood pressure and she improved promptly.

It should not be thought that I am singular in discovering the mistakes made by other homoeopathic prescribers. I make similar mistakes and do not mind confessing them. Some time ago I saw a Mrs. H., who came to me with a diagnosis of disseminated sclerosis, in plain English, creeping paralysis. She dragged one foot, the condition had gradually become worse, and to all appearances the trouble came from the spinal cord. She was in poor condition, jaundiced, constipated, etc. I prescribed for her to the best of my ability, giving her a suitable diet, regulating her bowels by dietic means, etc. She improved constitutionally, but the legs improved only slightly. They ceased to be icy cold, pain diminished, but walking capacity did not improve. After some considerable time I saw her again. She dragged her foot exactly as she had done before. Suddenly it occurred to me that I would look at her feet, although she had assured me that she had no flat feet. The feet were poorly shaped and I asked her to walk about without her shoes. She then could scarcely walk at all and entreated me to let her have her shoes. This suggested to me that, notwithstanding her assurances, she had flat feet, and that she needed arch supports more than homoeopathic medicines. I improvised arch supports, put them into her shoes, asked her to walk about and there was an immediate improvement in walking.

Some time ago an elderly man came to me with various troubles, combined with malfunctioning of the liver. He complained bitterly of various symptoms, particularly of fearful itching of the legs at night in bed. It is a well-known fact that if the liver does not function well, the gall, instead of being discharged into the bowel, is sent into the blood, causing jaundice and great irritation of the skin. I carefully went into the case and prescribed what I thought were the most suitable remedies, together with the indicated diet, but the itching of the legs at night did not get better although the patient improved in other ways. In carefully going over the case once more it appeared that the itching of the legs was not due to the liver, but to the fact that the man laced his boots far too tightly, interfering with the circulation. When he took his boots off at night the rush of the blood towards the feet caused the irritation of which he had complained.

One must always carefully consider the common-sense aspects, studying the case of every patient like a detective. This reminds me of an incident in Hahnemann's career. A friend of his, a painter, became seriously indisposed. Hahnemann went very carefully into all the aspects of the case but did not succeed in curing him, and was disappointed. One day he saw his painter friend at work. He was painting with sepia, and Hahnemann noticed that the painter moistened the brush with his lips, then used sepia, moistened it again and so on, swallowing a considerably amount of sepia, which he thought was quite harmless. It occurred to Hahnemann that sepia poisoning might be at the bottom of the trouble, and this was actually the case. He studied Sepia and it became an important medicine in Homoeopathy." (J. Ellis Barker, My Testament of Healing 1939, Mistakes made in homoeopathic prescribing, p. 78-81)

The "Sifting of our Materia Medica"

"The case here referred to has been laid before the profession many years ago, but at this time, when a great effort is going to be made to destroy the usefulness of our materia medica by means of an indiscriminate sifting process, a little illustration may serve to cause some thoughtful colleagues to reflect before they progress with and go into the destruction-bringing sifting-trap.

The patient was a boy about fifteen years old, who was in the twenty-first day of typhus abdominalis. Dr. H. N. Guernsey had been in attendance and had treated him in his always careful manner, when the following prominently characteristic symptoms were observed: The whole alimentary canal and organs were in a state of ulceration ; his mouth especially was extremely painful; could not even allow fluids to touch his mouth without complaining severely; he vomited blood-streaked mucus, and had severe diarrhoea; sleepless; during the night he would shriek out violently without being able to state the cause of it. Nitr. ac., Mercury, Arum triphyllum had had no effect on him. The mental symptoms called our attention to Stramonium; but here was that last tormenting symptom, the sore mouth, and as we were in doubt whether Stramonium could be administered under the strict law of the similars, we resolved to study up the case before prescribing. In the admirable rendition of Stramonium by the ever painstaking C. Hering we found symptom 1023: 'It feels as if the inner mouth were raw and sore (Hahnemann)' - and in going as a last resort, as is our habit, to the *Materia Medica Pura* of Hahnemann, we there found that symptom (20) an observation of Hahnemann himself. After further comparisons, we were satisfied that Stramonium was the similar remedy, and a few doses of it (high potencies) were administered with the hoped-for result - a speedy cure. The prover had only a sensation (feeling) as if the mouth were raw and sore; the patient had that sensation also, and additionally had really a raw and sore mouth. The result proved that our interpretation of that single apparently unimportant symptom, observed by one prover only, was correct.

A revision of the materia medica is now seriously proposed, and the American Institute has taken the initial steps for the 'revise.'

The Bureau of Materia Medica, through its Chairman, Dr. J. P. Dake, presented, at the last meeting of the American Institute, a report, and read a schema for the revision and publication of a purified materia medica, sifting out that which is worthless and arranging the whole in a condensed form.

The schema is objectionable on various grounds; for instance, rule 5 reads, 'Include as a rule no drug that has not shown pathogenetic (would read better SICKMAKING) power in two or more provers.' What would have become of the case above referred to if violent hands were

laid on 'singly observed symptoms'?

No. 10 was properly objected to by thinking members. It reads : 10. *'Include no symptoms reported as coming from attenuations above the twelfth decimal only when in accord with symptoms from attenuations below.'* No. 10 is objectionable. It is illogical, to begin with, if it is admitted that attenuations above the twelfth can cause symptoms. Why then reject those not in accord with those observed from attenuations up to the twelfth? Does the learned gentleman, who committed himself unwittingly to the acknowledgment that attenuations above the twelfth can have any sickmaking powers, not know that the higher potencies are more potent in every respect than the twelfth? Does it not follow that on that very account these higher attenuations (potencies?) will cause, in many instances, more characteristic symptoms than the twelfth develops? The arbitrary limitation to the twelfth attenuation is unwarranted; or does it seem needful in these days to disregard the teachings and statements of the father of our school? What will the revisers do with Theridion curassavum, which has only been proved in the thirtieth decimal potency? Will they throw it overboard and insult every healer who has reported cases cured by Theridion? Furthermore, there are now a not inconsiderable number of characteristic symptoms of acknowledged value observed only by provings with high potencies. Will the makers of the revised and purified materia medica throw them out? *They will if they know them!* But alas! they do not know much about the way the materia medica was obtained; we do, and if that promised *Opus* should see the light of day it may give us great pleasure to expose these purifiers, especially if they have admitted symptoms only obtained from and only cured by high potencies.

11. *Omit the contributions of Hahnemann and his fellow-provers to the Materia Medica Pura and Chronic Diseases, which are already accessible to the profession, and of which we do not possess the day books.* The play of Hamlet with Hamlet left out! Why reject that immortal work of Hahnemann? *Because we do not possess the day books!* For the same reason, Hering's provings may be set aside as well as other provings. It is an old complaint made by Dr. Richard Hughes and his followers that we have not Hahnemann's day books. Will these everlasting fault-finders take up Hahnemann's *Materia Medica Pura* and his *Chronic Diseases*, and for their own satisfaction write out the day books! If they desire to have the day books they are there, can be obtained easily if they observe on what day the various provers observed the symptoms. If they write them out as far as given, the day books are ready. Hahnemann gave the name of the provers, and the abbreviations of their names are given. To many a symptom is added the day on which it was observed. When Hahnemann performed the herculean work of *creating* a pure materia medica it was very difficult to find a publisher, and his ardent friend who was fully convinced of the great truth of Homoeopathy, the bookseller Arnold, at Dresden, published these works at a very great pecuniary sacrifice, and now, some sixty years later, it is claimed that he should have published 'day books' also. Fault-finders who have not the remotest idea of the magnitude of Hahnemann's and his publisher's sacrifices. In our days we find published 'new remedies' without 'sacrifices,' and these fault-finders never mention these innovations adversely. What was the corner-stone of our school? Why, Hahnemann's works.

Once more we return to the case above related. From the facts there stated different men who have differing views of Homoeopathy will make different uses, draw different deductions. The thoughtful healer will mark in his *Materia Medica* opposite the symptom related 'Confirmed' (sore mouth and alimentary canal in typhus healed). The man who rides the pathological hobby-horse will draw the deduction that Stramonium will heal sore mouth and ulcerated alimentary canals in every case of typhus fever, and he will be sadly disappointed if he leaves out 'the mental symptoms,' as related in this case. Natrum sulfuricum has healed

similar pathological conditions, so have Nitr. ac., Arum tri., Arg. nitr. The true healer considers the 'totality of symptoms,' not a hypothetical pathological condition. He individualizes and does not generalize, guided by a pathological picture-book; he also does not reject a symptom because it was only observed by one prover; nor does he ever dream of labor-saving books, such as the condensing, purifying divisions, with the twelfth dilution as a standard, propose to publish. If the *Opus* really comes out there will be found among the 'veterans' a goodly number who will write 'A Criticism.' These old veterans did utilize Hahnemann's *Materia Medica Pura* and his *Chronic Diseases*, and there were many among them who learned the German language that they might have access to this indispensable work, as many years elapsed before a translation into the English and French languages appeared, while still later it was translated into almost all languages. With Hahnemann's great unparalleled *Materia Medica Pura* in hand, the battle against the common school of medicine, with their materia medica bristling with materialism and arbitrary classifications, began, and by the aid of Hahnemann's works battles were won; Homoeopathy was established because it cured. Would not men endowed with a reasonable amount of common sense leave the foundation on which was built our school intact and be content with adding to the inheritance left us. I well remember to have seen a copy of Hahnemann's *Materia Medica Pura* and his *Chronic Diseases* at the residence of the late Dr. Bousquet, at Havana, in 1856. Thumbed as these volumes were, their soiled condition gave evidence of their frequent use, and this old Frenchman had introduced Homoeopathy into Cuba; the yellow fever and the cholera were by him cured, by means of the *Materia Medica* unabridged and unrevised, and with the thirtieth potency. Later this good healer learned to use higher potencies, and Homoeopathy was by him permanently established and used by an intelligent community. Many similar cases have come to my knowledge. The early practitioners in all parts of the world established and made respected our school by just these means. The English reading homoeopaths will continue to use the superior translation of our *Hahnemannian Materia Medica* by Dr. Drysdale, far superior to the slovenly translation by the late J. C. Julius Hempel, who had even omitted that greatest paper of the Master, 'The Genius of the Homoeopathic Healing Art,' which paper we take the liberty to recommend for study to men now deliberating how to 'condense and purify' our own materia medica before they present to the world 'a Caricature.'"

(Ad. Lippe, M. D., Philadelphia, The 'Sifting of our Materia Medica:' A Clinical Illustration, The Homoeopathic Physician vol. 4 (1884), p. 311-314)

Über die Veröffentlichung von Krankengeschichten

"Die Veröffentlichung der Krankengeschichten kann, meiner Ansicht nach, jetzt nur noch einen Zweck haben, nämlich den, ein brauchbares klinisches Material für eine künftige Bearbeitung der homöopathischen Therapie zu liefern. Unsere Gegner dadurch von der Vortrefflichkeit unserer Heilmethode überzeugen zu wollen, halte ich für eitel Bemühen, da, wollten sie sich überzeugen lassen, das Vorhandene genügend wäre. Für den obigen Zweck sind aber nur solche Krankengeschichten tauglich, welche Jedem, der sie liest, die Überzeugung aufdrängen, daß in dem mitgeteilten Falle nur das angewandte Mittel die Heilung bewirkt haben könne, und wo möglich ein einziges Mittel zur Beseitigung der Krankheit hinreichte, daß an derselben kein Überfluß, hat uns die Cl. Müller'sche Bearbeitung der Pneumonie zur Genüge gelehrt. Den aphoristisch mitgeteilten Erfahrungen kann ich auch nur einen ganz untergeordneten Wert beilegen, da sich für den Leser nur die ausführlich erzählte Krankengeschichte, wo er uns Schritt für Schritt bei der Krankheits- und Mitteldiagnose folgt, eine überzeugende Kraft haben kann. Natürlich ist auch unter diesen eine sorgfältige Auswahl zu treffen, da nicht jede ein allgemeines Interesse hat und, wie College Hirsch treffend bemerkt, die Zeiten vorüber sind, wo wir uns an der gelungenen

Heilung einer Pleuritis erfreuten. Die Ausbeute wird dann allerdings etwas mager ausfallen, wie die im Folgenden mitgeteilten aus einer großen Anzahl ausgewählten wenigen Fälle, die mir den genannten Anforderungen zu entsprechen scheinen, hinlänglich beweisen."
(Klinische Mittheilungen, von Dr. Lorbacher in Eisleben, Allgemeine homöopathische Zeitung Bd. 46 (1853), S. 81-87)

A state resembling acute Bright's disease

"Child of C. N., a sprightly little girl two years old. Symptoms: yellowish white discharge from left ear, profuse lachrymation from right eye, and some white, clear mucus flowing over the eye-lid and cheek that seemed to be blood. The under lid of right eye appeared like a water-bag, and the whole face was puffed and rather transparent; the right was much the worse of the two. The child looked sickly and cried much. The mother stated that it had not been well or several weeks. While thinking over Apis and Ars., I began to look for aggravation by warmth, etc., when I was informed that the child could not endure any covering, and she was absolutely thirstless, which excluded Arsenic from further consideration. The mother believed the urine to be scanty but she was not certain, but says she, 'Her water smells strong, like that of a horse.' Nit-ac.¹²⁰⁰ (Jenichen), and we soon cured the case, ear discharge and all, in the surprisingly short time of a few days.

This was not a case of *acute Bright's disease* following scarlet fever, but much like it. Every physician living in this malarial climate must have observed the same anasarca and otorrhoea following malarial attacks, home-treated or neglected. The dropsical condition follows all kinds of malarial attacks, and particularly this ear complication, associated with kidney disease. But will some astute pathologist inform me why nitric acid cured this case so promptly if on other grounds than that it was the *simillimum*? These cases all die when not properly treated! They all recover promptly under a few doses of the appropriate remedy."
(J. T. Kent, M. D., St. Louis, Resembling Acute Bright's Disease, The homoeopathic physician vol. 4 (1884), p. 298)

Lice on the head and other complaints

"A black-haired girl, of three years, breeds lice constantly on the head. If entirely removed they will return within a few weeks, and that too without any communication with other children. Mental weakness, does not comprehend what is said to her. Exceedingly irritable. Fetid, watery otorrhoea. Fetid odor from the mouth. Tonsils large and reddened. Harsh, dry cough at night, awaking her from sleep, when she cries bitterly. Often rubs the vulva as if because of itching. Nocturnal enuresis. Urine stains brown, destroys the texture of the sheets, offensive like that of a horse. Night sweat, profuse and general, of strong odor.
1896, March 30. Nitric acid ^{cm} Fincke, one powder.
This worked a miracle. The lice disappeared of their own accord and did not return. She became mentally brighter and more active bodily. The enuresis needed another prescription of Nitric acid 5^{cm}, three months later, for its cure."
(Erastus E. Case, M. D., Hartford, Conn., Clinical experiences, Phtheiriasis capitis - Nitric acid, in: Proceedings of the International Hahnemannian Association 1897, p. 180)

Recurrent fibroid in the left side of the neck

"Frank H., a compositor in the *Globe-Democrat* office, St. Louis, came to my office to have a tumor removed by the knife. It had been removed twice and was called a *recurrent fibroid*. It was the size of a hen's egg and very hard, located in the left side of the neck, not connected

with the parotid, through growing a little below it. I advised him to give me time to prepare him for removal. I took his symptoms and found that he was better by wrapping up even the head. He was timid in going into a new enterprise, though abundantly able to perform the task. *He lacked confidence in his own ability, yet when he had begun he would do well.*

He took Silicea ^{5m}, April 1st, 1883. Six weeks later he called, and the tumor was reduced one half. Sil. ^{72m}, dry, one dose. Six weeks later almost gone. January 23rd, 1884, Sil. ^{72m}, one dose. The tumor has disappeared. This prescribing has been commented upon by a large number of friends, who think the one dose business a mystery. He got no Sac. Lac., as I had his confidence. I did not prescribe for the tumor, but for the patient. My prescription could not have been different had the tumor not been present.

The tumor was not included in the totality of symptoms, as it was not a symptom; it furnished no part of the guide to a remedy. The symptoms expressive of the whole state existed prior to the tumor, and it was the language of this pre-existing state that I read, as out of this pre-existing state, grew the tumor. I must interpret the language or expressions of *cause*, not *effect*. The man who is guided by pathology can use the knife. To use the knife is but to acknowledge one's ignorance of a method by which he can avoid cutting."

(J. T. Kent, M. D., St. Louis, "Recurrent Fibroid" cured by Silicea in high potency, *The Homoeopathic Physician* vol. 4 (1884), p. 193 - from *Medical Advance*)

A rarely known remedy

"Miss B. W., aged fifty-two, and of scrofulous diathesis, formerly subject to bilious affections, with sick headaches; sixteen years since became partially paralytic in the left fore-arm and hand, which was then supposed to arise from enlarged glands about the neck from scrofula; fifteen years since, during a severe attack of what was supposed to be sick headache, became apoplectic, the sequelae of which was nearly a complete paralysis of the left hand and arm. For the last fifteen years the arm has been useless, quite pulseless, nearly bloodless, numb, prickling, with occasional turns of severe pain of the whole arm, and which, from their severity, were nearly insupportable, - the limb flabby, diminished in size, so utterly destitute of strength and firmness that in endeavoring to execute some trifling motion, the thumb, fingers, and sometimes even the wrist, would, as it were, fall out of joint. Being left-handed, she would often try to do with that limb what she, under other circumstances, would not. She was scarcely able to raise the hand without the aid of the right, and not able to hold anything in the hand with safety or steadiness. Disposition fretful, touchy, irritable, easily discouraged, and inclined to weep, mind weakened. General health in most respects delicate. Nervous, excitable, unhappy.

On the first of July I gave her *rhus radicans* three pellets of the third dilution - the same on the morning of the second. She passed a somewhat restless night with much severe aching of the back of the neck, shoulders, instep and toes of the left foot, with severe tingling, and pricking of the left arm and hand.

Through the 2nd, 3rd and 4th of July the pains continue severe, and extended to the whole left arm which seemed swollen, and the veins of the left limb, which had rarely been susceptible to the sight or feel, became full, blue, hard, painful in the extreme. All this was attended with dizziness of the head, light terms of faintness, great irritability and complaining, less than usual appetite, insecure feeling when walking, or unsteadiness of gait, free motions of the bowels and abundant discharge of pale urine.

On the 5th, the unusual symptoms began to abate; and in about three days she was free from any considerable suffering, with a quite perceptible, yet rather feeble pulse, where, for fifteen

years, none had been detected even by physicians, veins remained filled giving the limb nearly the appearance it had before being paralyzed, daily sensible increase of the usefulness of the limb.

On the 13th, she was able to use a needle, and is now at this writing (August 1st) able to do one third of a day's work at sewing. There is still yet daily increase of power in the limb, with improvement of the general health, rarely feels slight pain in the limb, is more cheerful, less irritable, has more ambition and fortitude. She is yet resting from all medicine; but follows strict rules of diet. I design to repeat the medicine at some future period if improvement ceases short of perfect restoration of the functions of the diseased organ.

I have another case of paralysis of the right arm under treatment with the same medicine, with certainly some benefit; but how much remains to be seen."

(Case by Dr. Barlow, one of the physicians of the N. Y. Homoeopathic Dispensary, The American Journal of Homoeopathy vol. 1 (1846-1847), p. 100-101)

"Mrs. S., about forty years old, wife of a prominent clergyman in this city, consulted me for annually appearing paroxysms of urticaria, or whatever you may please to name it. On the 13th of May every year for seven years she had been seized with a burning and itching of the skin that would seem nearly to drive her to distraction. I saw her in one of these attacks in bed with her entire surface covered and her eyes closed with oedema of the lids. The hives were so confluent that not a spot of healthy integument could be seen. The whole paroxysm lasted twenty-four hours. She seemed to be in terrible distress and exclaimed every moment, 'I shall die this time surely!' She seemed suffocating and was throwing off the covers. It seemed from her movements and speech that her skin felt as if on fire. There was no perceptible thirst and time was precious, and I am satisfied that I made waste by my haste in giving her a dose of Apis²⁰⁰, which had no effect. But the paroxysm passed off and another year rolled by, when she called on me, as I requested her to do, a month before the expected paroxysm. I then learned more of her symptoms. I learned that when the eruption was out distinctly in nearly all of the attacks she had found that heat calmed her terrible distress and ameliorated the itching and burning. While she craved cold and had even thrown the covers off she was made worse by it, but when she had retained presence of mind and covered herself warmly with clothing she soon became quiet and the paroxysm terminated with less suffering.

This being the case, Apis could not be her simillimum, and I could now understand clearly why I failed to interrupt the paroxysm and bring about a feeling of contentment so usual in such cases. I have quieted such patients very frequently in an hour, and plainly as a result of a homoeopathic remedy, but this case furnished me no evidence of curative action of my selected remedy. With the symptoms as given and the new modality, I gave her one dose of Rhus rad.²⁰⁰, and bided my time ten days before the expected paroxysm. Within a few hours after taking the remedy she declared that her 'spell' was coming on; but it was only the shadow, the paroxysm never appeared again. She has missed it in two years and she is in better health than ever. She remarked to me one day, 'Doctor, your powders have made a new woman of me.' She had been treated allopathically, physiologically, eclectically, pathologically, and with all very badly. This may not have been urticaria. Some of the wise heads of the old school told her it was from eating strawberries, and she refrained from these luxurious fellows and still she did not miss the paroxysm. One told her one thing and another disputed him. What was it? I don't know, neither do I care. Perhaps some pathologist could inform me as to the *scientificity* of my prescription. I simply know that when comparing the pathogenesis found in the *Symptomen Codex* I found a picture of the disease to be cured, and that is enough to me. The highest potency at hand was administered and never repeated. The slight aggravation usual to such work followed, and then I was contented to await results.

I am contented with such results, and so will any man who knows how to apply the *law - the simillimum, the smallest dose, the dynamized drug*. In this was only can we progress, and in this way shall we become the most useful to our patrons."

(J. T. Kent, M. D., St. Louis, An Urticaria appearing annually, The Homoeopathic physician vol. 4 (1884), p. 262-264)

"Mr. S. S., about thirty years of age, had suffered with left varicocele for several years; the left testicle was very much swollen, very tender to touch; the veins filled the left scrotum, and felt as large as common lumbrici knotted up in cluster; was very nervous; light complexion, rather tall and slim, blue eyes, light-brown hair, and would weigh about 130 pounds; feverish; restless at night - could not sleep before midnight; get up in the morning more tired than when he went to bed; disposition taciturn ; sometimes cross and hateful - at others gloomy and despondent.

Had tried everything, but could get no relief; had been told that nothing would help him but an operation, which he dreaded, so he came to me to see what I could do for him.

He was put upon Rhus rad. ^{cm}, one dose per week, with Sac. lac. at intervals of four hours. He was entirely cured in about three months, and has had no further trouble for over two years."

(J. R. Haynes, M. D., Indianapolis, Ind., Rhus radicans, Proceedings of the International Hahnemannian Association 1894, p. 82-86)

"Mr. E. E. A., about forty years of age, of Norfolk, Neb., in early life was a great sufferer from functional derangements of the liver, stomach and spleen; but it was not until the year 1890 or 1891 that he first obtained relief, when he began taking homeopathic remedies, and since that time has been a firm believer in our system of treatment.

In August, 1902, he first noticed the palms of the hands and soles of the feet began to burn and itch. This lasted for some weeks, slowly but surely becoming worse, when vesicles began to appear which gradually extended over the whole body. The vesicles were very small, almost rash-like; burning and itching intensely, which after rubbing or scratching would ooze a clear sticky fluid and gradually spread to new tissue. The vesicles gradually increased in size, and as they increased exfoliation became very marked. The scales dry, white, were bran-like, and soon the entire body became involved, from the crown of the head to the soles of the feet. It was a marked case of dermatitis exfoliata.

He consulted me first in July, 1902. The disease had been running for some years and gradually increasing in severity. The exfoliation was so profuse that in the morning from a pint to a quart of dry bran-like scales could be gathered from the bed.

The characteristic on-set of the disease, its gradual extension from the extremities of the body, the intense itching and burning by scratching or rubbing "the more I scratch the more I must," and the extensive exfoliation decided me to give him Rhus Radicans, which he received in the M. potency one dose dry on the tongue.

He began to improve promptly, and in three or four months the skin was normal and perfect health restored. In that time he received four doses of medicine.

It was one of the worst cases I ever met and one of the best cures I ever made, and it bids fair to be permanent.

Dr. A. L. Macomber who referred the case to me wrote in April 6th, 1904:

"This patient has been in the midst of the eruptions, boils and desquamation on head, face, forearms, hands, legs and every part of the body.

There were boils discharging yellow, bloody exudate; patches of skin peeling off; underneath loose skin looked red, raw angry; and no end to the silvery white scales, large and small, stiff and dry from all parts of the body.

Some looked like fish scales in thickness; nails of fingers and toes came off.

I saw the fingernails when the line of demarcation was about half down the nail.

It is one of the worst cases I have ever seen; in fact I never saw anything like it.'

In a subsequent letter received from the doctor, he says 'It seems to me the most wonderful cure, and I shall watch with much interest for the report of the case, that I may also know the treatment.'

Mr. A. is now fully recovered, and is apparently a well man."

(H. C. Allen, M. D., Chicago, Clinical Cases - Dermatitis exfoliata: Rhus radicans, Proceedings of the International Hahnemannian Association 1904, p. 161-178)

Dysmenorrhoea

"Mattie E., aet twenty-three. Since the first menstrual nusus, which occurred at thirteen, she has suffered great pain at every period, which has been every three weeks. Pain in the uterus and down the limbs. Before and during she has suffered from an empty, hungry, all-gone feeling in the stomach (Sepia, Murex, Ignatia); she cannot stand long on the feet, the pain is so much aggravated; cold feet; great dizziness when going upstairs; voracious appetite.

The fact that this difficulty dated back to puberty guided me to Calc. phos. She never had any more pain. This young lady was compelled to avoid any engagement that might come on her sick day, as she was compelled to keep her bed most of the first day. Her expressions of gratitude have often cheered me and her praise has brought me much business.

So important is Calcarea phos. in the painful affections of the uterus connected with puberty and resulting from bad habits or neglected advice at that time that I feel like emphasizing this feature of it. It is a common practice in rural districts for girls at puberty to wade in water and do many careless things, thereby laying foundation for dysmenorrhoea and sterility. The complaints growing out of these causes find their remedy in Calc. phos. in a very large number of instances.

Miss X., twenty-four years old, had suffered from dysmenorrhoea since puberty. She always kept her bed during the first day; menses a few days too soon and profuse, lasting five days; the pain was labor-like and there was some bearing down in the vagina, with a sensation as if the parts would protrude. She often felt as if her menses would come on at different times during the interim, and sometimes a sexual flame annoyed her. Generally she was robust and free from complaint. Calc. phos. cured this lady in two months.

She was an orphan, having no mother to advise her, therefore exposure at the time that she most needed to exercise judgement brought on the suffering that lasted ten years before she obtained the appropriate remedy. This patient had submitted to local treatment without palliation. She has been told that internal medicine could not benefit her.

Miss Susie C., twenty-two years old, consulted me for dysmenorrhoea. Her menses came very much too soon, and lasted from seven to ten days. The flow was dark and clotted the first three or four days; the severe pain was at the beginning; she got some relief after passing membranes. She complained of aphthous patches in the mouth and sometimes on the labia. She always had a leucorrhoea several days before menstruation, white-of-egg-like and ropy.

Her pains were often labor-like, constricting (Cactus), extending into the back and up the back (Gels.), and down the thighs (Cham.). She would always weep from music (Natrum) and grow sick and become frightened when going down from the top of any high building in an elevator.

She got Borax ^{3m} at proper intervals. The result was satisfactory. The second period was painless and normal. The relief in this case has been permanent."
(J. T. Kent, M. D., St. Louis, Dysmenorrhoea, The Homoeopathic Physician vol. 4 (1884)), p. 330-332)

An accidental Proving and a Discussion

"May 5, 1895, Mrs. B., a large, light-complexioned Swiss, took Ergot with suicidal intent.

For the first few days there was a passive, uterine hemorrhage, with intense burning in the abdomen, after which the hemorrhages became profuse, were bright red, came in gushes, were worse from motion and were hot like steaming hot water; a cessation of the hemorrhage for a few hours was followed by large, dark clots and hemorrhage again the next day. Since then menses have delayed from three weeks to three months, and when they did appear were very profuse, like hemorrhages.

For a long time after the first hemorrhages had ceased there continued an olive green leucorrhoea which left a stain upon the clothing which looked, after washing, like indelible ink.

Shortly after taking the Ergot she had what she called weak spells, which lasted for an hour and a half to two hours. They came suddenly, with the sensation as though the heart stopped beating and there was something heavy in the chest; then followed roaring in head, dimness of vision, 'ears shut up,' and rapid, oppressed breathing. All through the spell fingers were spread wide apart and partly flexed; there were cramps in the feet, numbness and stiffness all over, coldness, could not swallow, felt as though something had closed in the throat; she was conscious, and thought herself dying. The spell ended with violent nausea and vomiting, which started a profuse hemorrhage followed by labor pains. During the spell a circle, the circumference of which began at the wing of the nose on one side and extended around under the chin to opposite wing, was dead white, with a greenish tint; the lips were pale; a line one-sixteenth of an inch wide along the outer edge of vermilion border was dead white. These spells occurred frequently, the cramps becoming more marked until, on May 13th, eight days after taking the Ergot, the patient recognized them as spasms.

The spasms began with chilliness, then yawning, tingling in fingers, nausea, jaws locked so firmly that teeth upon upper jaw overlapped nearly to gums upon lower jaw, an impossibility at other times. A piece of the front tooth was broken off. The fingers were clenched, feet drawn under; sensation of hard pressure in suprasternal fossa; numbness all over. Spasms were tonic throughout. She lay on the floor rigid, was perfectly conscious through it all, knew her husband thought her dead, and she feared they would bury her alive; wondered why her teeth didn't ache, as there were at other times very sensitive. She tried to speak but could not, she tried to move but could not. Spasm lasted a half hour, after which she complained of being very tired. A half hour after spasm teeth began to ache. During spasm face was pale, with blueness about the mouth. She explained that it felt as though someone were pulling the strings in her just as she had seen her little boy pull the strings in a chicken's claw.

Spasms became less general, had them frequently in hands and arms, or feet, legs and hips, beginning in feet and going up. As they became less general, spasms in uterus became more

marked; exertion like a long walk would bring a general spasm again. Even yet she complains of frequent numbness in arms and fingers, and cramps in fingers.

A few hours after first general spasm she had an attack of nosebleed; blood was bright red, profuse, hot; she said it came so fast that it went down her throat, and kept coming up a long time afterward. Internal burning was a marked symptom - 'Burning on the inside, would like to put ice in, but icy coldness on the outside;' goose flesh, cold perspiration on scalp; felt as though hair was standing up; wrapped up and sat with feet in oven, but could not get warm externally, though felt as if she was burning up internally.

Sleepless and restless all night; sensation of pins and needles sticking into her; couldn't lie in bed because it was so soft it jarred if she moved and jarring caused pain. She went from bed to floor, then to chair, then to floor in next room, then sat on stairs, then went back to floor on her own room, then downstairs; could not keep still. Restlessness has been marked all through the provings.

Nausea for six days after the Ergot; could retain nothing eaten; even water came up at once; much soreness in abdomen, with sensation of pins and needles pressing outwards.

Skin flushed; if scratches ever so lightly every finger-mark turns slowly white; in a minute or two it turns greenish-white; in ten or fifteen minutes flush returns.

Face changes color, red, blue, white, spotted red and white. Patient became much emaciated everywhere except abdomen, which remains very large.

A year after taking the Ergot menses delayed seven weeks, when she discharged a sac about the size of a bantam's egg, which contained only a watery fluid; at that time had a profuse, offensive, dark flow, with clots.

Two years after the Ergot she gave birth to a boy. A month before the birth violent labor pains set in; could hardly bear them they were so severe, especially in the sacral region; the membrane ruptured, and a quantity of amniotic fluid escaped, so that the abdomen decreased very much in size; the fluid escaped with every pain; os slightly dilated. Patient remained in bed two days, when the pains had entirely ceased excepting a throbbing in sacral region. She went about her work again. Abdomen steadily increased in size until it became very distended. In a month labor pains again began. They came on in the afternoon and lasted until 3 A. M., then ceased, returned at 11 A. M., violent and frequent; seemed more like spasms than labor pains; after a while grew less frequent and less severe. Examination showed os completely dilated and membranes protruding. On account of the great distension of the uterus, I ruptured the membranes, when the pains became stronger and more frequent for awhile; at about 4 P. M., they ceased entirely. I then introduced the forceps and took the child, a good-sized boy, measuring seventeen inches around the shoulders. He was so nearly dead that it took twenty minutes by the watch to induce him to breathe, and it was ten minutes longer before he made any kind of a sound. The placenta came with a pain; flow was profuse but no hemorrhage, and the patient made an ordinarily rapid recovery.

Three years after the Ergot the patient had what seemed to be an attack of cholera morbus. There was burning. The attack came suddenly, great prostration, rapid emaciation, anxious expression on face, eyes sunken; restlessness; great thirst, but a drink of water came up as soon it was down; worse at night, and pain with stool. She improved slowly upon Ars. until I found her one day with coverings pulled up to knees and her feet pressed against the iron bedstead. She apologized, saying they felt so burning hot she had to put them upon something cold. Examination showed the feet and legs to be icy cold. Then I remembered that she had had a similar attack about a month after taking the Ergot. I gave *Secale m.* and a marked and rapidly improvement followed.

She used to be a Pulsatilla patient, but since the Ergot she has developed a most violent temper; at times she becomes furiously angry at the merest trifle, wants to swear. her temper frightens herself; she fears she will injure someone in them.

Has spells of great restlessness and anguish at night; sees people in the room, scolds them, says they are cause of all her trouble; goes to them to shake them and then discovers no one is there; she walks the floor; there is great tingling of arms and fingers; picks up sewing-machine and walks around the room with it because she must have something pulling upon her arms; she cannot keep still, much less stay in bed. Something tells her to take her little boy and go to the cemetery and kill him and then kill herself; she argues with herself that it would be wrong, but the other voice tells her she must do it. During the argument it seems to her that to kill herself and child would be the right thing to do. With the daylight, these mental symptoms disappear, and then she is depressed and worried for fear she will kill her child in some of the spells; fears she will become insane; says I would pity her if I could only know how real those things are in those spells and how awful they are.

This last winter she had an abortion of two months; took cold, suppressed the flow, and had puerperal fever, during which many of her old Ergot symptoms reappeared.

The baby born two years after the Ergot is a fat, rugged-looking little fellow, but is quickly prostrated when ill; he has dilated pupils; jerking of muscles in sleep; starts at sudden or loud sounds. When sick is always taken suddenly, has burning fever and usually bright red cheeks; starts out of sleep and cries out as though frightened. When teething had tonic spasms, which closely resembled his mother's. One night, when about eight months old, had an attack of metallic, mirthless laughter, which lasted half an hour continuously, and sounded like an adult laugh. It left the baby much prostrated; it was a week before he was himself again. When a year and a half old he had an attack of diarrhoea; stool was offensive, excoriating, worse at night; great restlessness; thirst, drinks a swallow or two, but it comes up immediately; anxious expression on the face. Sent Ars. at midnight and saw him twelve hours afterwards. Stools had ceased since the medicine. He had emaciated during the night; was pale, had dark rings around the eyes, anxious expression upon the face even when asleep, and the skin was cold. There was great restlessness; could not keep still a minute; his mother was walking the floor with him, and he was constantly changing his position in her arms; he would put his head upon one of her shoulders, then upon the other; then back again; then he would lie down in her arms, then up again with his head on her shoulder; not still a minute in any place if awake. He was so exhausted that he would fall asleep only to waken in about two minutes and go through it all again. His mother said he had been like that since the night before. His hands were blue and looked as though they had been soaked in indigo water. Gave Secale m. He soon was asleep and slept ten minutes, wakened, asked for a drink, which he retained; slept again a half hour; the anxious expression left the face and he made rapid recovery.

In going over these cases we find that the symptoms come suddenly; there are sudden fevers, sudden attacks of spasms, sudden hemorrhages; patient is worse at night; worse from a jar. We find constrictions and we find tonic spasms of the flexor muscles. There is great internal burning with external coldness.

Ergot, as brought out in these cases, reminds us very much of Belladonna in the character of the symptoms, and in the fact that the group of symptoms come suddenly, but it has a much slower pace than Bell. The patient had taken Ergot three days before ill enough to send for the doctor. In Bell. we find a well person suddenly sick; in Ergot we find a sick person in whom the groups of symptoms come suddenly.

The nausea and vomiting with the uterine hemorrhage was just as pronounced as Ipecacuanha, but the hemorrhage itself was more like Belladonna.

Ergot reminds us of Arsenicum in the restlessness, anxiety, nightly aggravation and burning fever, but its fever comes suddenly. Like Ars., it has the burning thirst and takes small drinks of water, which are immediately ejected. It has the internal burning, but Ergot has external icy coldness with the burning, and wants to put its cold feet upon cold things to cool off. In Ergot the spasms are tonic and much more marked than in Ars.

Discussion

Dr. Campbell: That is a valuable paper and a grand proving.

Dr. Loos: I have heard that case several times and I have always wished it was in our books for reference.

Dr. Morgan: The child being so affected always was an interesting part of it.

Dr. Gladwin: The child always appeared to be a Belladonna child, but always had to have Secale. Another thing I noticed with the remedy was that when she first took it she had such crude symptoms, but later as the remedy was wearing away the mental symptoms appeared.

Dr. Campbell: How did you dare to let her alone so long?

Dr. Gladwin: I had tried to antidote it but was not successful.

Dr. Campbell: It corroborates the symptoms of a patient of mine, mortification of the entire legs; the condition came on suddenly with severe vomiting and involuntary stool and with anxious face. It transformed the disposition of that patient from a mild woman to one most excitable.

Dr. Carleton: A great long series of questions occurred to me, which I almost fear to fire at the doctor. What was the temper of this woman before the catastrophe?

Dr. Gladwin: She was a Pulsatilla patient; seven or eight months before that she had had a little daughter; had had many miscarriages; never a living child until this one. She had engaged a midwife to take care of her during confinement, but when sent for the midwife would not come, and when I saw her she had been having labor pains for two days; the pains were becoming weaker and weaker and at longer intervals, and dilatation had hardly commenced; she was all tired out and crying; I gave her a dose of Pulsatilla, which started the pains up; there was rapid dilatation and the child was born without any trouble at all. That was about seven months before the taking of the Ergot.

Dr. Carleton: How old a woman was she? Do you think she wanted these miscarriages?

Dr. Gladwin: I did not think so, because I thought the miscarriages due to a syctic history; the little girl had ophthalmia neonatorum.

Dr. Carleton: Did you know the husband; do you think the husband wanted children?

Dr. Gladwin: I think they both wanted children, because they had adopted a little boy; they seemed to have a strong affection for the adopted boy and the little girl.

Dr. Carleton: She drank her Ergot in a cup of coffee?

Dr. Gladwin: Yes; she had had a little trouble with her husband and took the Ergot in a fit of despondency which followed; and, oh yes, I forgot to mention it, she thought she was about five months pregnant; examination showed the uterus about two inches within the vagina; it had that conical shape you find in a normal uterus, but after she had taken the Ergot and the symptoms came out the uterus assumed that rounded shape that we find in a gravid uterus.

Dr. Carleton: Did you have an opportunity of examining a few drops of the Ergot?

Dr. Gladwin: I saw the bottle; seven months before it had been ordered by the midwife.

Dr. Carleton: Did you taste or smell to see if Ergot was there?

Dr. Gladwin: The bottle was labelled Ergot. I never taste or smell of any drug if I can help it.

Dr. Carleton: The Ergot had stood there all these months? Was it the ordinary tincture of Ergot?

Chairman: The fluid extract is usually used.

Dr. Carleton: What quantity was there in the bottle?

Dr. Gladwin: I do not think the woman knew how much there was. As I remember it it was a two-ounce bottle, none had been taken from it previously.

Dr. Carleton: She drank this in a cup of coffee; how could she get it all in a coffee cup?

Dr. Gladwin: The woman said she put it all in.

Dr. Carleton: I have one woman that attempted to frighten her husband terribly and did something similar of that, and I discovered in the spittoon nearby most of the offending drug. All the same she had an emetic and had to vomit. Now the question arises, where that Ergot was bought? Another thing, was there no action upon the blood vessels?

Dr. Gladwin: Not unless you could call that flushing of skin a vascular effect.

Dr. Close: And the haemorrhages.

Dr. Gladwin: Yes, the haemorrhages. The violent symptoms did not appear in this case until three days after she had taken the drug, and she didn't confess what she had done until two days later. She was ashamed to tell.

Dr. Carleton: In the course of your management of the case, you did not give her any Ignatia?

Dr. Gladwin: No, sir. It did not look to me like an Ignatia picture.

Dr. Carleton: An Old School physician, one of the real old school type, will give a teaspoonful, and in acute cases a tablespoonful of Ergot, will he not?

Dr. Morgan: I have myself given a full teaspoonful of Ergot.

Chairman: It is routine practice in the Dublin Hospital to give an ounce. I think, after every case, except the primiparae.

Dr. Carleton: And if you have a haemorrhage, you get a tumblerful in time.

Dr. Morgan: There is one thought that calls forth an observation with me. I noticed that early in the case Ergot appeared to be the remedy that was indicated, a peculiar fact that might be construed as an argument in favor of the susceptibility to Ergot from the beginning.

Dr. Gladwin: I do not know very much about Ergot, and I have often wondered if that amount of Ergot was sufficient to poison one who was not susceptible to it. We know that if a Rhus tox. person, or any remedy person, takes his particular remedy, or comes in contact with it, he will take up a proving of that remedy.

Dr. Morgan: It is my opinion that another patient might have taken that without even feeling any effect from it, but this woman was susceptible, and her child was susceptible, too, to Secale, so she was badly poisoned from a small dose.

Dr. Close: The crude was diluted to a considerable extent by the hot coffee, and its activity as a proving agent increased by that means.

Dr. Gladwin: She did not get any real constitutional effect until several days after taking it.

Chairman: Did you use a high potency of Secale? Say, within the first two or three weeks, perhaps?

Dr. Gladwin: No; I did not give Secale for some time, but she improved each time she did receive it.

Dr. Close: It would be interesting to know what a dose of Secale high, in the early stages, would have done.

Chairman: I have had similar experience, though not so severe. A woman took an amount of Ergot, probably one or two ounces, for the purpose of producing a miscarriage; she brought on a miscarriage and also several constitutional symptoms. I gave Secale high as soon as I found out what had been done; she responded immediately and made a most excellent recovery, thereby clearing up some constitutional symptoms which had been present before.

Dr. Loos: Dr. Carleton, you spoke of the drug not being good for a while. Has old Secale ever been proved?

Dr. Carleton: I doubt if it has; it is a well-known fact that it deteriorates rapidly.

Dr. Loos: You do not get the crude symptoms, but would you get the finer symptoms?

Dr. Carleton: I should reason that way.

Dr. Campbell: Dr. Gladwin, have you compared your symptoms with the symptoms in the Materia Medica?

Dr. Gladwin: Quite a number of the symptoms there are not in the Materia Medica; I am still watching the case.

Dr. Campbell: Let us hear further from it them.

Dr. Gladwin: It seems to me, as I have gone over the case, that Belladonna, Arsenicum and Ipecacuanha ought to be antidotes to Ergot.

Dr. Carleton: Yet Belladonna acts on one set of muscular fibres and Ergot on the other.

Dr. Campbell: You want to notice the mental state of the child.

Dr. Gladwin: He is excitable and strikes at the other children; hurts the dog and cat for the pleasure of it.

Dr. Campbell: You will balance your treatment between Belladonna and Ergot in that child, I expect.

Dr. Gladwin: Belladonna often controls his little acute attacks, would that not mean that Ergot is a chronic of Belladonna?

Dr. Carleton: I must confess I am a little sceptical about that proving.

Dr. Gladwin: How would you account for it?

Dr. Carleton: I think a good talk with her husband, and a little mental suggestion, would have straightened her out.

Dr. Gladwin: The misunderstanding with her husband was soon corrected, yet she did not improve.

I must still hold this to be a Secale picture. The patient knew nothing of the pace nor the symptoms of Secale, yet the pace of her sickness and many of the symptoms agree with the proving found in the Materia Medica.

The Materia Medica does not describe a Secale uterine hemorrhage as bright red, sudden, profuse, yet I have seen this verified at the bedside on several occasions. The awful restlessness and the sudden burning fevers have also been verified, yet you will not find them mentioned in the Materia Medica.

Dr. Campbell: Where did you notice the subjective sensation of constriction?

Dr. Gladwin: Around the throat, 'a feeling as if the throat would shut up.' Also about chest."

(Frederica. E. Gladwin, M. D., Philadelphia, Pa., A Proving of Ergot, Journal of Homoeopathics vol. 4 (1900), p. 381-391)

Ein freundlicher Baum mit einer dunklen Vergangenheit

"Nichts erinnert uns mehr an die Heimat als der Muskatbaum. Sein zierlicher schlanker Wuchs, die elegante Pyramidenform der reichbelaubten Krone, die kleinen Blätter - alles ähnelt dem Birnbaum unserer Gärten, nur schöner und veredelter scheint alles zu sein: die Bildung der Verästelung wie die Silhouette. In ihm kommt nicht die tropische Fülle und Kraft zum Ausdruck wie in den Feigenbäumen, den Palmen und Dipterocarpen, er bleibt auch im Alter zierlich und klein. Im Durchschnitt nur ca. 30 Fuss hoch, überschreitet er das Maß selten um mehr als 8-10 Fuss und nur verwildert wird er zwei- bis dreimal höher. Überall aber, wo er sich frei entfalten kann, fügt er dem Landschaftsbilde ein anmutiges Glied, den herrschenden Linien der Baumgruppen eine zierliche Kontur hinzu. Ich habe ihn nie ohne ästhetisches Behagen betrachtet. Freilich glänzt er nicht durch reiche Blütenpracht: seine in grösserer Menge sehr angenehm nach Orangen riechenden Blumen sind klein, unscheinbar und hängend und gleichen denen unserer Maiblume auffallend, aber die pflirsichgrossen, eirunden, lichtgelben Früchte lugen freundlich aus dem frischen Laube hervor, und der aus der aufgeplatzten Frucht hervorleuchtende, lebhaft rote Arillus, der sich wirkungsvoll von der

tiefbraunen Samenschale hervorhebt, fügt dem Bilde eine neue, kräftige Farbe hinzu. Fast das ganze Jahr über ist er mit Blüten und Früchten bedeckt.

Der Muskatbaum ist in Java ganz ausserordentlich verbreitet, wenn auch zweifellos daselbst nicht heimisch. Allenthalben blickt sein helles Laub aus den Kampongs hervor, und gern scheint man ihm einen abgesonderten Platz zu geben, um sich an seiner schönen Krone zu erfreuen. Seine Samen und deren Arillen werden vielen Speisen zugesetzt, und wenn auch die 'Muskaatnoten' und die 'Foelie' bei den Holländern beliebter sind als bei den Malaien, so verschmähen doch auch diese nicht ihren Zusatz und findet man daher Muskatnüsse in jedem javanischen Toko [= Kaufladen], auf jedem Passar [= Markt].

Und doch hat dieser freundliche Baum eine dunkle Vergangenheit. Er spielt mit seinem Bruder, dem Gewürznelkenbaum, die Hauptrolle in dem blutigen Drama abscheulicher Tyrannei, welches die ostindische Compagnie auf den Moluccen im 18. Jahrhundert aufgeführt. Das sogenannte Gewürzmonopol, welches die 1602 gestiftete niederländisch-ostindische Compagnie, bald nachdem sie die Moluccen den Portugiesen abgenommen, hier einfuhrte, und das sich sowohl auf die Muskatnuss wie die Gewürznelken bezog, führte zu einem Systeme von Grausamkeiten gegen die Eingeborenen, die ihresgleichen in der Geschichte nicht besitzen. Heute, wo man das Monopolsystem gleicher Weise in handelspolitischer wie volkswirtschaftlicher Hinsicht als verkehrt erkannt hat, erscheinen uns die berüchtigten Hongiefahrten (Hongietogten) ebenso unsinnig als verwerflich, ja kaum begreiflich, und doch wurde das Monopol, nachdem es die Engländer bei ihrer Besitzerobernahme des Malaiischen Archipels 1812 aufgehoben, nach Wiederherstellung der holländischen Herrschaft 1816 wieder eingeführt, und die Hongiefahrten erst 1824 aufgehoben.

Der Muskatbaum war ursprünglich auf den Bandainseln und den südlich davon liegenden Inseln Serua, Damme und Nila heimisch. Um nun das Gewürzmonopol wirksam zu schützen, musste die Compagnie die Produktion sowohl einschränken als genau überwachen und jeden Schmuggel unmöglich machen. Um ersteres zu erreichen, zwang sie die Eingeborenen der Inseln Serua, Damme und Nila, alle daselbst wachsenden Muskatbäume zu vernichten, stellte die Anpflanzungen auf den Bandainseln unter strenge Kontrolle und bestrafte den Schmuggel mit dem Tode. Um eine gute Kontrolle darüber zu haben, ob auch nirgend sonst als auf den von der Compagnie bestimmten Inseln Muskatbäume gepflanzt und ob und wo Nüsse geschmuggelt wurden, richtete sie Umfahrten um die Inseln, eben jene berüchtigten Hongiefahrten, ein, bei denen alle die Bäume vernichtet wurden, die man ausser den geduldeten Plantagen antraf, und alle die Ortschaften verbrannt und ihre Einwohner aufs strengste bestraft wurden, bei denen derartige Übertretungen beobachtet, ja, die auch nur derselben verdächtig waren. Und doch waren die armen Eingeborenen nur zu oft an der Verbreitung des Muskatbaumes gänzlich unschuldig. Denn, wie wir jetzt wissen, sorgten einige auf den Moluccen heimische Vögel fortdauernd für die Verbreitung der Muskatbäume. Besonders sind es zwei grosse Tauben *Columba perspicillata* und *Columba aenea*, aber auch *Casuaris galkeatus* und eine *Buceros*-Art, die, angelockt von der lebhaft roten Farbe des Arillus, der, wenn die Frucht aufklafft, an der Spitze hervorquillt, diesen samt dem Samen meist noch am Baume aus der Schale herauslösen, den Arillus verzehren, den Samen aber unverdaut wieder von sich geben. Von Insel zu Insel fliegend, sorgten diese Tiere also trotz des Verbotes, welches sie ungestraft übertreten durften, für immer neue Anpflanzungen von Muskatbäumen. Denn die Samen verlieren dadurch, dass sie den Darmkanal passieren, nicht nur nichts von ihrer Keimkraft, sondern zeigen sogar nach dieser Prozedur eine erhöhte Keimfähigkeit. Und so gern verzehren besonders die beiden Taubenarten die Arillen, dass ihr

Fleisch einen ganz eigenartigen aromatischen Geschmack bekommt und auch gekocht noch beibehält.

Auf den Bandainseln Lonthoir, Banda-Neira, Aji und Rosinghain, die von der Compagnie ausschließlich der Muskatkultur vorbehalten blieben, konnte man zur Zeit, als dort das Gewürzmonopol eingeführt wurde, Eingeborene freilich zunächst nicht bestrafen, denn die ganze, 15 000 Seelen zählende, Einwohnerschaft war gelegentlich der Eroberung der Inseln (1621) bis auf den letzten Mann vernichtet oder fortgeschleppt worden. Hier musste die Compagnie also zunächst für Besiedelung sorgen. Sie tat dies dadurch, dass sie 34 grosse Plantagen, sogenannte Perken (perk = Park), anlegte, mit denselben verdiente Regierungsbeamte belehnte, bzw. sie ihnen in Erbpacht gab, und diesen sogenannten Perkeniers eine bestimmte Anzahl von Sklaven ⁽¹⁾ als festes Inventar zuteilte, die mit der Plantage untrennbar verbunden blieben. Bis zur Aufhebung des Gewürzmonopols am 1. Oktober 1873 bestand die gesamte Bevölkerung der genannten Inseln aus den Nachkömmlingen der ersten Perkeniers und den Perksklaven.

Obwohl um die obengenannten Muskatinseln selbst keine Hongiefahrten stattfanden, denn die Perkenieren waren der Regierung für Beachtung des Gewürzmonopols verantwortlich, so wurde die Beachtung der Bestimmungen des Monopols doch auch hier nicht minder streng erzwungen, und wenn man anderwärts als in den vorgeschriebenen Perken Muskatbäume fand, so trat hier wie dort die gleiche harte Strafe ein. Den ganzen Ertrag mussten die Perkeniers an die Lagerhäuser der Compagnie abliefern. Immerhin hatten es die Perksklaven besser als die Eingeborenen der Gewürznelkeninseln Amboina, Saparua, Haruko und Nusa Laut, die z.B. nicht mehr zu einer Kultur des Nelkenbaumes zu bewegen waren, sondern sich nach Aufhebung des Gewürzmonopols (1873) ebenfalls auf die Muskatnusskultur verlegten. So kam es denn, dass, als 1851 die Einwanderung freier Javanen gestattet, 1860 die Sklaverei und 1873, nachdem sich die Regierung mit den Perkeniers, deren Kontrakte noch in Kraft standen, arrangiert hatte, das Monopol aufgehoben wurde, auch von auswärts sich nicht nur Holländer, sondern auch Javanen auf den Inseln ansiedelten, um selbständige Muskatkulturen in Angriff zu nehmen. Doch hatte selbst 1871 die Bevölkerungsziffer der Muskatinseln noch lange nicht die Hälfte der ursprünglichen Einwohnerzahl (15 000) erreicht. 1888 bestanden auf allen Inseln der Moluccen zahlreiche Plantagen. Da die Muskatkultur einträglicher als die der Gewürznelken ist, so wendete man sich ihr gern zu.

(Alexander Tschirch, Indische Heil- und Nutzpflanzen und deren Cultur, Berlin 1892, S. 102-105)

An Accidental Proving

Mrs. B. - age 25, married four months, nervous temperament, pale, blonde, tall and slender. Menses absent for five weeks.

March 16. Took a whole nutmeg, powdered, for the purpose of restoring the flow. She took the nutmeg at 2 P. M., was thirsty for awhile, then about 3:30 P. M. had a headache so that everything turned dark. After this she got worse, without noting the order of symptoms, till at 8 P. M. I was sent for, her husband saying "that she was out of her head, and he did not know what ailed her; was afraid she would die or go crazy."

After my arrival I was told of the nutmeg she had taken, and as she had been in excellent health previous to that day, I felt justified in taking this to be the cause of her sufferings.

I stayed with her two hours, and noted symptoms with care, as follows:

State of alarm; puts out hands as if to ward off danger. Laughs heartily, then cries; sighs frequently; then starts and asks: "Where am I?" "Such blackness." "The whole world seems black to me." Voices sound as if far away. By a strong effort she can see, at times, but only one person or object at a time. Forgets her sensations as soon as past; forgets her words as soon as uttered, but suddenly remembers. Cries out often in her sleep, then suddenly asks if

she did cry out. "I'm crazy." "Don't let them make fun of me." Can answer questions if asked very emphatically; says she has had some pain, but forgets when or where. Notices her own mistakes, but instantly forgets again. Is impatient of any delay. Appeals to others to know if they do not see, hear and feel her various symptoms. Sounds, as if chains were clanking in her head, (subjective). Pains mostly at back of head; if touched there, says it touches her brain. "Oh! don't you hear my brains crack?" "Head so queer." Says her "brains hit together." She jumps with an outcry of pain and says, " Oh, can't you hear them?" (the brains). Cries easily; says it hurts her to laugh or cry. "Nearly kills her inside." Eyes wide open, staring; mouth dry; no thirst; bad taste in mouth. Nausea, but cannot vomit. Stomach feels sour. "Heart feels awful." Skin cool; face pale; faint, sinking sensation, wants to be fanned. Trembles much; cannot hold still; begs to be held; legs and body jerk violently, knees up and body forward. She is afraid to lie down. Has frequent cramps in legs. Pulse rapid but full, 120 to 140. Feels sleepy all the time, "or as if going to faint;" drops off almost asleep, with eyes open. Feels numb all over; " Oh, so numb." Chokes when she tries to swallow. Attacks of dyspnoea.

March 18. Quiet, has slept little, has no appetite.

March 19. Came to my office; feels weak, lazy, dull pain in back of head. Cannot bear anything to touch her stomach, slightest touch produced nausea. Bad taste in mouth; pulse normal; sighs often. Can hardly breathe unless clothes are very loose. Bowels regular; restless, jumps, starts; shocks in head; better in open air. Courses have not yet appeared. June 13; is convinced of pregnancy."

(Edward Cranch, M. D., Erie, Pa., Accidental Proving of Nux Moschata, Proceedings of the International Hahnemannian Association 1884-1885, p. 26-28)

The Run of the Mill

"A young couple stepped tentatively into my office. The wife looked like a 13th century Madonna, thin and worn, holding in her arms a little, pallid, slant-eyed boy of about a year and a half. The father wept quietly as he told me that several clinics and specialists had pronounced their little boy a Down's syndrome baby and had said that nothing could be offered but custodial care in some institution. They had heard of homoeopathy and asked me if I thought anything at all could be done for him.

The child was thin and pasty-looking, his mouth open, drooling slightly, with a sort of snorting snuffle every few breaths; his head shape was within the limits of normal and his ears were normal. He had no teeth. He could neither stand nor sit without support, nor creep, and his head would wobble if he got off balance. The fingers of his hands were spread widely apart and back, and had spatulate tips. He was totally unable to grasp anything. The mother said he could neither drink from a cup or suck at a bottle; she fed him with a spoon. When I picked him up the musculature of his back and limbs was pitifully flabby, like a rag doll. He seemed perfectly formed except for the typical mongoloid eye-casings. He did not smile or reach for bright jewellery; he frequently put his head back and rolled his eyes toward the ceiling and then flopped his head down on his chest. The parents begged me not to give them a ray of hope if there was none. A more inexpressive and hopeless trio I have seen rarely. The child had had no colds or childhood disease, no eruption, convulsion, fright or accident.

What to do? All I could see was triple grief. I asked the mother to tell me about her pregnancy and labour. She had experienced a deep grief in the early months of her pregnancy, no nausea, easy labour, no instruments needed. This was the second child, the elder one being, they said, well and normal. No history of syphilis, convulsions or insanity in the family. Laboratory work under the previous doctors was all negative, including Wassermann, blood count, etc.

The boy received one dose of Natrum Mur. 10M on the tongue, which he made no effort either to swallow or spit. I explained to the parents what homoeopathic remedies can often do in mental handicap and asked them to give me a try for at least three months, seeing the child every fortnight. I told them I might take several years to get much of anywhere.

Two weeks later the child looked almost rosy and had a gleam of intelligence. The muscles of the back had better tone, he rolled his head and eyes less. He had begun to have a thick catarrh and almost a wheeze. The mother volunteered that he could now roll in bed and that he had taken to doing the queerest thing, sleeping with his little behind, as she called his buttocks, up in the air. The father was not present this time and I asked the mother if she had at any time had a sudden, creamy, profuse discharge from her womb. She said, "Why, yes, the year before this boy was born; but it was soon cleared up at the clinic." Medorhinum 1M, one dose.

Two weeks later when I picked the baby up, he grasped my hair. The snuffles and snorting were entirely gone, he had cut two teeth without trouble, could sit alone and was trying to pull himself up in his pen. He had a curious symptom of protruding the tongue between the lips and there was a gurgling sound when he drank. The mother told me he had been exposed to chickenpox and I found a few small spots on the abdomen. He had a short, concussive cough. I explained to her that it would do him good to have the chickenpox and have it thoroughly, but that he would need a remedy to help the vitality bring it well out, and gave him Cuprum 1M, one dose.

He skipped the next visit because he blossomed out with a strong chickenpox rash. He himself seemed bright and better than he had been during the illness. When he returned at the end of a month he had gained three pounds, no longer stuck out his tongue, grasped my finger so tightly I could hardly extricate it and clutched the paper weight and pencils on my desk, and was beginning to make sounds such as 'Dada' (he was by this time two years old). He felt far heavier than before, now had occipital head sweat with sour odour and was starting to cut two more teeth. Calc. Carb. 10M was given, on which he is still riding and gradually improving.

I have had occasion to do the mother's chronic case. Her remedy was Sulphur. I should judge the father's to be Natrum Mur. How far along toward normality will homoeopathy be able to bring this child?

Little Miss P., aged three, walked stiff-legged into my office, holding to the nurse with both hands. She had never spoken. She had her quota of teeth but was very under-nourished. She would sit all day on the floor in the corner, not playing with any of her toys. I was unable to see either the father or the mother. Apparently she had been a normal infant until her daddy, to whom she was devoted, was called into the army, and she did not improve when he returned a few months ago. First class clinics had pronounced her as 'one of those spastics', although her neurological examination was negative. No history of injury or polio.

Natrum Mur. 10M, one dose. The nurse called back two days later and said she could not understand it, that Miss P. had started to use three or four words, like 'mama' and 'spoon', and was walking less stiffly and even alone for two or three steps. When she returned in a month she walked about the office picking up things, and played with the handles of the desk. Three months have elapsed, she is gaining weight and making steady progress. No further remedy as yet.

Summoned in the middle of the night to a hotel, I found a boy of four with tense thigh muscles. He was unable to turn in bed, and screamed if you touched the thighs, though otherwise lethargic and drowsy. He had a fever of 103° F and some rigidity of the neck. He had recently returned from the West and had been, apparently, perfectly well when he went to bed that night. Throat, chest, and abdomen were negative; no twitchings or convulsions; no particular perspiration; stool and urine had been normal the day before. No history of wetting

or unusual emotion. The arms could be moved freely and were not tender. The joints were normal.

Gelsemium 1M was given, hot packs to the thighs ordered continuously through the night, and a homoeopathic paediatrician, who is especially interested in poliomyelitis, summoned. He confirmed the diagnosis of acute polio. By the time he arrived there were fibrillary muscle twitchings and the child had urging to stool and urine, but could not pass either.

Nux vomica 30c, three doses, two hours apart. After about four hours the twitchings and strainings ceased, the muscle tenderness and spasm relaxed, and three days later the child was taken in a taxi to a paediatrician's office for a check-up. He has been active and in excellent health the six months since then and has neither wasting nor any other sequel.

An emergency call to a suburb revealed a boy of fourteen with a temperature of 105° F, lying half on his right side, with a pillow under his left ankle and knee. On entering the room the sour odour, typical of the sweat of rheumatic fever, was strongly perceptible. The left ankle and knee were swollen but not red, exquisitely tender, and the parents said that since calling me, Master B. had complained of pain in the left hip. The bed was a mess, though all the rest of the house was immaculate. The mother apologized, saying the boy kept moving and wriggling as he could not endure the pain lying still, yet the change of position brought only momentary relief. He was frightened and crying. His pulse was 130, heart racing but no murmurs. The inner throat appeared normal and the family denied any recent sore throat or cold. However the boy said, 'I didn't tell you, Mummy, but three weeks ago I had a sore throat and the glands hurt here on the left of the neck.' An electric heating pad was around the boy's knee and a hot water bottle propped against his ankle.

No time needed to repertorize this case. I asked done question, 'What time of day are you worst?' 'In the evening', responded his father and mother together, 'after midnight he seems to quiet down.' You know the remedy: Rhus Tox. 10M.

The next day the fever was 102° F at its highest, no more pains in the joints. Temperature normal the next day, pulse in the 90's. The boy was kept in bed as a precautionary measure for three weeks, during which time there was no more fever or sweat, no heart murmur and no discomfort. He has looked and felt better since this illness than ever before.

These few cases are routine to any homoeopath, yet they show how beautifully even 'run of the mill' prescribing can help the children fortunate enough to have homoeopathic treatment." (Elizabeth Wright-Hubbard, M.D., The Run of the Mill, The Homoeopathic Recorder vol. 63 (1948), p. 171-175)

Scheele's Grün

"Die Stubenmaler und Tapeten-Fabrikanten kennen ohne Zweifel auf das Genaueste die verschiedenen Farben, wissen, wie sie gemischt werden müssen, um die Schattierungen herauszubringen, aus welchen Fabriken sie am besten bezogen werden usw.; man frage diese Künstler aber, aus welchen Stoffen die verschiedenen Farben bestehen, ob sie gesundheitsgefährlich sind oder nicht, und ob sie die darüber bestehenden Gesetze und Verordnungen kennen, und man wird die Erfahrung machen, dass bei allen die Unwissenheit hierüber gleich gross ist. So leicht es im Ganzen für Jedermann ist, herauszubringen, ob eine Farbe oder Tapete Arsenik enthalte, indem man am einfachsten nur einen Teil davon einer Flamme auszusetzen braucht, um einen auffallenden weissen Rauch und einen knoblauchartigen Geruch wahrzunehmen, so wenig ist diese Kenntnis allgemein verbreitet, daher man so häufig Zimmerwände mit solchen Farben bemalt oder tapeziert vorfindet. Mehrere Fälle sind mir vorgekommen, wo gar nicht zu erklärende und sehr bedenkliche Leiden in Folge grüner, mit **Kupferarsenik** bemalter Stubenwände entstanden sind, bis,

meistens nur zufällig, die Ursache entdeckt wurde. Bei trockenen Wänden schadet der Anstrich mit Arsenikfarben auch wirklich nicht auffallend, desto mehr aber bei feuchten, stockigen, bei welchen sich sogleich das giftige Arsenikwasserstoffgas entwickelt und ununterbrochen die Zimmerluft schwängert."

(Dr. Boretius, Kreisphysicus, Sanitätsrath in Rössel, Über die gesundheitlichen Einflüsse, welche nur aus der Unkenntniss gewisser Gewerbetreibenden herbeigeführt werden, in: Vierteljahresschrift für gerichtliche und öffentliche Medicin, herausgegeben von J. L. Casper, Bd. 4 (1853), S. 205)

A Proving

"Jan. 4th, 1868, 8.45 P.M. Took of Cup. Ars. 12th cent. dil. 5.

9 P. M. Soreness of a small spot on the left scapula, extending into the left lung, followed by a dull, sticking pain in the left chest, between the sixth and seventh ribs, somewhat aggravated by deep inspirations, with a numb, weak feeling in the left chest, left side of the back and left shoulder and arm. (a. 15 m.)

The left arm feels numb and powerless, and a similar sensation soon afterward appeared in the left leg.

9.20 P. M. Sudden debility, with dull pain in the heart, and sensation of oppression around that organ; the left chest feels too small; he takes long involuntary inspirations; there is an empty, vacant feeling in the stomach, with vertigo, confusion of ideas, and headache between the temples, (a. 35 m.)

General debility, want of energy, and indisposition to do anything.

Pains in the abdomen, simulating those of flatulent colic.

9.30 P. M. Headache becomes very severe; spreads over the entire forehead, and finally settles in the right side of the forehead and over the temporal bone, and becomes dull and throbbing, (a. 45 m.)

Dull soreness in the right internal ear. (a. 1 h.)

Headache is very severe all the evening, and the bones of the face are very sore.

Pains in the abdomen, sharp and cutting, like those of colic, which afterwards subside into a dull soreness, followed by an unpleasant warmth in the abdomen, and a severe burning in the stomach. (a. 1 ½ h.)

The headache which had disappeared during rest (sitting), re-appeared very severely while walking up and down the room, and again subsided during rest; several repetitions produced the same aggravation and amelioration.

11.10 P. M. Dullness and confusion of the head. (a. 2.25)

Dull soreness in the right occipital bone, aggravated by pressure.

While walking, the limbs ache, his gait is unsteady, and the debility is increased, (a. 2 h.)

While sitting, the foregoing symptoms are ameliorated, and are aggravated by walking.

11.30 P. M. The headache, which had again subsided, re-appeared very violently in consequence of walking upstairs.

He could not sleep until 2 a. m., the headache continuing very severe. (a. 2 ¾ h.)

Jan. 5th, 8 A. M. In the morning, after awaking, the head felt dull and sore, as if it had been beaten.

During the forenoon, there was relief from all the symptoms.

12.30. P. M. The stomach is sore, as if it had been bruised.

Headache on the right side of the head, and soreness of the bones of the right side of the face.

4 P. M. Natural stool, after which he had severe dull pains of a griping character, with slight burning in the abdomen, (a. 19 ¼ h.)

10 ¼ P. M. There has been a constant unpleasant warmth in the abdomen since taking the medicine, and which sometimes becomes a severe burning, (a. 25 ½ h.)

10 ½ P. M. Headache between the temples (v), - the pain seems to meet in the centre of the forehead, and thence to pass down the nose. The bones of the nose are very sore, especially when pressure is made upon them. (a. 25 ½ h.)

Jan. 6th, 12 ¼ A. M. Severe, dull pain in both temples. (a. 27 ½ h.)

12 ¾ A. M. Very severe headache all over the forehead, but especially in both temples (v). (a. 28 h.)

1 A. M. Shooting pain in the upper molars of the left side, extending upward into the superior maxillary bone.

9 A. M. Awoke with the same dullness of the head as on the previous morning.

3.50 P. M. Persistent boring pain in a small spot above the left superior orbital arch, with soreness of arch when touched, (a. 31 h.)

Duration of action of first dose, forty-five hours."

(First Proving of W. James Blakely, M.D., from: Proving of Cupri Arsenitum. Read before the Homoeopathical Medical Society of Pennsylvania. By W. James Blakely, M.D. The Hahnemannian Monthly vol. 3 (1867-1867), p. 514-527, 570-584)

A constituent of human feces

"Skatol represents the ultimate end of protein decomposition and is a constituent of human feces. Its relation to *Indol* in the various phases of auto-intoxication prompted the Hering Laboratory to make a proving of this substance and prove its value in certain cases of auto-intoxication, from a homoeopathic view-point.

Merks' *Skatol* was used in the 6th potency. The proving was conducted along modern scientific methods; students were used, kept under constant observation with accurate physical and laboratory examinations. Length of proving was six weeks; length of time before symptoms appeared was two weeks. The symptoms given have been carefully analyzed and given wherever possible in the prover's own language.

The following symptoms were produced in nearly all provers and many have been confirmed clinically by intimate co-workers:

The stomach and abdominal symptoms were the first to appear. After the stomach and abdominal symptoms had begun to appear and develop, a frontal headache began over both eyes, about 2 p. m. Somewhat worse over the left eye, and as it extended backward it markedly increased in severity and also became very much more acute towards evening. This was not affected by noise, light, moving about or eating, but was entirely cleared up by a *short sleep*, 'when it was possible to drop off.'

Later this headache came on regularly every afternoon, and was *only relieved by sleep*. Sluggishness, with absolutely no ambition. Along with this came a lack of concentration and

impossibility to study; this increasing more and more as the proving progressed. A marked and overwhelming consciousness of despondency evidenced itself even from the first. This feeling was not of apprehension, but rather of hopelessness.

NERVES AND SLEEP. - Desire to be with people. Simultaneously with the despondency an irritability manifested itself; very easily peeved; felt mean towards everyone.

Violent desire to curse and swear, was developed during the third week in all provers, and several ceased taking the drug at this stage of the proving. Easily tired with slight exertion (was absolutely fatigued one noon time by walking four more squares than the usual distance home). This tired feeling relieved somewhat in the daytime by sleep. Sleep at night did not rest; increased desire for sleep; would awake in the morning after a good night's sleep, unrefreshed; at the last of the proving even a much longer period did not rest. Arose in the morning with 'half-doped' feeling. This was entirely contrary when normal before proving.

A sleepiness after lunch meal altogether cleared up during the proving (frequently confirmed).

MOUTH. - Toward the last of the proving a coated tongue developed in all provers, yellow in color. Salty taste to all cereals in the morning for two weeks. Awakens with foul taste in mouth.

STOMACH. - One of the first symptoms of the drug was the removal of a bad taste in the mouth in the morning in two provers who had this condition for nearly two years before beginning the proving. In several of the other provers this symptom was developed as foul taste in the morning after awakening; very disgusting to provers.

A great deal of belching with effort, and with a taste of food previously eaten, this occurring soon after meals; at the last of the proving before meals also, with a tendency to be worse after lunch at noon time. Much increased appetite, not satisfied by even a full feeling.

ABDOMEN AND STOOL. - Passing of gas forcibly, mostly after meals. Whereas normally stools were dark in color, with regular movements daily, during the proving the stools were of light yellow color, tight, narrow, disintegrated into many parts, with obstinate constipation at times, but at other times loose and watery, with no desire more than once a day, at the most. The light yellow, narrow stools had a particularly strong, intensified fecal odor, which became almost unbearable to the prover, and was a persistent symptom after the third week of the proving and has been confirmed.

URINARY. - At the beginning of the proving a burning in the glans after urination. This lasted from three to four days in succession, but disappeared at the end of that time. During the entire proving a difficulty in voiding urine, with frequent desire and little result.

The urination was frequent and scanty. Urates were increased. Urea diminished for at least two weeks. No other pathological feature was shown in the urinary examinations.

SKIN. - Comedones, or blackheads, and small papules, clinically a type of acne, which had persisted for years, gradually cleared up in two provers.

There were no particular blood changes noticed. At the end of the proving two students presented a mild leucocytosis, ranging from twelve to fourteen thousand.

The odor of the mouth and stool exhalations are similar to Baptisia, Sulphur poisons.

Skatol proved highly curative in a case of intestinal dyspepsia in a child 10 years old, at Children's Homoeopathic Hospital. The child was very much emaciated, developed an afternoon temperature of 100° F., accompanied by excessive drowsiness, foul eructations; also eructations tasting of food eaten; constipated, light-coloured, very foul stools; scarcity of

urine; bloating of abdomen; generally irritable. After the failure of several remedies *Skatol* was tried in the 8x, with a prompt removal of all symptoms in about one week.

I wish to commend Mr. Geo. D. Geckler, one of the provers, for his perseverance of six weeks' proving. His only reward was having his acne and comedones completely cured.

I believe this remedy, *Skatol*, may help the acne of young folks, who suffer with some degree of auto-intoxication dependent upon intestinal decomposition.

The proving is an effort to develop the practical efficiency of our materia medica, and the profession is asked to put it to the clinical test in suitable cases. - *The Hahnemannian Monthly*."

(A Subjective Proving of Skatol. By William B. Griggs, M.D., Philadelphia. Director of Constantine Hering Laboratory, Hahnemann Medical College, Philadelphia. The Homoeopathic Recorder vol. 35 (1920), p. 73-76)

A dangerous Quack Nostrum

"*Aspirin* is the trade name for *Acetylsalicylic acid*. It was patented by the Farbenfabriken, of Elberfeld Company, Germany, February. 27, 1900, U. S. patent number 644,077, expiring in 1917. The trade mark *Aspirin* was registered about the same time and is numbered 32,805.

The extensive properties of Bayer concern in America were seized by the alien property custodian and sold, whereupon an extensive campaign of advertising has followed. Nearly every newspaper of note has for over a year carried on its pages the *Aspirin* Bayer advertisement, and a determined attempt to perpetuate the monopoly on the drug is being industriously carried on.

The price of *Aspirin* while the patent was in effect was \$8.80 per thousand, but on the expiration of the patent it declined to \$4.40. The profit in it has been enormous, and to the time of the entry of the United States into the war, Germany derived great benefit from this by-product of the dye industry, exploited skilfully as a drug of therapeutic value.

It is the continuance of the *Aspirin* Bayer monopoly that is sought by the widespread advertising now running. It is specifically stated in every instance that *Aspirin* Bayer must be asked for to insure purity, etc., and the wild cat stories of contamination by talcum powder are probably merely a part of the propaganda the methods of which are decidedly German, such as the statement that 'nearly 2,000,000 ounces of counterfeit *Aspirin* are being sold in the U.S. annually.

There are at least seven American firms that manufacture *Aspirin*, and the quality is as good or better in each instance as the Bayer product. Little stock should be taken in the pronouncement of the Bayer Company that counterfeit *Aspirin* is being sold by everyone except themselves. What counterfeit *Aspirin* there is on the market is possibly due to the characteristic German methods of propagandizing their own wares.

Let us look at the advertisements that are at this moment to be seen in the press of the country. What do we find? Something addressed to the medical profession? No. The following addressed to the laity:

Headache. Toothache. Earache. Neuralgia. Rheumatism. Neuritis. Lumbago. Joint pains. Pain in general. Colds.

Here we have the whole gamut of the quack advertiser and the promulgator of proprietary medicines for the past fifty years. It reads like an *Antikamnia* ad., *Heroin* ad., or a *Cocaine* ad.

Any one remedy which claims to relieve all the above conditions irrespective of their causes, may be branded at once as a dangerous nostrum without further examination.

In other words, *Aspirin* stands convicted by its advertisements as a nerve deadening drug, and should be classed with *Opium*, *Heroin*, *Cocaine*, *Antikamnia*, *Phenacetin*, et al., for which the same claims have been made.

Headache powders contain *Aspirin* and the *Journal of the Amer. Pharm. Assoc.* says: 'One of the best sellers in the drug stores to-day.'

WHAT IS THE ACTION OF ASPIRIN?

A thorough examination of all the works on pharmacology and materia medica issued since its introduction fails to reveal any knowledge whatever of its action or uses beyond that which appears in the advertisements of the substance written by the manufactures.

Shoemaker (1901) dismisses it by saying that its action is identical with *Salicylic acid*.

Cuthbert (1917) does not mention it.

Bastedo (1918) gives nothing different as to its action.

Cushny (1918) says: 'Recently introduced, largely employed; appeared under numerous designations of later years and much exaggerated claims have been made for it as a remedy for most diverse conditions.'

If one turns over to Germany, however, one will find glowing reports of its action and its safety. Thus Floeckinger in 1899 says its action is marked by absence of tinnitus (New and Non-Official Remedies says it must be given until tinnitus appears), absence of cardiac depression and absence of impaired appetite. All false statements.

The *Journal of the A. M. A.*, January 25, 1911, says: 'It should be listed as one of the dangerous drugs.'

Likewise an industrious search through the literature, periodical and other, for some tangible reasons for the use of *Aspirin*, some scientific observations thereupon, or something upon which to found its popular uses reveals nothing save the following illuminating sentences:

'Said to possess advantages over *Salicylic acid* by producing less of the undesirable systemic effects on account of the slow liberation of *Salicylic acid*.'

It is said to pass the stomach unchanged, decomposition beginning in the intestines. Dose, 5 to 15 grains.

TOXICOLOGY

In one case it produced vomiting, weak irregular pulse, haemorrhages from the bowels, unconsciousness and death. Postmortem showed small intestine uniformly inflamed, caecum and colon loaded with blood clots, and a sharp line of demarcation between the healthy and diseased parts showing that decomposition begins only in the intestine and is dangerous.

It has in other cases produced oedema of the lips, tongue and eyelids, nose and face. Urticarial rashes, vertigo, nausea and cyanosis. Its effect is always destructive, and the toxaemia produced is clearly pathological.

It has been repeatedly observed that a mixture of *Aspirin* and *Quinine* is distinctly poisonous, the combination producing quinotoxine, which in at least one instance produced death, yet we have recently seen the following prescription made by a physician and compounded by a druggist:

R. Aspirin.
Quinine sulphate.
Dover's powder, aa. q. s. grains v.

Bastedo states that he observed at least three cases of acute nephritis following its use.

We may summarize the absolute effects of *Aspirin* as far as scientific data upon it are to be found:

‘Produces a mental condition similar to that found in the morphine habit.’ (*Journ. A. M. A.*, 1914).

‘Produces violent palpitation of the heart, deficient respiration, weakness approaching unconsciousness pointing to syncope.’ (*British Medical Journal*).

In one case it produced numbness, anaesthesia and angio-neurotic oedema, and in another it produced nephritis, blue fingernails (cyanosis) and deficient breathing.

An eruption was produced on the head and face and in the mouth and throat following a five grain dose (*Journ. Clin. Med.*, 1912).

‘*Salicylates* are known to have a deleterious influence on the digestive function and in larger doses or when long continued are frequently accompanied by symptoms of cinchonism similar to those produced by *Quinine*. The *Salicylates* may also have a depressing influence on the central nervous system accompanied by convulsions, slowing of respiration and collapse from circulatory depression.’ (Drug Intoxication, U. S. Public Health Bulletin, No. 227, 1914).

Disturbances in the sensory centres, vision and hearing. Sensitive nerve tissue is paralyzed. It produces a poverty of the blood, a prolonged and severe anaemia. The primary action is stimulation, hence it is being now largely used by dope fiends to take the place of those drugs that are difficult to procure, but the reaction following its use is dangerous.

We know of several morphine habitues who have substituted the easily procurable *Aspirin* for it with disastrous effects to heart and circulation. Being so readily obtained without even a physician’s prescription, it is being used in large quantities by drug addicts of all kinds, and the present advertising campaign is helping to defeat those who are endeavoring to banish the drug addiction habit of our people.

THE USE OF ASPIRIN IN INFLUENZA

Dr. Simon Baruch, of New York, says in the *Therapeutic Gazette* of June, 1919:

‘It was a painful disillusion to learn that these powerful agents (coal tar derivatives) only enabled the patient to die with a lower temperature while the mortality continued and even increased under their excessive use.’ * * * ‘They especially handicapped the heart just as the influenza poison does.’

Dr. Albert Doerschuk, of Kansas City, Mo., writes as follows: "These drugs in remedies, preventives and cures for the ‘grippe’ were swallowed by tons last winter by hysterical people who went beyond all advice in self-medication. Women numb in every limb, with barely enough intelligence to find the way home, from the effects of the preventive medicine, were suffering from the ‘flu’. Men with intense pains on top of their heads and eyes bulging out from the *Salicylates* (*Aspirin*) had the ‘flu’. Many persons were in bed from the prostration of the drugs taken instead from the ‘flu’."

We can corroborate the above remarks from personal observation.

Dr. C. T. Hood, in the *Clinique*, Jan., 1919, says that the public is told that ‘if ten grains of *Aspirin* two or three times in 24 hours would be of service, ten grains six to eight times a day was better. People have been and are buying *Aspirin* in 100 and 500 packages and taking it by the dozen, by so doing they are driving the tack in their own door post upon which to hang the crepe.’

Listen to this from a late number of the *Therapeutic Digest* in reference to the leading role of *Aspirin* in the recent epidemic of influenza:

‘The routine treatment laid down in the army hospitals embraced the use of the coal tar derivatives and in cases of pneumonia large doses of *Digitalis* were ordered at frequent intervals. The rationale of this treatment is difficult to understand. We have here a disease or a complex of diseases which throws a heavy strain on the heart and are ordered to give coal tar derivatives which are heart depressants. When pneumonia sets in we are instructed to give huge doses of *Digitalis* at frequent intervals, which would cause the heart to drive more blood into the lungs already overcrowded. The action of *Digitalis* in this case would undoubtedly add to the congestion and increase the area of the lung involved. This routine treatment has undoubtedly been responsible for a considerably part of the excessive mortality.’

Much of the mortality in the recent epidemic of influenza was due to its indiscriminate use. We have seen that it is a depressing drug, that it poisons the heart and circulation, that it also poisons the blood itself, and that it stupefies the mind. Add these effects to the general depressing effect of influenza toxaemia and death is sure to follow.

CLINICAL OBSERVATIONS

It was observed that the use of *Aspirin* was unfavorable throughout its employment.

First. - Cases treated with it that recovered did so in an incomplete manner and the convalescence was unduly prolonged.

Second. - Its action was slow to appear and only appeared after several hours and then in a cumulative manner.

Third. - We may assert without fear of successful contradiction that pneumonia, pulmonary oedema and septicaemia were more frequently the results of the *Aspirin* treatment than the result of the influenza poison, for the reason that there was none of these complications in influenza cases treated from the beginning without this drug.

A physician who had charge of an extensive hospital barracks in one of our military camps bears out the writer in these observations. He states that he was able to tell instantly upon seeing a patient for the first time whether he had taken *Aspirin* or not, so evident was its unfavorable action.

Another physician practicing in a small country town in central Illinois told the writer that out of a large number of cases treated from the start without *Aspirin* there was no mortality, while in those who had taken *Aspirin* themselves or had it given to them by friends or physicians the mortality was very great.

There can be no better reason for the existence of the homoeopathic school of medicine than is furnished by a comparison of the results of homoeopathic treatment of influenza and pneumonia with those of the therapeutically floundering allopathic school, driven by the paucity of its therapeutic measures to a quack nostrum on the transcendent scientific basis of ‘said to be good,’ and upon absolutely no other basis.

There is no more scientific reason for the use of *Aspirin* by the profession or the laity than there is for the Perry Davis’ Pain Killer or Radway’s Ready Relief. The latter are indeed safer as they are controlled by government regulations while *Aspirin* is not. It is only the government, however, that can successfully buck against the wide spreading popularity found in the press of to-day backed by the *Aspirin* monopoly. This can only be done by prohibitive legislation. It is ridiculous beyond conception to rule that an excess of one-half of one per cent. of alcohol is intoxicating and allow *Aspirin* to be sold freely over the drug counters of the country."

Homoeopathy in India in 1920

HISTORY OF HOMOEOPATHY IN INDIA

"Generally speaking, the new science at the present moment claims hundreds of qualified doctors, as its adherents in our country. But this glorious result was not achieved without a strong and strenuous struggle - a struggle which extended over years of hard and arduous labor. That great champion of truth and righteousness - the late Dr. Mohindra Lal Sircar of blessed memory, was the first to openly practice this system, and this he did after a bold and open declaration in 1867. His conversion to homoeopathy evoked opposition and contempt from the opposite camp. In his own words, the loss of his practice was sudden and complete. For six months he had scarcely a case to treat. Even those who used to receive advice gratis every morning, ceased to come, and if anybody, not finding benefit elsewhere, did come, it was only to beg him to give his old, and not the new medicines. At such a tremendous sacrifice, dear reader, Dr. Sircar took to this science in the metropolis and then capital of India. He devoted all his time to the advancement of the cause he had so much at heart. Through his labors extending over many years, he transformed this thorny path into a glorious bed of roses, making homoeopathy in India what it to-day is. His noble example was followed by hundreds of others of the orthodox school, and in Bengal an average homoeopathic physician to-day commands a better practice as compared with his brother of the so-called dominant system. But this should not mark the end of our achievements. We have yet to fight in many other ways in order to keep ourselves abreast if not ahead of all the existing systems of medicine in vogue. Homoeopaths of Bengal still owe a duty towards the other provinces which are at the present time much more backward in this respect. They have to solve the burning question of a good institution equipped with modern requirements, affording every possible facility for imparting sound training in all the other sister sciences, pertaining to medicine. At present we have quite a number of ill-managed and badly staffed homoeopathic colleges in India. Our house is divided against itself, and we have still to learn that united we stand and divided we fall.

THE DARK SIDE

An Urud saying aptly depicts our present day condition. It means that this house is on fire through its own lamp.

Our opponents are not doing us the least harm through legislation, etc., when compared to what these institutions are capable of doing. Fancy a layman who has never been to any medical school or college, and who is innocent of the A, B, C of medicine, coming forward to open a college of homoeopathic medicine. He has no qualified staff or anything of the kind, and starts granting diplomas at his sweet will. He has only pecuniary gains and selfish motives to actuate him, and his only ambition is the wholesale manufacture of homoeopathic doctors at the cost of the life blood of this noble science. He has only to charge a big sum and grant a title in return. Throughout his life he was either an engineer, a printer of a newspaper, a hum drum quack, and now by a touch of the magic wand, as it were, he becomes the principal of some homoeopathic medical college.

This is, in short, the standard of most of the so-called homoeopathic medical colleges. Of course, one can have nothing to complain against such laymen, who have either in the past practiced this science or are to-day practicing it. They form an important wing, though not the foremost rank of our profession. The railway baboo or the post office clerk has a right to derive every benefit from these medicines by applying them to the sick, but would it not be

ridiculous if he goes in the evening to lecture on anatomy or physiology in a college of the above description after his office duties are over. Everyday we observe that the business of importing diplomas of this kind is flourishing and a man sitting in some remote place is granted the title of Bachelor in Homoeopathic Medicine (B. H. M.), or is made a licentiate of homoeopathic medicine. God knows how long this is to continue. And if this remains the standard of an average homoeopathic doctor and a typical homoeopathic medical college, our days are surely numbered and homoeopathy will die an unmerited and premature death.

The above is the true picture of most of the homoeopathic colleges in India. But there are a few noble exceptions and at the head of all is the Calcutta School of Homoeopathy and the Homoeopathic Medical College, as started by Dr. P. C. Majumdar, M. D., in 1891. This is the premier institution of its kind in India. Attached to it is the Calcutta Homoeopathic Hospital founded by Dr. D. N. Ray. I can't say exactly how much accommodation exists at this time in the hospital, as recently an extension was made by erecting some new wards. The outdoor dispensary and the indoor department of this hospital have proved of immense value to the students of homoeopathy in Calcutta in general, and of this college in particular. Both the college and the hospital have immortalized Drs. Ray and Majumdar - the two great champions of homoeopathic cause in India. Both of them enjoy a world wide reputation as homoeopathic physicians and organizers. Their students passed out of this college are now the most successful physicians, throughout Burma, Bengal, United Provinces, Bombay, Madras, Panjab and the N. W. F. Provinces. Their selfless efforts have created a very healthful atmosphere all over India and their useful career has proved a blessing for Hahnemann's system." [...]

(Future of Homoeopathy in India. An Open Letter to the homoeopathic Profession from Dr. S. S. Johar (Cal.), President Punjab Homoeopathic League, Lahore. The Homoeopathic Recorder vol. 35 (1920), p. 216-218)

Snow-white flowers blossoming at night

"The **Datura arborea** is a native of Peru, growing along the Pacific Coast in California, cultivated in gardens in California, where the plants attain a height of about seven feet, and is much admired on account of its large, beautiful white flowers. Leaves large, their sides unequal, and regular stalk and sinuses. Flowers - corolla funnel-shaped, long-tubed and bent downwards. Color - snow-white with a yellow tint by the fundus; blossoms in October and November.

Toxicological effect is much slower than that of *Datura Stramonium*, but dynamically very intense and lasting. The sweet odor of the flowers in a room is sufficient to cause considerable psychological aberrations from normal state, and especially when the tincture is prepared.

History. - Dr. Aug. Camaun, a native of Poland, and for some time practicing in San Francisco, was the first-one who made extensive provings of *Datura Arborea*. Without producing any prominent toxicological symptoms of acute pain, the herb caused such a deep impression upon the mental sphere and faculty of concentrating ideas, that the Doctor was very sensibly affected for a long time, and recovered only slowly after a trip to Mexico. One of Dr. Camaun's former patients, Mrs. Copland, made me acquainted with the *Datura Arborea*, and presented me with a beautiful wreath of the large white flowers. I left them on the table in my office for a couple of days, and experienced a very strange effect upon the cerebrum, as if my forehead was expanded, and my ideas were floating outside of the brain. A very strange feeling of pleasant and easy comfort, and as if I scarcely touched the earth with my feet - and had to gather my ideas from afar - as if they were floating in the clouds. I also experienced a slight vertigo, and found myself involved in a most beautiful atmosphere, bright and calm as the sunlight at noon. I removed the flowers from my office and made a tincture of them. During the process of handling and cutting them, I felt a sensible confusion of ideas

across the cerebrum, with drawing nervous irritation back to the cerebellum and a spinal irritation, or depletion of nervous circulation in the medulla oblongata. These symptoms alarmed me considerably, and I concluded to abstain from all further proving for the present. Shortly after, Dr. Aug. Cauman arrived in San Francisco, and I concluded to consult him in regard to the new Datura. He spoke very enthusiastically about the great new specific for all insanity, and claimed now to be able to cure that derangement; but considered the whole matter as a secret of immense value to the world.

Specific Action. - To get a clear comprehension of the specific action of Datura Arborea, it must be impressed upon the mind of the reader, that it acts mostly as a pure dynamic and semi-spiritual agent, upon the sensorium, and without any perceptible pain. Its action runs in about four weeks very perceptible through a great range of its specific sphere, deeply penetrating the nervous life for about fourteen days. And by a prolonged proving of the tincture no doubt for a longer period. I have not yet made the tincture subject to any extensive proving, and for that reason can only give a quite limited account of the toxicological properties belonging to the Datura Arborea. But from what is already known, it is evident that the Stramonium has its secondary action on the cerebellum, but the Datura Arborea primarily acts upon the whole apparatus of our nervous centres. After bringing the specific action of this remedy in contact with the olfactory nerve sphere, by smelling, or by having the tincture brought in contact with the nervus hypoglossus, its action it quick upon the pneumo-gastric nerve, depressive upon the ganglia nerves and deep and violent upon the liver. For a few moments a feeling of stagnation of the circulation through the vena porta and a spasmodic contraction of the liver substance, and across the plexus coeliacus and solaris. The next series of symptoms is a sharp constrictive pain across the spine in the region of the pars dorsalis extending upwards to the pars cervicalis into ventriculus quartus or the lower region of cerebellum with irritation of nervous accessories. From thence is observed a contraction of the front cerebrum of a convulsive nature, sometimes as if a string was tied close around the head from sinus frontalis and to os occipitis. The cramps of both hemispheres (cerebro frontalis) made me somewhat careful in experimenting more at that time. I believe those contractions of the cerebrum to be caused from an over-stimulation of the corpora olivaria, and the corpus rhomboideum in a sympathetic correspondence with the intellectual sphere of the cerebrum.

But the most interesting are the second group of dynamical effects, caused from the tincture of the Datura Arborea - or where aberration of the mind commences to be sensibly observed. There is a beautiful harmony of peace and longing for beauty and fine sceneries of nature, sometimes like a semi-clairvoyant. The brain seems floating in thousands of problems and grand ideas without being able to concentrate itself, or get to any point and carry out any system of thought.

Clinical Value. - The Datura Arborea would especially be of service where the patient is happy and contented and supposes himself or herself to be a very extraordinary person, such as Emperor, Governor or Prince, and cannot discover the contradictions, to such assertions claimed to external life. Datura Arborea diminish that property of mind we pronounce "concentration of thoughts", and upon the same principle of similia, will harmonize the brain-life physically and dynamically, around the central base of the medulla oblongata, and give the cerebrum rest and faculty for concentrating ideas.

By these few hints I call the professional attention to a remedy not yet used, as one of our best friends in that unfortunate state of intelligence which we pronounce insanity."

(P. W. Poulson, M. D., Council Bluffs, Iowa, Datura Arborea. Read before the Iowa Medical Society, May '71, and Materia Medica Society, April '72. The Medical Investigator vol. 9 (1872), p. 261-263)

"Funchal, 27th March 1828. - Between 10 and 11 p. m. I was desired to see Anne Smith, aged 10, whom I found to be surrounded with friends anxiously watching her motions. It being the eve of her embarkation for England, she had been spending the afternoon, at a short distance from town, with the family of Mr. Blandy, and had been observed, towards the latter part of the evening, to become unusually riotous and loquacious. This state of animation being very naturally ascribed to the joyousness produced by the congregation of a number of children for the celebration of a holiday, and to her being then permitted, on this leave-taking occasion, to take probably a little more wine than was advisable, excited but little attention. On its being observed, however, to alternate with short fits of stupor, the friends became alarmed, and dispatched her, in a well-guarded palanquin, to Funchal. No rational answer could be got to any questions to her.

Symptoms. - The countenance is flushed, its expression wild and wandering; pupils largely dilated, and, on the approach of a lighted candle, immovable; extreme restlessness; temperature of skin above the usual standard; pulse small and very rapid; tongue furred. On being taken out of bed and carried to some distance from it. she seems, when left to her own guidance, incapable of finding her way back. Her gait is staggering, and her vision apparently very indistinct. An emetic was ordered, and, after its operation, a stimulating enema.

28th. - No effect either from the emetic or the enema, but she has had two motions this morning from a dose of castor oil. She has had but little sleep, and her manner is still confused. Pupils smaller; tongue white and loaded; pulse 110, regular. Infus. sennae.

29th. - Full effect from the senna. She has slept well, and seems now completely herself again. She sails this evening for England.

At midnight I was called to see Frederick Blandy, a fine boy, five years old, who had, of course taken a very active part in the gaieties of the preceding evening, and who, like his play-fellow, was doomed to partake of its gravities.

In this case the symptoms, although rather later in shewing themselves, were much more violent and alarming. At first, as in the preceding one, a high degree of excitement merely was observed, and which, by dint of coaxing, had ended in *sleep*, which, though much disturbed, had continued for nearly an *hour and a-half*. Out of this, however, the boy suddenly awoke, screaming most violently, and in a state of such ungovernable delirium, that, in spite of the utmost efforts of his father to restrain him, he repeatedly dashed his head against such objects as were nearest to him, and bruised himself severely.

Symptoms. - Pupils dilated to their full extent, and there is not the slightest manifestation of sensibility observed on the near approach of a lighted paper; face flushed; but the general temperature, particularly that of the extremities, below the healthy standard; state of the pulse not accurately ascertained, but it seems at the wrist to be, as in the other case, small and innumerable. There appears to be no griping, and there is neither fulness nor tenderness of the abdomen.

On seeing the child Smith, the symptoms so strongly resembled that of intoxication, that I had little hesitation in agreeing in opinion with the friends, that they were attributable to an overdose of wine, and left her with hardly any anxiety about the result. The occurrence of the second case, however, gives to the subject a very different, and, considering the age of the patients, somewhat of a puzzling aspect. From the similarity of the symptoms, though differing greatly in their degree of violence, and from the children having been together during the whole of the afternoon, the natural conclusion was, that something of a deleterious quality had been swallowed by both of them; and as no information could be obtained from them, or from any of the friends, the severity of the symptoms in this (Blandy's) case was

sufficiently calculated to excite both anxiety and alarm. The question as to their being the effect of the ordinary causes of intoxication, was disposed of by the difficulty in getting the child to sleep, its disturbed and restless character, and, principally, on the boy's awakening from it, by the *increased and continued* delirium.

Tartar-emetic and ipecacuanha having been previously administered without effect, I poured down a solution of the sulphate of zinc, and on that, too, failing to produce vomiting, had recourse to the stomach-pump, by which only a small quantity of coloured fluid, in addition to the water which had been injected, was brought up. On withdrawing the oesophagus tube, however, the child gulped up, amongst "baser matter", some seeds which proved to be those of *Datura arborea*. The intestines partook of the torpor of the upper part of the canal. A stimulating enema, to nearly the amount of a pint, was injected and retained; and on its being repeated still stronger, the whole was, after a time, returned without any admixture of feculent matter. The boy, however, having become much more tranquil, I left him at 3 p. m., having desired Mr. Blandy to get down a dose of jalap before allowing him to fall asleep (should he be so disposed), and to follow that up by repeated doses of castor oil until the bowels should be thoroughly evacuated.

28th, 10 a. m. - He has had no sleep, but has raved and tossed about continually; at present he is more quiet and manageable, and seems to know me. Pupils still widely dilated, but more sensible to the stimulus of light. The jalap (8 grs.) and castor oil (3ss) were now given, but there has been no evacuation. Rep. Ol. Ricini.

6 pm. There have been frequent clay-coloured motions. Pupils still dilated. He is going about the room extremely fretful and peevish.

On the following day he was quite well.

I have taken the liberty of forwarding to the Society the preceding cases, as illustrative of the poisonous effects of the seeds of *Datura arborea*. The symptoms bear a strong family likeness to those arising from an overdose of the other sorts of *datura*; but as the poisonous qualities of *this* species have not (so far as I know) been made so generally known, I am induced to hope a recital of the mischievous consequences produced by it may not prove altogether uninteresting.

The tree here grows and flourishes, and is to be met with in almost every garden in the neighbourhood of Funchal. But it *very rarely* gives seed, and but for the ingenuity of these children in finding it out, I might have remained ignorant of its *ever* doing so in this climate. From the state of the capsule, which was found the following morning, it appeared that six or eight of the seeds had been extracted, the greater number of which had been swallowed by the boy Blandy. Never having previously seen them, I was made but little the wiser by their ejection from his stomach; and I have great pleasure in acknowledging my obligations to my friend, the Rev. Mr. Lowe, for the information which he was good enough to give me as to their parentage." ⁽¹⁾

A. H. Renton, M. D.

Funchal, Madeira,
5th April 1828

¹⁾ They were in an unripe state, and nearly an hour must have elapsed between the time at which they were swallowed and the appearance of the symptoms.

(A. H. Renton, M. D., Madeira, Cases in which poisonous effects were produced by swallowing the seeds of the *Datura Arborea*; in: Transactions of the Medico-Surgical Society of Edinburgh, vol. 3, part I (1828) p. 475-480)

Schöne rote Beeren

"Ein 2 ½ Jahre alter, gesunder und kräftiger Knabe von Strassdorf spielte den 13. Juli Abends mit mehreren Kindern seines Alters in der Nähe einer Hecke. Bei dieser Gelegenheit erblickte er in dieser schöne rote Beeren und aß von ihnen, als sie beim Verkosten nicht übel schmeckten, ein grosses Quantum (gerade wie viel konnte ich von dem Knaben nicht erfahren). Der Knabe kam Abends nach Hause und brachte von diesen roten Beeren noch einige in der Hand mit. Schon Abends und besonders während der Nacht wurde er unwohl gegen Morgen aber nahmen die Zufälle auf eine bedenkliche Art zu und steigerten sich bis auf den Mittag. Die Eltern konnten sich diese sonderbaren Erscheinungen nicht erklären, kamen aber doch in ihrer Ansicht darin überein, das Kind müsse giftige Beeren genossen haben, und brachten den Knaben den zweiten Tag, Mittags 1 Uhr, auf dem Arm getragen zu mir, denn er konnte weder stehen noch gehen, unklugerweise aber brachten sie keine von den Beeren mit. Ich beobachtete an dem Kinde folgende Erscheinungen: Es stellte sich öfters Brechreiz ein, aber ohne Erfolg, der Knabe konnte nicht schlucken und nur undeutlich sprechen, eigentlich nur lallen, sprach aber immerwährend fort, griff immer in den Mund als ob er etwas herausnehmen wollte, spuckte um sich, nahm von der Umgebung keine Notiz, und hörte auf keine Frage und Ermahnung, im Gegenteil, er kratzte seinen Vater, und war entsetzlich unruhig, so dass man ihn beinahe nicht zu halten vermochte. Plötzlich bekam er Zuckungen wie durch einen elektrischen Schlag durch den ganzen Körper, eine wahre Erschütterung, wobei er jämmerlich schrie. Diese Schmerzen und die Veranlassung zu der fürchterlich erschütternden Zuckung schienen ihren Sitz im Unterleib zu haben, sie dauerten aber nur kurze Zeit, worauf der Knabe mit schwerer Zunge wieder zu lallen begann. Es war wirklich ein ganz eigenes unartikulierte Gestöhn. Er war dabei sehr schwindlich, konnte weder stehen noch gehen, und so wie man ihn sich selbst überließ, drohte er hinzustürzen. Häufig griff er in der Luft herum, wie wenn er Flocken lesen wollte, griff an seinen Kleidern herum. Sein Mund war trocken, die Zunge stark weiss belegt, er hatte mittelmäßig festen und grossen Bauch, seit gestern Abend noch keinen Stuhl, beschleunigten, aber mäßig vollen Puls, erhöhte Hauttemperatur, frieselartigen Ausschlag über den ganzen Körper. Urin ging ab, ohne dass der Knabe sich darüber äußern konnte. Die Pupille war sehr erweitert, der Athem ziemlich geregelt. Nachdem ich das Kind auf diese Art untersucht und beobachtet hatte, fand ich allerdings an demselben die Zufälle einer narcotischen Vergiftung, und erkundigte mich daher beim Vater, welche Beeren der Knabe genossen habe. Er antwortete mit Tollbeere. Um die Erscheinungen im Allgemeinen und einigermaßen zu erklären, wäre diese Aussage genügend gewesen, es kamen mir aber bei dem Knaben doch Erscheinungen vor, die ich nicht für Folge einer Belladonnavergiftung halten konnte, und ich erkundigte mich daher bei dem Vater nach der Pflanze, an der diese Beere wachsen. Der Vater erklärte, es seien rote Beeren, die weiss, doldenartig wie Holunder blühen und auch den Holderbeeren gleichen, nur seien sie rot. Nach dieser botanischen Beschreibung konnte ich mir keine andere Pflanze denken als *Viburnum opulus* oder *lantana*, denn entweder passten die Beeren oder Blüten nicht. Da aber diese nicht giftig ist, so konnte ich nur den Begriff einer narcotischen Vergiftung im Allgemeinen festhalten, und verordnete dem Kinder ein Brechmittel, und zwar 1 Gran Brechweinstein in 1 ½ Unzen destilliertem Wasser aufgelöst, alle ¼ Stunde einen Kinderlöffelvoll zu geben, schickte den Vater des Knaben nach Hause mit dem Auftrage, er soll mir solche Beere bringen, die der Knabe genossen habe. Am Abend kam der Mann zurück, berichtete mir, dass das Brechmittel 6-8 Mal gewirkt habe, wobei Schleim und etwas rötliche Masse ausgebrochen worden sei, mit der weitem Bemerkung, dass die Zufälle auf dies Brechmittel sich gleich geblieben seien und sich nicht im mindesten vermindert hätten. Auch sei kein Stuhl erfolgt. Zugleich brachte er Dolden von *Viburnum opulus* und *Solanum dulcamara* und sagte, er meine, von diesen Beeren müsste sein Kind genossen haben. Nun war kein Zweifel mehr

übrig, ich hatte es mit einer Solanumvergiftung zu tun, auf welchen Gedanken ich früher geraten wäre, wenn der Bauer die Beeren nicht weiss und doldenartig hätte blühen lassen. Da von den Beeren wenige ausgebrochen, die Zufälle fort dauerten, andererseits die Beeren schon seit 24 Stunden genossen waren, so musste ich annehmen, dass sich ein Theil derselben im Darmkanal befinde, und verordnete daher ein Abführmittel, welches wirkte, was aber entleerte wurde, konnte ich nicht ermitteln. Da aber jetzt noch die Narcosis, nachdem die Materia peccans aus dem Körper entfernt war, nicht nachließ, so liess ich dem Kinde alle $\frac{1}{2}$ Stunden 6-8 Tropfen von Liquor Kali carbonici im Wasser geben, worauf die Zufälle schnell verschwanden und der Knabe unglaublich schnell gesund wurde."

(Bericht über die Versammlung des württembergischen ärztlichen Vereins in Göppingen den 20. Mai 1844, Oberamtsarzt Dr. Bodenmüller, Vergiftung durch die Frucht des Solanum dulcamara, in: Medicinisches Correspondenzblatt des württembergischen ärztlichen Vereins, Bd. 14 (1844), S. 128)

Ein Jüngling mit einer Flechte im Gesicht

"Ein 19jähriger Jüngling von blühender Gesichtsfarbe und vollaftigem kräftigen Körper fand sich im April 1818 veranlasst, wegen einer Flechte im Gesicht, die Dulcamara zu brauchen.

Er kochte nämlich eine Hand voll den frischen - von einem betäubenden Geruch begleiteten - Stengeln des Bittersüßes, (das den narcotischen Stoff in beträchtlicher Menge aber festgebunden enthält, von den Schafen unberührt stehen gelassen wird), mit eben so viel von den Species zum Holztrank in 3 Maaß Wasser bis zu $\frac{3}{4}$ ein, und trank dies täglich vierzehn Tage lang, ohne in irgend einer Hinsicht eine Veränderung im Körper zu bemerken.

Allein nachdem er am 15ten Tage jenes Decoct, überdem dann aber auch von Abends 8 bis 10 Uhr eine Unze in 3 Maaß Wasser aufgelöstes, ganz frisch von dem Bittersüß bereitetes Extract konsumiert (wovon jedoch ein zweiter Jüngling von demselben Alter die kleinere Hälfte aus demselben Beweggrunde ohne nachtheilige Folgen getrunken), bemerkte der sonst schon mitunter von einem geringen Grade des Wadenkrampfes befallene Kranke, denselben jetzt ungewöhnlich heftig, so daß er ihm den Unterschenkel an das Dickbein hinaufzog.

Er schlief nun ruhig ein, wachte die ganze Nacht hindurch nicht auf, fühlte aber früh beim Erwachen den Kopf wüst, schwindlich, Dunkelheit vor den Augen, was in Flimmern schwarzer Flecken vor denselben überging. Hierauf war es ihm, als wenn seine Augen hervorgepreßt würden und vor die Augenhöhlen getreten wären. Sie standen fast unbeweglich, ein Gefühl von Trockenheit und Spannung hatte sich ihrer bemächtigt, die Pupille sehr erweitert. Auch in den Händen entstand ein so heftiger Krampf, dass der Leidende fast nichts, wenigstens keinen ganz kleinen Körper damit fassen noch festhalten konnte. Der Wadenkrampf erwachte von neuem, wurde bohrender und heftiger, der Puls ging langsam, intermittierte, kalte Schweiß bedeckte die Haut, alle Glieder zitterten.

Als der Patient zu sprechen veranlasst wurde, bemerkte er zu seinem Schreck, dass er auch die Sprache verloren, die Zunge geschwollen, steif, und wie gelähmt war.

Um sich zu verständigen, schrieb er daher seine Gedanken mit Kreide auf den Tisch.

Einige gegen den Durst mühsam allmählich herabgeschluckte Tassen Kaffee bewirkten keine Abnahme der Zufälle.

Kaum war ich zu Hülfe gerufen, kaum hatte ich mich von all diesen Vorgängen unterrichtet, als ich auch unverzüglich dem Leidenden alle halbe Stunden in Wasser zwölf bis fünfzehn Tropfen Oleum Tartari per deliquium (Liquor Kali carbonici) nehmen ließ.

Schon eine halbe Viertelstunde nach der ersten Dosis milderten sich diese Leiden, mit jedesmaligem Wiederholen dieses Mittels aber zusehends noch mehr, und nach sechs Gaben fühlte sich der Patient von allen diesen Zufällen befreit.

Ein solches Mittel wie dieses, das auf der Stelle hilft, ist - kann ich mit meinem verewigten Freund Wendelstadt mit Recht sagen - ein Geschenk Gottes, welches man benutzen und dankbar rühmen muss.

Schon vor zwölf Jahren habe ich durch öffentlich bekannt gemachte Tatsachen erwiesen: dass - gegen Hrn. Prof. Joseph Frank's, aber für Mönch's und Hahnemann's Erfahrung - Decocte von Bittersüß allerdings Vergiftungs-Zufälle erregen können und unter gewissen Bedingnissen zu bewirken pflegen."

(J. H. G. Schlegel, Medizinische Erfahrungen und Beobachtungen, in: Journal der practischen Heilkunde, herausgegeben von C. W. Hufeland, Bd. 54 (1822), II. Stück, S. 27-30)

Constitutional Diseases

"There is no branch of medicine with which I am acquainted that gives the opportunity for demonstrating the beneficial effect of medicine as thoroughly as does that branch covering the catarrhal diseases of the nose, throat and ears.

Homoeopathy's greatest laurels have been won in the treatment of constitutional diseases, and I have found that a very large per cent. of catarrhal cases come under that head.

A careful consideration, not of the disease to be treated, but of the particular individual who is afflicted with the disease, will bring results which, to me, are at times almost unbelievable.

Chronic catarrh of the nose, even ozaena; chronic otorrhoea; chronic diffuse inflammation of the ear canal; chronic pharyngitis and even enlarged tonsils and adenoids are generally the result of lowered resistance. These diseases will be found in those constitutions which are unable to completely conquer an acute disease.

These primary constitutional deficiencies may have been caused by inherited tendencies, active or latent. The diseases which weakens the child's constitution are syphilis, gonorrhoea, chronic eczema, tumors, goitre, cancer and tuberculosis. They may be active or latent in the parent and show their effect upon the child very decidedly when they appear as a family disease in either parent.

There are other conditions that produce a lowered resistance. The most important are malnutrition, intra-utero and malnutrition which is brought about during the first year of life or by a severe illness in early childhood.

This mode of treatment is by no means to be confined to children. A chronic disease at any age must receive the same investigation.

A young woman, 23 years of age, came to me with a history of sore throat since childhood. The condition was constant and had not been improved by the removal of tonsils two years previous. A study of her general condition and family history led to the use of Calc. carb. cc., in less than a month she reported entire appearance of the throat trouble and the correction of a serious menstrual difficulty. This case came to me four years ago and there has been no recurrence of the trouble.

A young lady, age 23, ear discharging for 12 years; nearly total deafness for 6 years. Puls. 30th, 200th and 1,000th were prescribed. Discharge ceased, drum healed, hearing regained, menstrual regularity restored and her shattered nervous system returned to normal.

A married woman, 27 years of age, very fleshy, sore throat continuously from fall until late spring; left tonsil so large that it crossed the median line of the throat; tonsil had been enlarged since childhood. Calc. carb. 30th and 200th were given. No more sore throat after 3 weeks of medication, and in 3 months the tonsil was 1/10 of its former size. Six months after

starting the treatment she had a slight tonsillitis, recovered in 3 days, and for the past two winters has had no throat trouble of any kind.

A young lady about 25 years of age was brought to me about a year ago. For a number of years she had spells of coughing and raising quantities of mucus. Where it came from I do not know, as her physician assured me that her lungs were not affected. There might have been a pocket in some part of the bronchial tubes which discharged at regular intervals. I advised an X-ray of the chest to be taken just before a spell of coughing was due. Her immediate recovery made such an examination unnecessary. A year before coming to me her tonsils had been removed. They were described as large and the crypts diseased. The only change this operation brought about was the raising of a teaspoonful of blood once a week.

She was given Calc. carb. cc. a powder every 3rd, 4th and 7th day. She came to me on June 16, in a month's time she had ceased to raise blood and had stopped all coughing, her appetite increased, she slept better and began to gain flesh. On August 14th, after two months of treatment, she was discharged cured.

A woman over 50 years of age had suffered with an enlarged left tonsil for a number of years. She had rheumatism about the knees and her physician told her it was caused by the condition of the left tonsil, and persuaded her to have it removed. The left tonsil was removed. Within two months the right tonsil began to take on the same conditions that had existed in the left one. It became very large and the crypts were diseased. She consulted me six years after the removal of the left tonsil. At that time a half dollar would not have covered the right tonsil, and every crypt was filled with debris. Her so-called rheumatism was as active as ever. It affected both knees and felt as though the knees snapped out of place easily. As a child she had quinsy once a year, was thin and could not play out in the snow without taking cold. From childhood she has had a bilious tendency, with light colored stools and lame back. Three months of Kali mur. 30x and Calc. fl. 6x cured the rheumatism and reduced the tonsil to the size of a 5 cent piece. I have since searched the crypts and can find nothing whatever in them.

A lad from Elyria, 9 years old, was brought to me a year ago last January, 1914. He was practically deaf mute. He had been deaf for so many years that he had forgotten how to pronounce words, and it was almost impossible to understand anything he said. His tonsils and adenoids have been removed 2 years previous but brought about no improvement in the condition. The parents had consulted a number of specialists, none of whom had given them any encouragement. His left leg was covered with eczema. He was given Sulph 30th with an inflation of the ears at intervals of 1, 2 or 3 weeks. The eczema gradually disappeared and he regained some hearing in the right ear. He was then given Calc. carb. 30th. His hearing improved until the results were perfect in the right ear. During past winter (1919-1920) he began to hear in the left ear. Last summer he heard thunder for the first time and asked his mother what it was. He is now in excellent health and is improving rapidly in his school work.

By studying the patient as a unit and not as a collection of separate parts we are enabled to cure with medicine many conditions of the nose, throat and ear that have heretofore been only temporarily relieved by our local applications of surgery."

(Carl. H. Rust, M. D., Cleveland, Ohio, The Homoeopathic Recorder vol. 35 (1920), p. 390-392)

A few conditions of success in chronic treatment

"This short paper is without formal plan or method. It is simply random thoughts from experience, set together to refresh our memories and perhaps aid some who have not had long acquaintance with homoeopathy.

First: Let us emphasize the value of knowing a patient's constitutional remedy. This often enables one to choose the correct acute remedy. For instance, a *Calc. c.* patient needs *Bell.* and not *Acon.* The *Sepia* patient needs *Nux v.* if the symptoms are doubtful between that and some similar remedy. The *Nat. m.* patient is likely to show *Ignatia* symptoms, and so on with many more chronic remedies and their acute cases.

It helps to abort an epidemic attack.

In the influenza epidemic those patients who were actively under treatment for chronic ills did not take the "Flu" as a rule, or if they did take it, the case was mild and short.

It shortens convalescence.

For instance, a patient who had a typical attack of grippe with high fever, severe aching, vertigo, faintness, nausea, great weakness, was helped over all the acute symptoms with *Gels.* so that convalescence was established in twenty-four hours but the prostration remained; a dose of *Sulph.* which was her basic remedy, put her in condition to superintend moving and take an active part in it two days later.

It establishes convalescence in a critical time when remedies apparently indicated, do not act.

As an instance for this, an old lady had a severe attack of "Flu" and went into active delirium, with such weakness that she slid down in bed, bent her head backward to breath, jaw dropped, unconscious part of the time, cold all over. *Stram.* which seemed to be indicated by the mental condition, would hold only for some hours; a few other remedies were tried without relief and she seemed in a dying condition. A few years before she had a severe cystitis for which *Nit. ac.* made a remarkable cure, and she had none of this remedy since. Without any definite indications for *Nit. ac.* in this illness, it was given and the rapid convalescence seemed marvellous.

It helps in deciding the deep remedy for some near relative.

A young man had the "Flu"; the choice of remedy seemed to lie between *Phos.* and *Nat. m.* The latter was given and the case wavered back and forth for a few days without permanent gain. Then it flashed into my mind that his mother had been improving satisfactorily on *Phos.* This was given with a prompt recovery.

Sometimes one member of a family will show one group of symptoms of a deep remedy and other members other dissimilar groups of the same remedy.

It shows what basic miasm lies behind the family.

If several members are benefitted with the *Sulph.*, *Calc. c.*, *Lyc.* group or by one or another of these three, we feel fairly sure that the family is psoric. If *Calc. c.* and then *Nit. ac.* show up, we say there is syphilis mixed with psora. If *Thuja.* is indicated for one and *Tuberc.* for another, we think it must be sycosis.

So it is a distinct advantage, in order to learn the constitutional remedies of our patients, to practice long in one place and a place with a stable population.

Second: There is great value in prescribing the proper sequence of remedies related to each other.

Many cases present a composite picture instead of one pointing to a single remedy; then to see the group called for is a comfort after trying to cover the whole with a single prescription.

For example: *Sulph.*, *Calc. c.*, *Lyc.*; *Ars.*, *Lyc.*; *Ars.*, *Sulph.*, *Psorinum*; *Phos.*, *Sulph.*, *Tuberc.*; *Sep.*, *Nat. m.*; *Lach.*, *Lyc.*

Complex cases many be cured layer after layer by the different remedies in a group, given in the right series.

Carefully written records, frequently consulted, prevent the busy doctor from prescribing hurriedly on the symptom group last reported and thereby spoiling the effect of the series which had been benefitting the patient through several weeks and months.

Third: There is a distinct value in definite series of potencies over prescribing any, one happens to have on hand, in a haphazard series: that is, the 2c., 1m., 10m., 50m., cm., mm. carries the patient along far better than such potencies as 3c., 11m., 42m., 77m., etc. There seems to be a rhythm about it like chords in music.

Fourth: A knowledge of miasms and the remedies prominent in the cure of each is helpful. In trying to get the symptoms of the miasm there is much overlapping, but the characteristic picture appears slowly as one becomes familiar with many patients and many remedies. The same thing happens when trying to see the epidemic remedy.

It is of value, in choosing a remedy, to know which miasm is most prominent. There are mixed miasms and mixed remedies; one remedy removes certain phases, then another miasm comes to the front and this leads the way to the next remedy.

Fifth: We should endeavor to learn the length of action of different remedies, their place of action and plane of action so as to suit these to the susceptibility and pace of patients. Some patients need quick acting remedies; some need slow ones; some need long intervals between doses; others use up the effect of the remedy in a short time.

The interval is *shorter* in *old* people and in *incurable* cases.

The susceptibility to the action of medicines is most various in different people; some are provers of the medicines given them and need the smallest bit to get the reaction; others seem phlegmatic and need more to get them started.

Therefore, we should have a care with high potencies.

Some of the effects shown in susceptible patients are: diarrhoea, a long refreshing sleep, a mucous discharge of some kind, sudden vertigo or faintness.

Sixth: A study of the place of the nosodes in medicine is most important and interesting. Their provings furnish a symptom list which corresponds closely to the pictures of the three chronic miasms of Hahnemann. If the student can get so thoroughly familiar with these groups that they become separate entities instead of a heterogeneous mixture of unrelated symptoms, he can then see in each puzzling case which refuses to yield to the best prescription he can make, the nosode which suits it. Marvellous cures can be made with nosodes in this way. If tuberculosis is of sycotic origin as seems probable, then in some cases, when *Tuberculinum* has helped much and been outgrown, *Medorrhinum* will follow with great benefit, possibly preparing the way for Tuberc. again to take hold.

When a series of remedies following each other well, like *Sulph.*, *Calc. c.*, *Lyc.*, has made a fundamental improvement but cannot finish the case, the suitable nosode will cure or else act as an intercurrent, enabling the original series to take up the work again.

The same is true of curable cases for which a single remedy has acted well for a long time and then loses its hold, leaving no clear picture of another remedy. The nosode will complete the cure or reveal the remedy to follow. Sometimes one of the acute remedies will do the same thing.

Probably other uses for these wonderful nosode remedies will be found.

Seventh: Some of the signs of success in chronic treatment are:

Disappearance of symptoms in the right order, that is from *within outward* and from *above downward*; also the *disappearance of recent symptoms* and *reappearance of earlier ones*.

Increase of endurance and resistance even though most symptoms persist. Long curative action of the remedy which denotes plenty of vital force.

In incurable patients:

Mitigation of all symptoms.

Upholding the strength in spite of the progress of the disease until within a few days or weeks of death.

Swift ebbing of vitality with a minimum of suffering or evidences diagnostic of the disease; for instance, cancer in which disease homoeopathy is an angel of comfort.

Many other points will occur to you to add to this group; there is nothing new in these mentioned, but if we could act on them all, all the time, we should succeed better in spreading homoeopathy through the world."

(Julia M. Green, D. C., Washington, D. C., A few conditions of success in chronic treatment. Read before the annual convention of the International Hahnemannian Association, Cleveland, Ohio, June, 1920. The Homoeopathic Recorder vol. 35 (1920), p. 399-402)

A remedy for Noma

"This is the chlorate, not the chloride of potash. The latter is *Kali muriaticum*, essentially different and much milder in its action. Hering in his *Guiding Symptoms* combines the provings, which is misleading; they should be separate and distinct. Allen, in the *Encyclopedia*, presents a proving of *Kali chloricum*, and the *Hand Book* contains the same also.

Many years ago in the old Five Points House of Industry in New York, during an epidemic of infantile gangrenous stomatitis (noma) this remedy was curative in numerous cases, which in Old School hands went by the board. The study of the mouth symptoms of this remedy will repay the physician and lead him to compare it with *Mercurius*, *Hydrastis can.*, etc. *Kali chlor.* acts very destructively upon the kidneys, producing an actual croupous nephritis, haemoglobinuria, etc. Hence this medicine should suggest itself in severe cases of nephritis. A useful group to remember in this connection is *Apis*, *Cantharis*, *Carbolic Acid*, *Mercurius corr.*, *Terebinthina*, and *Kali chloricum*. Of course, these remedies do not exhaust the list of possible medicines; but it is well to bear them in mind."

(R. F. Rabe, M. D., New York, Editorial: *Kali Chloricum*, The Homoeopathic Recorder vol. 35 (1920), p. 432)

A young man in the rubber industry

"C. F. E., aged nineteen, light complexion, blue eyes, average muscular development, and sound constitution, after bathing his hands and arms many times daily in benzine, for a period of weeks, while working in a rubber-factory, and drinking water impregnated with it, was seized with the following symptoms:

General prostration; severe, darting pains in the occiput, from below upward, recurring in paroxysms, aggravated by motion and especially by rising after sitting; continual aching and throbbing in the lumbar region, made worse by a full inspiration; pressing pain in the bladder; after passing a quantity of dark, offensive urine, throbbing and smarting in the neck of the bladder and in the urethra for several minutes; sediment in the urine like red sand; soreness and sensation of looseness of the upper incisors; painful, round, white ulcers in the mouth, especially on the inside of the cheeks; hot and very offensive breath; entire loss of appetite;

craving for lemons and cider; extreme thirst for ice water, satisfied with a sip, but wanting it again directly.

After enduring these troubles two weeks, he took his bed, where I found him, wasted, pallid, and exhausted; pulse wiry, and averaging ninety-six per minute. There was, several times an hour, a stool of lead colored mucus mixed with bright blood, accompanied by some tenesmus, and followed by throbbing in the anus and rectum, and lancinating pains from below upwards, continuing about five minutes. These stools smelled like benzine, and followed him with diminishing severity about ten days, preserving their characteristics to the last. There was continual soreness to pressure in the abdominal walls, with heat, and grinding, wearing pains in the lower part of the bowels, worse just before stool.

Chills seized remote parts and passed toward the head, from the thumbs to the elbows and from them to the shoulders, and from the small of the back to the shoulders and vertex. There was continual soreness and aching in the clavicular regions and in the muscles of the upper arms. For seven nights, copious, general, warm sweat, toward morning, very exhausting, followed on several succeeding mornings by perspiration only on the breast, on the side not lain upon, and in the axillae.

For three nights, before the sweating began, complete insomnia, with unpleasant thoughts crowding the mind, and wide-open eyes, before which photopsic illusions floated continually. A great white hand seemed to appear to him in the darkness, coming outspread toward his face, causing him in terror to scream for the watcher. He would converse rationally through these painful vigils, and seemed to know that the object of his dread was an illusion. During most of his sickness he was extremely irritable and fault-finding, - weeping at trifles and despairing of recovery. Every few days there was continual, hacking, dry cough, but examination of the chest revealed nothing.

He could not turn his eyes upward or to one side without severe aching and throbbing. The conjunctiva appeared somewhat congested. The irritation of the kidneys was extreme. Cold compresses came off steaming in a few minutes, smelling of benzine, and stained a deep yellow. Nothing seemed to remove this yellow stain from the linen but a long exposure to the sun. It is now eight weeks since he began to be sick, and although able to follow a light employment in the city, there remains a symptom of peculiar interest from its novelty: occasional, sudden puffing up of the left cheek and of the calf of the left leg, as though the parts were filled with air, going off in a few hours, and returning again.

The treatment was mainly hydropathic, in order not to mix symptoms of benzine with those of remedies employed. Plenty of milk and beef tea were given at regular intervals, but no stimulants. At one time he sank very low, approaching a typhoid condition; the tongue was parched and brown, sordes covered the teeth, and the thirst was terrible; he complained of a sensation of falling through the bed and floor; but the mind was perfectly rational, and he received his physician with a pleasant smile. In two days, while taking *Arsenicum*²⁰⁰, this low condition improved, and the tongue cleaned entirely. I have met the abdominal symptoms of this case in other patients who had used benzine too freely in removing varnish from their hands and arms. For the night sweats, *Nitr. acid.*²⁰⁰ was given after the third night, but it is not claimed that they were materially influenced by the remedy. *Capsicum*²⁰⁰ seemed to relieve the chills in the back and limbs, which were quite distressing, in a few hours, after they had continued four days.

The attention of the profession is especially called to the characteristic throbbing pains of this drug; throbbing in the region of the kidneys, in the rectum and anus, in the bladder, the urethra, and in the eyes. Benzine promises to be useful in dysentery, cystitis, and nephritis, and seems closely related to *Arsenicum* and *Benzoic acid*. Benzine may be formed from

benzoic acid by distilling one part of the crystallized acid with three parts of hydrate of lime; benzoic acid, on the other hand, can be formed from benzine. The question may naturally arise, whether *Benzine* can cause symptoms essentially differing from those produced by *Benzoic acid*. Inasmuch as the two differ somewhat chemically, we should look for a corresponding diversity in their toxic effects. Both produce vascular excitement, with throbbing of the smaller arteries, and ulceration in the mouth. The symptoms of the urinary organs, it will be seen, are very similar. It is hoped that careful provings may be instituted at once. The utility of multiplying remedies from the laboratory is an open question, to be treated as such by proving all, and holding fast the good."

(J. Heber Smith, M.D., Melrose, A Proving of Benzine, Read before the Massachusetts Homoeopathic Medical Society, Oct. 12, 1870, in: The New England Medical Gazette vol. 5 (1870), p. 544-546)
[Note: "Benzine" was in the 19th century a synonym for "benzene", the German "Benzol".]

One of the most used industrial products

"The following extract from *J. A. M. A.* is of importance. *Benzol* should receive a careful homoeopathic proving, as no doubt it would prove to be a valuable addition to our materia medica. At present, from the standpoint of homoeotherapy, we can say nothing about it. In the *O. S. Bastedo* and *Wilcox* do not mention it in their works on materia medica and pharmacology.

Pignetto reports two cases of myelogenous leukaemia in which marked improvement followed *Benzol* treatment. The first patient was a woman of 45; the erythrocytes increased from 2,000,000 to 5,000,000 by the eight-third day, the hemoglobin from 66 to 88 per cent., while the leucocytes dropped from 600,000 to 7,500. She took 2 gm. *Benzol* daily at first and increased to 5 gm. without any signs of intolerance except at first and toward the last, compelling brief suspension of the treatment. A total of 256 gm. was given. She kept well for three months after the close of the course of treatment, and then returned to her home in the country and further details are not known. The second patient was a woman of 55, and the leukaemia subsided somewhat under roentgen exposures three times a week for a month, the leucocytes dropping from 200,000 to 120,000. Then increasing weakness and other symptoms compelled abandonment of the exposures, and *Benzol* was given, a total of 150 gm., with improvement as in the other case. It as persisted during the two years to date, which nothing left of leukaemia except the anaemic complexion. This patient takes arsenic twenty days each month."

(R. F. Rabe, M. D., New York, Editorial: Benzol in Leukaemia, The Homoeopathic Recorder vol. 35 (1920), p. 139-140)

"In a recent number of The Homoeopathic Recorder we quoted from Old School sources regarding the use of this remedy in leukaemia. In several instances which have come to our notice, this drug has perceptibly reduced the number of leucocytes in this disease. This striking effect, obtained in a therapeutic way aroused our interest and we have recently supervised a proving of this drug under the auspices of The American Institute of Drug Proving, and under the immediate direction of Dr. F. H. Hirschland, of the department of pathology, of the New York Homoeopathic Medical College and Flower Hospital.

This proving has been made upon several men and women, and although not yet entirely completed, has already produced some striking symptoms. Among these the following may be noted: Dilation of the pupils, with poor accommodation to light and equality, one pupil remaining persistently larger than its fellow of the opposite eye. No pathological changes of the ocular structure were found. Persistent nausea, worse especially at night and waking the patient several times from sleep. On the blood, an *increase in the number of leucocytes* was noted, with a corresponding numerical *decrease in the red blood corpuscles*. This effect was

checked up in animals, and one guinea pig showed upon autopsy, distinct necrotic areas and abscess formation in the liver.

It would seem, therefore, a fair inference that there exists a homoeopathic relationship between *Benzol* and leucaemia and that the beneficial results so far obtained in this disease, are in reality to be credited to the operation of the law of similars. The interesting fact in connection with this proving is that the most striking symptoms and effects were produced by the 12th decimal potency. The 12x equals the 1/1,000,000,000,000 part, which is surely infinitesimal enough to preclude all possibility of any crude drug effect.

This proving of *Benzol* will, of course, be properly arranged and schematized and later on published in its completed form, in this journal. We simply wish to call attention at this time to a few of the striking features and to the fact that homoeopathic research is not altogether hibernating in dear old New York."

(R. F. Rabe, M. D., New York, Editorial, *Benzol in Leukaemia*, *The Homoeopathic Recorder* vol. 35 (1920), p. 233-234)

"We have been able to have completed a fair proving of this drug and shall, as promised in a previous issue, publish this proving shortly. In passing, an interesting fact may be noted, that *Benzol* affects the right side especially. Here we once more have an exhibition of the peculiar elective affinity of drugs. Why *Benzol* should attack the right side by preference, we, of course, cannot explain, but it does, and the fact will no doubt prove to be useful, if future provings should, as they no doubt will, verify this observation.

(R. F. Rabe, M. D., New York, Editorial, *Benzol*, *The Homoeopathic Recorder* vol. 35 (1920), p. 334)

"These provings or experiments were conducted under the direction of Dr. R. F. Rabe, secretary of the American Institute of Drug Proving, at the New York Homoeopathic Medical College and Flower Hospital, and under the immediate supervision of Dr. F. H. Hirschland, of the department of Pathology, to whom full credit is due for the results of these experiments. Herewith attended is the report, as submitted by Dr. Hirschland:

"It was in the early part of December, 1919, when Dr. Rabe suggested these Drug-Provings, which I began in January on small laboratory animals and later with students of this institution, and as well as with nurses of Flower Hospital. I wish to express my deep appreciation of the spirit of co-operation, as well as for the assistance Dr. Rabe has given me throughout these last four months. Both the students and nurses faithfully persevered in the work, and I wish to thank them also." (...)

The drug was given to three guinea-pigs, to three students (male) and to three nurses (female) - the name and nature of the drug was withheld from the provers, but it was *Benzol*. One student was used as a control. The drug was given to the animals in the fluid form, 2, 4, and 6 drops, three times a day. A strong male rabbit was also subjected to the test and was given 10 drops twice a day. The animal responded absolutely unaffected, as far as we could see. The 4 drops guinea-pig showed signs of paralysis of one leg at about the 6th day and became completely paralyzed in both hind legs on the tenth day. It died on the 12th day. The autopsy showed infarct formation in the liver, kidneys and one lung; the cause of death was oedema of the lung. The 6 drops guinea-pig died the 17th day. A high grade of anaemia was found in the lungs and the formation of an abscess and an infarct in the liver, as well as areas of focal necrosis and parenchymatous degeneration in the kidney.

As to the human provers, the history of some of them is interesting. They were subjected to a physical examination, their weight was taken, a chemical and microscopic analysis of the urine was made and a complete blood-count. The female team proved to be of higher value than the male, this latter one having one or two numbers who were inclined to emphasize

minor disturbances. The control prover remained unaffected throughout the test. He did, however, complain one afternoon about having a severe frontal headache, which, he says, was greatly relieved by studying.

Prover No. 1 was in fair physical condition when he started. He was given blank pills for four days. The fifth day he was given the drug in the 1st decimal potency four times a day. His blood count was 5,770,000 at the beginning, Erythrocytes, the lymphocytes being 6,800. The number of red cells decreased to 5,000,000, and the number of white cells increased to 10,400 within 10 days. The haemoglobin as 90 per cent. at the first examination and dropped to 85 and finally 75, during a period of 25 days. The polynuclears remained stable, the small lymphocytes showed a slight increase. The prover often complained of headache, especially on the right side, of sweating, swelling of the right testicle with severe pain, of nausea and loss of sleep. The appetite was not as good as usual, and the student often felt tired. Urine was passed in greater quantities than normally.

The second prover received the 3rd decimal potency, after he had been taking blank pills for four days. In this prover there was also a decrease in the number of red cells and an increase in the number of white cells. This student also complained about a severe pain in the testicles, which were red and enlarged, the pain being relieved by supporting the scrotum. Profuse urination was found, restlessness and nervousness. The symptoms were aggravated at night. A perspiration which had existed previous to the taking of the drug, has practically ceased. It came back, however, to some extent, after the proving was over. Twice the student complained of a terrific frontal headache extending to the root of the nose and which was worse on motion and lasted until midnight. For a few days there was a constant pain in the eyeballs and the lids, which was accompanied by a dilatation of the pupils.

The third prover who took the 6th potency showed the first symptom on the ninth day, in the form of painless, discrete, right-sided eruptions about the face and neck. In the 11th day he had a profuse hemorrhage from the right side of the neck, with no apparent lesion or cause. Throughout the taking of the drug there was an itching sensation at the anal orifice and at times all over the body. This prover did not show any decrease in the red cells, which remained stationary at about 6,000,000, while his white cells increased from 7,000 to 10,000.

The fourth prover, a female, had at the beginning of the test, a haemoglobin content of 90 per cent., which decreased to 75 per cent. during the test. At the same time the number of red blood cells sunk from 5,290,000 to 4,600,000, and the white cells went up from 8,200 to 11,400. This prover received the 6th and did not show any symptoms for 10 days. After that a coryza developed, which was at his height every a. m., accompanied by violent sneezing, lasting from 1-2 hours. There was no sleep before midnight and great restlessness during sleep; the prover felt tired right after sleep and all day, the appetite was poor and the action of the bowels more sluggish than normal.

The fifth prover was, so far as physical condition is concerned, almost perfect. The first blood count showed 4,850,000 red cells and 6,500 white cells. There was a loss of 300,000 red cells after 15 days, while the white cells doubled themselves. This prover was also a female and received the 12th decimal potency. She often complained of slight frontal headache, pain in the lower abdomen and of frequent nausea, especially after lunch; there was also a frequent desire for stool without much result.

The last prover had an initial blood count of 5,100,000 red cells and 8,200 white cells and a final count of 4,200,000 red cells and 11,600 leucocytes. This prover, also a female, was given the 30x. Shortly after commencing the proving she complained about a sour taste in the mouth, gastric disturbances, nausea, loss of appetite, regurgitation and a constant inclination to vomit. There was great restlessness day and night, and sleep was often interrupted. After 10

days the prover began to develop peculiar symptoms in the eyes. Her vision became very poor, especially on the right side, objects were blurred and wavered; the eyes began to ache and vision of the right side was at times absent. Inspection showed the pupils to be extremely dilated, the right more than the left, the eyeballs being very sensitive to touch. The right pupil did not react to daylight and only slightly to artificial light. The left pupil reacted somewhat better. This condition remained unchanged for about 5 days, and then gradually and slowly cleared up. It came back, however, to a lesser degree, for a period of about 4 days and then disappeared.

The most striking fact in the proving of benzol seems to be the influence it had on the circulatory system. It caused a slowing of the blood stream which in the guinea-pig brought about the formations of infarcts. In the human provers it resulted in a decrease of the red and in an increase of the white cells in general."

SCHEMATIC RECAPITULATION

Benzol

Synonym: Benzene C₆H₆

Characteristic symptoms.

Mind: Irritable; disinclination to work; confused; tired, nervousness.

Head: Frontal headache extending into root of nose, worse on motion. Headache in the evening and during the night, especially on right side; aggravated on moving.

Eyes: Photophobia; vision very poor, especially on right side; objects blurred and wavering to sight; aching of the eyes and lids; eyeballs very sensitive to touch, no reaction of the pupils to daylight and slight reaction only to artificial light; pupils very much dilated, the right more than the left. Vision lost in right eye.

Nose: Profuse discharge; coryza, fluent all day, especially in the afternoon hours; violent sneezing, lasting from 1 to 2 hours.

Face: Itching.

Mouth: Sour taste.

Throat: Slightly inflamed; sour taste.

Stomach: Regurgitation; desire to vomit; loss of appetite; nausea, worse after lunch.

Abdomen: Pain in lower part.

Stool and Anus: Constipation with frequent ineffectual desire for stool; itching in anus.

Urinary Organs: Urine much increased in amount; frequent desire to urinate: Brick-dust sediment.

Male Organs: Nightly emissions; pain in testicles, which are swollen. Swelling of right testicle, itching in scrotum. Scrotum red.

Female Organs: No observations.

Respiratory Organs: Cough relieved by drinking water.

Heart and Pulse: No observations.

Back and Neck: Profuse bleeding from back of neck, right side; discrete eruption on right side of back; itching all over back.

Sleep: Interrupted; desire for sleep during daytime; great restlessness.

Aggravation: All symptoms aggravated during night. Sleeplessness until midnight. Previously existing perspiration relieved during the period of the proving.

Benzol or benzene is a volatile, colorless liquid hydrocarbon, C₆H₆, obtained from naphtha or soft coal. It has an ether-like odor and burns with a light-giving flame. It dissolves fats, resins, sulphur, phosphorus, iodine and several alkaloids. By the Old School it is used as a pulmonary antiseptic in influenza, etc., as a taeniicide, external given as a parasiticide, and recently in leukaemia. The dose is given as from 5 to 10 minims.

Observations: The increase in the leucocytes and the decrease in the erythrocytes is certainly a striking feature of the effects of this drug, and, of course, suggests therapeutic possibilities in diseases marked by similar haemic features, more particularly leucaemia. The fact that several Old School clinicians have obtained beneficial results from small doses of benzol in this disease, is of interest and suggests that the therapeutic relationship which apparently exists, is based upon the principle of *similia similibus curentur*.

The symptoms referred to the eyes are also striking, especially the marked dilatation of the pupils and the failure to react to light, particularly daylight."

(Partial Provings of Benzol, Iodine and Kali Bichromicum, The Homoeopathic Recorder vol. 35 (1920), p. 337, 339-343)

Spongia in Herzleiden

"Dr. A Haynel, einer der ältesten Schüler Hahnemann's, und zwar der Erste, der Hahnemann's Hausgenosse war, und der einzige noch lebende, wirkliche Schüler aus der ersten, der Leipziger Zeit, bis auf den heutigen Tag noch frisch und munter und rüstig wirkend - erwähnte im Gespräche gegen Dr. P. P. Wells: er habe die *Spongia* auch in Herzleiden gegeben, d. h. in chronischen, organischen Leiden des Herzens. Wie konnte er aber auf *Spongia* kommen? Dr. Haynel ist nicht etwa gewohnt, solche Schlenkerschlüsse zu machen, und, weil *Jod* und *Brom* erfolgreich waren in dergleichen, nun auch *Spongia* "zu versuchen", wie die pathologischen Steckenpferdreiter. Haynel richtete sich ohne Zweifel einzig nach den Zeichen der vorliegenden Fälle. Nun stehen aber in der Hahnemann'schen Arzneimittellehre beim Röstschwamm, auch in der zweiten Ausgabe, keine Herzzeichen an der ihnen zukommenden Stelle. Einem wirklichen Kenner der Arzneimittellehre jedoch, und der ist Haynel im vollsten Sinne des Wortes, könnte man allerdings zutrauen, er habe das Mittel gewählt nach den hervorstechenden Zeichen irgend eines vorliegenden Falls, ganz abgesehen von den pathognomischen oder diagnostischen Zeichen, wie wir dies ja doch alle Tage zu tun pflegen. Wenn wir die eigenheitlichen Zeichen eines Falls decken können, so kümmern wir uns wenig darum, ob es schnurrt und pfeift im Herzen oder sonst wo. Allein wir haben in der *Spongia* mehrere wichtige Herzzeichen, dieselben stehen jedoch an anderen Orten - weil Hahnemann Gruppen, die beim Heilen dienen können, stets beisammen liess und nicht, wie das Heer unwissender Tadler fortwährend behauptete, zerrissen hat.

Das erste ist 83. "*Vor Eintritt der Monatreinigung erst Rückenschmerz, dann Herzklopfen, den ganzen Tag.*" Das zweite ist 148. "*Täglich mehrere Anfälle von Hitze mit Ängstlichkeit, Schmerz in der Herzgegend, Weinen und Untröstlichkeit; sie möchte lieber auf der Stelle sterben.*" Die Hitzanfälle sind in 146 und besonders in 12, wo *der Gedanke daran die einseitige Gesichtshitze erneuert*, ferner durch Wagner (229, 230) und Stapf (231) näher bezeichnet und hinreichend verstärkt. Man braucht auch nur das schöne Zeichen Hahnemann's 97¹⁾ einmal gelesen zu haben, und man hat ein scharf gezeichnetes Bild, wie es uns nicht selten bei chronischen Herzleiden vorkommt, und wie es weder *Jod* noch *Brom*, noch irgend andere Mittel aufzuweisen haben.

¹⁾ Nach einer mässigen Bewegung im Freien wird sie plötzlich schwach und wankt auf den Stuhl; unter grosser Angst, Übelkeit, Gesichtsblassheit, kurzem, keichendem Odem wallt es vom Herzen in die Brust heran, als wollte es nach oben ausbrechen, dabei schliessen sich die Augen unwillkürlich, fast krampfhaft, und Tränen dringen zwischen den geschlossenen Wimpern hervor - sie hat Bewusstsein, ist aber unfähig, mit dem Willen auf die Glieder einzuwirken.

Käme gar noch, in der Zeit ausser den Anfällen, das bekannte, höchst eigenheitliche Zeichen 128 dazu: "*Wenn sie in waagerechter Lage ausruht, ist ihr am Wohlsten,*" mittelst welchem allein W. Gross die letzten Folgen eines verhunzten Wechselfiebers hob (Stapf, Archiv, Bd. 7, Heft 3, S. 51), so sind wir völlig gewiss und sicher, und können mit wissenschaftlicher Bestimmtheit vorhersagen, dass *Spongia* die Kranken viel bessern, wo nicht heilen werden.

Als Haynel aber obige Bemerkung machte, ohne weitere Angabe der Zeichen, weckte dies beim Dr. Wells die Erinnerung wieder auf ein Erlebnis, worüber er später in seiner meisterhaften Abhandlung über *Rheumatismus* in *American Homoeopathic Review* 1862, Bd. 3, S. 301, Folgendes berichtet: Er war in der Küche beschäftigt, sich selber seine *Spongia tosta* zu bereiten. "Seine schwarze Köchin, die schon viele Jahre her an einem organischen Herzleiden gelitten hatte, woran sie auch ein bis zwei Jahre später starb, hatte ein Stückchen des frisch gerösteten Schwamms während der Doctor den Rücken wendete, wegstibizt, kauete es und verschluckte es auf's Eiligste. Die Wirkung war ebenso plötzlich wie beängstigend. Sie bekam ein so schreckliches Herzklopfen, eine solche Atemnot, dass Lebensgefahr drohete, die Lippen blau wurden. Ihr Atmen war ein heftiges Schnappen, bei grossen Schmerzen im Herzen, mit Schreck und Furcht, als ob der Tod sich nahe. Nach 10 bis 15 Minuten fingen diese Symptome an sich zu mindern. Obschon die Dosis ziemlich gross war, folgte doch eine auffallende Erleichterung ihrer alten Herzzeichen, die mehrere Wochen anhielt. Der Schreck über ihr Experiment war auch hinreichend sie ganz zu heilen von aller Neigung, Arzneien *in so grossen Dosen* zu stehlen."

"Etwa zehn Jahre nach diesem ebenso unerwarteten als eine Weile beunruhigenden Experimente wurde Berichterstatter bei der Nacht gegen 2 Uhr auf's Schleunigste herausgerufen und kam an das Bett eines Kranken, der an akutem Rheumatismus litt. Der Rheumatismus hatte die Lendenmuskeln verlassen und das Herz befallen, dies war schon das zweite Mal bei diesem Kranken, dass dasselbe geschah. Der Kranke war nun zwischen 1 und 2 Uhr durch ein Erstickungsgefühl aufgeweckt worden, hatte einen schallenden Husten, mit stetem schwierigen Atmen, und war dabei in der allergrössten Sorge, Aufregung und Angst. Die Herztätigkeit war eine gewaltsame und reissend schnell; jeder Herzschlag begleitet durch ein lautes Blasen, wie aus einem Blasebalg. Das letztere Symptom rührte wahrscheinlich von einer Ablagerung in vorigem Anfalle her, denn dies Mal war kaum Zeit gewesen zu einer solchen Fibrinablagerung, wie sie dem Blasen entsprechend, statthaben musste. Die ganze Erscheinung des Kranken brachte dem Doctor jenes Experiment seiner Köchin wieder in Erinnerung. Alle Erscheinungen in den beiden Fällen waren auf's Genaueste ähnlich. Ich gab dem Kranken sogleich zwei Kügelchen der *Spongia* 200 (Jenichen). Die Erleichterung der quälenden Symptome des Kranken war daher mehr eine rasche, entschiedene und bleibende. Das Blasebalggeräusch, was so sehr laut war, nahm allmählig ab und konnte nach 1, 2 Tagen nicht mehr gehört werden."

"Dies war das erste Mal, das ich *Spongia* bei Herzleiden anwendete. Seitdem haben weitere Erfolge mich zu einem grossen Vertrauen in das Mittel berechtigt, besonders wenn die Klappen der Sitz des Leidens sind, und wenn der Kranke plötzlich bei Nacht erwacht, mit ähnlichen Zeichen wie oben."

"Bei fibrösen Ablagerungen auf den Klappen ist das Mittel vom höchsten Werte. Wiederholt habe ich eine stetige allmähliche Abnahme des Klappengeräuschs auf dieses Mittel, d. h. nach einer Gabe und zwar einer hohen Potenz, folgen sehen, mit einer entsprechenden

Erleichterung der subjektiven Zeichen, etwa eine ebenso genügende und entschiedene wie bei Croup-Fällen. *Spongia* scheint sich zu der rheumatischen Affektion der Klappen ebenso zu verhalten, wie *Lachesis* zu denen der äusseren und inneren Membranen des Herzens."

In einem Briefe des Dr. Wells vom 22. Januar 1868 sagt er sechs Jahre später, dass er wiederholte Bestätigungen dieser Erfahrung habe: "Eine angesehene Frau aus Connecticut konsultierte mich wegen Herzleiden. Sie hat unregelmäßige Herzschläge und Erstickung drohendes Herzklopfen bei der geringsten Anstrengung oder beim Treppensteigen oder überhaupt Bergangehen. Wenn sie die Arme über den Kopf erhebt, wird sie ohnmächtig. Sie muss im Bette hoch mit dem Kopfe liegen. Erwacht oft mit Schreck und Furcht, als ob sie ersticken sollte. Dieses letztere Zeichen ist für die Wahl der *Spongia* entscheidend. Es ist nicht nötig zu sagen, dass die physikalischen Zeichen der Klappenablagerungen auch in obige Falle ganz unverkennbar waren, und dass schon einige Wochen nach der Arzneigabe sie sich besser fühlt als Jahre her."

Alle diese Heilungen, und auch die vielen, die durch Andere seitdem zu Stande kamen, seit Wells jene Erfahrung bekannt machte, beruhen auf den Symptomen jener Schwarzen, die ein Herzleiden hatte, woran sie nach ein Paar Jahren starb, also auf Zeichen an Kranken beobachtet. "Und was für Kranken!" würde Roth sagen, wenn er seine Bürste ansetzte, wie dazumal in der Vierteljahrschrift. Legt man all das Geschrei der vielen Arzneimittel-Reinigungsbefflissenen in die eine Waagschale, und solche geheilte Fälle in die andere: was wiegt schwerer? Wenn diese Kritiker geistige Schwerter hätten, würden sie es dem Brennus nachmachen und *Vae Victis* schreien. Sie haben aber nur Knüppel. Damit versuchen sie's, der Erfolg ist ja doch derselbe. Über das Weitere können sie den Livius selbst nachlesen und zwar V. 49."

(*Spongia* in Herzleiden. Aus Vorlesungen über *Materia medica*. Von Dr. Constantin Hering in Philadelphia. Allgemeine homöopathische Zeitung Bd. 76 (1869), S. 137-138)

Vom Urtheilen der Aertzte, die auf andere Wissenschaftten verleckert seyen

"Diejenigen / so vielen Wissenschaftten zu einer Zeit obliegen / pflegen von der einen nach den Lehren und Gesetzen der andern / vornemlich derjenigen / so sie am werthesten halten / zu urtheilen. Gleichwie von den Alten Aristoteles von den natürlichen Dingen nach der Disputir-Kunst; Plato nach seinen besondern und theologischen Ideen : Die andere Schule des Platonis nemlich Proclus mit seinem Anhang nach den Regeln der Matheseos raisonniret und gesprochen haben. Ingleichen die Aertzte / weil sie ausser der Lehre von den Kranckheiten auch auf andere Wissenschaftten verleckert und verhitze seyen / wenn sie sich einer von diesen allzusehr ergeben / so werden sie bald von der Praxi und Heilung der Kranckheiten urtheilen / nicht nach den gehörigen Gesetzen der Praxeos, sondern vielmehr derselben Disciplin, welcher sie zugethan sind. Sie rühmen dieselbe nicht nur heimlich / sondern auch in den herausgegebenen Büchern / und streichen sie aus / als eine zu Heilung der Kranckheiten höchst-nöthige Lehre. Dieser Fehler / er mag der Zeit oder den Autoribus zuzuschreyben seyn / hat zu unserer Zeit fast aller Aertzte Gemüther eingenommen / und in den Wissenschaftten grosse Verwirrung gemacht. Dieses hat Cardilucium bewogen / in der Vorrede seiner Praxis die Anatomicos etwas frey zu straffen / daß sie in den Gedancken stehen / als wenn die Zerschneidung der Zäserley höchst-nöthig wäre hinter die Historie der Kranckheit und dieser Heilung zu kommen. Da sich doch in der Wahrheit / wie er selbst redet / die 50 Jahre her / so auf die Anatomie gewendet worden / weder eine richtigere Historiam noch bessere und geschicktere Heilung der Kranckheiten sich hervorgethan. Gleichwie nun / nach des Cardilucii Ausspruch die Anatomici nach den Zerschneidungen der Kleinigkeiten : Also haben die Chymici nach wenigen aus den Ofen hergeholtten Erfindungen; die Urheber

der neuen Systematum oder Bücher nach falschen Schlüssen und neuerfundenen Worten; die Mathematici nach Zirckeln und Linien von der Historia der Kranckheiten oder der ersten Medicin geschwatzet. Ob dieses glücklich und mit gutem Recht geschehen / davon mögen gelehrte Leute urtheilen."

(Georgius Baglivus, De Praxi Medica, 1705)

The indelible stamp of death

"In the course of years, under the influence of pathology, the physician's mind, if at all materialistic, was inclined to the belief that whatever is done for a certain class of patients some of these are sure to die. So well-grounded has this belief become that it is safe to say that it is thoroughly ingrained in the physician's race-consciousness. Thus, tuberculosis, cancer, Bright's disease, Addison's disease, Hodgkin's disease, and many of the acute, infectious diseases such as plague, cholera, smallpox and yellow fever, are so generally believed to belong to this lethal type that to make a positive diagnosis of many of these disorders is virtually to place the indelible stamp of death upon the innocent and unfortunate patient, who almost we might say becomes victimized by the evil spell of this adamantine and inflexible type of pathological mind.

This is the type of medical genius who goes about with his mind steeped in the atmosphere of the hospital, morgue and the dissecting room; to him the blush of health blooms for a day - like some exotic flower, but to be blasted by the next breath from some germ-laden air, or from the chance draught of miasm-infested swamp.

"Alas for him who never sees
The Stars shine through his cypress trees!"

(Benjamin C. Woodbury, M. D., Boston, Mass., The Invisible Increment. Read before the annual meeting of the International Hahnemannian Association, Cleveland, Ohio, June, 1920. The Homoeopathic Recorder vol. 35 (1920), p. 454-455)

Cadmium Cures of Cancer

"The curing of cancer cases by homoeopathic remedies is nothing new or strange. Our literature is replete with many reported cures of more or less authentic and definite cancer conditions. In fact homoeopathy offers the only real therapeutic hope in the world today against this dreadful scourge.

Outside of homoeopathy, the only real advance and the only helpful measure that has proven useful in the cancer fight, is that of diet. Dietary measures are as important as the selection of the indicated remedy, for unless the correct dietary rules are followed, your homoeopathic remedy will fail to permanently cure in the majority of cases. On the other hand correct diet alone is not sufficient to eradicate the inherited soil that engenders and sustains cancer. For anything like uniform success one must combine the selection of the homoeopathic remedy, with a diet of fruits, vegetables, cereals and nuts and, later on, when improvement has reached a high point, dairy products in moderation may be allowed.

While it is true that any deep constitutional remedy may prove curative in a given case of cancer, we have in the cadmium salts our most valuable unit against the condition now recognized as carcinosis or carcinoma (late stage).

The pathogenesis of *Cadmium sulph.* has all the weakness and all the blood changes that correspond to a late cancer condition; besides practically all the particular conditions, from skin ulcers, that resist the normal healing tendencies, to breast and uterine tumors, together with the severe stomach ulcerations that readily take on blood changes of a malignant nature. It is in the late cases where symptoms are masked by drastic drugging and by pathology, the

end results of disease, that a knowledge of the cadmium salts is helpful. These patients should have been cured years ago when their symptoms would have guided to the needed remedy or remedies which would have prevented the ultimates of cancer. Homoeopathy in the hands of real prescribers will so change the life forces of the body or the constitutional state that cancer and tuberculosis will not grow or develop because of the healthful soil conditions that result from careful and really scientific prescribing. The dismal failure of surgery, x-ray and radium as curative agents in cancer, renders any proven measure more acceptable to a waiting world, for victims from the cancer scourge are constantly increasing, and allopathic medicine acknowledges its inability to cope with the situation.

The actual causes of cancer are obscured in a maze of uncertainty and ignorance. Alloepathy does not know, but it has proven a few interesting things that may be helpful in the future. Dr. Maude Sly of Chicago has proven the inherited soil theory of cancer in rats. She had bred cancer in and out of various rat families by selection and mating, and thereby has confirmed what the masters of homoeopathy have so long announced and contented. Dr. Crile of Cleveland, and others have demonstrated that the cancer cell has lost its normal bi-polar electric nature and taken on a positive state, with a resulting change in the nucleus of the cell. Electronic physicians have gone farther. They have proven that not only has a change taken place in the polarity, chemistry and histology of the affected cells, but that every drop of blood in the organism shows a corresponding change, at least in polarity, if not in chemistry and histology. Before any chemical changes take place in the body (not the test tube) there is a change in polarity; and chemical changes precede histologic and pathologic changes. All disease cause and departure from health is found in this fundamental change of polarity. It is the *modus operandi*, at least of the changes of state of health to disease and *vice versa*.

Our remedies, especially in potency, are catalysts that change body forces and body states, enabling normal function to be restored when broken, and perpetuating in an orderly way all the necessary reactions in the human organism to maintain life and health. The seed and the embryo contain all the necessary chemical elements in their proper proportion for the growth, development and repair of the organism, only needing the necessary food replenishment to maintain life through its allotted cycle. Hence true medicines are only catalytic in nature, they do not enter into the body cells combined with other elements, but their presence may be necessary, to bring about the normal combinations of chemicals always present in the blood stream for life's activities. All chemical change in the body is destructive, all vital change constructive. Absorption and nutrition are vital, the chemistry has been expended in digestion and elimination. These few facts are mentioned in order that we may know how and why the homoeopathic remedy acts so powerfully and positively as a curative agent against the changes found in the body cells in the condition called cancer. If we know the order in which disease develops, we can know the order in which remedies act to correct abnormal changes in the organism. When we know these things our faith is sustained by absolute knowledge.

In the past four years I have treated two hundred and twenty-five cases of proven cancer, of various forms and in all stages of the disease. At this time one hundred and seventy-five are still living, many of them entirely well and free of all cancer symptoms. Only one of this group now living, shows indications of an early demise. All of these who failed to respond to the homoeopathic treatment had been treated surgically or with x-ray and radium in material doses. My records show one case of late intestinal and splenic cancer in an old lady sixty-three years old, who lived five years in comparative comfort, and only recently died at sixty-eight, from weakness and exhaustion, entirely free of pain. In the last two years since my study and application of the cadmium salts my losses have been greatly reduced. I believe that any advanced case of carcinoma will need *Cadmium* in some form, dependent on the symptoms of the individual, before a cure can be effected.

Other remedies are sometimes needed after *Cadmium* to complement and complete the cure. Sometimes other remedies must precede the use of *Cadmium*. I frequently find cancer of the liver yielding to *Calc. ars.* in every way but the tendency to relapse, when frequently a single dose of *Cadmium* in high potency will render the cure permanent. In the early stages of cancer, especially of the skin, when many guiding therapeutic symptoms are present, any one of our deep constitutional remedies may be sufficient to cure. Our literature abounds in reports of hundreds of beautiful cures.

I believe a study of the cadmium salts and their use early in every case, on strictly homoeopathic lines, will enable the homoeopathic physician to make many more cures of cancer than are being made at the present time.

Any case of cancer complicated by a weak heart or diseased kidneys can hardly get well, because the reaction to the curative remedy will kill such a patient in a comparatively short time.

I submit, briefly, the records of a few cases to illustrate the action of *Cadmium* on cancer conditions.

CASE 1 - Mrs. J. W., age 63.

May 6, 1926. This case was diagnosed first, as one of gallstones, and operation was advised by an old school man. She was jaundiced and anaemic and had lost weight rapidly. The liver was enlarged and plainly nodular. *Calc. ars.* 45M was given with immediate and marked benefit, which continued until June 12, 1926, when *Calc. ars.* was repeated with improvement. This continued till Oct. 7, 1926, when a slight return of jaundice and liver pain was noted. *Calc. ars.* CM was given with complete subsidence of all symptoms. This lasted until April 29, 1927, when a severe bronchial cold called for *Carb. ac.*, 10M, which cleared up promptly and left the patient well until February 4, 1928. Symptoms of much intestinal gas then annoyed the patient. *Carb. veg.* 10M was given with relief until March 8, 1928, when the old liver symptoms accompanied by nausea and weakness, with extreme coldness and aggravation from exertion demanded *Cadm. sulph.*, which was given in 45M potency. The patient has had no more medicine since and remains in perfect health and comfort.

CASE 2 - Mrs. V., age 52.

June 8, 1927. Five months prior to this date, this woman was in robust health, weighing 168 pounds. She was now reduced to 80 pounds, more than half her body had gone, in a very short time. She was jaundiced and cachectic; spots of ecchymosis covered her limbs; she was in a constant tremor; her heart was weak and irregular in action; she could not take the slightest bit of food or drink without soon vomiting it. She had a small vascular goitre. Her liver was enlarged and nodular, and a distinct mass, indurated and tender, was palpable in the epigastric region.

At this time *Plb. iod.* 10M was given and the patient put on a diet of diluted apple juice, an ounce every two hours. There was a steady slight gain in strength and ability to retain fluids until July 11, 1927, when there was a return of the nausea and vomiting of tough, stringy, blood-streaked mucus. *Kali bich.* 10M was given for this with no relief and on July 13, 1927 the patient was weaker, with sinking sensation in the epigastrium, cold sweats, and vomiting even of a teaspoonful of water. At this low ebb-tide of life forces, *Cadm. phos.* 30 potency was given, with a slow, but steady uninterrupted gain of strength and a gradual decrease of all alarming symptoms, so that after a few days a little strained vegetable broth was added to the apple and pear juices as nourishment. The gain was maintained with no further medication until January 7, 1928, when symptoms of nausea returned. The patient now weighed 100 pounds and was living on a soft diet of fruits and vegetables with a little cereal and cream.

The second dose of *Cadm. phos.* 30 was given now. From this time on the patient gained rapidly in weight and strength. Whole-wheat bread and butter and cheese were added to her diet. No more medicine was given this patient until September 1928, when a third dose of *Cadm. phos* 10M was administered. She now weighed 130 pounds, her strength and color had returned, her liver was normal in size and the abdominal mass was gone. At this date this patient remains vigorously well, attends to all her duties, administering to the needs of a large family. She has almost gained her complete body weight, now 160 pounds, and looks more like a woman of 40 than the 54 years she is.

CASE 3 - Mr. B. R. C., age 42.

September 8, 1928. This man, two years prior to this date had gone through a six month's siege with duodenal ulcers, which had not entirely healed, as the patient was in more or less distress with inability to gain in weight or strength. Two days prior to the above date the patient had played harder at tennis than usual, and had eaten a rather hearty meal; that night he was awakened with severe epigastric pains which soon was followed by vomiting of food with some blood. He was given *Cadm. iod.* 10M, put on the usual diet of liquid fruit and vegetable juices, and improved for about ten days, when suddenly a severe intestinal haemorrhage ensued. *Ham.* 10M was given with only a short-lasting relief, followed by *Arnica* 10M, because of an extensive body soreness; still no relief. Recurrent haemorrhage persisted and not even water could be taken by mouth without producing bloody vomiting and an increase of intestinal haemorrhage. This was September 25, 1928. *Calendula* 30 potency was given and all food stopped, nutrition being maintained by enemas of glucose. There was complete cessation of haemorrhage for twenty-one days, and an abdominal mass in the hepatic region began to recede. At this time, October 16, 1928, an attempt at nourishment by mouth provoked vomiting and a slight haemorrhage. *Calendula* 50M was given with complete relief and the ability of the patient to take a little liquid nourishment by mouth without nausea or emesis. November 3, 1928, *Cadmium* 10M was given. There was steady gain with immediate and permanent improvement in every way. This man now weighs 189 pounds, eats everything, contrary to orders, and is in better health than ever before in his life.

CASE 4 - Mr. B. age 58.

September 21, 1928. This patient was reduced from 210 pounds to 145 pounds, was of bad color, extremely weak, with severe burning pains radiating from liver over the abdomen. His liver almost filled the abdominal cavity and was notched and nodular. He had been a heavy drinker and a recent attack of "flu" had added to his weakness and misery. At this date *Calc. ars.* 45M was given with steady gain on a diet of fruits and vegetables. *Calc. ars.* was repeated November 10, 1928, followed by steady gain in strength and weight and a relief of symptoms. December 15, 1928, *Calc. ars.* CM was given. There was not the response to this prescription that followed the preceding ones and on January 7, 1929, because of the burning pains, weakness and nausea, with chilliness and aggravation from exertion, *Cadm. sulph.* 45m was given with wonderful relief and a gain that has been maintained to this day. The liver is almost normal in size and feel; the man now weighs 195 pounds and is deeply grateful for his release from the grave as he terms it.

CASE 5 - Mrs. S. age 48.

September 15, 1928. This woman has had digestive troubles for years. X-ray diagnosed probable malignancy of the duodenum. *Cadm. sulph.* 50M, two doses, two months apart, cured all symptoms and x-ray now shows normal intestines. The patient has gained in weight, strength and color.

CASE 6 - Mrs. B., age 54.

January 16, 1928. *Cadm. iod.* 10M. This is a case of intestinal cancer with toxic goitre and marked cardiac disturbance. She had a quick response and steady gain in weight and strength until August 14, 1928 when she overate and upset her digestion; *Cadm. iod.* 10M soon righted her until October 15, 1928, when a severe cold upset her. *Cadm. iod.* kept her well until the last report in February 7, 1929, when I dismissed her cured. She remains strong and well to this day.

CASE 7 - Mr. B., age 67.

August 6, 1927. Splenic cancer, with weakness and the usual blood findings. *Caladium* given with slight benefit. October 7, 1928, *Radium chloride* 10M. Patient became much worse, and went to another doctor, who put him in a hospital, made all the tests to confirm a certain diagnosis of cancer, and then advised a splenic operation, which was refused. On November 24, 1928, I again saw the patient and gave *Cadm. met.* 10M, with no more medicine to the present date. A complete metamorphosis has been wrought; the blood findings are almost normal, the spleen is reduced, and the weight, color, strength and comfort of the patient are wonderfully good for a man 69 years of age.

CASE 8 - Mrs. T., age 36.

January 15, 1929. Mrs. T. always had pain and swelling of the breasts with her menses. A lump in the right breast was removed a year ago, and pronounced cancer, after microscopic examination. She is pale, emaciated, weak and cachectic. The left breast is now indurated and sore with retracted nipples, pains worse at period. *Cadm. met.* 10M has been given at intervals; single doses, January 15, 1929; March 19, 1929, May 22, 1929. The breast is well and the patient much improved every way.

CASE 9

February 9, 1928. I was asked to prescribe for one of our eminent surgeons for severe protracted intestinal haemorrhage. The patient was bled white and was very weak and feeble. He was in the late seventies and much reduced from a once very vigorous and powerful man. Three doses of *Cadm. met.*, one the 30th potency, given February 9, 1928, the others of the 10M given March 12, 1929 and October 1, 1928, have restored this aged benefactor to a healthy happy state, enabling him to finish his life work, in the form of a valuable medical treasure of knowledge and philosophy of healing that will aid and comfort great numbers in the future.

As a summary of these case reports, I would like to bring to your attention the fact that homoeopathy in the hands of its master prescribers is the greatest and most efficient force the world has today against the scourge of cancer. Yet in spite of this fact many of our men are running after will-o'-the-wisps, that float above the quagmires of materialistic pseudo-science and panaceas for the cure of cancer. Millions are raised and spent annually for research without avail, and the governments of the world are taxing their already overburdened citizens in this same endless march, always in circles.

Like lost wanderers in the wildness they go, without compass or guide to lead them safely to their goal; yet above them, and around them shines the light of homoeopathy like the polar star to lead the way to the goal they are so arduously seeking.

If they would but cast the blinders of prejudice from their eyes, and, like the wise men of old, follow the star to the manger of physical salvation, then, at last, the prayers and hopes of an agonizing world would be answered.

DISCUSSION.

Chairman McLaren: I will open the discussion to Dr. Grimmer's paper. I am sure many of our members will have questions to ask Dr. Grimmer. The subject is Cadmium Cure of Cancer.

Dr. Sloan: I would like to ask Dr. Grimmer how he differentiates the *Iodide* or the *Cadmium sulph.*, or the *Cadmium met.* that he uses?

Dr. Boger: The doctor brings our attention to *Cadmium*. I think it is worthwhile to see things through other people's eyes. He made a remark which brought very forcibly to my mind an experience of my own. We have a very expert dentist in town, above the average. He does my dentistry. In the course of his work, he noticed that my patients were mostly free from pyorrhoea, and things of that kind, and didn't have many tooth troubles, and so on. We got to talking about it one day. I said: "Doctor, why don't you use *Calendula* in your work?" He was persuaded to try it. He tells me now that he cleans out every tooth cavity and every torn gum with it. He says it controls haemorrhages perfectly. The gums heal up much more quickly and he says he has never seen anything like it before. He has observed another thing which is entirely new to me. He tells me that the teeth treated that way don't have tartar on the lower incisors. If I didn't know the honesty of the man, I would be inclined to question that a little bit because it isn't a disease of the teeth but a disease of the nutrition of the teeth.

Dr. Macfarlan: I think there must be something in the habit of modern living that predisposes to the rapid increase of cancer, despite the fact that our statistics are much better than formerly. As far as that goes, I don't know that statistics amount to a great deal. I know in my own practice and in the practice of a great many other people, when someone dies of cancer, they seem to think it is a stigma attached to the family, and they say to the doctor: "He did have a contracted kidney, didn't he?" You say: "Yes, he did have a contracted kidney." "Well, just put that down." A doctor may be forced, more or less, to put down things that he knows are not the exact case in order not to offend a family. You put down a secondary disease, maybe, which may be contributing to the death. I don't think I have done it except in one case, that of my own aunt. She died of cancer and she had nephritis. I put down nephritis. I don't know whether I put down the secondary cause or not. I think a lot of people die of malignant diseases and the physician puts down something else just to please the family.

Dr. Woodbury: Mr. Chairman, that is rather an interesting point that Dr. Macfarlan brings out. I had a patient who had what I supposed was malignancy of the intestine. I couldn't definitely say what part of the intestine it was, but I felt sure it was carcinoma, because there was a definite growth there. The daughter noticed that I put it down as carcinoma of the intestine. She said: "Couldn't you put that down 'Death from natural cases'?" I said: "Natural causes all right, but I have to put it down the way I found it." She said: "You know sometimes people just die of old age and they call that death 'from natural causes'."

Dr. Underhill: Mr. Chairman, I think that death certificates are not a very reliable source of information in many cases. They are made out with two thoughts in mind: First, what makes the physician look best in the eyes of the family, and second, what will make the family feel best as far as their own standing is concerned.

In the matter of cancer, I must say that while I have had a large experience in cancer and have seen a great many cases of all types, I am not very optimistic about it. In the cases that are recovering which appear to be cancer, and every now and then there is one such, I still question whether it is not some kind of a counterfeit of cancer, because for every real thing that there is in this world there is a corresponding counterfeit. There are imitation cancers which may be syphilitic in their origin. There are various forms of gumma which can closely resemble carcinoma. Some of the breast tumors which are pronounced carcinoma, upon biopsy are found to be sarcomas of one kind and another, and there is one type which does

offer some real hope of cure by means of the homoeopathic remedy and subsequently by means of surgery. That is the spindle-cell sarcoma. I have seen a few such recover, first using the indicated homoeopathic remedy, and, after evulsion or enucleation is largely accomplished, if there is no axillary involvement, removal of the growth will then be followed by no recurrence.

President Wilson: I should like to ask Dr. Grimmer if he has found his *Cadmium sulph.* as effective in sarcoma as in carcinoma and whether or not there is any difference in the different forms of cancer that the *Cadmium sulph.* would cure. Let's stick to *Cadmium* anyway, and not get off too far on death certificates.

Dr. Woodbury: The other day I made the statement that I hoped some time this Association would make a very serious investigation of cancer. My standpoint was one which could, perhaps, work it backwards, by getting the symptoms of cases that had developed cancer and whether or not they were cured. Then we could collect the data on cancer, and in time we would get the pure symptomatology of free cancer and also cancer as it develops and progresses under treatment, either favorably or unfavourably.

I am very much impressed with this paper because I have been feeling around for data on homoeopathy. I found that there hasn't been very much in recent years. The early journals had a good many cases that from reading looked like true cancer, but the cases that would satisfy the board of regents, so to speak, must be proven real cancer by biopsy. People are not very ready to believe electronic diagnosis, much as that seemed to promise at one time, because of the general scepticism regarding infinitesimal factors and the imponderability.

I made the suggestion to Dr. Grimmer and also to Dr. Macfarlan that in the proving classes that may be carried out this year, it might be a good idea to take up these different *Cadmium* salts and make a general country-wide proving of those - the bromides, the iodides, the phosphates, and the metallics. Why should that not be a good starting point for this year's work in connection with the very splendid paper that Dr. Grimmer has given us? I have no doubt he would every perfectly willing to supplement this paper in a year or two with further details regarding these 225 cases, of which only one, he tells us, is in intimate danger at the present time.

Dr. Grimmer: About the differentiating points of the *Cadmium* salts, we have only one real proving, *Cadmium sulph.* This is sufficiently rich in general symptoms to give us an idea of the general action of *Cadmium*.

I have to make a confession in the use of these other salts. I have used the electronic diagnosis only to prescribe the remedy. No electronic treatment was given to any of these cases that I mentioned. They were all pure homoeopathic cases given under the simple remedy at long intervals, but I have selected most of these remedies by the electronic method, first of all getting the polarity of the patient and then finding the remedies in their corresponding polarities. The patient whose blood registers positive, and almost every carcinoma case does, if it is at all developed, requires some negative remedy. While other remedies do come through with the *Cadmium* salts, such as *Calcarea fluor.*, *Hydrastis*, and a few other remedies, the *Cadmium* salts come through much stronger and much more effectively, and almost invariably *Cadmium metallicum*, *Cadmium iod.*, *Cadmium phosphate* or *Cadmium sulphate*.

Those are points I would like to bring out for proving. Of course I am saving all the cured symptoms that I can. As time goes on, I am learning more and more to differentiate. For instance, I find that the *Metallicum* is a haemorrhagic remedy, and that frequently, unassisted by other remedies, it will stop the haemorrhages in intestinal cancer or in ulceration cancer. *Calendula*, however, very frequently follows. *Calendula* is a complementary remedy to the *Cadmium* salts. In one case, *Calendula* cured the case.

We only have two provings. The proving of *Cadmium bromide* is a fragment which shows a brain congestion more like apoplexy than anything else.

We have quite an experience with *Cadmium sulph.* in the literature. Dr. Kent gives a wonderful description of it.

Cadmium sulph. is very rich in intestinal symptoms and in blood changes.

I was pleased to hear Dr. Boger confirm the action of *Calendula*. It is really another one of our remedies. It has been overlooked as to its depth of action. We look on *Calendula* more for superficial rulings, and things of that kind. It really corresponds to some of the deep constitutional conditions that must be closely related to cancer. I believe, if I remember correctly, the literature records some cases of cancer cured by *Calendula*.

In answer to Dr. Underhill's criticism about the question of the diagnosis, of course that is fired at us constantly. We get it all along. Any old school friend says: "Well, they made a mistake in diagnosis; they don't know what they are talking about; they didn't cure cancer; they cured some ulceration or some other minor thing; it couldn't possibly have been cancer." We have resorted, wherever we could, in these cases to x-ray, to microscopic analysis, to all the other known tests, but, after all, any man who has been in the practice of medicine ten, twenty or thirty years, knows a cancer case when he sees it, if it is at all clinically developed. You don't need any extensive laboratory test to tell you whether you have a case of cancer. You may want to differentiate between the form of cancer, or between carcinoma and sarcoma, but most of those cases the homoeopathic practitioners can readily recognize, and do recognize. So I don't think the question of diagnosis need bother us very much.

In answer to the question about sarcoma, my experience with *Cadmium* is that it has not been a useful remedy in treating sarcoma. There may be some salts of *Cadmium* such as *Cadmium calcarea silica*, or *Cadmium calcarea fluorica* which may be found to be useful in this condition. By the way, *Cadmium fluor.* is a remedy that helped one case very much, a late case of cancer of the prostate. There was no question about the diagnosis. It was diagnosed by an eminent pathologist in Chicago. That man was at the point of death. I sent my assistant out to see him and get his blood. We found that he had cancer, electronically, and every other way. The doctor told me there was a big pulsating mass. I never saw this man, so I didn't report the case. He could feel this mass through the rectum and said it was undoubtedly cancer, very far advanced. Nevertheless, we gave him *Cadmium fluor.* This man lived for a year, and part of the time the function of the bladder was restored. He gave up his catheter for quite a while, and then, subsequently, only used it occasionally. He left us because he wasn't satisfied with his progress. He was an old man, and had been put in much more comfort. I lost track of him after a year, but at the end of a year he was infinitely better in every way.

Regarding electronic diagnosis, I wouldn't have mentioned it had it not been brought up. It has a use, a very important use, and you can prove it. It is merely a scientific proposition. What do you do? You prove the unknown things from the known things. That is all the proof you need. We get many complaining cases that have been diagnosed from x-ray and microscopic findings. The electronic process invariably confirms these things. The electronic method of diagnosis will tell you the pre-cancer conditions before there is a microscopic finding, before any pathology can be found; it will tell you the tendency of the patient, whether he is going cancerward or not.

Syphilis and tuberculosis are the two things that precede cancer, the two things that cancer is grounded on. How do I know? First of all, take any case of cancer and put it to the blood box and put magnet over that blood box which takes off all other reactions, excepting one, tuberculosis, and every one of these cases show underneath the carcinosis reaction a tubercular reaction.

Another point is this: When your cancer cases are getting well and developing under the action of these deep acting curative remedies, you bring back tubercular conditions, and tubercular symptoms for a while supervene. These will practically all pass off under the antituberculosis or antisyphilitic remedy. This is the reason I make the statement that cancer is based on these things.

Of course there are many other factors, the loss of vitamins, the mineral deficiencies, the bad effects of drugs, especially coal-tar products, which have contributed their part in demineralizing the part and in opening the way for susceptibility. Cancer is the result of inherited conditions, plus bad living conditions, plus violated law." (Applause)
(Arthur Hill Grimmer, M. D., Cadmium Cures of Cancer. Read before the I. H. A. Bureau of Clinical Medicine, June, 1929. The Homoeopathic Recorder vol. 44 (1929), p. 606-617)

The application of homoeopathic remedies to cancer cases

"In applying homoeopathic remedies to cancer cases, we proceed along the usual lines taught by Hahnemann and his loyal followers, as far as we can; here, as in every case of chronic disease, we must stress the necessity for the fullest and most complete personal and family history, it is possible to obtain. From the birth hour on through infancy, childhood and maturity, to the time of taking the case, every change and disturbance, mental, moral and physical, in sequence, should be recorded, together with the diseases contracted along the way, and remedial measures employed for the same. When the pathological change known as cancer develops and grows with symptoms that are commonly the result of such change, we have little to guide us for the selection of the homoeopathic remedy from a strictly symptomatic viewpoint.

Clinical use and observation by many faithful and able followers of the homoeopathic law over a long period of time have given us a comparatively small list of remedies, the nature and symptomatology of which correspond to cancer in all its evolutionary processes in the organism, beginning with the moral and mental disturbances of the mind sphere, involving various and at times seemingly contradictory symptoms and states, at other times alternating conditions, and finally under some unusual stress or some physical or chemical injury there is presented the symptom picture, recognized as cancer. The majority of the remedies listed that have proved curative in cancer will fall into the group, observed by Hahnemann and others, which had, in their nature the three miasms or chronic diseases held by homoeopaths as fundamentally constitutional sick producing causes. And the remaining minority so listed may well be assumed to have, after more mature observation these three miasms, psora, syphilis and sycosis, blended in their symptomatology.

Following is the list of proven cancer remedies, the symptomatology of which has been confirmed by curative action. This list is gathered from a search of the repertory, through the various parts of the body including those of the skin (epithelioma). Under the uterine group the greatest number is found. From this fact we may observe that these tissues are subject to a large number of different irritations and conditions or that they are more sensitive and susceptible to the cancer toxin:

Acet. ac., *Alumen*, *Alumina*, *Ambr.*, *Apis*, *ARS.*, *Ars. iod.*, *Aster.*, *Aur.*, *Aur. ars.*, *Bell. per.*, *Bism.*, *BROM*, *Bufo*, *Cad. cyanide*, *Cad. fluor.*, *Cad. iod.*, *CAD. MET.*, *Cad. nit.*, *Cad. phos.*, *Cad. sil.*, *Cad. sulph.*, *Calc.*, *Calc. ars.*, *Calc. fluor.*, *Calc. sulph.*, *Calendula*, *Carb. ac.*, *CARB. AN.*, *Carb. hydr.*, *Carb. sulph.*, *Carb. veg.*, *Caust.*, *Cist.*, *Clem.*, *Cob.*, *CON.*, *Crot. hor.*, *Cupr.*, *Dulc.*, *Elaps*, *Graph.*, *Hepar. HYDR.*, *Kali ars.*, *Kali bich.*, *Kali cyan.*, *Kali iod.*, *Kali mur.*, *Kali nit.*, *Kali sulph.*, *Kreos.*, *Lac ac.*, *Lach.*, *Lap. alb.*, *LYC.*, *Merc.*, *Merc. i. fl.*,

Nat. mur., Nat. sil. fluor., NIT AC., Orig., PHOS., Phos. ac., *Phyt.*, *Rad. brom.*, *Ruta*, *Sep.*, *Sil.*, *Sulph.*, Sul. ac., *Thuj.*, Tox., X-ray, Zinc.

Of the seventy-five remedies listed in the cancer group, forty-five are of high-grade value, the others are of inferior value and less frequently indicated and used. There is a small group of remedies which corresponds to conditions arising from trauma and irritations of various kinds and is highly valuable in the cancer state. Remembering that disease gets well in the inverse order of the appearance of its symptoms, we may well understand why a breast cancer, whose immediate and last manifestation of cell growth follows an injury, would readily yield homoeopathically to such remedies as *Bellis per.*, *CON.*, or *Phyt.* Also how easy it is for us to perceive the potent possibility of preventing any cancer change, even starting after injury, with a potency of *Arnica*. Irritations and injuries occur in other parts of the body, such as those in the gastro-intestinal tract, faulty foods, indiscretions in eating, adulterated foods, from irritations produced by chlorine in the drinking water, and aluminium poisoning coming from the use of aluminium cooking utensils and from aluminium plates in the mouth, sometimes used by dentists. Such irritations as these will find the best antidotal remedy among some of the *Cadmiums* but also the irritating causes must be removed with the administration of the curative remedy to make the cure certain and permanent. In irritations, such a lip cancer occurring in smokers from the combined pressure and heat of the pipe. *Sepia* will frequently cure providing the irritation is discontinued.

The remedies of this smaller group are likewise contained in the general group of cancer remedies. They are Alumina, Arnica, Ars., *Bellis per.*, Brom., Cad., Caust., Con., Graph., Hydr., Kali bich., Kali cyan., Kali iod., Kali sulph., Lach., Lyc., Merc. viv., Nit. ac., Phos., *Phyt.*, *Ruta*, *Sepia*, Sil., Sulph., Thuja and Toxi.

A careful study and wide knowledge of these twenty-nine remedies will reward the industrious physician with a harvest of cure in cancer conditions undreamed of without such complete knowledge.

Other irritations than those mentioned above arise from the wide use of coal-tar preparations, now flooding the public in ever increasing variety and given for so many complaints, headaches, rheumatic pains, acute colds, grippe, fever reducers and sleeping potions. We are bombarded by these cardiac depressants. Is it any wonder that heart and kidney disease lead the list of death causing diseases, with cancer soon a close second. Against these irritants our carbon and snake poisons furnish the best antidotes.

Perhaps the most irritating of all the irritants and depressants is produced by the almost universal applications of serums and vaccines, given for the prevention and cure of acute infectious diseases. These subtle poisons are very far reaching and deep in their effects and our best antidotes can only be found in *Thuja* and several of the specific nosodes, such as *Diphtherinum* and *Pyrogen*, together with the snake poisons. Is it not possible, that the persistent and frequent injections of these biproducts of disease, shot directly into the blood stream, especially in the young children where conditions in the body organism for natural defence against these toxins, cannot obtain, that a weakening of the reticulo-endothelial system is produced, thus reducing the reacting power of the body against cancer and kindred chronic diseases. This reticulo-endothelial system is said by biologists to manufacture and contain all the defensive forces of the organism. And may this not answer the observed fact why cancer is occurring in younger subjects of each succeeding generation. And of what avail is it to try to prevent some natural expression of acute disease that many never come, if there is involved in the immunizing process a weakening of the defensive mechanism of the body against chronic manifestations of disease like cancer, diabetes, epilepsy and mental and physical weaknesses of various sorts. Add to this all, the wholesale destruction of children's tonsils, one of the most important defence units in the organism, which lessens still more the

chain of body resistance, and we have a gloomy outlook for the health and well being of the future. How much longer can the human race stand the strain of serum poison and crude drugs and their resultant suppressions, grafted on the ever increasing miasmatic causes of disease?

Only homoeopathy can retard the deep decay and frightful devastation gnawing at the vital centres of the human race. One other benefit is presented in the vast numbers, who have repudiated all medicine and have taken up with the so-called cults for relief against sickness. The cults at least give nature a chance to work unhampered by animal toxins and crude poisons in the form of irritating and enervating drugs. The pendulum has swung from the crude and clumsy attempts of the alloepaths to overwhelm disease by substitution, the implanting of a drug or serum disease in place of the natural one, and by suppression, the masking of external symptoms and the numbing of sensibilities to pain without in any way relieving the internal cause of illness, to those who at least have intelligence enough to know that nature has provided wonderful means of defence against sickness. However in the field of chronic inherited disease, nature alone is often unable to cure. This is the realm of homoeopathy and vast numbers of the more intelligent cultists must necessarily swing back to her for relief of those sicknesses that are the outgrowth of the chronic miasmata.

There is another pernicious form of irritation that is masking many cancers and that is the practice advocated by most of those looked up to as authority on the treatment of cancer, to employ large doses of either X-ray or radium on every mole, wart, or small ulcer, or blemish appearing on the skin. This procedure either irritates and burns the local parts because of overdosing, setting up necrosis of surrounding cells, which results in a rapid spreading of the sore and often turns a benign and harmless growth of small dimensions into a rapidly destructive malignant cancer, or, if the dose is lighter, the sore or mole or wart may be destroyed and apparently healed with an unsightly scar remaining. If the later result is obtained the patient will inevitably develop in the course of a few months or years, according to his constitutional soil inheritance, a cancer in some of his vital organs. We have few remedies that can antidote this kind of mischief, because the capillaries are obliterated by those destructive agents. *Cad. iod.*, *Fluor. ac.* and *Phos.* are the only three remedies I have found helpful in such cases; *X-ray* and *Radium* preparations in potencies may be found useful in some cases after further study and trial. For the anaemia and cachexia that often follows radium abuse, *Phos.* is the best antidote. For the ulcerating areas of necrosis that seemingly defy all healing agents, *Cad. iod.* is the only remedy I have ever known to help. For the X-ray burn *Fluor. ac.* is the remedy that yields the best clinical results.

Industries of a certain type predispose workers to cancer, preferring special parts or organs, as shown in the cobalt miner's tendency to cancer of the lungs. The workers in aniline dyes are more often affected by vesical cancer. These observations may suggest the proving and trial of these substances in potency as possible remedies for the disease localized in the parts that cobalt and aniline dyes each affect.

No paper on the treatment of cancer, even though it be strictly remedial, would adequately impart the necessary knowledge for the most successful results without a complementary diet as an adjunct to the prescribing. And the diet, like the remedy, should be selected for the individual patient, noting susceptibilities and reactions after food selection, with as much concern and interest as is shown by the skilled prescriber of the homoeopathic remedy. Also foods compatible with the nature of the indicated remedy should be used. The chemistry of food and its relation to the blood chemistry of the patient is a mighty aid or a great hindrance to the action of the curative remedy, depending upon the degree of intelligence shown in food selection. There is a great need of more experimental work in the chemistry of food in its relation to cancer. So far this work is largely empirical and far from scientific; the only near

unified opinion being the baneful effects of a meat diet, at least in advanced cases of disease; other proteins may be carefully admitted only varying in amount with individual cases.

The mental or psychic phase of cancer must not be ignored if our best success is obtained. The terror, and hopelessness, concerning the incurability of cancer prevailing today in the ranks of alloepathy has made the problem more difficult. The public is told by these bombastic sons of egotism that there is no cure because they have failed to find it. Anyone claiming to cure cancer is branded by them with their favourite anathema, quack. Anyone having the temerity to criticize their methods of surgery and radiation with the attendant mutilation and torture and the high death rate occurring in a shorter period than occurs to those untouched by them and left unhampered to nature, is not only a quack but a public menace. It is claimed by competent observers that ninety per cent of those operated and treated for cancer after the approved methods of the up to date medical scientist are dead after two years.

From its incipiency, homoeopathy has always inspired hope and courage in its practitioners and patients alike, because they are taught the advantage of working in harmony with the laws of nature, of which the therapeutic law of similars is but one. Because of these facts homoeopaths are better equipped to combat this sinister and implacable force, that threatens to destroy the race.

To summarize, the homoeopathic treatment of cancer consists, first, in the selection of some specific remedy found in the Hahnemannian group that includes all three of the miasms in their symptomatology, together with the group specially related to trauma in its numerous forms; second, in the removal of any and all irritations that may act as exciting or activating causes; third, in the homoeopathic selection of the proper diet, avoiding foods that irritate the patient and giving those that agree and nourish him, such foods to be based on the needs of each patient rather than for a diseased condition; and last, the buoying up of the patient's moral and mental status, appealing to his intelligent cooperation in all things, inspiring courage by explaining the certain but orderly processes by which disease comes under broken law, and goes under restored law, the latter brought about with the homoeopathic specific and the intelligent effort of the patient to live in harmony with all the lawful processes of nature. Armed with these forces and the knowledge that we work in unison with the restless throb of universal order inspires us to face with confidence this baffling medical problem agitating the world today.

DISCUSSION

Dr. A. Pulford: Dr. Grimmer, in his masterful manner, has given us the superiority of homoeopathy in the curative side of cancer. May I relate a case and give the superiority of homoeopathy in euthanasia.

We had a case of moribund cancer, abdominal sarcoma, said to be, turned over to us, and I turned it over to Dr. Dayton Pulford. He carried that case on with homoeopathy to the last three days when the remedy would not work anymore. Then he turned to *Tarentula cubensis*, and the son-in-law told me that the patient died the most peaceful and painless death of anyone he had ever seen. I bring this up in contradistinction to those who use narcotics.

Dr. D. Coleman: There is one point I would like to call attention to for fear that someone might try this remedy and not succeed and that is that we can't potentize an X-ray. An X-ray is a vibration. You can't potentize X-ray any more than you can the gas light.

Dr. Benthack: I can absolutely corroborate everything Dr. Grimmer has said. I have used the same remedies and have cured more than a dozen cases of cancer in my town. With regard to

X-ray and radium, both of them are misused, but *Radium* in the 30th potency has always served me very well there.

Dr. A. H. Grimmer: I wish to thank the members for their cooperation and encouragement and temperature answer Dr. Coleman's statement that X-ray cannot be potentized. A great many of us have been using what is purported to be potentized X-ray and with some astonishing results. Whether that simply imparts its force to the sugar of milk in its, we might say, crude or primitive form, or whether there is a potentized effect going on, I do not say but I do know that very high potencies of Fincke and others have produced tremendous therapeutic effects." (Arthur Hill Grimmer, M. D., Chicago, Ill., *The Application of Homoeopathic Remedies to Cancer Cases*. Read at the I. H. A., Bureau of Clinical Medicine, June 1930. *The Homoeopathic Recorder* vol. 45 (1930), p. 789-795)

Tumors of the Breast

"A year ago the few remaining copies of my book, "Cancer, Its Causes, Symptoms and Treatment," were destroyed by a fire in New York City. It is not very likely that another edition of the book will be published by me.

In my experience cancer of the female breast is the most frequent form of cancer that I have met with.

From this it will be seen that any physician who would claim to treat cancer by medicine must know the definite indications of remedies that are curative in tumors of the breast. I have at different times urged our doctors who attempt to treat cancer to study carefully the *Materia Medica* to learn the indications of the remedies that do have a curative effect upon cancer. The better a physician knows his *Materia Medica*, the more successful will he be in the treatment of cancer. It is not enough for us to know that a certain remedy is "good for cancer," but we must know a definite indication for the use of it. To learn how to treat cancer of the breast successfully, a doctor must know the *Materia Medica*, not of one school of medicine, but of all. Then we will have all those resources the draw upon.

I want to impress the fact upon the minds of my readers that four fifths of the cases of cancer of breast, are rooted in the ovaries and uterus. Therefore no matter what your treatment may be, you cannot cure your patient until you overcome the ovarian and uterine trouble.

I have learned the above fact by bitter experience of fifty years on the medical treatment of cancer.

In most cases of cancer of the breast we will have some form of indigestion. This must be treated, for it is absolutely necessary that your patient should digest and assimilate her food in order for her to make good blood and increase her vitality. In most cases of cancer we find weakened vitality. If the vitality of the victim from cancer had been at par, she probably never would have had cancer.

Weakened vitality lets down the bars for the inroads of cancer. Every surgical operation is a shock to the system; it weakens the vitality of the victim of cancer, and thus enables the cancer to get a firmer hold upon the patient. From this it will be seen that as we build up the vitality of our patient we are fortifying the system against the invasion of cancer! It has happened very many times in my practice that as the vitality of a patient goes down, the cancer springs up - grows so much faster.

The above are very important facts, for they lie at the very foundation of the successful treatment of cancer. Great care should be taken in examining the breast. Never squeeze it or pinch it for bear in mind the fact "that cancer is a sleeping lion," and you don't want to irritate it in any way. A good physician should have his eyes at his fingers' ends and be able by

gentle manipulations to detect the difference between enlargement of the breast, enlargement of milk glands, fibroid tumors, and the different forms of cancer of the breast.

The female breast is often subjected to injury by a blow or fall. The breast feels sore, lame and bruised. A good local application is

R Tr. Arnicae	3 i
Glycerine	3 iii

Mix, Sig. Rub it well in the injured breast three times a day - and give Tr. Arnica 3rd x internally.

Ladies sometimes have swollen breasts at the monthly periods, with lumps in the breasts. The breasts are sore and very sensitive to the touch. For this condition I have found Kali mur. 3rd x the best remedy to cure it - three tablets every two hours.

Asterias rubens is the remedy indicated in cancer of the breast when the patient is fleshy, the breast feels drawn inward. The breasts are swollen before the monthly period, with red face. A very red spot appears on the breast, which ulcerates and discharges foul odor. There are acute lancinating pains that extend to the scapula. The axillary glands are swollen hard and knotted. The above remedy may be given in the 3rd x dil., 5 drops every three hours.

Arsenicum is indicated in cancer of breast when there is a sharp, burning lancinating pain, relieved by warm applications, and if the pain is worse after midnight. The 6th x may be used.

At the very beginning of a cancerous tumor of the breast, the breast will be tender to the touch and quite soft. The patient cannot bear even the clothes to touch it. The tongue may have a white coating. The remedy indicated is **Kalium muriaticum**, 3rd x, three tablets every two hours.

Conium maculatum. - In tumors of the breast that swell up more at the monthly period, of stony hardness, with flying stitches, in them worse at night. The breast may have been bruised. It is especially indicated when the glands in axilla are very hard. Give conium 30th x three times a day.

Condurango. - The above remedy is indicated in cancerous tumors of the breast, when there are sores at the angle of the mouth and that form of indigestion that causes cramping pains in the stomach. Tr. Condurango 1st x.

Iodide Arsenic. - The above remedy is indicated in cancer of breast, when there is threatened ulceration of the tumor, the patient is thin and anxious, there is a puckering of the skin over the growth, and it looks red and angry. Iodide Arsenic 3rd x, after each meal.

Belladonna. - If you have a patient with tumor in the breast and she is worse when lying down or if there is erysipelalous inflammation with stitching pains, the above remedy will be indicated in the 3rd x dil.

Bromine. - If you find after the extirpation of a hard tumor in the left breast there appears a hard, uneven tumor in the right breast, which has grown tight to its surroundings, if there are periodical pains, worse at night, emaciation, suppression of the menses and depression of spirits, Bromine 6th x is indicated three times a day.

Calcarea carbonica. - The above remedy is indicated in hard tumors of the breast with too early and too profuse menstruation, Calcarea Carb. 30th x, three times a day.

Calcarea Iodide is indicated in tumors of the breast when the growth is tender, with sharp, darting pains, inability to use the arm of the affected side, for it causes pain. Calcarea Iodide 3rd x three times a day.

Calcarea fluorica. - The above remedy is indicated in cancerous tumors of the breast, when there are hard kernels or knots in the breast. When a growth has been removed from the breast and there remains some induration around the edge of sore, with the above symptoms, Calcarea Fluorica 3rd x, three tablets every three hours.

Iodide Baryta. - I have found the above remedy indicated in hard tumors of the breast of long standing; it is especially indicated in adenoid tumors of the breast in the 3rd x four times a day.

Apis Mellifica is indicated in cancer of the breast when there is a stinging, burning pain, whether in scirrhus or open cancer. The skin appears a dark purple color, the discharge is a light yellow color, pain in ovarian region, oedema of lower extremities. Tr. Apis Mel. 3rd x.

Carbo animalis. - When in scirrhus cancer of the breast the gland is indurated in little nodes, the parts being hard as stone. The skin over the growth is loose, it has a dirty blue-red appearance; there are burning pains, drawing towards the axilla. There is difficulty of breathing with perspiration of the thighs. Carbo Animals 3rd x.

Hydrastis Canadensis. - The above remedy is indicated when indigestion is a prominent symptom, which yellow coating down the centre of tongue and clean sides and tip. Also when pain in growth is well marked. In scirrhus cancer the growth feels hard, heavy and adherent to the skin. It looks dark, mottled and puckered, with nipples retracted. The pain is like knives thrust into the part. The more pain in the growth the stronger the indication for above remedy. Tr. Hydrastis 1st x, 10 drops four times a day.

Phytolacca Decandra. - The above remedy is indicated when the breast is hard, like old cheese, of a purple color. It is especially indicated in patients with a tendency to fat, sluggish circulation, lazy disposition, and glandular enlargement. Tr. Phytolacca 1st x, 10 drops three times a day.

Clematis Erecta is the remedy indicated when there are hard nodular tumors in the breast, painful and sensitive to touch. Worse at night and during growing moon. Give Tr. Clematis 3rd x.

Lachesis is the remedy called for when the cancer is open (ulcerated); it has a dark purple appearance, with blackish streaks of coagulated and decomposed blood. There is lancinating pain when pressure is made upon the tumor the pain extends into the left shoulder and down the arm. There is a constant feeling of weakness and lameness in the left shoulder and arm. Lachesis 30th x, 10 drops every three hours.

Cicuta Virosa. - The above remedy is indicated when the patient is irritable, nervous, tumor not very sensitive to pressure, great pain with rigidity and loss of power in the arm. Tr. Cicuta 3rd x, 5 drops every three hours.

Kreosotum. - When the whole breast is hard bluish-red with burning pains and covered with protuberances, Kreosotum 3rd x should be given, three tablets every three hours.

Silicea is indicated when there are hard lumps in the breast, nipples very sore and drawn in, or with fistulous ulcers of breast. Such patients are very sensitive to cold, and warm, moist applications agree with them the best. Silicea 6th x, every three hours.

Lapis Albus. - When a tumor in the breast is pliable - not hard - with a certain amount of elasticity to it, and a burning pain in breast, then the above remedy will be indicated. Lapis Albus 6th x, three times a day.

Bellis Perennis (English daisy). - When the tumor in the breast has been caused by a blow, a bite or any injury, the above remedy will be indicated. Tr. Bellis Perennis, 10 drops three times a day.

When a cancer of the breast has been removed by pastes or plasters, when in the healing process the skin is drawn tight as the head of a drum across the seat of the original cancer, **Kali Phos**, 3rd x, should be given in alternation, every three hours, with **Silicea** 6th x every three hours.

Graphites - The above remedy is indicated in women who had gathered breasts, and there are scars of old abscesses that have taken on a cancerous form. It is the best remedy to absorb the scar tissue. Graphites 6th x, three tablets three times a day.

Hoang Nan is the remedy to remove the fetor, stop hemorrhage, and promote healing. When cancer has ulcerated, Hoang Nan 1st x, three tablets every four hours.

The pulse that goes with cancer has a weak, discouraged feeling to it, and is faster than normal. The further advanced the cancer, the more rapid the pulse. When cancer is open and discharging, either outside or inside the body, there will be a pearly tint to the whites of the eyes, showing a drain upon the system. In the last stage of cancer, the pulse will be rapid, the eyes having a watery, transparent appearance, with well-marked pearly tint to whites of eyes. The tongue will be dark red like beefsteak. The above symptoms indicate that death is very near your patient.

A bloody, watery discharge from the nipple of the affected side, with difficulty of breathing, shows you that the cancer has fastened on to the bone. If the arm is swelled down to the ends of the fingers it is a good case to let severely alone, because it is in the last stage of cancer and past cure. It is just important to know what cases of cancer to let alone as it is to know what cases can be cured."

(Eli G. Jones, M. D., Buffalo, New York, Tumors of the Breast, The Homoeopathic Recorder vol. 35 (1920), p. 481-486)

A plea for the proving of our native wild plants

"SIR, - The old herbalists - Culpepper, Gerrard, and others - were no doubt on the right track, in their search for remedies for the ills that flesh is heir to, as far as concerns the materia medica they adopted; but they had not the key wherewith to unlock his hidden stores. This key the homoeopath holds in his hands, and I somewhat marvel that more zealous and extensive use is not made of it in the way of discovering new remedies. I have no doubt numberless healing virtues lie hidden in the wild plants growing in our hedgerows, fields, woods, on our hills and mountains, waiting to be discovered and made known, only there is a lack of zeal in the work of discovery, a lack of interest in such common things of every-day occurrence; whereas their very commonness, their continual forcing themselves upon our notice, should rather quicken our interest in them."

(F. H. Brett, Letter to the Editor of the Homoeopathic World, A plea for the proving of our native wild plants, The Homoeopathic World vol. 28 (1893), p. 284)

Das Geweiht Kraut

"This is a remedy for those of definite spiritual advancement, who are endeavoring to live lives of altruism and service, and yet through a deficiency of some quality, such as wisdom, courage, steadfastness, tolerance, etc., are suffering as a consequence. They are the people who, quietly and uncomplainingly, make many sacrifices, and whose desire and object in life is to be of service to others. With them the motive is good enough, but they lack some quality to perfect their work.

CASE I - Male, age 68

HISTORY: Pain and weakness of the muscles of the back of the neck; unable to lift head, which hangs forward; both upper eyelids drooping; some difficulty with speech; attacks of giddiness and double vision. This condition started six months ago, and has steadily progressed. The patient is now worn out with pain and the tiredness caused by the difficulty of getting about with the drooping head and impaired sight.

CHARACTER: A very gently, kindly farmer, devoted to animals, and utterly regardless of self-service in his care and attention to them. High of principle in all affairs of life. Much respected for his ability and character. Some weakness in refusing dominating interference of relatives.

DIAGNOSIS: The gentleness and self-sacrifice denote *Verbena*.

DOSAGE: October 30, November 12, December 26, 1930, *Verbena*, a third, two doses for three days. January 6, 1931, a third, two doses for three days.

PROGRESS: Improvement began immediately after the first doses and was steadily maintained. The pain disappeared first, and then there was a gradual return of muscular strength of the neck and eye muscles. Since January 10th the patient has remained normal in all ways, and no doses have been necessary since then.

CASE II - Female, age 45

HISTORY: Sick headaches since a child, at first one a year, then two a year. For the last two years there has been a severe attack each month which keeps the patient in bed for two or three days. Constipation all life.

CHARACTER: Very gentle, with great desire to be of service to others. Devoting her life to the care of children. The excellence of her work was being interfered with by over anxiety, causing strain to herself.

DIAGNOSIS: The gentleness of nature, combined with ideal of devotion indicates *Verbena*.

DOSAGE: November 16, 1930, *Verbena*, a third, two doses for three days. January 2, February 1, 1931, a third, two doses for three days.

PROGRESS: There have not been any severe headaches since the first dose, and the general health has improved. The doses were repeated for the constipation which has been less during the last two months, and is steadily disappearing."

(Edward Bach, M. D., *Verbena officinalis*. Reprinted from *The Homoeopathic World*, April 1931, Vol. LXVI, p. 95. *The Homoeopathic Recorder* vol. 46 (1931), p. 457-458)

Masking their trouble

"*Agrimonia* - The Inquisitor. This type is not always easy to diagnose as they mask their troubles. They are often, to casual appearance, genial and full of life's interest, and decidedly likeable people. They often drink heavily, though not to obvious excess; may be addicts to drugs; and desire excitements and a full busy life. Thus they hide the suffering within.

One feels with them there is a tragedy beneath, though they rarely admit it even to their best friends. Inside, they suffer torments; great fear of the present and especially the future, which may drive them to suicide. They care nothing for danger, and are reckless in all ways. They have no peace, are active, restless, always going, require little sleep. retire late.

They are usually very much interested in occultism and magic. They are in reality tormented souls who are weary of their suffering, and would prefer death as a better alternative, though outwardly, they put up a brave fight with forced cheerfulness.

Frequently it is found that they are worried by some tormenting individual, though their persecutor may be on another plane.

The remedy brings peace, removes their torments, decreases the desire for stimulants, and gives them calm.

As indicated above (from the *Homoeopathic World*, Dec. 1930, p. 327), one of the main keynotes of *Agrimonia* is the hiding of worry and anxiety under the cloak of an apparently cheerful and happy character. This characteristic is strongly marked in the five cases given below.

It seems also that most, if not all, of the patients of this remedy have highly colored healthy complexions, such as is usual with people who live an open air life.

CASE I - Female, age 45.

HISTORY: Chronic alcoholism many years, mostly spirits. Very excessive last two months. Last week practically taken no food, and had only an hour's sleep each night. Severe bouts associated with worry and anxiety.

PRESENT STATE: Patient semi-delirious, restless, frightened, pulse 120, pupils unequal.

CHARACTER: Patient always full of vivacity and geniality, hiding all worries under a cloak of forced cheerfulness, very active and restless; seeking excitement.

DIAGNOSIS: The character of fighting and concealing personal trouble by external cheerfulness indicates *Agrimonia*, which was given as follows:

DOSAGE: Nov. 29. Third potency, two doses. The same potency, two doses each, on Dec. 18, 24, 31.

PROGRESS: Within thirty minutes of the first dose the patient fell into a natural sleep lasting three hours. A second dose given, and seven more hours sleep obtained. Second day, marked improvement. Third day, about the house. Fourth day, the general condition better than for months. Since the first dose (five weeks ago) alcohol has been taken in strict moderation, desire for excess having disappeared. The further doses were given as prophylactic, through all of which the patient has maintained fully the improvement. The patient is calmer and more restful than she has previously experienced.

CASE II - Male, age 40.

HISTORY: Motor accident seven years ago. Fell on left shoulder. Paralysis of left trapezius followed and remained. Left scapula winged, unable to raise left hand above shoulder. Last six months, further wasting of arm muscles, with pain in region of lower cervical vertebrae. Patient worn out with pain and subsequent loss of sleep. Great worry lest paralysis should spread down arm.

CHARACTER: Living normal life, good cheery companion. Had concealed his infirmity from everyone, except his family, even his own friends had no knowledge of the trouble.

DIAGNOSIS: The cheerful concealment of pain and disability indicates *Agrimonia*.

DOSAGE: Third potency, two doses for three days, on Oct. 20, Dec. 18.

PROGRESS: All pain ceased five days after the first dose, and has not recurred. After ten days, movement began to improve, and continued until Dec. 16th. After the second dose, further

improvement in movement until left hand could be raised within two inches of the right when held straight up; less winging of scapula; improvement in muscular tone. Has gained marked benefit to general condition, and mental peace and joy from loss of fear of further illness, which would have been serious to him financially.

CASE III - Female, age 37.

HISTORY: Chronic asthma for thirteen years. Compelled to give up business eleven years ago. Condition severe throughout winter, some slight relief during summer. Frequently confined to bed for three weeks intervals. Condition very poor.

CHARACTER: Courageous, hopeful of finding a cure, making light of malady. Even during attack attempts to be cheerful and talkative, and the mask to condition by effort to appear normal.

DIAGNOSIS: The brave attempt, even under the greatest difficulty, to conceal affliction and appear normal, indicates *Agrimonia*.

DOSAGE: Third potency, two doses, on Dec. 5, 9 and 13. Third potency, one dose, on Dec. 16, 21, 25 and 28.

PROGRESS: The condition began to improve immediately after treatment started. No serious attack has occurred, and the patient has worked every day since Dec. 8th. The weight is increasing and the general condition has markedly improved. She considers the disease is conquered.

CASE IV - Male, age 50.

HISTORY: Chronic headache, and pain over eyes; about two attacks each month, lasting one or two days. Great depression continually, persecuted by vague fears, overanxious, terrible mental suffering, only with greatest difficulty able to resist suicide. Tendency to alcoholism, but kept under control. Duration of about seven years. Had had many years of domestic anxiety and tragedies.

CHARACTER: Only one or two closest friends ever suspected that the patient had any worries. Always bright, apparently happy, full of humor, a good and cheerful companion at all times.

DIAGNOSIS: The magnificent success of this patient, under the cloud of anxiety and great loss, to remain outwardly happy and cheerful indicates *Agrimonia*.

DOSAGE: Third potency, two doses, on Oct. 2, Dec. 3.

PROGRESS: After three days very marked improvement began, and, with the exception of a slight recurrence on Dec. 1st the patient has been free of pain, and the whole outlook on life changed. He has been able to face all his difficulties without the least depression or worry.

CASE V - Male, age 45.

HISTORY: Chronic alcoholic of over ten year's duration, periods of great excess; had been given up by his family, and lost his business appointment one year ago. Last few weeks, drinking until three or even five o'clock in the morning. State of hopeless despair for some days.

CHARACTER: The patient had had years of domestic anxiety and unhappiness, and had fought as much as he could against the habit of alcohol. He had kept his troubles to himself, and always maintained an outward cheerfulness.

DIAGNOSIS: *Agrimonia*.

DOSAGE: Nov. 9, third potency, two doses.

PROGRESS: Immediate improvement. Desire for alcohol ceased, and none has been taken to present date, seven weeks later. The general condition is much better, and the mental outlook markedly brighter."

(Edward Bach, M. D., *Agrimonia Eupatoria*, *The Homoeopathic Recorder* vol. 46 (1931), p. 326-329. Reprinted from *The Homoeopathic World*, Dec. 1930, and Feb. 1931.)

Living in the past - a remedy for cancer

"*Clematis erecta flora* - the ecstatic. For those who make "dreams their master"; live in their ideals, but do little on the practical side. Often book lovers, and become lost in their reading, especially in earlier life.

They are carried with religious or patriotic movements, becoming temporarily absorbed, and neglecting their ordinary duties. They will turn their attention from one enterprise to another rapidly.

They tend to form too strong attachments to other personalities, and place themselves under their power; this is voluntary and without fear, and may be associated with deep affection and the desire never to be parted. The stronger personality may use his influence adversely during life; or after death, call his partner over, hence the absence of fighting disease.

They have no great hold on life; it is not very much to them; they show little resistance to disease; seem to have no fear of death, no desire to get well. They are placid, calm, resigned to illness, not from patient courage, but because of their indifference.

Thus they ave two phases - ecstasy concerning ideals, and in illness, calm resignation.

The remedy brings stability, and places the patient on a more practical plane; brings them "down to earth"; and so enables them to fulfil their work in this world.

The keynote of *Clematis erecta* in the *Homoeopathic World*, Dec. 1930, are: Dreamy, drowsy dispositions; calm; resigned; loss of interest in daily life; often concentration too much on one individual. These patients are usually pale, sallow, and have a very weary and tired expression.

The following cases are typical examples of this remedy.

CASE I - Female, age 40.

HISTORY: Pain and weight in left breast several months; no medical advice sought until recently. Had lost fiance four years ago, and since then had no interest in life, or desire to live.

PRESENT STATE: Carcinoma the size of a tangerine orange present, very adherent, nipple retracted, glands in axilla. Condition considered inoperable. Recently had x-ray treatment.

CHARACTER: Patient living in the past, calmly indifferent as to the result of the disease, and making no effort to be cured; only now seeking advice for relief of pain. Desires much sleep; day-dreaming during the day; and unable to give real attention for any length of time; loss of all interest and joy in life; rather hopes to die, but wants to avoid suffering.

DIAGNOSIS: The dreamy state, the indifference to disease, and even death, the absence of effort to get well, and the attachment to the fiance, all indicate *Clematis erecta*.

DOSAGE: Third potency, two doses, on Nov. 11 and Dec. 19, 1929. Fourth potency, two doses, on Jan. 16. Seventh potency, two doses, on March 20, July 16, and Sept. 4.

PROGRESS: Improvement began at once, with less pain and discomfort. There was also a remarkable return of interest in daily life, and the patient decided to work hard and get well and forget the past. After two months, by Jan. 1930, the growth had practically disappeared;

the glands were no longer palpable and the nipple less retracted. In March, July and September 1930, there was some relapse into the dreamy condition, and the former mental state, desiring the past, accompanied by some return of the condition of the breast. Each time all was removed by further doses. When last seen, November 1930, the whole state, local and general, was completely satisfactory. The x-ray probably helped to remove the growth in the first place, but there has been no such treatment since, during the later occasions of relapse. It is interesting to note that each time the patient relapsed into the longing to re-join her fiance, the growth returned; and how, not only did the *Clematis* remove the desire, but also with it the physical signs and symptoms of the breast.

CASE II - Female, age 38.

HISTORY: Asthma all life. Seven years ago lost favorite daughter; since then became an invalid. Six years ago right arm and leg became paralyzed, with difficulty in speech. This followed the birth of a son, probably due to cerebral thrombosis. The patient was unconscious for three weeks at that time.

PRESENT STATE: Moderate chronic asthma. Right arm completely paralyzed, hanging by side, all sensation absent. Right leg spastic, able to walk with difficulty, very rigid. Speech hardly understandable, except to family.

CHARACTER: Patient obviously living in dreams; unable to concentrate or give any fixed attention; continuously weeping over loss of daughter.

DIAGNOSIS: The dreamy state, the complete living in the past, and the absence of interest in the present, indicated *Clematis*.

DOSAGE: Third potency, two doses for two days, on Nov. 24 and Dec. 1.

PROGRESS: No sign of asthma since the first dose. There is a complete return of interest in daily life, and every effort is being made to get well. All sad memories of the past have disappeared. The speech is quite understandable to strangers. There is less spasticity in the leg with more natural and easy movement. The patient has walked five miles without undue fatigue. There has begun a return of power, sensation and movement in the right arm and hand. She is full of happiness and joyful excitement at every little improvement, and is steadily progressing.

CASE III - Male, age 37.

HISTORY: Sent by firm in which he held responsible position, and was a valuable servant, because for the last few months he had become indifferent to his work, and was quite unconcerned as to his failure to fulfil his obligations. Wife died one year ago.

PRESENT STATE: Always sleepy; great difficulty in waking in the morning, and continually feeling that he had lost confidence and ability to continue his work. Loss of power to concentrate. Perfectly complacent, and obviously paying no real interest to present day affairs, his mind being concerned with other matters.

DIAGNOSIS: The utter complacency to failure, lack of interest, and the dreamy state indicate *Clematis flora*.

DOSAGE: Third potency, two doses for two days on Nov. 7, Nov 24, 1930, and Jan. 2, 1931.

PROGRESS: There has been steady, gradual improvement, and the patient has been able to continue work with increasing efficiency. He is now considered to have reached his normal state. The last six weeks an urticarial rash has been occurring, and is definitely associated with the improvement.

CASE IV - Male, age 47.

HISTORY: Overworked in city for several years. Last three months almost complete loss of memory, at times unable to remember home address or telephone number. Becomes sleepy during the day, and indifferent to his work. Domestic tragedy seven years ago.

PRESENT STATE: Expression vacant, thoroughly apathetic, quite contentedly resigned to the fact that he has become useless. Only with difficulty persuaded by friends to seek medical advice.

DIAGNOSIS: The drowsy state, the apathy, absence of all interest, and resignation, denote *Clematis flora*.

DOSAGE: Third potency, two doses, on May 1, Sept. 4.

PROGRESS: Rapid improvement, and the patient resumed business, and worked well until the end of August, when there was some relapse, and more doses were given. Since then the patient has remained well, and in a recent letter, stated that he considered himself cured." (Edward Bach, M. D., *Clematis erecta flora*, The Homoeopathic Recorder Vol. 46 (1931), p. 330-333. Reprinted from The Homoeopathic World, Dec. 1930, p. 330, and March 1931, p. 62.)

Some clinical cases

"Mrs. S., aged seventy, had been suffering for about six months with violent pains in the chest, coming on every evening. Pain in the region of the heart, extending to the shoulders and left arm. Several physicians had recognized it as Angina Pectoris. These attacks had been coming on at about seven or eight o'clock in the evening, and lasting until after midnight. From the best description she should give me, I judged that they were most violent in character and attended with anxiety and fear of death. She broke out into a cold sweat; hands and arms became cold and numb. Her husband told me that he always feared she would never live through the attack, she seemed to suffer so dreadfully. She had taken morphine, quinine, and many other drugs, and had employed Old School and Homoeopathic doctors.

Latrodectus Mactans cured within a week. It is now six months since she had one of these attacks, and she is still perfectly well.

John D., a young and vigorous blacksmith, was taken suddenly ill with vomiting in the night. Great anxiety; thirst; red tongue; fever; awful and incessant retching. It seemed that he must soon die. Intense pain in the stomach; extreme tenderness of the stomach; water was vomited as soon it reached the stomach; all the symptoms were worse from motion. He shrieked constantly, "Kill me! kill me!"

Cadmium sulph., one dose very high, was given, and he was soon at rest. In six hours he took some broth, and afterward made a rapid recovery.

Miss X., aged twenty-seven. In the last stage of cancer of the stomach.

Constant vomiting. Everything taken into the stomach, even water, vomited. Coffee-ground vomit.

Burning in the stomach like fire, day and night.

Emaciated to a skeleton.

Had been treated with morphine, which gave no relief.

Nausea and retching increased by motion.

Hot things ameliorated momentarily.

Cold things caused pain.

Great anxiety.

Cadmium sulph. 50m. kept her comfortable until she passed away several weeks later, and enabled her to take soups and simple liquid nourishment."

(J. T. Kent, M. D., Chicago, Ill., Clinical Cases, Journal of Homoeopathics vol. 6 (1903), p. 412-413)

Polychrest versus less frequently used remedy

"As a rule, a case defies our efforts to find the curative remedy, not because there is no remedy which would cover its symptom totality, but because we have failed to consider or to recognize this remedy. Every single substance of the mineral, plant and animal world represents a potential medicine which may be required in a given disorder. Of all these millions of therapeutic possibilities even the most encompassing of all, Boericke's *Materia Medica*, lists approximately twelve hundred. Yet even of the greater majority of those we have only a very fragmentary knowledge as far as symptoms for exact prescribing are concerned. We usually limit our prescribing to perhaps a hundred of our best proven polychrests.

It is often held that a really thorough knowledge of those polychrests is sufficient to cover every and any case we may be confronted with. After all, these drugs *are* polychrests because their nature and composition bears such a fundamental relation to the human organization that the majority of disorders requires their prescription. On the other hand we ought to admit to ourselves that, because we are more familiar with them than with the other medicines, we tend to lean upon the polychrests more heavily than is sometimes justified by the patient's needs. No remedy can ever take the place of the simillimum. Undoubtedly, the polychrests are most basis substances and of deep action. Yet, when a remedy of only a superficial sphere of action happens to be indicated by the symptoms, any other one, though of constitutionally deeper repute, will act no better than distilled water. Often we meet with references to certain drugs as "good" remedies for this or that. This way of thinking is contrary to Homoeopathy. There are no "good" or "bad" medicines, but only *indicated* or not indicated medicines. *Sulphur* or *Calcarea* may be quite "bad" medicines and some little obscure herb with but a superficial effect a "good" one, if required by the symptoms of the individual case.

It has been the writer's experience that from among every ten patients seven or eight, in the average, will actually require and satisfactorily respond to a polychrest. The other two or three, however, require a more unusual remedy, at least temporarily. From among these cases we recruit the bulk of our failures and unsatisfactory improvements. Often we assume obstacles to recovery where the only obstacles lies in our fragmentary knowledge of the *Materia Medica*.

The case presented in this paper at first defied the best efforts of diagnosis and of prescribing. Failing to respond to the apparently well indicated polychrests, this case furnished valuable, well-defined symptom material for the relatively unproven drug which turned out to be the correct simillimum.

Mrs. S., 36 years. Two years before the onset of the present illness she had lost a little son through an accident. She never regained her peace of mind. During the last preceding months she was under great addition strain, emotionally and physically, caring for her disabled parents. At the end of December, 1948, in a state of utter physical exhaustion and nervous strain she contracted a cold. A few days later, at the exact anniversary of the child's death, she was completely immobilized by an excruciating pain in the right lumbosacral area. The next day found her unable to void urine and to move her legs at all. Examination showed an area of muscular constriction along the lower spine with somewhat accentuated but normal reflexes and undisturbed skin sensorium. However, the patient was in a state of frenzied restlessness, screaming and crying with pain, unable to lie still, yet aggravated by any motion. There was

no urge for stool whatsoever and urination could be induced only by pouring warm water over the perineum. The temperature was between 99.5 and 100. An orthopaedic specialist ruled out a slipped or ruptured disc, though an incipient caries remained a remote possibility. The modalities were: worse at night; very chilly, yet better open air; tearful disposition; restlessness; and the fact that the last period had been extremely scanty, almost completely suppressed. Rx *Pulsatilla* 200. Relief moderate and short-lived. *Pulsatilla* 1m followed by a temperature rise to 101; for a day the pains became somewhat more tolerable. The paralysis, on the other hand, increased. The possibility of a myelitis was considered now, and neurological consultation was requested. The neurologist, one of the best men in his field, at first leaned towards the diagnosis of a myelitis, then learning about the emotional background was more inclined to consider it a conversion hysteria. Since the family was extremely alarmed, he suggested immediate hospitalization for a diagnostic "work-up". Before she was taken to the hospital the symptoms were reviewed again. Additional features, now, were an extreme drum-like distension of the abdomen, loud belching, nausea, loss of appetite, at times brownish vomiting, a great thirst for cold water which was taken in little sips, an aversion to sweets, an offensive odour from the mouth, and a feeling of heaviness and oppression on the chest. Still tearful with indefinite fears. The pain now cramping and shooting in waves like labour pains. *Phosphorus* 200. Upon arriving at the hospital the next day the pain was somewhat easier and the bladder function gradually became normal but the inactivity of the rectum remained. The patient remained in the hospital for about six weeks with all diagnostic and therapeutic attempts unavailing. She returned home unimproved and without definite diagnosis. However the homoeopathic study of the case could be resumed again. Because now a state of utter exhaustion dominated the picture and in view of *Phosphorus* having done relatively best, though failing upon repetition in the same as well as in a higher potency, *Phosphoric acid* 200 and later 1m was given. For several weeks the patient improved and became able to rise from her bed and move about, slowly and with support. However, the pains were still almost unbearable, particularly during the night, after the first sleep, and with every change of weather towards rain or electric storms. Mentally also she was not better. After a few weeks *Phos. acid* did not elicit any further response. Additional symptoms, were flushes of heat and an inability to concentrate on any thoughts. *Lachesis*, *Sepia*, *Mag. carb.*, and *Rhus tox.* gave absolutely no response.

Now, two months after the first onset of her illness, *Latrodectus mact.* 200 was given. There was such an immediate and gratifying relief of all mental and physical symptoms that there can be no doubt but that *Latrodectus* was indicated from the very beginning. Within a few days the patient moved and walked freely and had only slight distress at night. Within two weeks she became practically normal.

Four weeks after this, a sore throat occurred with desire for and better from cold drinks. *Merc. sol.* 200 given with little improvement; 1m improved the throat but brought back the backache with the patient generally worse. *Latrodectus* 200 again removed the whole of the disturbance including the throat. Four and half months after the onset, heart palpitations, hot flashes and chilliness, back pain on bending, sore throat and clogged up nose, soft bleeding spongy gums, ravenous appetite and thirst again responded to *Latrodectus* 200.

Subsequently, the toxicology of *Latrodectus mactans*, the black widow spider, was studied. It was rather embarrassing to find that even the crude toxicological symptoms, as far as they are known, represent a perfect replica of this patient's condition. From the very beginning, even from the toxicological picture, the remedy would have been indicated had this picture only been known then to the prescriber. Unfortunately, however, *Latrodectus* had been mentally associated with angina pectoris and nothing else, a very unhomoeopathic mental attitude indeed!

The symptoms observed in clinical cases of spider bite, which were also outstanding in this case and removed by the potentized drug, should be added to our symptomatology of *Latrodectus*, thus enlarging the scope of its use.

The following is a digest of this material which so far does not appear in any of our *Materia Medica*s, to my knowledge.

Latrodectus mactans

The leading and determining features are:

Extremes of *tension*, *spasticity* and *constrictiveness* and *prostration*.

They manifest themselves in the *mind*, the *chest*, *abdomen*, the *lumbar spine* and the *lower extremities* in the first place.

The modalities are worse during the night, worse during damp weather and change of weather, worse before a thunderstorm, restless, tossing about but worse from motion and exhausted by every effort, chilliness, lack of vital heat but flashes of heat. Syphilitics and alcoholics are hypersensitive to *Latrodectus*; alcohol especially aggravates all of its symptoms, thus suggesting alcoholism and constitutional syphilis among the general indications for *Latrodectus*.

Mind: Extreme restlessness, constantly tossing about, fear, depression, hysteria, unrestrained and causeless crying in usually emotionally stable strong men.

General: Extreme prostration, every effort is too much. Perhaps ill effects of overwork, etc. Muscle spasms with twitching, knotting, tremor, hyperactive reflexes and excruciating cramp-like unbearable pains, coming and going in waves like labour pains. Muscles sore to the touch. Worse motion, yet patient so restless that he cannot lie still.

Chest: Angina pectoris; constrictive pain spreading to left shoulder and back; feeling of oppression; laboured respiration with an uncontrollable expiratory grunt. Palpitations of heart.

Abdomen: Rigid as a board (*defense musculaire?*); distended like a drum. The distension is only slightly relieved by passing flatus. The whole picture most closely simulates an acute surgical emergency like perforated gastric ulcer, ruptured appendix and incipient peritonitis. (The temperature is sub-febrile in the poisonings.)

Spine and back: The lumbar area shows the greatest degree of constriction; shooting cramping pains; feeling as if the back were broken. Feeling of icy coldness from the hips downward. Paralysis of all function associated with the lumbosacral nerve plexus (genitals, urinary, rectum, and lower extremities).

Extremities: Paralysis, increased reflexes, spasticity, inability to lift legs because of spasm of the extensor muscles of the hips. Tenderness of the calf muscles upon palpation, tingling sensation and numbness in hands and feet. Burning and stinging of the soles of the feet, as if they were on fire. Swelling of ankles.

Head: Headache (worse lying, better sitting?) probably congestive; tendency to apoplexy. Stuffiness of the nose.

Digestive: Dry mouth, sore throat, great thirst for cold water which betters the throat, continuously drinking. Loss of appetite or ravenous hunger. Vomiting of bitter brown matter. Extreme gaseous distension. Absolute inactivity of the rectum.

Female: Menses suppressed, scanty, delayed.

Urinary: Retention of urine, paralysis of the bladder, better warm application and pouring warm water over perineum.

Circulatory: Flushes of heat followed by chilliness; apoplectic tendency, elevation of blood pressure; heavy perspiration. Temperature subfebrile.

The restlessness and constriction is shared with *Tarentula*; the coldness worse from dampness, worse night and the neuralgic tendency with *Aranea*. However, *Aranea* has diarrhoea and profuse menses; *Latrodectus* has suppressed menstruation and constipation.

Latrodectus presents itself as a medicine with very characteristic symptoms of broad range and deep effect upon the vital force. It probably deserves an important place in our therapeutic armamentarium. We should consider it in acutest emergencies and neuralgic syndromes which conform with the mental and general symptoms thus far elicited."

(Edward C. Whitmont, M. D., Polychrest versus less frequently used remedy: additional symptoms of *Latrodectus Mactans*. Read before Bureau of Clinical Medicine, I. H. A., June 22nd, 1949. The British Homoeopathic Journal 1950, p. 173-176)

The self-experiment of a university professor

"The belief that the bite of the spider *Latrodectus mactans*, common in the southern half of the United States, is poisonous for man has been recognized for centuries. Evidence for the truth of this belief has rested largely in the statement of patients that immediately prior to the onset of their symptoms they had been bitten by a spider answering the description of *Latrodectus mactans*. In other cases, the spider alleged to have been responsible for the bite was caught and identified as a member of this species by competent arachnologists. Many physicians accepted this evidence of their patients and reported cases of spider poisoning in the scientific literature. Bogen, in a comprehensive review of the literature on this subject, has collected nearly four hundred cases of this kind, ranging from the year 1720 to 1931. Twelve cases in which a fatal outcome was attributed to the bite of this spider are included. Many other cases, as personal communications from local physicians testify, are never published, and, consequently, those reported represent but a small fraction of the actual number which have occurred. Since 1931 several authors have reported additional cases.

This evidence, coupled with similar reports on the poisonous properties of the several closely related species distributed around the world, is strongly suggestive of the poisonous nature of this spider. Irrespective, however, of the integrity and intelligence of the patients bitten, such evidence remains essentially circumstantial in nature. As such, it affords some basis for the scepticism, so abundantly displayed in the literature, that so small and timid a creature could be capable of producing such severe general symptoms in man.

Further grounds for scepticism on the part of those who have had no intimate acquaintance with the effect of the bite of this spider are afforded in the conflicting results of experimental studies in animals and in man. Thus, Marx reported no effect in a guinea-pig following the bite of a mature female *Latrodectus mactans*. Escomel, on the contrary, reported marked symptoms, while Houssay and Troise reported severe symptoms following by death in many cases. Baerg reported "moderately pronounced" symptoms in two rats in a series of four following the spider's bite, while Bogen reported marked symptoms with a high mortality in mice and rats. Experimental studies show marked reactions in mice, rats, guinea-pigs and chickens. In mice the mortality was practically 100 percent. Rabbits, cats, dogs and sheep seemed little affected. Experimental results with transplants and the injection of extracts of the poisonous gland are likewise confusing and inconclusive.

Direct experimental evidence that the bite of *Latrodectus mactans* may be poisonous for man is furnished by the work of Baerg. On July 9, 1922, he placed one of these spiders on his little finger but could not induce it to bite. A further attempt with a second spider resulted in a bite, but the subsequent effects was local, mild and transitory. The following day the first spider

was again placed on the finger and permitted to bite for five seconds. On this occasion severe aching pains in the muscles of the lumbar region, shoulders, chest and legs appeared, but Baerg concluded that the sharp pain in the finger and hand was the most prominent feature. The negative results of the first two attempts, however, together with the negative results of Lucas, Simon and Bordas following bites by *Latrodectus*, have in some measure detracted from the conclusiveness of his experiment. Bordas reported being repeatedly bitten on the hand by *Latrodectus tredecimguttatus* Rossi with no evidence of systemic poisoning. The *Latrodectus tredecimguttatus*, commonly known as "la malmignatte", is found in southern Europe where it is regarded as poisonous to man, much as is the *Latrodectus mactans* in this country. Closely related though these species undoubtedly are, it is, nevertheless, hazardous to assume that experimental results with the European "malmignatte" would be equally applicable to the American "black widow". Yet this assumption has, by inference, not infrequently been made.

In a series of excellent articles Bogen has revived the interest of the medical profession of this country in the severe systemic symptoms resulting from the bite of *Latrodectus mactans*. Since experimental results in support of such a clinical entity have not been considered conclusive, an experimental study of the effects of the bite of this spider in animals and man has been made. The results in man, herewith submitted, emphatically support the conclusion of Bogen that arachnidism (spider poisoning) may be considered "a true clinical entity in the field of general medicine."

EXPERIMENTAL BITE IN MAN

The subject of the experiment, begun on Nov. 12, 1933, was a man (myself), aged 32, weighing 168 pounds (76.2 Kg), athletically inclined and in excellent health. The normal clinical findings in health has been recorded daily for one week prior to the bite. Reaction to bee stings and mosquito bites was normal.

The spider selected for the experiment, a mature female *Latrodectus mactans*, was found in a rock pile near my residence on October 25. Since then it had been kept in a jar in the laboratory. It was fed last (water beetle) on October 29. On the day of the experiment it was of moderate size, active and glossy black, with characteristic adult markings, and appeared to be in excellent condition.

10.45 a. m. - With a pair of splinter forceps, the spider was gently grasped by the globose abdomen and applied to the medial surface of the terminal phalanx of the little finger of the left hand. The spider bit the moment it came into contact with the skin surface, twisting the cephalothorax from side to side as though to sink the claws of the chelicerae deeper into the flesh. The sensation resembled that of the prick of a very sharp needle, accompanied, however, by a burning sensation which increased in intensity during the biting period. The spider was permitted to bite for ten seconds. On its removal a small drop of a clear, whitish fluid, slightly streaked with brown, was observed at the site of the bite. This was allowed to remain untouched for one minute and was then wiped off with a cotton pledget. No definite marks of skin puncture were seen with the naked eye or with low magnification.

First stage, Lymphatic Absorption. 10.47 a. m. - A bluish, pinpoint mark was seen at the site of the bite, surrounded by an area of blanching, 4 mm in diameter, a hot, burning sensation was present on the finger.

10.52 a. m. - The area of blanching was more marked, the entire terminal phalanx was reddened, there was a throbbing, lancinating pain in the bitten finger.

11.00 a. m. - Dull, aching pain was noted between the fourth and fifth metacarpophalangeal joints of the left hand with a slight numbness along the ulnar side of the hand, beads of perspiration were present at the site of the bite.

11.02 a. m. - Dull aching pain was present on the inner surface of the upper arm in the region of the superficial cubital gland (tenderness of this gland was still present two weeks after the bite), the terminal phalanx of the bitten finger was dark purplish red, slightly swollen and very painful.

11.05 a. m. - Dull, aching pain was present in the left axilla, the whole arm had a dull, aching, slightly numb feeling.

11.07 a. m. - Slight, aching pain was present over the lateral surface of the left side of the chest, pains in the axillary region now commanded more notice than the throbbing, occasionally lancinating pain in the finger.

11.18 a. m. - Slight, aching pains were present over the pericordium.

Second Stage, Vascular Dissemination. 11.35 a. m. - The blood pressure was 106 systolic and 78 diastolic, the pulse rate was 75 and weaker than normal, the respiratory rate was 16, and respiration appeared to be slightly deeper than normal, there was a dull, drowsy, lethargic feeling. This was the first circulatory (general) effect noted.

11.50 a. m. - Slight, transient aching pains were noted in the epigastrium, there was a flushed, headachy feeling, the white cell count was 8,400, with 54 polymorphonuclears, 39 lymphocytes, 6 monocytes and 1 per cent eosinophils.

11.55 a. m. - Definite, aching pains were present in the epigastrium.

12.00 a. m. - Aching pains were present in the muscles of the neck, there was a feeling of general malaise, the blood pressure was 108 systolic and 82 diastolic, the pulse was weak, and its rate 62.

(From this stage on notes were taken by assistants.)

12.10 p. m. - Aching pains were present over the whole abdomen, the latter was tense, there was a flushed, trembly feeling in the legs.

(At this time the subject was driven 3 miles to the hospital. During the fifteen minutes thus taken the abdominal pains became rapidly more severe.)

12.30 p. m. - Severe, aching pain was present in the lumbar region, abdomen and chest, with a feeling of constriction in the latter, speech was difficult and jerky, respirations were rapid and labored, with a sharp brisk expiration accompanied by an audibly grunt, the abdomen was rigid, the heart sounds very slow, regular and normal in character, the pulse was weak and thready, its rate was 60.

(At this time two electrocardiograms were taken. There were found to be normal, differing in no essential from that taken several days prior to the experiment.)

12.37 p. m. - There were agonizing pains in the lumbar region, abdomen and chest, the abdomen was rigid, boardlike, with some tenderness in the epigastric region, the patient stated that it was a torture to lie still on his back while the electrocardiograms were being made.

12.45 p. m. - The pains had spread to the legs, the patient lay on his right side with the legs, arms and body flexed, the respirations were labored, with a gasping inspiration and a sharp, jerky expiration accompanied by an uncontrollable, loud, groaning grunt.

12.50 p. m. - The patient was unable to straighten up or stand, showing almost rigid flexion of the legs, tremor, extreme ashy pallor and cold clammy sweat, with the general appearance of

being in a condition of profound shock. He was undressed and placed in a hot bath, he stated that he experienced an immediate, appreciable diminution of pain and sense of general relief. The bitten finger was swollen, cyanotic, tender and painful.

1.04 p. m. - The pain, though partially relieved, was still severe, the respirations were still labored, spasm of the flexor muscles of the forearms and adductors of the thumbs ("accoucheur's hand") was present, a tingling sensation was felt in the hands and feet, the blood pressure was 75 systolic (no auscultatory diastolic reading was obtainable, the pulse was rapid, uncountable, weak and thready.

1.15 p. m. - The lips were tense and contracted, causing the mouth to assume an oval shape, the patient complained of slight dizziness and throbbing in the head.

(Note by Dr. J. M. Forney: "I saw the patient first at about 1.15 p. m. I found him in excruciating pain, gasping for breath and reclining in a tub of very warm water. I do not recall having seen more abject pain manifested in any other medical or surgical condition. All the evidences of profound medical shock were present.")

1.30 p. m. - The patient was removed from the bath and placed in bed, the face and body were very red, the respirations were still labored but definitely easier than prior to the bath.

1.45 p. m. - The respirations had become increasingly labored and the pains more severe since removal from the bath, the patient writhed about on the bed, hot water bottles were placed to the abdomen and back, giving some relief from pain.

1.52 p. m. - The patient was perspiring profusely, the respirations were less labored, the blood pressure was 80 systolic and 50 diastolic, the pulse was weak, its rate was 120.

Third State, Elimination. 2.05 p. m. - The patient stated that he felt a little better, he was given ¼ grain (0.16 Gm) of morphine hypodermically.

3.40 p. m. - The white cell count was 13,200 with 79 polymorphonuclears, 19.5 [19.5 ??] lymphocytes and 1.5 [1.5 ??] per cent monocytes.

4.05 p. m. - The patient vomited.

5.25 p. m. - A red streak extending up the back of the left hand from between the fourth and fifth metacarpophalangeal joints was noted.

7.45 p. m. - The patient was very restless, he still complained of severe pain in the abdomen, lumbar region and legs and of sharp intermittent pains in the bitten finger. He drank copiously and perspired freely, the eyes were red and watery and the face appeared swollen, the abdomen was still rigid, the blood pressure was 154 systolic and 92 diastolic, the pulse was stronger, its rate was 78, the respirations were shallow and still somewhat labored, the white cell count was 18,200 with 82 polymorphonuclears, 13 lymphocytes and 5 per cent monocytes.

November 13. The temperature which was normal at the commencement of the experiment became from 1 to 2 degrees subnormal during the period of shock. On the afternoon of November 12 and during the night of November 12 and 13 it rose 1 to 2 degrees above normal. It had returned to normal by the morning of November 13 and remained so thereafter.

The blood pressure reached its height the night of November 12. From that point it gradually fell, regaining normal limits by November 19.

6.30 a. m. - The patient was given a dose of magnesium sulphate.

8.15 a. m. - The patient stated that he spent a restless, sleepless, miserable night, perspiring freely and troubled by muscular pains and chilly sensations. Two tablets of a barbitol

derivative with amidopyrine gave no relief. Several hot baths were given for relief of pain. On one occasion the patient stated that he became so upset mentally that he was afraid if firm control was not exercised he would go insane. Following this ¼ gran of morphine was given hypodermically.

In the morning the patient complained of severe pains in the lumbar region and legs, the face had a swollen, puffy appearance, the eyes were red and watery, the abdomen was tense with slight epigastric tenderness.

9.30 a. m. - The urine showed a trace of albumin, a few pus cells, many red blood cells, epithelial cells and 25 blood and 5 granular casts under low power magnification. The white cell count was 19,150 with 77 polymorphonuclears, 18 lymphocytes and 5 per cent monocytes.

(The polymorphonuclear leukocytes had returned to normal by November 15. No significant variations were noted in the erythrocyte counts or hemoglobin content. Unfortunately no counts were made during the stage of shock and no chemical studies were made on the blood.)

4.10 p. m. - The patient complained of pains in the back and legs, and of weakness and chilliness, the face was flushed and swollen, the tongue was heavily furred, and the breath was foul, the abdomen was tense, tremor of the hands and a papular eruption on the inner surface of the bitten finger and along the ulnar side of the hand were present, the patient had passed several liquid stools

8.00 p. m. - The patient's condition was much improved, rheumatoid pains in the legs were now the chief complaint, he had drunk large quantities of orange juice all day and perspired freely.

November 14, 8.00 a. m. - The patient stated that he had passed a very restless night, he ate toast and grapefruit for breakfast.

12.00 a. m. - He stated that he was feeling much better, the chief complaint were rheumatoid pains in the legs and feet, chilliness, sweating and weakness, the face was less swollen, but the abdomen was still tense.

2.00 p. m. - The patient walked to the bathroom unaided, the urine showed a trace of albumin, many pus cells, a few red blood cells and a few granular casts under low power magnification.

(The urinary output was greatly reduced for the first five days following the bite. The effect on the urinary output of the abnormal loss of fluid through intestinal and cutaneous elimination during this period must not, however, be disregarded. The urinary output had returned to normal by November 18, coinciding with the cessation of excessive sweating.)

November 15, 0.00 a. m. - The patient stated that he had slept at intervals during the night, the appetite was returning, rheumatoid pains in the legs and feet, chilliness and sweating of the legs and feet were the chief complaints, the abdomen was no longer tense and the face no longer swollen, the urine showed no albumin, few red blood cells, leukocytes, epithelial cells and numerous hyaline, granular and leukocytic casts.

11.00 a. m. - The patient was removed to his home by ambulance, he spent the remainder of the day in bed.

Final Progress Note - From that time on recovery was rapid. The pain in the bitten finger had disappeared by the evening of the second day following the bite. A small, slightly tender, red papule was present at the site of the bite for two weeks, then disappeared. The rheumatoid pains in the legs and feet had disappeared by November 20. Slight edema of the ankles was noted the first few days on moving about. Urine analyses became normal on November 18. Generalized pruritus was present for some time, and desquamation of the hands and feet

continued for about three weeks. All the signs and symptoms had, however, disappeared by November 20. Subsequently the health of the patient had been excellent. No sequelae have been noted to date (February 15, 1934).

COMMENT

A study of the clinical picture in this case indicates three well defined stages in its development. Lymphatic absorption of the injected venom, as evidenced by the proximal progress of pain along the lines of lymphatic drainage, constitutes the first stage. It is characterized by pains in the bitten finger and in the arm and by the absence of general systemic effects.

Passing through the axillary lymph glands, the venom reaches the blood stream via the efferent axillary lymph channels, the subclavian lymphatic trunk and the subclavian vein. This ushers in, secondly, the stage of vascular dissemination which is characterized, clinically, by the explosive onset of widespread agonizing muscular pains and a condition of profound shock. This was, in this case, the most painful and critical stage, and yet no mention of a period of shock in this condition has so far been encountered in the literature. Two possibilities may account for this discrepancy: 1) All persons bitten may not receive a quantity of venom sufficient to induce the degree of shock obtained in this case. 2) The patient may have recovered from the condition of shock before coming under medical observation.

The third stage, that of elimination of the venom or its toxic products, commences with the rapid recovery from shock. It is characterized, clinically, by hypertension, diaphoresis, gradually diminished muscular pain, a slight rise of temperature, polymorphonuclear leukocytosis and urinary evidence of renal damage. This clinical picture, coupled with the slight headache and edema of the face and ankles, is very suggestive of the development at this stage of an acute (toxic) nephritis. The damage to the kidneys probably results from the attempted elimination of the venom or its toxic products by that route.

The condition of shock, characteristic of the second stage, suggests the possibility of the presence of a histamine-like ingredient in the venom of the spider *Latrodectus mactans*. Such a possibility is further suggested by the secretagogue action (salivation and lacrimation), evidence of contraction of the bronchial and intestinal musculature and symptoms of acute prostration and collapse which have been noted in certain animals bitten by this spider. It is of interest that certain histamine-like properties of another secretion, crotalin (rattlesnake venom), have been observed experimentally.

The question as to whether the agonizing muscular pains may play a part in the production of shock must also be considered. It is noteworthy, however, that the blood pressure had commenced to fall prior to the development of the acute muscular pains.

Although the mortality rate in this condition is low, I believe, as a result of my experience, that the possibility of a fatal outcome should by no means be disregarded. The second stage is to be regarded as the most critical, particularly in persons with conditions such as diabetes, chronic cardiac disease, alcoholism or renal disease, which predispose to shock.

The development in man during convalescence of any degree of immunity to the venom of this spider remains unproved. I was presented with the opportunity of deciding this point, but lacked the courage to submit myself to a possible repetition of the first experience. Degrees of immunity to the bite of this spider can be developed in animals and, on the assumption that man reacts likewise, convalescent serum has been used therapeutically. The results so far obtained are, however, inconclusive.

Lacking the history of a spider bite, or an acquaintance with the clinical picture which it may produce, one might well be excused for mistaking the symptoms for one of several acute conditions. Thus a perforated peptic ulcer, acute pancreatitis, ruptured extopic pregnancy, tabetic crisis, ruptured appendix with generalized peritonitis and renal or biliary colic may be considered at a diagnosis. Similarity between the clinical picture presented in poisoning by this spider and perforated peptic ulcer, particularly, has subjected the patient, on more than one occasion, to the added risk of surgical intervention."

(A. W. Blair, M. D., University of Alabama, Spider Poisoning. Experimental Study of the Effects of the Bite of the female *Latrodectus Mactans* in Man. Archives of Internal Medicine Vol. 54 (1934), p. 831-842)

A dying child

"The poisons of the snakes and spiders have been known to the homoeopath for over a hundred years and have been used in the treatment of severe illness in potency. In my own experience a doctor was rung one night by another who wanted to know if he was a homoeopath, and asked him to see a child with purpura. The patient had seen a specialist from one of the teaching hospitals and was obviously dying. He had a poor blood condition altogether with a very low platelet count, and when seen he was bleeding from everywhere - the nose, mouth, bladder, bowel, and was bruised from head to foot. He was given *Crotalus horridus* (rattle snake) and he did very well indeed. His platelet count went up from a very dangerous level to nearly normal within a few days, and he began to sleep well. He was therefore out of danger within a short time. He was sent to hospital for a blood transfusion for his consequent anaemia. The consultant who had seen him previously and said he was dying, pointed him out of the students as an example of spontaneous cure which cannot be accounted for, although he knew full well he had had homoeopathic snake venom as a remedy."

(Margery G. Blackie, M. D., *The Patient not the Cure* (1976), Indian Reprint 1986, p. 174)

A discussion at the annual session of the American Institute of Homoeopathy

"I cannot agree with Dr. Price. I do not believe we have any too many symptoms in *Materia Medica* now. Let us keep what we have, and probably later experience may verify what we now think to be worthless.

Several years ago a banker, a friend of mine, was visiting a friend in Indiana, and while out riding one day he pointed out something in a field, and he noticed that this friend, the banker, when he attempted to look at it, turned his body around in the buggy. The visitor asked him what was the matter, to which the host replied: "I could not turn my head without turning my body to save my life. I have not been able to do so for years. If I should turn my head suddenly to the left in this carriage, or in walking on the street, I would fall as if I had been shot." My friend wrote me, stating this strange thing. He told me that the man had been treated for years, and that he could find nothing to give him relief. He asked me to send him some medicine for him. I sent him a dose of colocynt 200th, and it cured that man completely, so that he could turn his head in any direction.

Another case in Iowa, a case of asthma, had been under treatment for years, and I had it under my charge for about a year. The asthma would come on about two o'clock in the morning and drive the patient out of bed, forcing him to sit in an erect position, and he would have to sit up all the morning, until about noon. Kali carbonicum gave him relief, so that he slept pretty well. The symptoms then changed, and he had some sulphur, and, finally, after some months, he was pretty well cured, with the exception that he was perfectly well during the week, but that on Saturday night he would go to bed as well as he ever was to wake up about 12 o'clock

at night, or Sunday morning, with a bad attack of asthma. This would last until Sunday evening, about 10 or 11 o'clock, and then he could lie down and sleep all the other nights in the week. Here was an attack of asthma coming on every Sunday morning regularly, and lasting all day. And the peculiar thing about it was, he said, "As soon as I can begin to expectorate the asthma vanishes at once." That required a study of the repertories and of the Materia Medica, but I found it under a remedy I least expected - Hypericum. This symptom has been again verified, hence increased in value.

W. R. Andrews: What did you find?

H. C. Allen: "Relieved by expectoration."

The Chairman: What repertory?

H. C. Allen: The repertory of the Guiding Symptoms.

W. R. Andrews: How does it act?

H. C. Allen: As an aggravation on awaking. This says nothing about whether it is midday or midnight. As soon as he can expectorate "the asthmatic attack vanishes."

W. R. Andrews: But he waked up with the attack at 11 o'clock at night?

H. C. Allen: Yes; he was awakened with it, and it lasted him all day and all night. I could not find the symptom under Lachesis, which has the < in waking, but not the > from expectoration.

So we have nursed the symptoms for years, which we are verifying every day, and by and by, if we have new provings, we may verify many of these so-called worthless symptoms, and they will become valuable. Let us keep all we have; no man knows which to cut out or which to retain if we begin to abbreviate."

(Transactions of the Fifty-Seventh Session of the American Institute of Homoeopathy, held at Richfield Springs, N. Y., June 18, 1901. Edited by Eugene H. Porter, New York (1902). Discussion: H. C. Allen, p. 640-641)

A girl who liked eating soap

"The mother of a ten-year-old girl took her daughter to a homoeopathic doctor for treatment. In her youth her own mother, now long dead, had treated all the family with homoeopathic medicine. Now the anxious mother of the ten-year-old longed to try the treatment that her own mother had so believed in. The girl was a plump, stocky little child, very pale, but quite capable of giving her own symptoms. She gave her history and then produced a book which carefully listed the times of her bowel actions, both night and day. This revealed that she had had ten to fifteen bowel actions in twenty-four hours (day and night), and that sometimes there was a lot of blood. When asked about her appetite, she looked hurriedly at her mother, and then admitted that she liked eating *soap*. The doctor then learned that her bag and all her pockets were filled with thin slivers of soap; her mother went on to say that they were found in her satchel, schoolbooks and even in her hymn-book. Her marked desire for soap was even more extreme when her colitis (ulcerated large bowel) was aggravated. Also the little girl had a great tendency to worry and was extremely sensitive to any criticism. At night she sweated profusely around the head, although she was generally a chilly child. She had been very slow in learning to walk and getting her first teeth. Only recently had she been able to keep up with the other children at school. She was so pale that she was admitted to hospital at once. It was found that her haemoglobin level was only 40% and she was given a blood transfusion. Soon after she was given *Calcarea carbonica* 10 m and this was not repeated for a year. Her health improved steadily and satisfactorily. The pediatrician who had seen her when she was six thought then that she most certainly at some time would require surgery for her bowel condition, but now found at a later date that she was doing very well. He asked to see her four years later and if possible when she was seventeen. At the time of the last visit he said he was very pleased and that she was quite well, and that there was no question of the need for an

operation. The same doctor wrote to the homoeopathic doctor a few years later asking if he would like to have a further shot at another extremely interesting, but very difficult case." (Margery G. Blackie, M. D., *The Patient not the Cure* (1976), p. 46-47)

A little child with weak bones

"In this particular instance the case which the pediatrician wanted the homoeopathic doctor to see concerned a twenty-month old child. The little girl was suffering from a case of *Osteogenesis imperfecta*, a little understood disease. She was unable to sit or stand because her bones were too weak, and had to be strapped onto a tray which had been made for her. A hole in the tray gave her space through which she could move one arm, and there she stayed all day. In spite of everything she was a cheerful little child. She was very pale, but ate well. However if she were left alone near the coal-box, she was inclined to reach out and eat a piece of coke or a cinder. Her feet and hands were very cold and damp. During the night she sweated very profusely around the head. Sometimes she woke screaming from night terrors. The doctor gave her a high potency of *Calcarea carbonica* and said he would see her again in three months. When he arrived the second time, she was sitting on the edge of the sofa waiting to show him how she could get round the room holding on to the furniture. She was seen by the homoeopathic doctor every three months for the next three years until the family had to move because the father had obtained a better job. On the last visit when the doctor arrived a little figure was waiting at the top of a slope ready to ride down on her tricycle to greet him. The mother has written several times to report on the progress of her daughter. She attends an ordinary school and keeps up well with the other children. She plays games and the only defect she has is a light curvature."

(Margery G. Blackie, M. D., *The Patient not the Cure* (1976), p. 47)

Antipsoric treatment of children

"I would earnestly urge upon every physician the duty of giving to each child born under his care or coming into his professional hands during infancy a small amount of anti-scorfulous remedy. He can usually find symptoms enough in mother and child upon which to base a prescription. He will thus in the best manner fulfil that higher duty of the physician, which is to prevent disease.

My experience in one family will serve to illustrate my meaning: My first invitation to the family was to attend a sickly, puny, whining little one, six weeks old. I learned from the father that this was their second child, and that they lost their first when three months old. He said it had simply cried and moaned itself to death. This one was apparently going the same way. All the old school could do had been done for the other, and his only hope for this one was in a change of practice.

The second little one cried, as did the first, from its birth; scarcely ever slept a sound sleep; did not seem to be nourished by the breast milk, of which there was plenty. The appearance of the mother first attracted my attention; her face had a dirty, yellow, earthy appearance. Her family history as to healthfulness was bad. She suffered from kidney disease, showing a profusion of "red sand" in the urine. Her condition and symptoms presented a very clear case for *Lycopodium*. So with the child; from the hint received from the mother's condition, systematic inquiry discovered the facts that the diapers were stained a deep color, and had frequently "red sand" on them after the child urinated; also that it cried and showed other signs of discomfort before urinating; it was also distressed by gas in the bowels.

Lycopodium was given to both mother and child. The child improved and became entirely well. But the most remarkable and significant fact was the eruption of the worst looking crop

of eczema it had ever been my fortune to see. The child was covered literally from the crown of its head to the soles of its feet with the eruption, which did not wholly leave until after its first teeth had all appeared.

A third child was born to these parents. It also suffered with symptoms similar to those of the others, but in a less degree. The same remedy relieved the child, and its exhibition was followed by a similar but less profuse and persistent crop of eczema.

The influence of the remedy during the period between the time when it was first administered to the mother and the birth of the third child had been such as to greatly ameliorate the distressing symptoms of this little one.

Here, it seems to me, is the point, beginning at which the most efficacious prophylactic or preventive treatment can be accomplished, not only in pneumonia, but in every other disease in which exists an hereditary element."

(W. J. Hawkes, M. D., Antipsoric Treatment, The Homoeopathic Recorder vol. 19 (1904), p. 377-378 - from *The Critique*.)

A letter to the editor

"SIR, - In the November number of THE HOMOEOPATHIC WORLD you publish some cases of tubercular meningitis unsuccessfully treated by Dr. Lamb, of Dunedin, with this remedy. My experience is that many, if not most, cases of tubercular meningitis are caused by vaccination, and that no good whatever can be done until the effects of vaccination have been removed. This is often done with *Thuja* 200, and the case may then yield to *Tuberculin*. A short time since I had a remarkable proof of this, and the little patient, after two or three months' illness, got quite well, and remains so now, with the exception of occasional outbreaks of temper, when she will scream, bite, and kick every one. This child, until vaccinated, had a most angelic temper. The attacks of temper under *Tuberculinum* 200 are getting less and less.

Yours truly,

ALFRED HEATH, M. D.,

114, Ebury Street, Eaton Square, S. W.

Nov. 3, 1893"

(Alfred Heath, M. D., Letter to the Editor - Tuberculinum Healthii, The Homoeopathic World vol. 28 (1893), p. 565-566)

The homoeopathic treatment of disordered dentition

"Gentlemen: In preparing this paper for your consideration this evening, I have thought it more in accordance with the object of our meetings to say but little about the doctrine of dentition, as its true rendition is recorded in my work on Obstetrics, pp. 634 to 637, inclusive; and whatever is recorded in a book open to the use of all, need not be repeated here.

It would be better, however, to read those pages in connection with this article, that its full force may be more fully comprehended.

Before proceeding to give the indications for the use of remedies in difficult dentition, I wish to remark that the exhibition of any remedy homoeopathically indicated in any child before it has cut its teeth, not only aids in its dentition, but also aids in establishing a more perfect state of health in that child, than could be obtained by any other means during the child's whole life; and this opportunity once lost, can never again become, in the same degree, available.

Again, in regard to the difficulty pertaining to dentition, it is too often imagined that it is all because the teeth do not pierce the gum; that the bare pressure of the teeth upon the gum

covering their crown causes all the trouble. This is a decided mistake. The trouble is more general; more constitutional. It is a failure on the part of the whole organism of the child to act in an orderly, harmonious manner to evolve the teeth. The condition of the gums, and of the dental sac, and of all suffering, in relation to this function, is due to this failure.

The same principle is exemplified in difficult menstruation, simple tedious labors, difficult digestion, or in the difficult performance of any other function. Lancing the gums does not cure the difficulty. If we lance for the first group of teeth, the second will be more likely to require lancing, and so for all the others. On the other hand, if we find the truly homoeopathic remedy to assist in the evolution of the first group of teeth, the second will be less likely to need help, and so of all the rest. Immediately after the exhibition of the proper remedy, the work of restoration commences, and; of course, relief gradually follows, although it may be days, and even weeks, before the teeth come through; still, the relief is satisfactory, and health is restored.

It may now be asked, why is it that lancing the gums so often gives such great relief? Allow me to answer, rather evasively, by asking other questions. Why is it that an emmenagogue so often gives relief in menstrual difficulties? Why is it that an emetic or a cathartic so often answer the purpose for which they are given, - relief? Why is it that the lancing of a felon, or the removal of a cancer, so often affords relief? The evil in all such cases goes on cumulatively whilst we dare so temporize, dare so trifle with and abuse the curative powers of nature, dare so scarify, hack, cut, and disfigure the beautiful organism our Heavenly Father has given us. Did not our Allopathic brethren even, a long time since, declare a resort to the knife to be the opprobrium medicorum?

Gentlemen, let us not be so presumptuous. Let us cultivate "some degree of humility," by respecting and striving, with all the power that is within us, to apply in all cases the perfect law given to us through Samuel Hahnemann. Even let us humbly draw near and sit at the feet of Him from whom all our blessings flow, who is ever ready, ever willing, ever anxious to lead aright the ardent, the unwearied, the imploring searcher for truth.

The adaptability of the principles of Homoeopathy to the wants of man, is "infinite" in its nature, and "infinite" is the "capacity" of the human mind to apply these principles. So long as there is a God in heaven to bless the human race, so long will the adaptability of these principles to human wants be progressive.

In regard to the repetition of remedies in my practice, I invariably follow the rule laid down by Samuel Hahnemann. It is only in that light that I feel responsible for the results as set forth in this paper.

Aconite

is usually the remedy when there is a state of constant restlessness, as from distress, which no change of posture or circumstance seems to relieve. The child gnaws at its fingers, or fists, or something else; cries, whines, or frets much of the time. Its sleep is very much broken; and there is usually much heat about the head, and a dry skin, sometimes with cold hands and feet. Soon after, or whilst awaking from sleep, its cries of discomfort recommence. Accompanying this state of things, sometimes, there is constipation, when the stools are hard and difficult to evacuate; more commonly there is diarrhoea, when the stools are watery and dark-colored, or bloody and slimy. The child is usually very thirsty, and seems to be relieved very much by holding on to the cup containing cold water, with its mouth, apparently for the purpose of cooling its gums. Acon. 2^ε in water: a teaspoonful every two, three, or four hours, produces, in these cases, speedy relief. Often, after the first dose, a long and refreshing sleep is produced,

and all the morbid symptoms disappear in good time.

Antimonium crudum

When the stomach so sympathizes as to present prominent symptoms. Tongue white; much vomiting; no thirst. Stools composed of hard lumps and watery secretions, passing together.

Apis mellifica

Child screams out suddenly and sharply during sleep; more usually occurring at night. If now the child can talk, and is asked what is the matter, or what hurts it, the reply generally is, "Nothing." The urine is mostly scanty, but sometimes very profuse. Sometimes there is prolonged constipation; more frequently diarrhoea. Red spots scattered here and there over the skin, often causing itching and restlessness; worse at night. The gum covering the developing teeth sometimes has the appearance of a watery infusion, or of a sac containing water. In these cases Apis 2^c, a dose or two, dry on the tongue, will immediately lessen the frequency and violence of the screaming spells, and gradually the other symptoms will disappear, the diarrhoea, or constipation, &c., and at length the teeth come through very kindly. In some rare cases it seems necessary to repeat Apis, in water, two or three times per day, for some time.

Arsenicum album

The child has undigested, fetid stools, and is emaciated; dry and shrivelled skin; particularly restless after twelve at night. It has paroxysms of anguish, day and night, during which it often strikes its face or head with its little hand, as though that afforded relief. It often vomits all fluids soon after swallowing them, particularly water. It will only take a sip or two of water at a time, but very often. The gum, over the advancing tooth, sometimes appears to be blistered, or to be filled with a dark, watery fluid. The whole scalp is occasionally covered with a dry, scaly, milk-crust, and the stools are of very light color. Sometimes the child has a very pale and waxy look, and is very weak. Arsenicum 8m, is my choice in such cases, of which a single dose is often sufficient to cure, and the teeth come through with less and less suffering; improvement commencing almost immediately after the pellets have been placed upon the tongue. If constipation exists, it does not positively contraindicate Arsenicum.

Belladonna

The child moans a great deal, as though the moaning caused partial relief of suffering. Violent starting or jumping of parts, or of the whole body, whilst sleeping or waking. If the starting occurs during its waking hours, it seems frightened at them, or it awakens from its sleep frightened with one of those starts. Convulsions, followed by a very sound sleep. Face and eyes red, often with dilated pupils and heat of head. Awakens from sleep with fright and staring eyes. The skin is often very hot, so as to leave a sensation of burning to the palm of the hand, when removed from its surface. Aggravation every afternoon. Very hot fever at night, often lasting all night, with delirium. The stools are often composed of thin, green mucus, of sour odor; and the child is often seen to shudder during stool. Sometimes the same kind of stool is involuntary. Bell. 4m is my choice, of which a single dose, dry on tongue, is often sufficient to produce the desired result. The gums in these cases are sometimes full of very red arteries, particularly the swollen gums.

Borax

The child is evidently afraid of a downward motion, even during sleep. If the nurse attempts to lower it from her arms, in a sleeping state, it is sure to cry out, and to throw up its hands, as from fear. It is very sensitive to the least noise; such as the rumpling of paper, of a silk dress, or the click of a door-latch, &c. Whilst sleeping, it will sometimes start, cry out, and hold on to things; its nurse, for instance, or the sides of the cradle or crib, as though it were afraid of

falling. Stools watery, yellow, green, or brown. Aphthous condition of the gums, and so sensitive as to shrink from the least touch, even of the nipple, when hungry, in many cases. I never use Borax lower than the 200th potency or dilution, one dose of which will often be sufficient to produce a long and refreshing sleep, after which the child will take the nipple with avidity, and without shrinking, so much will the morbid sensibility be improved. Normal dentition will now be accomplished in due time.

Bryonia alba

Dry, parched lips; dry mouth, and constipation, the stools being dark and dry, as if burnt. The child wishes to be kept very quiet, and seems to dread to be moved. If it be raised to the perpendicular, it often vomits, seems faint, and wishes to lie back again. Vomits its nourishment, soon after taking it, unchanged. It seems eager for cold water, which seems to be preferred to its usual aliment. The swollen gums are hot and dry, though pale or light-red. Bryonia 2^c, or higher, will soon cause moisture of the lips, mouth, and gums, and suffering will subside quite satisfactorily. One dose is often sufficient.

Calcarea carbonica

The child has large, open fontanelles. The head perspires during sleep, so as to wet its pillow far around. Stools large, hard, and of a chalky appearance; or thin and whitish. The gums are often pale and shiny, when the tooth is a long time in coming through. The child's feet are often cold and damp. The abdomen is, in some cases, large; and cold tumors are found about the neck. Loose, rattling cough; soft and flabby muscles. Hydrocephalus sometimes threatens. In cases like the above, Calc. c. 1m, one dose, will not be long in declaring its beneficial results. So long as it improves, do not repeat.

Calcarea phosphorica

has very kindly been furnished by Dr. Hering, for this special occasion. *Peevish and fretful children*. Often screaming and grasping with the hands. Fontanelles still open, or had closed and reopened; most in the vertex. Cold sweat on the face; body cold. They cannot hold the head up; move it from place to place; head totters. Squinting, as it were from pressure; eye-balls seem distended; they protrude somewhat. Coryza, running in a cool room, stopped in warm air and out of doors. Ears cold; point of the nose cold. Swollen under lip; face pale, sallow, yellowish; gets hot, with other complaints. During dentition, diarrhoea with much wind. Greenish, thin stools. Children refuse the mother's breast; the milk has a saltish taste. Children lose flesh; will not stand anymore; do not learn to walk. Backward in teething, also in closing of fontanelles. Skull soft, thin; crackling noise, like paper; crepitation when pressed, most on the occiput.

Causticum

Children with delicate skin, when, during the evolution of a group of teeth, intertrigo makes its appearance, with occasional convulsions. Prolonged constipation; stools tough; covered with mucus, and shine like grease. The child has a yellowish, sickly-looking face; ravenous hunger, and takes its food in a hurried manner; frequent gulping up the watery portion of its nourishment; "*pot belly*." The swollen gum sometimes suppurates. Caust. 6^m, a single dose.

Cicuta virosa (by Prof. Williamson).

"Grinding of the teeth (when any are through the gums), with pressing of the jaws together, like lockjaw. Convulsions, with limbs relaxed and hanging down, or unnaturally stiffened and extended."

Cina

The child rubs its nose much, and is unusually hungry. Very restless in its sleep; must be kept in motion nearly all the time by rocking or otherwise. Hacking cough, followed immediately by an effort to swallow something. Diarrhoea; stools occurring immediately after drinking. Child wants many things, which are rejected immediately or very soon after being offered them. Even its most choice playthings or articles of food are repelled with violence. It does not like to be looked at, spoken to, or even touched; in fact, it is a *very* peevish child. Its urine, when it can be preserved in a vessel, or when seen in a puddle on the floor, soon turns white like milk. Restless at night; frequent crying out as from colicky pains, and calling for water. After a single dose of Cina 2^c, such children soon become more and more amiable, healthy symptoms are rapidly developed, and the teeth a little later. Sometimes it becomes necessary to repeat, in water, two or three times per day for several days.

Chamomilla

The child starts and jumps during sleep. When awake it must be carried all the time, in order to soothe its sufferings. Sometimes it will sleep only whilst being carried in the arms. One red cheek; the other pale. Diarrhoea, watery and slimy, or like chopped eggs and spinach. Stools the odor of decayed eggs. Dry, hacking cough. Very thirsty; likes to hold its mouth in cold water a long time when drinking. The appetite not so good as usual, and there is frequent vomiting of thin sour milk. Gums red and tender; much sleeplessness. Cham. 2^c, or higher, has almost magical effect in these or similar cases.

Coffea cruda

The child is very excitable and sleepless; it seems as if it *could not* sleep. It is fretting and worrying in an innocent manner; not cross, but sleepless. It laughs one moment and cries the next; is feverish for want of sleep, which it cannot obtain. Now, one dose of Coffea 2^c, and the child soon falls into a long and refreshing sleep, and awakes much improved. In this way Coffea may save the child's life.

Colocynthis

When the bowels sympathize particularly; much colic, forcing one to double up, with writhing and twisting. Stools watery, frothy, or bloody, with pain, which seems to contract or double up. Sometimes the pain is relieved by pressing hard upon the abdomen.

Cuprum aceticum or metallicum (Williamson).

"Dryness of the mouth, with colicky pains in the bowels. Green, bloody, painful stools, and efforts to vomit. Convulsions, beginning with cramps in the lower extremities, and drawing in of the fingers and toes, with much throwing about of the limbs, frothing at the mouth, and choking in the throat." Spasms, preceded by violent vomiting of mucus. After one spasm the child screams, turns and twists, till another spasm occurs. All trouble seems inclined to be translated to the brain, threatening that organ with paralysis or dropsy. Cup. 2^c in water, and repeated frequently in such cases, will often succeed in saving life.

Dulcamara

The aggravations of dentition are all increased by every damp, cold, change of weather. Not so much that the child takes cold then, but that the morbid condition of the child is such as to be so influenced by that atmospherical change, upon the same principle as that the pains of *Rhododendron* are all aggravated by a storm of wind, although the patient be warm and in bed. If the child be inclined to salivation, diarrhoea, eruptions upon the skin, &c., these sufferings and others may be intensified by the atmospheric change, when Dulc. 2^c will be the

specific, and render such changes in the future innocuous.

Ferrum

When a persistent diarrhoea is the result of morbid dentition. Stools composed of mucus and undigested food; sometimes excoriating and exhausting, though painless. The face is often flushed, or has a red spot on each side. Often vomits its nourishment soon after taking it. Dentition advances slowly. Ferrum 2^c, a single dose, often does wonders in cases similar to the above.

Graphites

When the scalp, face, behind the ears, or other portions of the surface, become the seat of an eruption which oozes a clear, glutinous, watery fluid. Sometimes the whole scalp, face, behind the ears, or such other parts as may be affected, become one complete raw surface, constantly pouring out this peculiar fluid. At the evolution of each group of teeth, this condition becomes aggravated till Graph. 2^c, or higher, slowly eradicates the whole trouble. Often a severe constipation of large difficult stools attends the above condition. Sometimes the affected parts itch severely.

Helleborus niger

When brain symptoms are being developed. Dilated pupils; drowsiness; *particularly* when the stools are white and *jelly-like*.

Hepar sulphuris calcareum

is the remedy when a dry herpetic eruption is developed on some parts of the skin. It often appears in the bend of the forearm; upon the arm; in the popliteal spaces; upon the face or scalp. The itching is very troublesome. A whitish, sour-smelling diarrhoea often attends. Aggravations occur at the approach of every fresh group of teeth. The gums are sometimes ulcerated, *very tender*, and apparently *very painful*. Hepar 2^c, a single dose, should be administered in cases like the above, and await the result. A much higher dilution may be needed.

Hyoscyamus (Williamson)

"Pressing of the gums together, with putting the hands to the jaws, putting the fingers into the mouth, and other indications of pain in the jaws. Difficulty in swallowing. Convulsions, beginning with twitching of the muscles of the face, especially about the eyes. Dilatation of the pupils. Dark-colored, bloated appearance of the countenance, and deep sleep after the spasms go off."

Ignatia amara

The child awakens from sleep with piercing cries, and trembles all over. Convulsive jerks of single parts. Frequent flushes of heat, with perspiration. Spasms return at the same hour, daily, with trembling all over. Spasms, with *cries* or involuntary laughter. Stools usually of mucus or of bloody mucus, often attended with undue exertion and prolapsus of rectum. Sometimes there is tenesmus and prolapse of rectum, without stool. The child has much sighing, sobbing, and crying; sighing and sobbing continues long after the crying. Ignatia 2^c in the above conditions, will frequently restore order, and dentition will progress unmolested.

Ipecacuanha

Continual nausea, with occasional vomiting. Diarrhoea. Stools fermented, and of many colors, or green as grass. Face pale, with blueness about the eyes. More frequently useful if, to the

above, a variety of catarrhal symptoms were added by cold.

Kreosote

In this we have an invaluable remedy in difficult dentition. *Very painful dentition.* The sufferings are usually aggravated at six P.M., and continue till near six A.M. During all this time, by rubbing, and patting, and tossing, and worrying with the child, a very few short naps are obtained. It is a little more comfortable during the day, but the same scene is enacted the following night. The protruding gum seems infiltrated with a dark, watery fluid. Such teeth, as are through the gums, are dark and show specks of decay down to the gums. Constipation is more frequent; stools hard and dry. When there is diarrhoea the stools are dark-brown, watery, and very offensive ; odor rather cadaverous. The stools seem to be exhausting; they excoriate, and sometimes contain portions of undigested food. Kreosote 2^c a single dose often clears up the case. Sometimes it becomes necessary to repeat it, in water, two or three times per day, for a few days. In such cases we need not despair of so changing the morbid condition of the system as that other teeth shall not turn black and decay; and even the affected teeth will improve in their appearance.

Lachesis

The child awakens in an unhappy mood, and often in a distressed condition. At times convulsions will occur, so sure as the child goes to sleep. If we watch such children attentively, we will perceive the breathing to cease just prior to the convulsion, or just before it awakens in distress, without the convulsion. The protruding gum is sometimes found to be dark-purple. Lach. 4^m is my choice, and I seldom have a second, and not often the first spasm to recur, after a single dose, dry on the tongue. The other sufferings also rapidly disappear.

Lycopodium

The child sleeps with its eyes partly open, throwing its head from side to side, with moaning. It cries and screams just previous to passing water. Red sand, or a reddish stain, is perceived on its diaper, after passing water. Much rumbling, rattling, and commotion in the abdomen. If it passes flatus, it is very offensive. Aggravations occur at four P.M., and relief at eight or nine. Often very restless all night, like a Rhus restlessness. It takes but a small portion of food at a time, and does not care much for that. Lycopodium 6^m, often clears up the whole trouble. One dose.

Magnesia carbonica

The teeth do not come through. A green and sour-smelling diarrhoea has continued a long time. Emaciation. Sometimes the stool has the appearance of scum on a frog-pond. Frequent vomiting of sour substances. Sometimes there is loss of appetite and sour breath, with constipation, and frequent urging to evacuate a natural-looking stool.

Magnesia muriatica

Slow dentition, with distension of the abdomen and constipation. The region of the liver is enlarged and hard, and the nurse or mother says, " the child is liver-grown." The stool is often large and hard, and crumbles as it leaves the verge of the anus. Sometimes the stool is green and pap-like. I have sometimes witnessed a severe aggravation to follow a single dose of the 2^c potency, and a rapid and permanent improvement to follow.

Mercurius solubilis or vivus

Copious salivation, and sometimes little blisters are seen on the tongue, gums, and cheeks. Quite large ulcers sometimes are seen on the protruding gum. With the above conditions, the nights are usually very troublesome. Now, it occasionally happens that the child takes cold,

and the salivation becomes arrested. Then convulsions occur. Merc. 1^m will speedily restore the saliva; the spasms cease; all goes on well, and finally the salivation ceases harmlessly. The diaper is often stained with a yellowish, strong-smelling urine. Abdomen often hard and distended. Stools usually slimy, bloody, green, and accompanied with tenesmus. A single dose of merc. is often sufficient.

Nux vomica

For teething children being raised by artificial or mixed feeding, or whose mothers or nurses indulge constantly in highly-seasoned food, wines, &c. Aggravations occur at about four in the morning. Appetite becomes impaired; thirst increases, and the child becomes peevish and fretful. Constipation, with large, difficult stools occur; or the stools become small, frequent, lumpy, or fluid. Bloody saliva often stains their pillows when sleeping. The mouth sometimes becomes sore, and the breath very offensive.

Nux moschata

Particularly when the stools are very thin and yellow; all soaking into the diaper as it were. They are very exhausting, and the child is very sleepy.

Podophyllum peltatum

Grinding of such teeth as are already cut, with crying and worrying; often with painful diarrhoea. Rolling of the head from side to side, with green stools. Whitish, chalk-like stools, very offensive, with frequent gagging and thirst. Morning diarrhoea. Frothy, undigested stools. Prolapse of the rectum with every stool. Sometimes the stools are very frequent all day, all of which are natural. Very worrying and sleepless all the early part of the night, apparently from nervous irritability. Voracious appetite, with other bad symptoms. Diarrhoea immediately after eating or drinking. Food sours soon after eating, when it is rejected. I use the 200th potency, sometimes in water, if the first dry powder is not sufficient. Dr. Williamson subjoins the following: "Gagging, and the discharge of fetid carrion-like smelling stools. The motion of gagging is made with the mouth, and not accompanied with the effort in the stomach seen in retching."

Psorinum

These cases, at first view, resemble Sulphur. On examining more carefully, if we find a dark fluid stool, having the smell of decayed eggs, and eructations, or the child's breath having a similar odor, we may feel very sure that Psorinum is the remedy. Give a single dose, and await the result. Repeat cautiously.

Rheum

Is particularly indicated when a very sour-smelling diarrhoea is developed, with much pain in abdomen during stool. The diarrhoea is aggravated by moving about.

Sepia

I think of Sepia particularly when dry ring-worms make their appearance, or seem to brighten up at the evolution of every fresh group of teeth. Bad smell from the mouth. Aggravation of diarrhoea after taking boiled milk. If the diarrhoea appears to be very exhausting. I seldom use Sep. lower than 6^m.

Silicea

In scrofulous children, having worms with profuse salivation. Frequent pulling at the gums. Fever towards evening and all night, with heat in the head. Difficult stools. The mother or nurse declares, from observation, that the stool frequently recedes before the child can effect

its passage. The feet smell badly, notwithstanding every effort to prevent it. Profuse sour-smelling perspiration upon the head in the evening. The fontanelles are large, and the head is larger, in proportion, than the rest of the body. The protruding gum seems blistered, and is very sensitive. Stools, when very loose, are usually very dark, and sometimes very offensive. Sil. 6^m is my choice, and is seldom repeated.

Stannum

In some cases where it seems as if Cina should cure and it does not. Particularly if the child is more comfortable by lying with its abdomen across some hard substance, the shoulder or knee, for instance. Epileptiform convulsions, with clenching of its thumbs. If hernia should protrude, with Stann. symptoms, this circumstance would strengthen its indication. Stann. 2^c is my first choice, and then higher if necessary.

Staphysagria

The child is very sensitive to the least impression, whether mental or physical. It winces and shrinks from every wry look or harsh word, and cries from the least pain. The gums have a pale white appearance, and are very tender to the touch. Pot-bellied children. Frequent desire for stool not relieved even by a free evacuation. Such teeth as are cut have a dark look, or dark streaks run through them. Moist scald head, with yellow scabs, and very offensive.

Stramonium

When the child's brain seems so affected as to cause it to cease making its wants known except by motions. Violent grinding of such teeth, as are cut. It seems to shrink from the sight of objects when first presented, as if afraid. The approach of a bright light causes spasms. Blackish, thin stools, having a cadaverous odor. A very dry mouth, or profuse salivation. Dr. Williamson subjoins the following: "Grinding of the teeth. Moving of the fingers in sleep, as if searching for something. Disposition to stammer, and try to talk. Often there is a desire for more light, and at other times light brings on an aggravation, and even convulsions. Convulsions, with cries as if from being frightened by the sight of hideous objects. Much throwing about of the limbs, especially of the arms and hands, with motions of the fingers. The motions are most violent in the upper portions of the body."

Sulphur

White, sour diarrhoea, with redness about the anus. Green or bloody stools, with crying and worrying, and rawness about the anus. Frequent vomiting of nourishment. Papulous eruption on the skin, with much itching. The child does not like to be washed any more. Very tender and red about the anus after every stool. It takes no more long and refreshing sleeps. Frequent waking; wide awake. Jumps in its sleep. Seems to have frequent weak, faint spells.

Sulphuric Acid

The mouth and gums are in an aphthous condition, and seem very painful. The child is very irritable, restless, and cries much of the time. The stools are peculiar, the appearance being like chopped mucus of a saffron color. Even if there is not aphthae, the stools are sufficiently characteristic, and may be regarded as the key-note when present. Should not be used lower than 2^m.

Veratrum

Vomiting, with severe retching, and severe retching without vomiting. Cold sweat on the forehead. Vomiting renewed by the least motion. Diarrhoea. Each stool followed by great prostration. Cold, damp feeling of the extremities in spite of all covering and wrapping. Very

weak, faint pulse. In this state children often refuse to speak. The above condition simulates cholera infantum, but difficult dentition may be the cause.

Note: I am much indebted to Professors Hering and Williamson for valuable assistance in preparing the indications for the use of several remedies mentioned in this paper. Dr. Williamson writes me as follows: "In compliance with your request, I very cheerfully send you a few thoughts on the subject. The remedies which I have most frequently found indicated are, Acon., Bell., Calc. carb., Cham., Cic. v., Cina, Coffea, Cupr. ac, Hyos., Ign., Ipec., Merc., Podoph pelt., Stann., Stram. and Sulphur. In your excellent work on Obstetrics, article 'Dentition,' the indications for most of these remedies are given so clearly as to render their application in practice almost unmistakable. To them I have nothing to offer in addition to what you have said. *It frequently happens, as you very well know, that the symptoms of difficult dentition call for remedies not thought of in connection with such cases; but when the homoeopaticity is discoverable, the indicated remedy should be given, no matter what its name may be. In this way any article of the Materia Medica may become an important remedy in the diseases of dentition.*"

(The homoeopathic treatment of disordered dentition. By Henry N. Guernsey, M. D. The Hahnemannian Monthly vol. 5 (1869), p. 121-136. Read before the Philadelphia County Medical Society, October 15, 1869.)

Das Wunderlicht, oder: Der Lebenslauf eines Dinges

"Zu den interessantesten Erscheinungen aller Zeiten gehört das Schicksal mancher Chemikalien, welche, entweder als Miraculum der alten Alchymisten, oder als Spielerei der Gelehrten in neuerer Zeit, zuerst eine geraume Frist hindurch, trotz alles Aufsehens, das sie erregten, doch immer nur als Curiositäten gelten konnten, bis sie, gewöhnlich durch irgend einen Zufall, in den Gebrauch des täglichen, praktischen Lebens übergehend, dann plötzlich oder doch sehr schnell zu einer sehr großen Bedeutung und Wichtigkeit gelangten. Stoffe dieser Art hat der tägliche Gebrauch rings um uns her wahrhaft unzählige aufzuweisen - so viele eben, daß dieser seltsame, doch gewiß der Beachtung werthe "Lebenslauf eines Dinges," eben durch seine zahlreiche Wiederholung heutzutage bereits als etwas ganz Gewöhnliches gelten kann. Einige von diesen Chemikalien erfreuen sich jedoch einer vorzugsweise interessanten Geschichte und großen praktisch-wichtigen Bedeutung zugleich, und ein solches, **den Phosphor**, wollen wir eben den Lesern vorführen.

Nicht allein in einer, sondern in vielen verschiedenen Hinsichten zugleich erscheint dieser Stoff von großer Bedeutung. Überall in der Natur verbreitet und ein sehr wichtiges Nahrungsmittel der Pflanzenwelt, gehört er ebenso zu den unentbehrlichen Bedürfnissen des tierischen und menschlichen Körpers, in welchem er im Gehirn und Blut, dem Fibrin, vornehmlich aber in den Knochen vorhanden ist und zu deren Aufbau dient. In der Heilkunde als nicht unwichtiges Arzneimittel gebraucht, ist er zugleich ein furchtbares Gift für Menschen und Tiere, und obwohl er uns und unser ganzes Dasein mit den unheimlichsten Gefahren bedroht, so umgibt er uns doch täglich in der größten Nähe, indem er uns in den Streich- oder sogenannten Schwefelhölzchen einen allgemein eingebürgerten Gegenstand der Bequemlichkeit geboten hat.

Betrachten wir den Phosphor, wie ihn die Apotheke aufzuweisen hat, so finden wird etwa fingerdicke, spannlange, runde und glatte Stangen, welche in Glas- oder Blechgefäßen unter Wasser aufbewahrt werden. Im frischen Zustande erscheinen diese Phosphorstangen weißlich oder weißgelblich, ein wenig durchscheinend, wachsähnlich und in gewöhnlicher Stubenwärme auch so weich wie Wachs, so daß sie sich biegen lassen und vom Fingernagel Eindrücke annehmen. Aus dem Wasser genommen entsteigen den Phosphor dichte weiße, knoblauchartig riechende Dämpfe, welche im Finstern leuchten (von denen man daher die Bezeichnung Phosphoresciren für verschiedene Lichtentwicklungen abgeleitet hat) und die bei einer Erwärmung bis zu 60 Grad an der Luft in Flammen übergehen. Der Phosphor

schmilzt bei 45 Grad, wenn man ihn in Wasser erwärmt, und durch Schütteln des Wassers bis zum Erkalten kann man ihn in ein feines Pulver verwandeln; bei 38 Grad erstarrt er wieder, und bei 290 Grad siedet er und läßt sich bei Abschluß der Luft ohne Veränderung überdestillieren. In Äther, Chloroform, Weingeist, Schwefelkohlenstoff, fetten und flüchtigen Ölen ist er mehr oder weniger auflöblich, in Wasser dagegen gar nicht. Absonderliche Eigenschaften sind noch einerseits seine mehrfache Veränderlichkeit und andererseits die außerordentlich leichte Entzündlichkeit durch die geringste Reibung. In dieser letzteren ist eben seine Verwendung für alle möglichen Zündgegenstände begründet und auf dieselbe, sowie auf die erstere kommen wir späterhin noch eingehend zurück.

Beiläufig sei noch eine Eigentümlichkeit berührt. Der Phosphor ozonisiert die Luft, d. h. kommt er mit feuchter Luft in Berührung, so bildet sich ein eigentümlich phosphorartig riechender, jedoch außerordentlich belebender und wohltuend auf uns einwirkender Stoff, welcher von dem Chemiker Schönbein Ozon - von οζω, ich rieche - benannt wurde. Dieses Ozon ist nach den Ansichten der Chemiker gewissermaßen eine Formveränderung (Modification oder Allotropie) des Sauerstoffs, welcher sich in diesem Zustande durch die Begierde, andere Körper zu oxydieren, vorzugsweise auszeichnet. Das Ozon bildet sich auch, wenn man Wasser auf galvanischem Wege zerlegt und das am Zinkpole sich abscheidende Sauerstoffgas für sich auffängt, oder wenn man elektrische Funken durch Sauerstoff oder atmosphärische Luft schlagen läßt. Daher erscheint bekanntlich auch nach jedem Gewitter die Luft ozonhaltig und hierin (zum Theil allerdings auch in der zugleich sich entwickelnden Humussäure) soll das Wohlbehagen begründet liegen, welches wir nach einem Gewitter empfinden.

Bevor wir auf die praktische Verwertung des Phosphors näher eingehen, sei es uns vergönnt, auf seine Geschichte einige Blicke zu werfen.

Obwohl Schilderungen aus der alten curiosen Zeit der Alchymie im allgemeinen bekannt genug sind, so dürfen dieselben doch wohl das Interesse aller Gebildeten immer wieder aufs neu beanspruchen, insbesondere, wenn es sich um die Verfolgung des Weges handelt, auf welchem irgend einer jener vorerwähnten Stoffe entdeckt und zuerst hergestellt, dann als Miraculum bewundert und geschätzt wurde, bis er schließlich, seines mystischen Schimmers beraubt und zu seiner einfachen Natürlichkeit hinabgesunken, dann erst, in den Gebrauch des häuslichen Lebens übergehend, zu seiner vollen Größe und Wichtigkeit gelangte.

Zu den in dem düstern Zeitalter der Chemie am meisten bewunderten Dingen gehörten die sogenannten Licht-Magnete oder Phosphore, Stoffe, welche die sonderbare Eigenschaft haben, das Tageslicht, oder selbst künstliches Licht, gleichsam aufzusaugen und in der Dunkelheit wieder auszustrahlen. Diese Körper, gegenwärtig Lichtsteine genannt, wie der Diamant, Kalk- und Flußspath usw. kennt gegenwärtig Jedermann. Aber bereits in alter Zeit wußte man Lichtmagnete auch künstlich darzustellen. Die Geschichte der Chemie, oder vielmehr der Alchymie, erzählt uns, daß ein Schuhmacher, Namens Vincenzo Cascariolo in Bologna, einen Stein, und zwar ein Stück Schwefelspath, welches er am Fuße des Berges Paterno gefunden, der Glühhitze unterwarf. Es ist nicht gesagt, für welchen Zweck, jedenfalls geschah es aber, um zu versuchen, ob sich nicht der Stein der Weisen oder Gold daraus gewinnen lasse. Selbstverständlich hatte das Glühen keinen Erfolg, allein zur Verwunderung des Mannes leuchtete der Stein jetzt, sobald er eine Zeit lang dem Sonnenlichte ausgesetzt worden, im Dunkeln. Gelehrte und Forscher wurden auf dies vermeintliche Miraculum aufmerksam. Fortunius Nicetus beschrieb dasselbe unter der Bezeichnung "Der steinerne Lichtträger," und besonders durch den sehr berühmten Naturforscher Athanasius Kircher wurde diese Entdeckung so bekannt, daß sie durch die ganze gelehrte Welt sich verbreitete, und daß nach Vorschrift des Letztgenannten solche Bologneser oder Bononische Leuchtsteine allenthalben dargestellt wurden, indem man eisenfreies Schwerspathpulver, mit Eiweiß oder

Traganthschleim zu kleinen Scheiben geformt, der Glühhitze aussetzte. Dies war etwa ums Jahr 1640 und geraume Zeit hindurch gab es keine anderen bekannten Licht-Magnete. Ein weiteres Interesse gewann, wie wir beiläufig erwähnen müssen, der Bononische Leuchtstein aber noch dadurch, daß die Gelehrten in der sonderbaren Aufsaugung des Lichtes einen Beweis für die Körperlichkeit desselben finden wollten, eine Ansicht, welche bekanntlich auch von Newton geteilt und bis zum Anfange unseres Jahrhunderts als Tatsache angesehen wurde.

Im Jahre 1674 ging der Name Lichtträger oder Phosphor aber noch auf einen andern Körper über. Ein Amtmann zu Großenhain in Sachsen, mit Namen Baldewein, welchen er, der damaligen Sitte gemäß, in das lateinische Balduinus umgeändert hatte, "ein gelehrter, curieuser und geschickter Mann und großer Verehrer der hermetischen Kunst," strebte eifrig nach dem Trugbilde der damaligen Zeit, den Spiritus mundi oder Weltgeist aufzufangen und sich dienstbar zu machen. Unter diesem Spiritus mundi verstand man nämlich ein Universalmittel, eine Panacee, welche gegen alle möglichen Krankheiten wirksam sein müsse. Von diesem emsig und bereits seit über tausend Jahren gesuchten Stoff glaubte man, daß er in der Luft vorhanden sei und aus ihr gewonnen werden könne. Baldewein's Verfahren, dies zu erreichen, zeugt übrigens immerhin von Geist und Nachdenken. Er hatte Kreide in Salpetersäure aufgelöst, die Flüssigkeit zur Trockenheit eingedampft, und eine Masse - salpetersauren Kalk - erhalten, welche sehr begierig Feuchtigkeit aus der Luft aufzog und davon zerfloß. Dieses aus der Luft angezogene Wasser destillierte er von dem Kalk ab und glaubte nun in vollem Ernst, daß er in ihm den Spiritus mundi vor sich habe. In Gemeinschaft mit einem Arzt, dem Doctor Früben, verkaufte er nun diesen Spiritus mundi, das Loth für zwölf Groschen, einen, in Anbetracht der traurigen Zeitverhältnisse, nach dem kürzlich erst beendeten dreißigjährigen Kriege, außerordentlich hohen Preis. Dennoch drängten sich vornehme und geringe Leute eifrig nach der Wunderarznei, von welcher der berühmteste Chemiker jener Zeit, Kunkel, der damals Vorlesungen über Experimentalchemie an der Universität Wittenberg hielt, sagte: "Man kann sich leicht denken, daß hier nur der Glaube Wunder tut, denn Regenwasser würde dieselben Dienst leisten."

Ebenso betäubend als interessant zugleich tritt uns hier ein Seitenblick auf das Mundus vult decipi entgegen, welches leider gerade in unserer Gegenwart in der höchsten Blüte des Geheimmittelschwinds seine volle Bedeutung erreicht hat. Vor dem wässerigen Spiritus mundi Baldewein's waren bereits mehr als tausend Jahre vergangen, seitdem man danach zu streben begonnen, den Stein der Weisen zu finden, welcher einerseits die unedlen Metalle in Gold verwandeln und andererseits Befreiung von allen Krankheiten und eine ewige Lebensdauer gewähren sollte. Wiederum fast ein halbes Jahrtausend weiter finden wir in allgemeinen Umrissen noch immer dasselbe Streben, und zwar dem praktischen Geiste unserer Zeit entsprechend, mit besseren Erfolgen, als solche die unfruchtbaren Experimente der Alchymisten gewähren konnten. Nicht mehr, wie damals, müht man sich vergeblich, Gold zu machen, oder kümmert sich um die eigene Lebensdauer und Gesundheit, sondern man erfindet zahlreiche Elixire, Extracte, Pillen und dergleichen, welche die wundertätige Kraft haben, einerseits fremde Leute von allen möglichen Leibesübeln zu befreien, und andererseits deren Gold in den Säckel des Fabrikanten zu ziehen. Somit ist also in den wundertätigen Geheimmitteln unserer Zeit nicht allein der Spiritus mundi, sondern auch der Stein der Weisen der alten Alchymisten zu vollsten Geltung gekommen.

Erfreulicher ist eine andere Betrachtung, welche man an den Stein der Weisen zu knüpfen unwillkürlich angeregt sich fühlt. Bedenkt man, daß die für den gesamten Fortschritt unserer Gegenwart so unendlich segensreiche Chemie ihre Begründung und regste Entwicklung doch erst seit der Zeit von kaum einhundert Jahren herdatieren darf, so kommen etwa vierzehn bis fünfzehn Jahrhunderte der Herrschaft der Alchymie zugute. (Der erste Schriftsteller über Alchymie, Maternus Firmicus, schrieb in der ersten Hälfte des vierten Jahrhunderts). Erwägt

man aber nun weiter, welche unendliche Menge und Mannigfaltigkeit aller möglichen Stoffe in diesem langen Zeitraume nach allen Seiten hin in allen ihren Eigenschaften erforscht, analytisch und synthetisch untersucht worden ist, und welche große Fülle von wertvollen Entdeckungen die Chemie und mit ihr die Pharmacie oder Apothekerkunst, ferner zahlreiche Gewerbe und Industrien diesem rastlosen Experimentiren der Alchymie verdanken, so wird man diese Zeit, trotz aller ihrer mystischen Dürsterkeiten und Verirrungen immerhin preisen müssen und das Verlangen tragen, einige ihrer hervorragenden Männer kennen zu lernen. Hierzu finden wir denn auch gerade in der Geschichte des Phosphors mehrfache Gelegenheit, und die Leser wollen eine auch in dieser Hinsicht notwendige Abschweifung uns ebenfalls freundlichst zugute halten.

Der bereits erwähnte Scheidekünstler Johann Kunkel war der Sohn eines Alchymisten in Holstein und wurde im Jahre 1620 geboren, er erlernte die Apothekerkunst und wurde dann als Alchymist und Schriftsteller sehr bekannt. Und obwohl er bei der mangelhaften wissenschaftlichen Bildung der damaligen Zeit in allen Irrtümern und mystischen Anschauungen der Schriften, in welchen er seine Studien gemacht, auch selbst noch befangen war, obwohl er dieselbe rohe und zum Theil unklare Schreibweise hatte, so sind alle seine Schriften doch deshalb sehr wertvoll geworden, weil sie durch Gewissenhaftigkeit und reiche Erfahrungen sich auszeichnen und einen unverkennbaren Zug ehrlichen Forscherdranges zeigen. Trotzdem er an die Verwandlung unedler Metalle in Gold und alle mystischen Seltsamkeiten jener Zeit glaubte und auf das emsigste danach strebte, das Geheimnis der Golddarstellung zu erforschen, so haben seine Schriften doch jedenfalls deshalb die genannten Vorzüge, weil er, unterstützt von natürlichen Anlagen und großer Charakterstärke, ohne jede weitere Hülfe sich emporgearbeitet und damit eine praktische Richtung seines Strebens gewonnen hatte. Sein größter Vorzug vor den meisten seiner Vorgänger liegt eben darin, daß er, alle mystischen Schlüsse immer mehr beiseite lassend, seine Folgerungen und Behauptungen nur auf die unumstößlichen Ergebnisse der Experimente zu gründen suchte. Unter seinen Zeitgenossen erfreute sich Kunkel eines sehr großen Rufes. Er wurde unter dem Namen Hermes III. Mitglied der Kaiserlich Leopoldinischen Gesellschaft der Wissenschaften und als Alchymist stand er bei mehreren deutschen Fürstenhäusern in großem Ansehen und wurde von mehreren derselben mit Anstellungen und hohem Jahresgehalt ausgezeichnet und von König Karl XI. von Schweden unter dem Namen von Löwenstern sogar in den Ritterstand erhoben. Im Dienste des großen Kurfürsten war er namentlich mit der Glasfabrication beschäftigt und stellte unter anderem das sehr berühmte Rubinglas her.

Hiernach wenden wir uns zunächst wieder zu der Erfindung des Amtmann Baldewein. Als dieser nämlich einst die Kalkmasse sehr stark geglüht hatte, bemerkte er zufällig, daß sie im Dunkeln ein magisches Licht verbreitete. Diesen "hermetischen Phosphor" zeigte er Kunkel vor, welcher darüber in großes Erstaunen geriet und nichts sehnlicher wünschte, als den wunderbaren Stoff kennen zu lernen. Allein, wie es die Sitte und der Vorteil der damaligen Zeit erheischten, zeigte sich Baldewein damit außerordentlich geheimnisvoll, so daß Kunkel den Stoff nicht einmal berühren durfte. In dem "Laboratorium chymicum" hat es Kunkel selbst ergötzlich geschildert, in welcher listigen Weise er ihm dennoch das Geheimnis ablauschte. Bei einem Besuche wurde er zwar sehr freundlich empfangen, allein anstatt der gehofften Enthüllung des Geheimnisses suchte man ihn mit einer musikalischen Abendunterhaltung zu erfreuen. Auch spätere Besuche, bei denen er es an allen möglichen Versuchen nicht fehlen ließ, brachten ihm doch nicht den geringsten Erfolg. Eines Abends lenkte er wieder das Gespräch auf den interessanten Gegenstand und fragte, ob der Lichtmagnet nur die Sonnenstrahlen oder auch das Licht einer Kerze einsaugen könne. Baldewein behauptete das Letztere und suchte dies durch Experimente zu beweisen, wobei er jedoch seinen Schatz mit Argusaugen überwachte. Sollte es nicht besser sein, meinte Kunkel, das Licht vermittelst eines Hohlspiegels aus der Entfernung absorbieren zu lassen? Diese List

gelang, denn Baldewein eilte schnell davon, um einen Hohlspiegel herbeizubringen, und ließ in der Eile den Phosphor liegen, von welchem Kunkel nun schleunigst ein Stückchen mit den Nägeln abkniff und in den Mund steckte. Kaum aber konnte er die Zeit dazu gewinnen, denn Baldewein stürzte sogleich wieder herbei. Noch einmal fragte er diesen jetzt, ob er ihm das Geheimnis entdecken wolle, und als dies wieder keinen Erfolg hatte, entfernte er sich schnell, um sofort seine Beute zu untersuchen.

Durch die Bemühungen eines früheren Gehilfen Namens Tutzki gelang es ihm schon am nächsten Tage, denselben Stoff herzustellen, und am Abend konnte er triumphierend dem hartnäckigen Baldewein ein Stückchen desselben hermetischen Phosphors überreichen, welchen er jetzt "leuchtender Scherben" benannte. Hiermit war aber die Geschichte dieses Stoffes als Lichtträger abgeschlossen. Denn als Kunkel bald darauf eine Reise nach Hamburg unternahm, fand er zu seinem großen Bedauern, daß sein leuchtender Scherben dort nicht die geringste Bewunderung erregte. Er hörte vielmehr, daß hier Jemand einen Stoff besitze, welcher beständig im Dunkeln leuchte und es gar nicht erst nötig habe, vorher Licht einzufangen.

Als der Besitzer dieses wunderbaren Lichtträgers wurde ihm ein Mann bezeichnet, welcher sich Doctor Brand nenne, aber nur ein verdorbener, d. h. bankrott gewordener Kaufmann sei. Dieser Brand ist nun in der Tat als der eigentliche Entdecker des Stoffes zu betrachten, welcher den Namen Phosphor dauernd behalten hat und der eben der Gegenstand dieser Schilderung ist. Wir müssen daher auch bei der Persönlichkeit dieses Mannes verweilen. Leibnitz, welcher die erste, freilich nur sehr kurze und oberflächliche Erfindungsgeschichte des Phosphors in den "Berliner Miscanellen" vom Jahre 1710 veröffentlicht hat, kann über die näheren Umstände der Entdeckung nichts angeben, und dieselben sind daher auch leider niemals bekannt geworden. Auch über Brand weiß er überhaupt nur zu sagen, daß derselbe früher Soldat gewesen, sich dann in Hamburg angesiedelt und dort eine wohlhabende Frau geheiratet hat, deren Vermögen er aber durch alchymistische Experimente verbraucht und dann den Unterhalt, mit Hülfe eines angemessenen Doctortitels, durch Verkauf von selbstbereiteten Arzneien gesucht hat. Kunkel hatte nichts Eiligeres zu tun, als die Bekanntschaft dieses Mannes zu machen, um den wunderbaren Stoff von ihm kennen zu lernen. Obwohl er ihn aber in sehr bedrängten Verhältnissen fand, so konnte er doch nichts weiter von ihm erreichen, als daß er Stückchen des Phosphors zu sehen bekam.

Brand hatte die Entdeckung im Jahre 1669 jedenfalls ganz zufällig gemacht und bis zur Bekanntschaft mit Kunkel, also etwa fünf bis sechs Jahre lang, von der Wichtigkeit derselben keine Ahnung gehabt. Erst dadurch, daß Kunkel die Mitteilung des Geheimnisses durchaus von ihm zu erlangen suchte, bekam dasselbe in seinen Augen einen höheren Wert, welcher um so mehr stieg, je dringender Kunkel sich zeigte. Dieser hatte einen Freund, den Chemiker Krafft in Dresden, an welchen er über das Verhörte und Gesehene eine schriftliche Mittheilung machte, welche dieser dann hinterlistig benutzte, indem er sich schleunigst auf den Weg machte und ohne Vorwissen Kunkel's das Geheimnis für zweihundert Thaler erkaufte. Während Brand den Bitten Kunkel's gegenüber sich durchaus hartnäckig zeigte, konnte er den klingenden Beweggründen Krafft's keineswegs widerstehen und verpflichtete sich sogar eidlich, weder den Kauf an Kunkel zu verraten, noch das Geheimnis weiterhin mitzuteilen.

Johann Daniel Krafft aus Miltenberg in Franken war nach den Begriffen jener Zeiten ein sehr hervorragender Mann, denn er hatte weite Reisen durch einen großen Theil Deutschlands nach Holland und sogar nach Nordamerika gemacht und stand dieserhalb, sowie seiner vielseitigen bedeutenden Kenntnisse wegen, in hoher Achtung und in großem Ruf. Er wußte das von Brand erlangte Geheimnis in ergiebigster Weise zu verwerten, indem er an verschiedenen deutschen Höfen, sowie auch in Holland umherreiste und durch Vorzeigen

seines Wunderlichts überall Erstaunen und Aufsehen erregte. Im Jahre 1676 kam er auch nach Berlin an den Hof des großen Kurfürsten, mit seinem Phosphorus fulgurans, über welchen der Leibarzt Elsholtz einen Bericht geschrieben, den man für die älteste über den Phosphor bekannte Schrift erachtete. Bald darauf ging Krafft auch nach Wien, um den Phosphor an der Kaiserlich Leopoldinischen Akademie vorzuzeigen.

Kunkel, welcher von dem ihm gespielten Betrüge noch gar keine Ahnung hatte, mühte sich mündlich und späterhin schriftlich vergebens ab, von Brand die Mittheilung des Geheimnisses zu erlangen. Anfangs gab dieser vor, daß er die Bereitungsweise des Phosphors verloren habe; später sollte eine göttliche Eingebung ihm zwar wieder dazu verholffen haben, allein er erklärte, eine Mittheilung hierüber für durchaus unmöglich. So viel hatte Kunkel jedoch herausbekommen, daß Brand mit Urin gearbeitet, und nachdem er ihm, wie er selbst sagt, so viele gute Worte gegeben und ihn mit inständigen Bitten bestürmt, als noch niemals einen Menschen Zeit seines Lebens, drohte er ihm schließlich, daß er selbst "darüber künsteln" werden. Brand zeigte sich zwar jetzt schon bereitwilliger und suchte sogar von Kunkel noch etwas zu erlangen, wenn dieser das Geheimnis selbst entdecken werden. Diese Zumutung wies aber der Letztere mit Entrüstung zurück und arbeitete nun emsig daran, "mit Hülfe scharfen Nachsinnens den Phosphor selbstständig zu entdecken und zu Stande zu bringen." Er berichtet selber darüber: "Es kostete mich nichts. Nach einigen Wochen war ich so glücklich, den Brand'schen Phosphor zu finden. Dies ist, mein teuerster Leser, die ganze Geschichte des Phosphors, aus welcher erhellen wird, daß ich die Bereitung desselben durchaus nicht von Brand gelernt habe." Kurz vorher hatte Kunkel auch erfahren, in welcher Weise Krafft ihn hintergangen, und daß derselbe für den Phosphor vom Hannover'schen Hofe bereits eine ansehnliche klingende Belohnung erhalten habe. Kunkel zeigte seinen Phosphor im Jahre 1677 dem sächsischen Hofe in Dresden vor.

Jetzt brach aber ein großer Streit über den Phosphor und dessen Entdeckung aus. Brand suchte die Angaben Kunkel's zu verdächtigen, dieser aber fertigte ihn in derbster Weise ab und verspottete ihn zugleich, indem er ihn stets den "deutschen Doctor" (doctor teutonicus) nannte, welcher nicht einmal ein Wörtlein Latein verstehe. Aber auch andere Scheidekünstler schrieben sich die Entdeckung dieses wunderbaren Stoffes zu, und es scheint ziemlich fest zu stehen, daß gleichzeitig, oder doch nur wenig später, auch Boyle, ein englischer Chemiker, den Phosphor dargestellt hat. In einer schon im Jahre 1680 der Royal Society in London überreichten Schrift hatte er die zahlreichen, größtenteils vergeblichen Versuche beschrieben, welche ihn endlich zur Darstellung des Phosphors geführt. Auch hatte er zufällig erfahren, daß "etwas aus dem menschlichen Körper dazu gebraucht werde."

Obwohl Leibnitz behauptet, daß Kunkel sich nur fälschlich als den Entdecker des Phosphors ausgegeben, so steht doch zweifellos fest, daß er ihn ebenso unabhängig von Brand's Verfahren als Boyle aufgefunden hat. Kunkel's "öffentliche Zuschrift von dem Phosphoro mirabili und dessen Wunderpilulen" schildert die Eigenschaften dieses von ihm dargestellten Stoffes in folgender Weise: "Vor's Erste habe ich das Wunderlicht in forma einer schwarzen Seife, welche ihr Licht wechselweise in die Höhe stößt und in einem Glase, welches verwahrt ist und nur eine Stecknadel groß Luft hat, anmutig anzusehen erscheint. Vor's Andere habe ich's in Körnern, die aussehen, wie dunkler oder gelber Weihrauch und blitzen ohne Unterlass. Solche Körner liegen eine geraume Zeit frei an der Luft, ehe sie sich verzehren, endlich aber verschwinden sie in der Luft. So man sie aber in Wasser leget, oder vor der Luft bewahret, vergehen sie nimmermehr, sondern behalten stets ihre Kraft, teilen auch dem Wasser das Vermögen zu leuchten mit, welches, wenn man es erwärmt, anmutig blitzet. Vor's Dritte habe ich Etwas aus einem andern Stoffe, welches wie ein klares weißes Öl aussieht, aus einer Feder geschrieben werden kann und nicht wechselweise blitzet wie die andern, sondern beständig helle leuchtet, daß, wenn man eine Erbse groß davon in ein rundes Gläslein tut und dieses über eine Schrift hält, man bei der größten Finsternis alle Buchstaben erkennen kann.

Vor's Vierte habe ich noch eins aus einem andern Stoffe, welches so subtil ist, daß, so man es ohne Wasser auf der bloßen Hand erwärmen läßt, entzündet sichs alsobald und gibt ein heftiges Feuer."

An dem Streit über die Erfindung des Phosphors beteiligte sich auch das Ausland. Die durch zahlreiche Gelehrte, wie Leibnitz, Hanberg, Tschirnhausen, Huyghens, sowie durch Krafft und Kunkel sehr bald nach England und Frankreich gebrachte Nachricht wurde dort nämlich in der Weise ausgebeutet, daß man in England die erste Erfindung dem schon erwähnten Boyle, und in Frankreich dem Leibarzt Heinrich's II., Namens Fernelius, zugeschrieben hat. Übrigens zeigt sich hier wiederum die interessante Tatsache, daß ein und dieselbe Erfindung auf gleichem oder auch sehr verschiedenen Wegen in ein und derselben oder zu sehr verschiedenen Zeiten von mehreren Gelehrten oder Forschern unabhängig von einander gemacht worden ist, wie z. B. das von dem deutschen Mönch erfundene Schießpulver schon Jahrtausende früher in China bekannt gewesen sein soll. In ähnlicher Weise will man kürzlich auch in der Bibliothek der Akademie zu Paris unter den Manuscripten, welche über Alchymie handeln, eine kleine Schrift von einem Sarazenen Alchid Bechil gefunden haben, aus welcher unwiderleglich hervorgeht, daß derselbe nicht allein den Phosphor bereits kannte, sondern ihn auch durch ein ähnliches Verfahren darstellte als das, vermittelst dessen Brand ihn bereitete. Es erscheint in der Tat auch kaum verwunderlich, daß diese Entdeckung damals wieder verloren gegangen, denn in jenen Zeiten wurden solche Geheimnisse keineswegs veröffentlicht, sondern meist mit dem Erfinder zu Grabe getragen.

Das Verfahren der Phosphordarstellung haben weder Brand noch Kunkel selber jemals veröffentlicht, obwohl der Letztere gegen Wissbegierige sehr offenherzig war. Durch Homberg, welcher den Phosphor zu Paris im Laboratorium der Königlichen Akademie der Wissenschaften zuerst darstellte, ist eine genaue Vorschrift bekannt geworden. Sie lautete: Frischen Harn, so viel es beliebt, dampfe man auf einem gelinden Feuer bis zu einer fast trockenen schwarzen Masse ein und lasse diese zwei bis drei Monate in einem Keller stehen, damit sie in völlige Fäulnis übergehe. Dann vermische man sie mit ihrem doppelten Gewicht feinen Sandes, bringe dies Gemisch in eine irdene Retorte, deren Hals mit einer mit Wasser versehenen Vorlage verbunden ist. Darunter mache man ein anfangs schwaches Feuer an, welches nach und nach verstärkt und dann drei Stunden hindurch in heftigster Gluth unterhalten wird. Zuerst geht ein wenig Phlegma in die Vorlage über, dann etwas flüchtiges Salz, später viel schwarzes stinkendes Öl und zuletzt der Phosphor in Gestalt weißer Wolken, welche sich an den Wänden der Vorlage als dünner gelber Überzug ansetzen und in Form kleiner Körner zu Boden fallen. Die Vorlage darf man nicht fortnehmen, bis das Feuer erloschen und Alles kalt geworden ist, da der Phosphor sich sonst beim Zutritt der Luft entzündet. Die erhaltenen kleinen Körnchen bringt man in eine kleine Weißblechröhre, gießt Wasser darüber und erwärmt gelinde, wodurch der Phosphor zusammenschmilzt, und wenn man die Röhre in kaltes Wasser taucht, so erhält man eine Masse von wachsähnlichem Aussehen, welche eben der Phosphor ist, den man unter Wasser aufbewahrt.

Im wesentlichen stimmen die sämtlichen, damals veröffentlichten Vorschriften der Phosphordarstellung mit dieser überein. Auch die in der schon erwähnten Schrift Boyle's enthaltene Angabe, nach welcher jedoch nur sehr unreiner flüssiger Phosphor erhalten werden konnte, ferner die "Dissertatio de phosphoro liquido et solido" von Kletzig, welche im Jahre 1688 veröffentlicht worden. In der letzteren sind die Destillationserscheinungen vorzugsweise interessant geschildert: Reichliche weiße Dämpfe erfüllen zuerst die Vorlage, dann klärt sich dieselbe wieder und es treten andere Dämpfe auf, welche in bläulichem Licht wie brennender Schwefel leuchten. In der heftigsten Glühhitze setzt sich zuletzt eine consistente, schwer leuchtende Masse, eben der Phosphor ab.

Ein wunderliches Verfahren veröffentlichte Rosinus Lentilius aus Nördlingen, nach welchem man ein Gemenge aus Harn, Menschenkot, Sand, Spiritus, Weinessig, Weinhefe und Weinstein zusammen eintrocknen und glühen, anfeuchten und wiederglühen, einzeln und mit einander mehrmals destillieren und noch zahlreichen anderen, teilweise sehr wunderlichen Prozessen unterwerfen sollte. Man kann wohl annehmen, daß der Verfasser dieser Vorschrift entweder die Phosphordarstellung in Wirklichkeit gar nicht kannte, oder daß er absichtlich so viel Mummerei damit trieb, um von der Herstellung überhaupt abzuschrecken.

Durch die Offenheit Kunkel's wurden Brand und Krafft gezwungen, ihrerseits das Geheimnis billiger zu verkaufen, und der Erstere suchte dasselbe dadurch noch möglichst zu verwerten, daß er die Vorschrift der Phosphorbereitung jedem Liebhaber für ein Honorar von zehn Thalern verkaufte; ein Schüler von ihm lehrte aber in Berlin die Phosphordarstellung sogar für fünf Thaler Jedem, der sie nur kennen zu lernen wünschte.

Unendlich lange Zeit währte es, bevor man über die Natur des Phosphors klare Vorstellungen erlangte. Da der Harn nur eine ganz geringe Ausbeute lieferte und vorläufig als die einzige Quelle der Darstellung bekannt war, so wurde der Phosphor zu außerordentlich hohen Preisen verkauft und konnte auch überhaupt nur als Curiosität gelten. Erst sehr allmählig kam man zu der Einsicht, daß der Phosphor auch in zahlreichen anderen Dingen vorhanden sei, und Kunkel rühmt sich bereits, er könne sein Wunderlicht aus Allem machen, was Gott erschaffen hat und "worinnen eine verwesliche Kraft vorhanden ist," aus vierfüßigen Tieren, Vögeln, Fischen, Blumen und Kräutern. Während der Phosphor aber, eben des enormen Preises wegen, überall nur als Spielerei gelten konnte, wußte ihn Kunkel jedoch schon im Jahre 1678 auch praktisch als Heilmittel zu verwerten, indem er "Konfortanz-Pillen, welche gegen Schlagfluß und andere jählinge Krankheiten helfen, das Stück vor einen Groschen," daraus herstellte. Auch lieferte er für curiose "Liebhaber einen Phosphorus mirabilis, "das Stück vor Zwei Thaler," welcher in der berühmten Apotheke "Zum güldenen Löwen" in Leipzig (dieselbe besteht noch heutigen Tages) verkauft wurde. Späterhin versorgte ein Deutscher in London, mit Namen Gottfried Hankwitz, welcher von Boyle unterrichtet worden, fast einzig und allein die ganze damalige gebildete Welt mit diesem kostbaren Wunderstoff. Im Jahre 1730 ließ sich Hankwitz ein Loth Phosphor mit fünf Ducaten bezahlen und in Amsterdam kostete es sogar acht Ducaten.

Kunkel rühmt sich späterhin, daß er den Phosphor ganz klar wie Krystall und von großer Kraft zu machen entdeckt habe. Übrigens sagt er aber schließlich in seinem "Laboratorium chymicum," daß er gar keinen Phosphor mehr darstellen wolle, weil derselbe die Ursache zu vielen Unglücksfällen werden könne, und deshalb veröffentlichte er auch sein Verfahren der Darstellung nicht.

An den Phosphor knüpften sich, jedenfalls der leuchtenden Erscheinungen wegen, lange Zeit hindurch viele wunderliche Vorstellungen. So war man der Meinung, daß ein Stückchen Phosphor, wenn es in einem luftdicht verschlossenen Gefäße sich befindet, ein unaufhörliches Licht ausströme. Hieran knüpft der gelehrte Arzt Elzholtz Hoffnungen, welche damals die Welt mit Sehnsucht erfüllten, während sie gegenwärtig dem Sachverständigen nur ein Lächeln abnötigen. "Wenn ich es Stande gebracht," sagt Elzholtz, "die Erfindung des sternartigen Phosphors, mit dessen weißlichem, fast mondähnlichem Lichte man die großen Anfangsbuchstaben eines Buches bereits zu erkennen vermag, so weit zu vervollkommen, daß damit auch die kleine Schrift zu lesen sein wird, so habe ich Lampen erfunden, welche ohne Kosten leuchten und für die Gelehrten bei ihren Studien und Arbeiten, ohne geputzt zu werden, die ganze Nacht, ja das ganze Leben hindurch zu brauchen sein werden." Wie naiv und bescheiden waren doch die Anforderungen jener Zeit; was würde man wohl gesagt haben, wenn man plötzlich den Reichtum der Gasflammen, des Petroleumlichtes und dergleichen kennen gelernt hätte.

Unter allen denen, welche mit dem Phosphor sich beschäftigten, war Boyle jedenfalls der Scharfsinnigste und Aufgeklärteste. Er kannte schon die Auflöslichkeit des Phosphors in ätherischen und fetten Ölen, wußte, daß die Berührung der Luft notwendig sei, um ihn in Flammen zu versetzen, und daß eingeschlossener Phosphor die in demselben Gefäße befindliche Luft verzehre, denn er sagt: "Sobald ich den Stöpsel fürsichtig herauszog, schien die äusserliche Luft offenbarlich in das Gefäß hineinzufallen." Geraume Zeit hindurch nach ihm wurden die Kenntnis des Phosphors nicht erweitert. Albinus hatte zwar bereits im Jahre 1688 nachgewiesen, daß in der Kohle des Senfs, der Gartenkresse und einiger anderer Pflanzen Phosphor enthalten sei, und allmählig fand man immer mehr Stoffe, in denen derselbe sich ermitteln ließ. Aber von seiner allgemeinen Verbreitung in der Natur und davon, daß auch der menschliche Körper ihn aus dem Pflanzen aufnehme, hatte man noch gar keine Ahnung. Erst im Jahre 1715 wurde von Heusing und dann später im Jahre 1766 von Spielmann Phosphor im menschlichen Gehirn aufgefunden. Marggraf erkannte im Jahre 1743 sodann Phosphorsäure im Harn und gründete hierauf ein besseres Verfahren der Phosphorgewinnung. Er vermischte den Urin mit Chlorblei, erhielt dann phosphorsaures Bleioxyd und zerlegte dieses durch Kohle. Auf diesem Wege konnte die Darstellung des Phosphors eine erhebliche Ausbeute gewähren. Aber selbst durch die verbesserte Methode Marggraf's erlangte der Phosphor noch immer keine praktische Bedeutung fürs Leben; diese konnte erst dadurch angebahnt werden, daß gerade hundert Jahre nach seiner Entdeckung durch die schwedischen Chemiker Gahn und Scheele auch in den Knochen der Tiere Phosphorsäure ermittelt wurde, und daß der letztgenannte Chemiker auch bald ein Verfahren erfand, um den Phosphor aus den Knochen zu gewinnen. Die französischen Chemiker Nicolas und Pelletier verbesserten diese Vorschrift sodann dahin, daß sie mit Hülfe von Schwefelsäure eine einfachere Darstellung ermöglichten, und nach diesem, späterhin noch mehr verbesserten Scheele'schen Verfahren wird auch gegenwärtig der Phosphor dargestellt.

Durch die Verwendung des Phosphors zur Darstellung von Zündgegenständen, auf welche wir zum Schluß näher eingehen werden, ist sowohl sein Verbrauch, als auch selbstverständlich seine Gewinnung zu einem der umfangreichsten Gegenstände der Industrie geworden. Die Darstellung geschieht jetzt ausschließlich aus Knochen, und zwar leider noch immer in einer nicht entsprechend ökonomischen Weise, indem nämlich die Phosphorfabrication auf die leimgebenden Gewebe, und umgekehrt wieder die Leimsiederei auf die phosphorhaltigen Knochen durchaus keine Rücksicht nimmt, während doch Beides in sparsamer Weise neben einander ausgenutzt werden könnte. Den Verbrauch an Knochen zur Phosphorgewinnung in Europa kann man vielleicht auf nahezu hunderttausend Centner schätzen, woran Deutschland, mit Einschluss von Österreich, mit etwa zweitausendzweihundert, England mit zweitausend, Italien mit zwölfhundert und Frankreich mit tausend Centner betheiligt sind.

Nach den vollkommensten Darstellungsweisen, welche es gegenwärtig gibt, erzielt man aus 100 Pfund Harn höchstens 5,3 Loth Phosphor, aus 100 Pfund Knochen dagegen 9 Pfund Phosphor. Aber auch diese letztere so bedeutend ausgiebigere Darstellung erreicht noch bei weitem nicht den ganze Gehalt der Knochen, denn in denselben ist noch fast ein Drittel der genannten Phosphormenge enthalten. Man wird daher mit der Zeit immer mehr dazu gezwungen werden, einerseits die Phosphordarstellung noch zu vervollkommen und andererseits sich noch nach weiteren ergiebigeren Materialien umzusehen. Als solche wird man aller Wahrscheinlichkeit noch über kurz oder lang phosphorsaure Alkalien und Erden, wie Phosphorit, Apatit u. s. w., zu benutzen vermögen, welche in verschiedenen Ländern, insbesondere in Spanien, aber auch in Deutschland, z. B. in Nassau, in mehr oder minder bedeutenden Lagern natürlich vorkommen.

Eigentümlich, jedoch sehr erklärlich ist es, daß die Phosphordarstellung mit der Landwirtschaft in Feindschaft gerät. Die Phosphorsäure ist nämlich als eine der

Hauptbedingungen der Fruchtbarkeit des Bodens zu erachten, und deshalb schätzt man die erwähnten phosphorsäurehaltigen Erden, unter der Bezeichnung der Phosphate, als sehr wertvolle Düngestoffe. In ähnlicher Weise werden bekanntlich auch die Knochen in der Landwirtschaft, sowie auch in der Zuckerfabrication gebraucht. Es gilt hier also ein Wettkampf zwischen der Benutzung dieser wertvollen Stoffe entweder für die Zwecke der Landwirtschaft oder für die Darstellung des Phosphors, zu dessen Nutzbarkeit wir uns jetzt wenden wollen.

Jedenfalls hat der Phosphor sein erstes hundertjähriges Jubiläum feiern können, ohne daß er über den Gebrauch zu den "leuchtenden Wunderpilulen" oder über die Curiosität als "Phosphorus mirabilis" hinausgekommen. Erst als seine zweite Entdeckung gerade in dem Beginn seines zweiten Jahrhunderts, 1769, aus Knochen eine ergiebigere Darstellung ermöglichte, begann man auch, für das praktische Leben ihn zu verwerten, und wandte sich zunächst seiner auffallendsten Eigenschaft, der leichten Entzündlichkeit zu, indem man ihn zum Feueranzünden zu benutzen suchte. Die ältesten bekannt gewordenen Phosphorfeuerzeuge waren kleine Fläschchen mit einem Gemisch aus geschmolzenem Phosphor und Sand, in welches ein mit geschmolzenem Schwefel teilweise überzogenes Hölzchen getaucht wurde, so daß daran ein wenig von der Phosphormasse haften blieb und sich durch Reiben entzünden ließ. Im Prinzip waren jene Streichhölzchen also den unsrigen bereits gleich. Das Feuerzeug war aber deshalb durchaus unpraktisch, weil es durch den Einfluß der Luft sehr bald unbrauchbar wurde. Dann folgten die sogenannten Turiner Kerzen, auch Peyla'sche Lichterchen genannt, welche ein sehr großes Aufsehen erregten. Sie bestanden in dünnen Wachslichtern, deren Docht etwas Phosphor enthielt, und waren der Feuergefährlichkeit wegen einzeln in sehr dünne Glasröhrchen eingeschmolzen. Zum Entzünden zerbrach man das Glas an dem Ende, welches nicht Phosphor enthielt und zog die Kerze vorsichtig heraus, welche dann von selber zu brennen anfang. Einer weiteren Verbreitung derartiger Phosphorzünder setzten dann aber die in Paris erfundenen und schnell allenthalben sogenannten "chemischen Feuerzeuge" mit Schwefelhölzchen ein Ziel, und bei der Vorteilhaftigkeit, Unschädlichkeit und allen übrigen Vorzügen derselben erschien es fast unmöglich, daß sie von anderen Feuerzeugen verdrängt werden könnten.

Nachdem man noch einen Versuch gemacht, mit Hülfe von Knallquecksilber Zündhölzchen darzustellen, wurde weiteren derartigen Versuchen, namentlich aber der Fabrikation von Feuerzeugen mit Phosphor, durch das Verbot der Polizei ein Ende gemacht. Denn man hatte eingesehen, daß der Phosphor nicht allein äußerst feuergefährlich, sondern auch ein furchtbares Gift sei. Dies Verbot hatte allerdings auch seinen guten Grund in den vielen Unglücksfällen, welche teils durch die bereits fertigen, aber noch sehr unvollkommenen Phosphorstreichhölzer verursacht wurden, die dann aber, falls man sie nur genau untersucht hätte, regelmäßig in großen Fahrlässigkeiten, in Leichtfertigkeit oder Unkenntnis ihre Ursachen gefunden haben würden. Bis fast in die Mitte der vierziger Jahre dieses Jahrhunderts bestand dieses Verbot fast in allen Staaten; allein von dieser Zeit an wurden die inzwischen doch nach dem Muster der Schwefelhölzchen hergestellten und immer mehr vervollkommneten Phosphorstreichhölzer bereits überall wenigstens geduldet. Einerseits suchte man nun auch in der Fabrikation derselben die Gefahr immer mehr abzuschwächen, und andererseits überzeugte man sich durch eingehende Versuche, daß die Furcht vor der Gefahr durchaus übertrieben sei. Man lieferte bald Streichhölzer, welche bei sonstiger guter Beschaffenheit doch bis auf 100 Grad erwärmt werden konnten, ohne sich zu entzünden; man fand, daß ein Päckchen entzündeter Streichhölzer durch Bedecken, also durch Luftabschluß, sofort wieder ausgelöscht werden konnte; man sah, daß in Kleie verpackte Streichhölzer, selbst bei anhaltendem Schütteln sich nicht entzündeten, ja man bemerkte bald, daß in einem geschlossenen Raume die zufällig entzündeten Streichhölzer von selber wieder erlöschten, weil die entstehende Phosphorsäure die Flamme erstickte. Kurz und gut, man überzeugte sich

davon, daß bei geringen Vorsichtsmaßregeln eine Gefahr kaum vorhanden sei. Denn durch Fahrlässigkeit oder Bosheit können ja ebenso wohl mit allen übrigen Feuermaterialien, mit Stahl und Stein, Brennglas, Schwefel u. s. w. Unglücksfälle hervorgerufen werden. Die Verbote schliefen nun selbstverständlich ganz von selber ein.

Seitdem vervollkommnete sich die Fabrikation der Phosphorstreichhölzer immer mehr und gewann einen außerordentlichen Aufschwung, so daß zu diesen winzigen Hölzchen Tausende von Holzklaftern und centnerweise Schwefel und Phosphor verarbeitet werden. Wir können natürlich auf diese so sehr interessante und jetzt bereits außerordentlich großartige Industrie hier leider nicht näher eingehen; nur der Hinweis sei uns gestattet, daß die Fabrikation der Streichhölzer jetzt bereits über fast alle Länder der Erde sich erstreckt und besonders bedeutend in Österreich und im übrigen Deutschland, in Bayern, Württemberg, der preußischen Provinz Hannover, ferner in Frankreich, Schweden und Nordamerika ist.

Aber nicht in der Feuergefährlichkeit, sondern in viel ernsteren und schwereren Übeln liegen die unheimlichen Gefahren begründet, mit welchen der Phosphor die Menschheit bedroht. Seiner Giftigkeit wegen benutzte man ihn allmählig mehr und mehr an Stelle des doch ungleich gefährlicheren Arseniks als Ratten- und Mäusegift. Unter der Bevormundung, welche die Polizei aller Länder, mindestens in Europa, für die Volkswohlfahrt durchaus notwendig hält, darf der Phosphor nur unter sehr großen Vorsichtsmaßregeln und in der bestimmten Form einer Latwerge, welche jedenfalls am wenigsten gefährlich sein kann, verabreicht werden. Nicht leicht kann dies Rattengift daher die Veranlassung zu Unglücksfällen geben. Aber auch die Phosphorstreichhölzer brauchen wir nicht als einen höchst gefährlichen Gegenstand zu betrachten. Denn, wenn immerhin Unglücksfälle mit ihnen vorkommen können, sei es in der Weise der hier und da förmlich grassierenden Selbstmordmanie, oder sei es auf dem Wege des Verbrechens gegen Andere, so muß doch immerhin die Tatsache zur Geltung kommen, daß dies dasselbe Verhältnis, wie das der Feuergefährlichkeit des Phosphors überhaupt ist, indem für diese Zwecke ja selbstverständlich ebenfalls zahllose andere Gegenstände benutzt werden können.

Ungleich schwerwiegender ist bereits das Übel der sogenannten Phosphornekrose, jener grauenvollen Krankheit der Kieferknochen, an welcher die in den Streichhölzchenfabriken beschäftigten Arbeiter so häufig leiden. Diese Krankheit verschont kein Alter und Geschlecht und sucht namentlich die armen Arbeiterinnen heim, welche in den Zündhölzchenfabriken so zahlreich beschäftigt werden. Als die Ursache dieses Leidens sind die Phosphordämpfe ermittelt, welche in allen Arbeitsräumen dieser Fabriken, vornämlich aber in den Trockenräumen sich entwickeln. Sonderbar erscheint es freilich, daß in den Phosphorfabriken diese Krankheit niemals beobachtet wird, obwohl doch auch dort dieselben Dämpfe vorhanden sind. Damit ist zugleich gesagt, daß man über die Natur der Krankheit noch keineswegs völlig im Klaren ist. In neuerer Zeit will man als Vorbeugungsmittel Dämpfe von Terpentinöl als vorzüglich empfehlen, welche aus einem Gefäß kommen, das vor der Brust angebracht werden soll, damit die fortwährend ausströmenden Dämpfe die des Phosphors verdrängen. Ob aber einerseits die Terpentinöldämpfe ein wirkliches Schutzmittel sind, und ob andererseits die Terpentinöldämpfe beim fortwährenden Einatmen nicht ebenfalls schädlich wirken, ist noch keineswegs erwiesen. Dagegen scheint es durch einfache Versuche festgestellt zu sein, daß das Terpentinöl als ein sicheres Gegengift bei Phosphorvergiftungen, zumal wenn es zeitig genug angewendet wird, erachtet werden darf.

Unsere menschliche Natur ist ja bekanntlich so elastisch, daß sie sich an die ihr widerwärtigsten oder gefährlichsten Dinge gewöhnen kann. Wer zum ersten Mal in eine Streichhölzchenfabrik tritt, fühlt sich in der trüben, schwülen Luft sehr belästigt, das Atmen wird ihm erschwert, Brennen im Halse und Reiz zum Husten machen ihm den Aufenthalt fast unleidlich. Dennoch leben in dieser unerträglich erscheinenden Atmosphäre Jahr ein, Jahr aus

Hunderte von Arbeitern, welche sich eben daran gewöhnt haben. Andererseits bedrohen uns selbst in unserer gemüthlichen Häuslichkeit fortwährend zahlreiche Dinge, welche, wie der Quecksilberdampf eines großen Spiegels und dergleichen, unsere Gesundheit bei dauerndem Einfluß, immerhin arg gefährden können. Wir brauchten uns daher um die Gefahr, welche der tägliche Gebrauch von Streichhölzchen in der Häuslichkeit uns droht, nicht besonders zu ängstigen. Dennoch sind die Phosphorstreichhölzchen von vorneherein vielen Menschen deshalb widerwärtig, weil die beim Entzünden und Anbrennen sich entwickelnden Dämpfe zum Husten reizen und sehr unangenehme Atmungsbeschwerden verursachen. Man hat daher in neuerer Zeit vielfach sich bemüht, Streichhölzchen ganz ohne Phosphor oder mit verändertem, unschädlichem Phosphor darzustellen. Nebenbei müssen wir daran erinnern, daß die Streichhölzchen, sei es noch von den sogenannten chemischen Zündhölzchen her, oder von dem Schwefel, den sie des Zündens halber enthalten, vielfach ganz unrichtig Schwefelhölzchen genannt werden. Die in neuerer Zeit in den Handel gebrachten "Tendstikars," oder Streichhölzchen ohne Phosphor, welche meistens als echt schwedische Zündhölzchen verkauft werden, sind zum größten Theil in deutschen Fabriken gemacht. Sie können sich aber, sei es, weil sie nicht zuverlässig genug sich entzünden, oder sei es, daß sie andere Nachtheile haben, keineswegs einbürgern; bis jetzt haben sie wenigstens geringe Verbreitung, obwohl ihr Preis nur noch wenig höher als der bekanntlich so sehr geringe der Phosphorstreichhölzchen ist.

Neuerdings beschäftigt man sich aber angelegentlich damit, sogenannten amorphen Phosphor für den Zweck der Zündholzfabrikation zu benutzen. Wenn man den gewöhnlichen gelben, wachsartigen, giftigen und im Dunkeln leuchtenden Phosphor in einem luftleeren Raume etwa 24 Stunden hindurch bis zu 250 Grad erhitzt, so verwandelt er sich scheinbar in einen ganz anderen Körper. Er bildet dann eine scharlachrote Masse, eben den sogenannten amorphen Phosphor, welcher nicht giftig ist und nicht leuchtet, und den ein Uneingeweihter niemals als Phosphor erkennen würde. Steigert man die Hitze noch höher, so verwandelt sich die rote Masse wieder in gewöhnlichen Phosphor um. An diese Entdeckung, die Schrötter in Wien, etwa im Jahre 1850, gemacht hat, knüpft man nun eben in Betreff der Streichhölzchenfabrikation große Hoffnungen. Übrigens war es schon sehr lange bekannt, daß der Phosphor, infolge der Einwirkung des Lichts, beim längeren Aufbewahren sich mit einem roten Überzuge bedeckt, und schon im Jahre 1842 hatte Berzelius als wahrscheinlich angenommen, daß der Phosphor in zwei verschiedenen Modificationen vorkommen könne, wie dies ja auch bei verschiedenen anderen Stoffen der Fall ist, z. B. beim Kohlenstoff, welchen wir als Diamant, Graphit und Kohle als ein und denselben Stoff anerkennen müssen. Der letztgenannte Chemiker hat für dieses verschiedenartige Erscheinen eines gleichen Körpers die Bezeichnung Allotropie (d. h. von ungleicher Beschaffenheit) festgestellt.

Wenden wir uns nun zu dem amorphen Phosphor zurück, so lassen sich aus ihm Reibzündhölzchen darstellen, welche alle Gefahren der gewöhnlichen nicht zeigen. Sie sind zunächst durchaus nicht giftig, wie dies namentlich durch zahlreiche Versuche von Orfila und Bigout mit amorphem Phosphor nachgewiesen worden. Ferner sind sie nicht feuergefährlich, riechen nicht, werden nicht leicht feucht und entzünden sich selbst in starker Hitze nicht von selber, und vor allen Dingen kann jene schreckliche Krankheit der Arbeiter vermieden werden, welche durch die Dämpfe des gewöhnlichen Phosphors entsteht. Der amorphe Phosphor erscheint im Handel entweder als ein feines, scharlach- bis dunkelrotes Pulver, oder als eine harte, glanzlose, rötlich-braune Masse. Die aus ihm dargestellten Streichhölzchen sind als "Antiphosphor-Reibzünder" bekannt, vorläufig sind sie jedoch einerseits noch zu teuer und andererseits auch noch zu unvollkommen, als daß sie allgemeine Verbreitung finden könnten. Namentlich ist es unbequem, daß man bis jetzt für dieselben noch einen besonders präparierte Reibfläche haben muß, während man die gewöhnlichen Streichhölzchen doch beliebig überall anstreichen kann. Auch ist die Darstellungsweise des amorphen Phosphors

bis jetzt noch keine ergiebige. Hoffentlich gelingt es jedoch, über kurz oder lang alle diese Schwierigkeiten zu überwinden.

Wenden wir uns nun noch einmal zu den Eigenschaften des Phosphors im Allgemeinen zurück. Eine seiner größten Gefahren entspringt indirekt aus seiner leichten Entzündlichkeit. Die durch Unvorsichtigkeit oder böse Zufälle verursachten Brandwunden an unserem Körper sind nicht allein sehr schmerzhaft und schwer heilend, sondern auch lebensgefährlich. Es ist mehrfach vorgekommen, daß durch ein Stückchen von einem Streichholz abgespritzten brennenden Phosphors der Tod eines Menschen verursacht worden ist. Bei solchen Verbrennungen soll man die Wunden sogleich durch Umschläge mit Wasser, welches kohlen saure Magnesia oder ein wenig doppelt kohlen saures Natron enthält, kühlen und auswaschen und wechselweise auch einmal mit reinem Provencer- oder anderem fetten Öl ausspülen, um noch etwa vorhandene Phosphortheilchen aufzulösen.

Das Leuchten des Phosphors, welches von jeher so wunderbar erschienen und nicht allein in der ältesten Zeit ihn zum wunderbaren Stoff gemacht, sondern auch in neueren Zeiten zu vielfachen Spielereien und Mummereien ausgebeutet worden ist, konnte lange Zeit hindurch keinerlei Erklärung finden. Von den Spielereien mit Phosphor, durch welche er in den Händen von Gauklern und Betrügern eine große und geraume Zeit hindurch seine einzige Verwendung fand, wollen wir nur einige erwähnen. Man bestrich sich das Gesicht und die Hände, ersteres mit Ausschluss der Augen und des Mundes, mit einer Auflösung von Phosphor in fettem Öl und trat nun an einem dunkeln Ort vor die Zuschauer, denen nun ein leuchtender Totenkopf mit dunklen Augen- und Mundhöhlen entgegenstarrte. Oder man schrieb mit dem phosphorhaltigen Öl irgendwohin bedeutungsvolle Worte, welche dann in der Dunkelheit als flammende Schrift erschienen.

Nach langem und fruchtlosem Streite über die Ursache des Phosphorleuchtens, gelang es endlich dem Chemiker Schrötter in Wien, im Jahre 1853 eine ausreichende Erklärung dieser Erscheinung zu geben. Während er nämlich feststellte, daß der Phosphor im luftleeren Raum sublimiert, d. h. durch Wärme verflüchtigt werden kann, ohne im Geringsten zu leuchten, bewies Schrötter, daß dies Leuchten oder Phosphorescieren nur während der Verbindung des Phosphordampfes mit Sauerstoff, also durch den Vorgang der Oxydation hervorgerufen werde.

Es sei uns noch vergönnt, kurz auf die Verwendung des Phosphors als Rattengift einzugehen. Soviel festgestellt worden, war dies Mittel bereits seit dem Jahre 1728 in Italien bekannt, wo es ein umherziehender Kammerjäger als Geheimmittel bereits in Form der noch jetzt gebräuchlichen Mehllattwerge verkaufte und glänzende Geschäfte damit machte. Ein jüdischer Diener hatte ihm das Geheimnis abgesehen und brachte es bald darauf nach Deutschland. Dieses Phosphorgift wurde um so beliebter, als man glaubte, daß es den Arsenik verdrängen könne und seinerseits für Menschen doch nicht gefährlich sei. Es wurde sehr lange Zeit hindurch ohne polizeiliche Beschränkung verkauft, bis endlich schwere Unglücksfälle seine polizeiliche Einschränkung herbeiführten. Es ist eine eigentümliche Erscheinung, daß der aus Mehl mit in warmem Wasser geschmolzenem Phosphor bereitete Teig von den Ratten und Mäusen so gern verzehrt wird, namentlich wenn man einen Theil des Mehls vorher röstet oder in Wasser abkocht, und neuerdings hat man vorgeschlagen und vielfach auch begonnen, die Vertilgung der Feldmäuse durch Phosphormehlbrei in großartigster Weise zu betreiben. Zu bedauern ist dabei allerdings, daß zugleich die nützlichen und notwendigen natürlichen Mäusefänger, wie Bussarde, Iltisse, Igel und dergleichen mit vertilgt werden. Auch bedroht man durch die Phosphorlatwerge jedesmal in hohem Grade alle Haustiere, weil die Ratten und Mäuse das Gift verschleppen und in allerlei Futter bringen.

Als Arzneimittel wird der Phosphor innerlich in äußerst geringen Gaben in Äther, Weingeist, ätherischen oder fetten Ölen aufgelöst, bei mancherlei Nervenleiden, Wechselfieber, Cholera, Wurstvergiftung u. s. w., verordnet. Äußerlich dient er in ebensolchen Auflösungen als Reizmittel.

In sehr bedeutender Weise wird der Phosphor zur Darstellung von Phosphorsäure verbraucht. Diese ist ein geschätztes Arzneimittel bei Fieberzuständen, Typhus, Harnruhr u. s. w. und wird auch bei Blutungen angewandt. Äußerlich dient sie zu Einspritzungen bei Knochenfraß und anderen Krankheiten der Knochen. Gewerblich wird sie benutzt, um Knochen, Elfenbein und dergleichen für verschiedene Bearbeitungen weich zu machen. Auch wendet man sie beim Zeugdruck in neuerer Zeit an, weil sie nicht, wie die Oxalsäure und andere organische Säuren, die Haltbarkeit der Gewebe beeinträchtigen soll. In manchen Fällen dient sie auch zum Löten.

Eine Verbindung des Phosphors spielt in der Natur eine interessante Rolle. Dies ist das Phosphorwasserstoffgas, welches beim Faulen tierischer Stoffe unter Wasser sich entwickelt und beim Emporkommen an die Luft sich von selber entzündet. In der Natur ist es als derjenige Stoff bekannt, welcher die Irrlichter im Moore hervorbringt und zu so vielen gespenstigen Sagen und Aberglauben Veranlassung gegeben hat.

Gestützt auf die Tatsache, daß der Phosphor im menschlichen Gehirn vorzugsweise vorhanden ist, während er allerdings als eine der wichtigsten Grundlagen des gesamten tierischen und pflanzlichen Lebens überhaupt angesehen werden muß - tat Moleschott den allgemein bekannt gewordenen Ausspruch: "Ohne Phosphor kein Gedanke." Nicht lange aber, da sah man denn doch ein, daß diese Behauptung zu weit gegriffen sei, und heutzutage gebraucht man jenen Satz höchstens nur noch scherzweise. - Jedenfalls ist vorauszusehen, daß dem Phosphor in seinem dritten Säculum noch eine außerordentlich weiterreichende Wichtigkeit zu erlangen vorbehalten ist, welche der Menschheit, wenn auch nicht gerade "mehr Licht," so doch andere große Reichtümer verheißt, sei es auf dem Gebiete der Landwirtschaft oder dem anderer Gewerbe, oder in der Heilkunde, oder sei es in allen zugleich."

(Karl Russ, Der Phosphor, in: Westermann's Jahrbuch der Illustrierten Deutschen Monatshefte, 32. Band, Braunschweig 1872, S. 278-291)

Von den Leiden der Arbeiter in den Zündhölzchen-Fabriken

"So sehr auch die Fortschritte der pathologischen Anatomie zur Aufhellung mannigfaltiger Krankheits-Prozesse sowohl als ihrer Produkte beigetragen und so entschieden günstig sich der Einfluss jener Wissenschaft auf die Heilkunde überhaupt, namentlich aber auf die Chirurgie erwiesen hat, so waren es doch noch immer hauptsächlich die Knochen-Krankheiten, welche nicht mit jenen günstigen Resultaten bearbeitet, und daher noch nicht zu jenem Grade von Evidenz erhoben werden konnten, wie es bei den Krankheits-Prozessen so mancher anderer Systeme der Fall ist, und wie es zur Begründung entsprechender therapeutischer Maßregeln als höchst wünschenswert erscheint. Mit wenigen Ausnahmen ist sowohl die Ätiologie und Diagnostik, als auch die Therapie der Knochen-Krankheiten noch in ein - dem heutigen Standpunkte der Wissenschaft keineswegs angemessenes Dunkel gehüllt, und wie hinderlich dieser Umstand unseren Kunst-Bemühungen im Wege steht, davon haben sich bei der Häufigkeit der Knochenleiden die Wundärzte aller Zeiten überzeugt, und sich darüber beklagt. So langsam übrigens auch die Fortschritte der Wissenschaft in diesem speziellen Felde gewesen sein mögen, so ist denn doch kein Stillstand eingetreten, und die in neuester Zeit erwachte rege Tätigkeit in der pathologischen Anatomie und Chemie hat uns nicht umsonst zu weiteren Erwartungen berechtigt. Namentlich aber dürften wir durch die

teils schon gewonnenen, teils noch zu hoffenden ätiologischen Resultate einer bedeutenden Vervollkommnung des erwähnten Gegenstandes entgegensehen können; und in so fern hierzu jede, auch die geringste wissenschaftliche Mittheilung etwas beitragen kann, habe ich mich bewogen gefunden, die nachfolgenden Beobachtungen, welche überdies auch in medicinisch-polizeilicher Hinsicht von hoher Wichtigkeit sein dürften, zu veröffentlichen, und dies um so mehr, als diese Tatsachen - meines Wissens - noch von keinem Andern beobachtet und beschrieben worden sind.

"Es unterliegt wohl keinem Zweifel, dass gewisse mineralische Gifte, besonders bei längerer und allmählicher Einwirkung auf den menschlichen Körper, bestimmte und charakteristische Erscheinungen hervorbringen, aus denen man die Qualität des Giftes mit Gewissheit oder doch mit grosser Wahrscheinlichkeit zu bestimmen im Stande ist. So ist man schon längst mit den Wirkungen einer langsam stattfindenden Blei-Quecksilber-Arsenik-Vergiftung bekannt, und hat die von jedem einzelnen dieser Stoffe hervorgebrachte spezifische Wirkung mit um so grösserer Genauigkeit und Gewissheit kennen gelernt, als gerade diese Substanzen sehr häufig und in grossen Quantitäten verarbeitet werden, und daher um so öfter ihre schädliche Wirkung auf den menschlichen Organismus ausüben. Ich erlaube mir daraus zu schliessen, dass vielleicht eben so, wie diese, auch andere schädliche Stoffe ganz eigentümliche spezifische Erscheinungen im Organismus hervorbringen im Stande sind, welche uns eben so bekannt sein müssten, wenn die Substanzen eben so lange und verhältnismässig in eben so grossen Quantitäten bei den mannigfaltigen technischen Zwecken ihre Anwendung gefunden hätten, und mit dem menschlichen Organismus in Berührung gekommen wären.

Die Bedingungen, unter denen sich diese spezifische Wirkung äussern und vollkommen zu Stande kommen kann, scheinen jedoch vorzüglich in einer **langsamen und durch längere Zeit fortgesetzten allmählichen Einwirkung** dieser Stoffe auf den menschlichen Körper zu liegen. Denn bei jeder akuten Vergiftung wird die Wirkung des Giftes, wenn dessen Gabe zu gering ist, zu sehr von der Individualität modifiziert; ist hingegen die Gabe zu gross, so treten schon schnell zerstörende oder tödliche Wirkungen ein, ehe es noch zur Ausbildung der spezifischen Erscheinungen kommen kann. Aus diesem Grunde sind denn auch häufig bei den verschiedenartigsten Giften ganz gleiche, und bei einem und demselben Gifte oft ganz verschiedene Symptome aufgetreten und geschildert worden, je nachdem das Gift in zu grosser oder in zu kleiner Quantität - bloß als Arzneimittel genommen wurde. Bei einer langsam stattfindenden Vergiftung muss jedoch der Einfluss der Individualität um so geringer sein, als sich nach und nach die Empfänglichkeit des Organismus für diese schädliche, jedoch allmähliche Einwirkung abstumpft, ja der Einfluss der Individualität muss endlich gleich Null werden, wenn es bei fortwirkender Schädlichkeit zur Ausbildung eines bei den verschiedenartigsten Individualitäten gleichartigen cachectischen Zustandes kommt, dessen Entwicklung schon mit der ersten Abstumpfung der Empfänglichkeit des Organismus für das Gift beginnt, und dessen Äußerungen dann im weiteren Verlaufe um so constanter und homogener sein müssen, je langsamer und je weiter derselbe Zustand gediehen ist. Als Beweis hierfür möge die überraschende Ähnlichkeit der Vergiftungs-Symptome bei den Anstreichern (durch Blei), oder bei den Arbeitern in Spiegel-Fabriken (durch Quecksilber), oder bei den Arbeitern in Arsenikhütten (durch Arsenik) gelten, so dass jede von diesen Vergiftungen ein ganz genau bekanntes und im Wesentlichen sich constant bleibendes Krankheitsbild einer besonderen Krankheit darstellt.

Diese Erörterung glaubte ich vorausschicken zu müssen, damit nicht die nachfolgende Auseinandersetzung der eigentümlichen Wirkungen einer langsam stattfindenden Vergiftung durch Phosphor-Dämpfe beim ersten Anblicke als gewagt und unstatthaft erscheinen möge.

Die Wirkungen des Phosphors, der zwar schon im Jahre 1669 von Brandt entdeckt, dessen Gewinnungsart aus den Knochen aber - als die am wenigsten kostspielige und daher die

weitere technische Anwendung desselben am meisten befördernde - erst um hundert Jahre später von Schüle und Gahn gelehrt wurde, hat man größtenteils nur aus einigen Versuchen kennen gelernt, welche entweder mit kleinen Gaben an Menschen, oder mit grösseren an Tieren angestellt wurden. In ersterer Beziehung erwies sich der Phosphor als ein schnell und intensiv, jedoch nur flüchtig aufregendes, auf die Geschlechts-Organen stimulierend wirkendes Mittel, welches jedoch sehr oft in Gefühl von Hitze im Magen, Ekel und Erbrechen hervorbringt. Die Phosphorsäure, welche man nebst ihrer antiseptischen dieselbe Wirkung zuschreibt, wurde auch seit längerer Zeit innerlich als äusserlich bei Caries der Knochen angewandt, ohne dass man sich von der Art und Weise ihrer Wirksamkeit hinreichend Rechenschaft geben zu müssen glaubte. Auch sind alle diese Wirkungen des Phosphors nur von einigen wenigen Fällen, in welchen derselbe in Gebrauch gezogen wurde, abgeleitet, und noch keineswegs durch hinreichende Erfahrungen konstatiert worden. Die Versuche mit grösseren Quantitäten an Tieren haben gelehrt, dass Phosphor, in Öl aufgelöst und in die Venen eingespritzt, in die Lungen gelange, sich in Unterphosphorsäure verwandle und durch Pneumonie bald den Tod herbeiführe. Wird derselbe in fester Form in den Magen gebracht, so erzeugt sich Unterphosphorsäure, und der Tod erfolgt durch Entzündung des Magens mit sympathischen Störungen des Nervensystems, jedoch keineswegs so schnell, als wenn Phosphor in warmem Wasser geschmolzen oder in Öl aufgelöst in den Magen gebracht wird, in welchem Falle bei Erzeugung von Phosphorsäure die Verbrennung am schnellsten vor sich geht, und das Tier unter den fürchterlichsten Convulsionen stirbt. Demnach scheint die schnellere und heftigere Wirkung desselben bei übrigens gleichen Umständen von dem Grade seiner feinen Zerteilung und seiner Oxydation abzuhängen.

Da der Phosphor in früheren Zeiten nicht in so grossen Quantitäten oder nicht unter solchen Verhältnissen, welche seiner Verflüchtigung (durch Oxydation und Erzeugung von phosphorsauren Dämpfen) möglich machten, verarbeitet wurde, so konnte man auch über die Wirkungen einer allmählig stattfindenden Vergiftung durch diese Dämpfe keine hinreichenden Beobachtungen machen. Anders gestaltete sich jedoch die Sache durch die Erfindung des Phosphor- oder sogenannten Reibzündhölzchen, zu deren Erzeugung (welche seit dem Jahre 1834 betrieben wird) man sich des Phosphors in einem sehr fein zerteilten Zustande bedient, und wobei zugleich während des Trocknens die Atmosphäre mit Phosphor-Dämpfen geschwängert wird. In dem Bezirks-Krankenhaus Wieden, in dessen Umgebung sich zufällig mehrere dieser Zündhölzchen-Fabriken befinden, erregte zuerst der Umstand Aufmerksamkeit, dass mehrere Arbeiterinnen aus solchen Fabriken auf die chirurgische Abheilung gebracht wurden, welche sämtlich mit **Necrose der Kieferknochen** behaftet waren. Ihrer Erzählung nach hatten sie alle durch mehrere Jahre in solchen Fabriken, und zwar in denjenigen Localitäten derselben gearbeitet, woselbst die Trocknung der bereits mit Phosphormasse getränkten Zündhölzchen vorgenommen wird. Ihre Leiden hatten sich ihnen anfangs gewöhnlich bloß als Zahnschmerz dargestellt, der bisweilen nachlassend, bisweilen stärker werdend, sich auf einen oder mehrere Zähne am Ober- oder Unterkiefer beschränkte, dann aber auch über den Kieferknochen selbst sich ausbreitete, der endlich auch an Volumen zunahm, und beim Drucke Schmerzen verursachte. Im weiteren Verlaufe stellte sich auch Geschwulst der Weichteile, namentlich des Zahnfleisches und der Wange ein; an letzterer bildete sich dann eine **rotlaufartige Entzündung** aus, die sich oft über die ganze Gesichtshälfte, ja selbst gegen den Hals hin erstreckte; die Kranken wurden von leichtem Fieber befallen, die Haut des ganzen Körpers, namentlich des Gesichts, bekam eine schmutzig-gelbe Farbe, es trat verminderte Esslust mit vermehrtem Durste und Unregelmäßigkeit der Leibesöffnung ein. Der Schmerz erstreckte sich endlich bis in die Ohr- oder Schläfegegend, gleichzeitig wurde auch die Speichelsecretion vermehrt, und es kam oft zu einer vollkommen ausgebildeten Salivation. Einzelne Zähne fingen an stumpf, später locker zu werden, zwischen ihnen und dem Zahnfleische quoll stinkender Eiter hervor, der

sich auch an einzelnen Stellen des Kiefers unter dem Zahnfleische oder der äusseren Haut ansammelte, bei längerem Verweilen sich einen Weg nach aussen oder in die Mundhöhle bahnte, und die Bildung zahlreicher Hohlgänge veranlasste. Verfolgte man die Richtung derselben mit der Sonde, so konnte man sich leicht überzeugen, dass sie sämtlich zum Kiefer selbst führten, der rauh und in größerem oder kleinerem Umfange von den Weichgebilden entblößt gefühlt werden konnte. Die bereits locker gewordenen Zähne fielen nun gänzlich aus, die den Kiefer bedeckenden Weichteile in der Mundhöhle wurden teilweise zerstört, die Schleimhaut zog sich zurück, so dass bisweilen der entblößte Knochen frei in die Mundhöhle hineinragte; dabei verbreitete der copiöse Eiter einen unerträglichen Gestank. - War das Individuum rüstig, und beschränkte sich die Necrose nur auf einen kleineren Theil des Knochens, so sah man die Exfoliation des Knochenstückes und allmähliche Vernarbung erfolgen. Unter entgegengesetzten Verhältnissen, namentlich wenn die Kranken mit scrophulöser Anlage behaftet waren, kam es zur Ausbildung einer **Lungen-Tuberculose mit hektischem Fieber**, und die Kranken gingen nach langwierigen Leiden, unter argen Schmerzen und einem unerträglichen, durch nichts zu beseitigenden Schmerze zu Grunde. Die Section wies dann die weiter verbreitete Necrose der Knochen und die sekundäre Zerstörung der Weichteile, zugleich aber auch ausgebreitete, tuberculöse Lungenleiden nach.

Diese Beobachtungen, welche wir in unseren Krankenhause zu wiederholten Malen zu machen Gelegenheit hatten, mussten natürlich unsere volle Aufmerksamkeit auf die **Ursache** dieses so furchtbaren Übels leiten, und die genauere Erforschung der Verhältnisse, unter denen es zur Ausbildung desselben kommen konnte, herbeiführen, und dies um so mehr, als die Kranken selbst aussagten, dass dieses Übel unter ihren Mitarbeiterinnen eine bekannte Sache sei, dass mehrere an demselben schon gelitten hätten und noch leiden, so lange sie aber zur Arbeit fähig seien, nicht in eine Spital gehen wollten.

Beschaffenheit der Arbeits-Localen in den Phosphor-Zündhölzchen-Fabriken. Um zu der Überzeugung zu gelangen, ob überhaupt eine so grosse Menge Phosphor-Dämpfe bei der Trocknung dieser Reibzündhölzchen entwickelt werde, dass dieselbe der Gesundheit nachtheilig werden könne, und ob die Arbeiterinnen mit diesen schädlichen Dämpfen in unmittelbare Berührung kommen oder nicht, wurde es vor allem andern notwendig, diese Localitäten selbst genau kennen zu lernen. Eine diesfalls angestellte Besichtigung dreier in der Nähe des Bezirks-Krankenhauses gelegenen Fabriken, in denen die bisher bekannt gewordenen Kranken gearbeitet hatten, ergab, dass in sämtlichen Localen, welche theils zum Trocknen der getränkten Hölzchen, theils als Arbeitszimmer der Mädchen verwendet wurden, eine in hohem Grade mit Phosphor-Dämpfen geschwängerte Atmosphäre von durchdringendem eigentümlichen Geruche herrschte. In zweien der Fabriken waren zwar für die Trocknung der Reibzündhölzchen eigene Verschläge angebracht, welche behufs der Ableitung der Dämpfe mit eigenen Röhren versehen waren. Jedoch müssen diese Verschläge, welche sich im Arbeitszimmer selbst befinden, fast ununterbrochen geöffnet werden, theils um die bereits trocken gewordenen Hölzchen hervor zu nehmen, und frische an ihre Stelle zu bringen, theils um öfters vorsichtshalber nachzusehen, da es sich bei der hohen Temperatur, die behufs der Trocknung angewendet wird, und die beiläufig 30° R. beträgt, zuweilen ereignet, dass sich eine ganze Partie solcher Zündhölzchen entzündet. In der dritten Fabrik werden die Reibzündhölzchen zwar nur bei einer Temperatur von 18-20° R., jedoch in offenen, ringsum an den Wänden befindlichen Fächern getrocknet, und die Ventilation daselbst geschieht nur mittelst kleiner, in der Höhe angebrachter Fenster. - In der unmittelbaren Nähe dieser verschiedenen Trocknungs-Apparate oder im Trocknungs-Localen selbst befinden sich nun die Arbeiterinnen sämtlicher drei Fabriken den ganzen Tag hindurch, sind somit einer mit Phosphor-Dämpfen stark geschwängerten Atmosphäre, in welcher sie sogar den grössten Theil ihrer Nahrungsmittel verzehren, 12-13 Stunden hindurch fast ununterbrochen

ausgesetzt, und durch die besonders im Sommer sehr unangenehme hohe Temperatur der Luft und den widrigen Geruch derselben belästigt.

Menge des täglich verarbeiteten Phosphors. Während nun einerseits die Beschaffenheit der Trocknungs-Apparate, trotz der angebrachten Ableitungsröhren, den Übertritt der Phosphor-Dämpfe in die Arbeits-Locale offenbar gestattet, so geschieht andererseits die Entwicklung solcher Dämpfe in einer so bedeutenden Quantität, dass es selbst bei der grössten Vorsicht und bei vollkommen guter Absperrung schwer sein dürfte, die an die Trocknungs-Apparate anstossenden Zimmer von diesen schädlichen Dämpfen frei zu halten. Denn es beträgt die Menge des täglich verarbeiteten Phosphors in jeder einzelnen Fabrik $2\frac{1}{2}$ bis 4 Pfund. Jedes Pfund Phosphor, welches mit der 8fachen Menge Bindungsmittel subigiert wird, liefert beiläufig 600,000 Zündhölzchen, so dass in 78 Zündhölzchen 1 Gran Phosphor enthalten sein dürfte. Nimmt man nun die Oberfläche eines einzelnen, von der Zündmasse gebildeten Köpfchens gleich $2\frac{1}{2}$ Linien an, so bilden die von einem Pfunde Phosphor erzeugten 600,000 Zündhölzchen-Köpfchen zusammen eine Oberfläche von $57\frac{1}{2}$ Schuh. Da der in der Masse enthaltene Phosphor den 9. Theil derselben beträgt, so dürfte die Fläche, an welcher der fein zerteilte Phosphor allein mit der Atmosphäre in Berührung tritt (bei gleichmäßiger Mischung der Masse) beiläufig den 9. Theil hievon, somit $6\frac{1}{3}$ Schuh betragen. Dies ist jedoch schon bei der Erzeugung von 600,000 Zündhölzchen der Fall, aus 1 Pfd. Phosphor; nun erzeugt aber jede Fabrik täglich die 3-4fache Menge, somit wird in jeder derselben täglich eine Phosphor-Oberfläche von 20-25 Schuh \square einer ziemlich erwärmten Luft ($20-30^{\circ}$ R.) ausgesetzt, wodurch dann notwendig eine bedeutende Menge Dämpfe entwickelt werden müssen, abgesehen von jenen, die oft durch das Verbrennen einer ganzen Partie solcher Zündhölzchen in dem Trocknungs-Apparate (Erzeugung von wasserfreier Phosphorsäure) entstehen.

Bereits bekannt gewordene Krankheitsfälle. Betrachtet man alle die schädliche Einflüsse insgesamt, denen die in solchen Fabriken arbeitenden Mädchen ausgesetzt sind, und bringt man hierzu noch ihre sonstigen, größtenteils misslichen Verhältnisse, den Mangel an einer gesunden, leicht verdaulichen Kost, ihre größtenteils feuchten, dumpfigen Wohnungen, in der Mehrzahl der Fälle wohl auch eine bereits ausgebildete Skropfel- oder Tuberkelsucht in Anschlag, so erscheint es fast wunderbar, dass überhaupt diese Arbeiterinnen oft Jahre lang unter diesen höchst ungünstigen Einflüssen leben können, und dass sich nicht schon früher die Erscheinungen der sich bei ihnen entwickelnden eigentümlichen Intoxication kund gegeben haben. Aber eben dieser Umstand muss uns hier notwendig zu der Überzeugung führen, dass das endlich zum Ausbruch kommende Leiden nicht ein kürzlich und zufällig entstandenes sei, sondern dass dasselbe durch lange Zeit im Organismus vorbereitet werden müsse. In den ersten Jahren der Fabrikation dieser Phosphor-Zündhölzchen, welche schon seit 10 Jahren im Grossen betrieben wird, mangelt es durchaus an Beobachtungen über die eigentümliche Erkrankung der Arbeiterinnen, sei es nun, dass zartere oder im höheren Grade cachectische Individuen den schädlichen Einflüssen überhaupt früh unterlegen sind, ehe es zur Ausbildung der specifischen Wirkung der Phosphor-Dämpfe kommen konnte, oder dass etwa schon vorgekommene Fälle der genaueren Beobachtung entgangen sind. Der erste Fall, in welchem Necrose der Kiefer beobachtet wurde, kam vor fünf Jahren (1839) bei einer schon älteren Frauensperson vor, die seit langer Zeit schon in Zündhölzchen-Fabriken gearbeitet hatte. Da dieselbe ein ziemlich leichtfertiges Leben führte, so betrachteten ihre Mitarbeiterinnen dieses Leiden als die Folge eines ausschweifenden Lebenswandels. Die Kranke starb nach langem schmerzvollen Siechtume. Im nächsten Falle entwickelte sich das Übel am Unterkiefer bei einer 32jährigen Arbeiterin, A. D., im Jahre 1842, welche im Jänner 1843 zur ärztlichen Behandlung in das Bezirks-Krankenhaus Wieden gebracht wurde, und daselbst am 17. Mai 1843 am Zehrfieber starb. Da sich nun zufällig alle diese Phosphor-Zündhölzchen-Fabriken in der Nähe des Bezirks-Krankenhauses Wieden befinden, und die darin erkrankten Arbeiterinnen fast sämtlich in dieser Anstalt Hülfe suchten, so mussten diese häufig

vorkommenden Fälle von Necrose der Ober- oder Unterkiefer, welche in einer grösseren Anstalt vielleicht zerstreut und unbeachtet geblieben wären, notwendig in unserer Anstalt Aufsehen erregen, woselbst die Zahl der Kranken keine so grosse ist, dass man nicht auf die Erforschung der ätiologischen und anamnestischen Momente die grösste Sorgfalt legen könnte. Im Jahre 1843 kamen 4 neue Fälle vor, in zweien derselben breitete sich die Necrose über beide Oberkiefer und die anstossenden Gesichtsknochen; alle diese drei Fälle waren mit Lungen-Tuberculose compliciert, und verliefen (1844) tödlich; in einem vierten Falle war die Necrose nur auf einen Theil des Unterkiefers beschränkt, es erfolgte bei übrigens guter Constitution der Kranken Exfoliation und vollständige Heilung. Auch im Jahre 1844 sind abermals drei andere Fälle bekannt geworden, in einem ist totale Necrose beider Oberkiefer, in einem partielle Necrose des linken Oberkiefers, in dem dritten partielle Necrose des Unterkiefers vorhanden, und sämtliche drei Kranke befinden sich gegenwärtig noch in Behandlung.

Erklärung der Entstehungsweise des Übels. Die eben erwähnten Verhältnisse, unter denen diese Arbeiterinnen oft Jahre lang zubringen, in Verbindung mit den ganz eigentümlichen Krankheits-Erscheinungen, die sich im Wesentlichen immer gleich bleiben, und nur an Intensität und Extension voneinander verschieden sind, erheben es wohl schon über allen Zweifel, dass man es hier nur mit der Ursache und deren Wirkung zu tun habe; denn es würde schwer sein, anzunehmen, dass diese an den Kieferknochen vorkommende Mortification bloß eine zufällige oder durch anderweitige Krankheits-Prozesse bedingte sei, besonders wenn man noch in Anschlag bringt, dass in sämtlichen drei Phosphor-Zündhölzchen-Fabriken zusammen nur ungefähr 100 Arbeiterinnen beschäftigt sind, und dass die Necrose der Kieferknochen denn doch keine so ganz gewöhnliche und häufig vorkommende Krankheit ist. In letzterer Beziehung ist sogar zu erwähnen, dass auf der chirurgischen Abtheilung des Bezirks-Krankenhauses Wieden, an welcher doch jährlich 250-300 Kranke behandelt werden, seit den drei Jahren ihres Bestehens noch nie eine Necrose an den Kiefern beobachtet wurde, die nicht an einer solchen Arbeiterin aus einer der Phosphor-Zündhölzchen-Fabriken vorgekommen wäre. Auch ist bisher kein solcher Fall bekannt, wo ein ähnliches Übel bei den Mädchen aus einer andern Fabrik, in welcher bloß gewöhnliche Chlorzündhölzchen verfertigt werden, beobachtet worden wäre; im Gegenteil bringt die in diesen letzteren Fabriken herrschende Atmosphäre ganz eigentümliche Krankheits-Erscheinungen hervor, auf welche ich noch später zurückkommen werde.

Ich habe bereits erwähnt, dass man bei dem ersten vorgekommenen Falle das Übel dem ausschweifenden Lebenswandel der Erkrankten (der Syphilis) zugeschrieben hatte, und es mag diese Meinung auch später zur Beruhigung der andern Arbeiterinnen hauptsächlich gedient haben. Jedoch habe ich in keinem der von mir beobachteten Fälle weder primäre noch secundäre Erscheinungen der Lustseuche entdecken können, ja bei einem verdächtig gemachten Mädchen, die an Necrose der Oberkiefer litt, zeigte sich sogar das ziemlich straffe Hymen noch vollkommen unverletzt, und es liess sich nicht die geringste Spur einer stattgefundenen Infection oder einer anderweitigen verdächtigen Erscheinung nachweisen.

Auch könnte man aus dem Umstande, dass das Übel öfter in scrophulösen und tuberculösen Subjecten vorkam, den Schluss ziehen wollen, dass vielleicht das Knochenleiden nur im Gefolge dieser allgemeinen Cachexien entstanden sei. Aber abgesehen davon, dass die Scrophel- und Tuberkelsucht doch nur höchst selten Necrose der Kieferknochen erzeugt, sondern im Gegentheil mit cariöser Zerstörung der Gelenksenden der Knochen verläuft, so muss hier noch insbesondere in Betracht gezogen werden, dass diese eigentümliche Krankheitsform auch an übrigens gesunden, von der Scrophel- und Tuberkelsucht freien Individuen vorgekommen ist, und dass, wenn selbst bei einigen Kranken eine scrophulöse Anlage nicht gelegnet werden kann, dieselbe doch in gar keinen Verhältnisse zu den weit gediehenen Zerstörungen der Knochen stand. Die mehrere Male beobachtete Komplikation

mit Lungen-Tuberculose lässt sich übrigens aus den schädlichen Einflüssen, von denen ganz natürlich die Respirations-Organen ebenfalls getroffen werden mussten, vollkommen erklären, so dass man beide Übel als von derselben Ursache abstammend, und mit einander sich entwickelnd betrachten muss. Dass übrigens eine etwa vorhandene scrophulöse Anlage die frühere Entwicklung dieses Leidens unter den früher beschriebenen Verhältnissen begünstige, lässt sich keineswegs in Abrede stellen, da von den Arbeiterinnen, welche in Phosphor-Zündhölzchen-Fabriken beschäftigt sind, größtenteils nur scrophulöse Subjekte ergriffen wurden, und kräftigere und gesündere Individuen hievon mehr verschont blieben. Welchen Einfluss jedoch weiterhin diese schädlichen Potenzen in dergleichen Fabriken auf die Constitution rüstiger und gegenwärtig noch gesunder Individuen ausüben werden, lässt sich vor der Hand noch nicht bestimmen, da die Zeit der über diesen Gegenstand angestellten Beobachtung noch zu kurz ist.

Lässt sich also bei der Häufigkeit des Vorkommens dieser besonderen Krankheitsform als Ursache hievon kein anderes Allgemeinleiden annehmen, so muss man diese wohl nur in der specifischen Wirkung der beständig auf solche Individuen einwirkenden Schädlichkeit, d. i. in den Phosphor-Dämpfen suchen. Diese specifische Wirkung des Phosphors auf den menschlichen Organismus ist eine höchst wichtige und wissenschaftliche Tatsache, welche bisher noch nirgends bekannt war, und auch aus der Ursache nicht bekannt sein konnte, weil man früher nie mit so grossen Quantitäten Phosphors unter solchen Verhältnissen gearbeitet hat, welche die Verflüchtigung desselben und die Einwirkung auf viele Individuen zugleich so begünstigt hat.

Warm sollte man auch bei dem Phosphor diese specifische Wirkung leugnen sollen, welche er auf einzelne und gewissen Theile des Organismus ausübt, nachdem es doch von andern, besonders mineralischen Substanzen schon lange bekannt ist, dass dieselben bei längerer Einwirkung auf den menschlichen Körper fast immer nur gewisse einzelne, nach Verschiedenheit der Stoffe verschiedene Organe am bedeutendsten zu afficieren pflegen. Es scheint sogar schon von einem andern Stoffe eine ähnliche Wirkung wie die des Phosphors beobachtet worden zu sein, da nämlich von den, bei den Sudkesseln gewisser Salinenbergwerken beschäftigten Arbeitern ebenfalls Beispiele eigentümlicher Affectionen der Gesichtsknochen bekannt sind, welche dem Einflusse der sich entwickelnden Brom-Dämpfe zugeschrieben werden. Es handelt sich jedoch weiterhin um die Beantwortung der Frage, auf welche Weise diese dem Phosphor eigentümliche Wirkung zu Stande komme, ob dieselbe nur als ein örtliches Leiden zu betrachten sei, und nur aus der unmittelbaren chemischen Einwirkung des Phosphors auf die organischen Gebilde hervorgehe, oder ob der örtlich sich entwickelnde Prozess nur der Reflex eines tiefer in der Organisation wurzelnden eigentümlichen Allgemeinleidens sei.

Nachdem die Arbeiterinnen in dem mit Phosphor-Dämpfen erfüllten Gemache den grössten Theil des Tages zubringen, diese verdorbene Luft ununterbrochen einatmen, und wohl auch durch den Genuss mannigfaltiger Nahrungsmittel innerhalb dieser Locale in den Magen bringen, so ergibt sich daraus, dass diese Dämpfe nicht nur auf die Haut, sondern auch auf die empfindlicheren Schleimhäute der Mund- und Nasenhöhle einwirken, einerseits in die Bronchien und Lungen, andererseits in den Verdauungstrakt gelangen, und somit auf die so wichtigen Organe der Verdauung und Blutbereitung den nachtheiligsten Einfluss üben müssen, da es für den menschlichen Organismus nicht gleichgültig sein kann, wenn gerade diese mit den wichtigsten Funktionen der reproductiven Seite des Lebens beschäftigten Eingeweide der beständigen Einwirkung eines feindseligen Körpers ausgesetzt sind. Die anfangs nur geringe Störung, welche durch diese Schädlichkeit gesetzt wird, muss jedoch notwendig vergrößert werden, wenn diese verderblichen Einflüsse mehrere Jahre lang ihre Wirkung äussern können. Es wird zwar bei fortdauernden Schädlichkeiten der Organismus die grössere Empfindlichkeit für dieselben nach und nach verlieren, sich abstumpfen, und

somit weniger intensiv gegen dieselben reagieren, jedoch geschieht eine solche Angewöhnung an gewisse feindliche Potenzen immer nur auf Kosten des allgemeinen Gesundheits-Zustandes, so dass sich der gesamte Lebensprozess von der idealen Norm immer mehr und mehr entfernt, und endlich zum Siechtume herabsinkt. Dass es unter so ungünstigen Einflüssen, wobei die Verdauung und Blutbereitung auf so augenfällige Weise beeinträchtigt werden, und unter so langer Einwirkung derselben zur Ausbildung eines allgemeinen cachectischen Zustandes kommen müsse, lässt sich nicht nur schon a priori annehmen, sondern es zeigt sich dies auch in der Erfahrung. Schon in dem Gesichts-Ausdrucke, der Hautfarbe, noch viel mehr in den Funktionen der Brust- und Unterleibsorgane solcher erkrankter Personen lässt sich das allgemeine Siechtum selbst dann nicht verkennen, wenn auch das örtliche Leiden nur von geringem Umfange, und somit weniger nachtheiligen Einfluss auf den Gesamt-Organismus auszuüben im Stande ist.

Allgemeinleiden. Im geringen Grade der Krankheit charakterisiert sich das entstehende Allgemeinleiden durch eine blasse, bisweilen schmutziggelbe gedunsene Haut, namentlich im Gesichte, einem matten trüben Blick, Mangel an Esslust oder im Gegenteile durch heftige Begierde nach Speisen, durch gastrische Beschwerden, öfteres Aufstossen, Unregelmäßigkeit im Stuhlgange, endlich durch zeitweise sich einstellenden Catarrh der Nasen- und Bronchialschleimhaut, beängstigende Gefühle in der Brust, Kurzatmigkeit, tuberculöse Ablagerungen in den Lungen, Mattigkeit des ganzen Körpers und leichte, des Abends sich einstellende Fieberbewegung.

Im höheren Grade der Krankheits-Entwicklung treten hauptsächlich die Erscheinungen der allgemeinen Tuberculose auf; insbesondere sind es die Respirations-Organe, welche mit grosser Rapidität dem durch die Schmelzung der abgelagerten Tuberkel-Massen entstandenen Zerstörungsprozesse zueilen; es kommt zur Ausbildung von Kavernen, serösen oder eiterigen Exsudaten in der Brusthöhle, zu tuberculöser Infiltration der Mesenterial-Drüsen, tuberculösen Geschwüren im Darmtrakte u. s. w. Jetzt beginnt auch das weiter entwickelte örtliche Leiden seinen Einfluss auf die gesamte Constitution auszuüben. Durch die stinkende Jauche, welche aus den zahlreichen Hohlgängen gegen die Mundhöhle hin abfließt, und oft einen sehr heftigen Speichelfluss erregt, wird nicht nur die zu atmende Luft fortwährend verdorben, sondern es mischen sich diese scharfen Secrete auch den genossenen Speisen bei, gelangen somit in den Magen und verderben dadurch die Verdauung um so mehr. Das Fieber wird heftiger und endlich ein wahres Zehrfieber, zahlreiche Diarrhöen, copiose Schweisse und Schüttelfröste bilden die Schluss-Scene.

Welche chemischen Veränderungen durch den Einfluss des Phosphors in der Blutmasse vorgehen mögen, lasse ich unberührt, da uns hierüber vielleicht die pathologische Chemie einige nähere Bestimmungen liefern dürfte. Immerhin scheint jedoch die Blutmasse auf eine wesentliche Weise verändert zu werden, und der schädliche Einfluss, der dadurch gerade auf die Knochen ausgeübt wird, ließe sich vielleicht mit dem Umstande in Verbindung bringen, dass es gerade die Knochen sind, welche den meisten Phosphorgehalt unter allen übrigen Organen darbieten. Sollte sich wohl die Natur des im Blute enthaltenen, und eben in jene Knochen abgelagerten überschüssigen Phosphor-Gehaltes entledigen wollen?

Einfluss der örtlichen Einwirkung des Phosphors auf die Kieferknochen. Was nun den Umstand anbelangt, dass es gerade die Kieferknochen sind, welche dieser Necrosierung konstant unterliegen, so bin ich sehr geneigt, der unmittelbaren Einwirkung der beim Atmen durch die Mund- und Nasenhöhle strömenden Phosphor-Dämpfe auf die Schleimhaut des hier befindlichen Kieferknochen-Gerüsts einigen, obwohl nur untergeordneten Antheil zuzuschreiben, und anzunehmen, dass, wenn einerseits von der Einwirkung des Phosphors auf die gesamte Constitution überhaupt die Tendenz zur Necrosierung einzelner Knochenpartien erzeugt wird, andererseits die Localisirung dieses Krankheitsprozesses von der unmittelbaren

chemischen Einwirkung der Phosphor-Dämpfe auf die Schleimhaut der Kieferknochen, und mittelbar durch diese vielleicht auch auf das Periostium und den Knochen selbst - abhängig sei. Die Necrose der Knochen nur als ein örtliches Leiden anzunehmen, das von dem bloßen chemischen Einwirken des Phosphors auf die Mundschleimhaut und die Zähne bedingt sei, erscheint schon aus dem Grund unstatthaft, weil der Gesamtorganismus sich schon in Mitleidenschaft befindet, ehe noch die Necrose sich vollständig ausbildet, und weil in dem erwähnten Falle zuerst und vorzugsweise die Schleimhaut und die Zähne ergriffen werden müssten, von welchen aus sich erst das Übel auf die weiteren Knochenpartien fortpflanzen würde. Dies ist aber keineswegs der Fall. In den meisten Fällen nehmen die Weichteile der Mundhöhle und die Zähne nur einen secundären und untergeordneten Antheil an dem Krankheitsprozesse, indem erst bei weit gediehener Necrose durch die bedeutende Eiterung und die gebildeten Hohlgänge das Zahnfleisch stellenweise zerstört wird, die Schleimhaut des harten Gaumens sich aber bloß vom Knochen ablöst, und gegen den weichen Gaumen hin als eine runde Wulst zurückzieht. Die Zähne beginnen erst bei schon vollendeter Necrose locker zu werden und auszufallen. Ja, es beginnt sogar das Knochenleiden nicht immer an der der Mundhöhle zugekehrten Knochenfläche, sondern gerade an der entgegengesetzten, z. B., wie eben gegenwärtig sich ein Fall in Behandlung befindet, am Jochfortsatze, wobei sich der gebildete Eiter durch die Wangenhaut einen Weg gebahnt hat, während die Schleimhaut und die Zähne, ferner die Gaumen- und Zahnfächerfortsätze noch vollkommen unversehrt sind.

Erscheinungen der Intoxication durch Chlor-Dämpfe. Es dürfte vielleicht nicht ohne Interesse sein, auch die Erscheinungen hier anzuführen, welche bei den Arbeiterinnen in Chlor-Zündhölzchen-Fabriken in Folge des beständigen Aufenthaltes in einer mit Chlor-Dämpfen geschwängerten Atmosphäre bisweilen auftreten, und gewissermaßen das Bild einer langsam entstehenden Chlor-Vergiftung darbieten. Dieselbe stellt im Allgemeinen einen schleichend verlaufenden entzündlichen Prozess an der Schleimhaut der Bronchien und des Magens dar. Mädchen, die sich früher eines blühenden gesunden Aussehens erfreuten, bekommen nach längerer oder kürzerer Zeit ihrer Beschäftigung in den Chlor-Zündhölzchen-Fabriken einen blassen, schmutzig gelben, leichenhaften Teint mit Aufgedunsenheit des Gesichtes. Bei länger fortgesetzter Arbeit gesellt sich eine fieberhafte Aufregung hinzu, an der Teilungsstelle der Luftröhre klagen die Kranken über ein kratzendes Gefühl, bei leichter Oppression auf der Brust belästigt sie dennoch ein beständiges Husteln ohne Auswurf, die Magengegend wird empfindlich, beim Drucke schmerzhaft, die Esslust liegt vollkommen darnieder, und fast ununterbrochen ist Brechneigung vorhanden. Mehrere solcher Kranken suchten in unserem Bezirks-Krankenhaus Hülfe, und wurden daselbst auf der medicinischen Abtheilung des dirigierenden Herrn Primararztes Dr. Dietl, dessen Güte ich eben diese Mittheilung verdanke, behandelt. Nachdem dieselben durch längere Zeit den schädlichen Einflüssen entzogen waren, trat bei gleichzeitigem Gebrauche von Ölmixturen gewöhnlich bald die erwünschte Besserung ein.

Therapie. Über die Behandlungsweise des durch Phosphor-Dämpfe erzeugten eigentümlichen Übels bleibt nur wenig zu sagen übrig. Leider sind wir bisher zu der traurigen Erfahrung gekommen, dass der Kunst nur sehr wenige Mittel zu Gebote stehen, die vielen Leiden der Kranken nur einigermaßen zu erleichtern und zu lindern, geschweige denn eine vollkommene Heilung herbeizuführen. Nur die leichteren Fälle sind es, bei welchen unter günstigen Verhältnissen noch die Hoffnung, das Leben der Kranken zu erhalten, übrig bleibt. Das erste und notwendigste Mittel, um den schnellen Fortschritten, der Zerstörung Einhalt zu tun, bleibt immer die Entfernung der Kranken von ihrer Beschäftigung. Leider aber wird diese Maßregel von ihnen gewöhnlich so lange verschoben, bis ihr Leiden schon den höchsten Grad erreicht hat und sie zu jeder Arbeit unfähig gemacht hat. Ist die Necrose nur auf einen Theil des Knochens beschränkt, so sind hauptsächlich erforderlich: fleißige Reinigung des Mundes mit adstringierenden Decocten (bei üblem Geruche mit Zusatz von *Tinct. myrrhae*), warme

Überschläge auf die entsprechende, gewöhnlich ödematös infiltrierte Gesichtshälfte, eine gute, leicht verdauliche Kost, Bewegung in der frischen Luft, laue allgemeine Bäder - innerlich der Gebrauch von bitteren, tonischen, die Verdauung betätigenden Mitteln. Gelingt es auf diese Weise, der Knochenzerstörung Grenzen zu setzen, so erholen sich allmählig die Kranken, es tritt Exfoliation und endlich Heilung ein. Aber die Zerstörung erstreckt sich oft mit grosser Schnelligkeit über die weitere Ausdehnung des Knochens, ohne dass von aussen bedeutende Erscheinungen bemerkt würden; alle Bemühungen der Kunst bleiben dann völlig fruchtlos, und die Behandlung kann nur immer eine palliative sein. Die copiose Eitersecretion erfordert oft wiederholte Einspritzungen in die gebildeten Hohlgänge, fleißiges Ausgurgeln mit adstringierenden Mundwässern, denen geistige und aromatische Mittel beigegeben werden. Bei dem sich einfindenden Speichelflusse leistete das öftere Ausspülen des Mundes mit kaltem Wasser noch die besten Dienste, alle übrigen Mittel blieben erfolglos. Bei den heftigen Schmerzen, die besonders bei Necrose des Oberkiefers sich gegen das Ohr und die Schläfe hin erstrecken, und den Kranken allen Schlaf raubten, konnten selbst die stärksten Narcotica nur wenig Linderung gewähren. Ganz unerlässlich erscheint hingegen das fleißige Lüften des Zimmers, Räucherungen mit Wachholderholz, salpetersauren Dämpfen, ja es wurde sogar die gänzliche Separierung der Kranken von den übrigen nothwendig, da nebst dem unerträglichen Gestank auch noch der Anblick solcher Leiden für die Umgebung ein wahrhaft schaudererregender und unerträglicher ist.

Vorsichtsmaßregeln. Von weit grösserer Wichtigkeit, als die Behandlung des schon ausgebildeten Leidens muss jedoch die Verhütung desselben durch zweckmäßige prophylaktische Mittel erscheinen. Dahin dürfte vor allen andern eine geeignete Einrichtung der Localitäten gehören, in denen die Phosphor-Zündhölzchen erzeugt werden, namentlich aber die Separierung der Trocknungs-Apparate von den Arbeitszimmern. Am zweckmäßigsten würde es freilich sein, wenn diese Phosphor-Zündhölzchen und Zündschwämme nur im Sommer verfertigt würden, und daher in der Sonne oder im Schatten unter freistehenden, der Luft von allen Seiten zugänglichen Localitäten getrocknet werden könnten. Die Arbeitszimmer selbst sollten mit den gehörigen Ventilations-Apparaten versehen sein, und einige Mal im Tage durch Öffnen aller Fenster und Türen vollkommen ausgelüftet werden. Schwächliche, scrophulöse und tuberculöse Individuen sollten zu dieser Arbeit gar nicht zugelassen werden, den Arbeiterinnen aber überhaupt verboten werden, ihre Nahrungsmittel in den Arbeits-Localen selbst aufzubewahren oder zu verzehren. Damit aber dennoch bei Entstehung des Übels gleich anfangs Hülfe geleistet, und die weitere Ausbildung desselben verhütet werden könne, dürfte es nothwendig erscheinen, sämtliche Arbeiterinnen unter die unmittelbare Aufsicht eines Arztes zu stellen. Zu solchen Beschäftigungen, welche in oder bei den Trocknungs-Apparaten vorgenommen werden müssen, sollten nur sehr kräftige und gesunde Individuen, vielleicht einige starke, rüstige Männer verwendet werden, welche öfter des Tages im Dienste mit einander abwechseln.

Als **Anhang** folgt nun eine Übersicht sämtlicher bisher bekannt gewordener Krankheitsfälle und zum Schlusse einige Geschichten der bis zu der höchsten Entwicklung gediehenen Krankheit.

Übersicht

sämtlicher bisher bekannt gewordenen Fälle von Necrose der Kieferknochen bei Arbeiterinnen in Phosphor-Zündhölzchen-Fabriken

Nr.	Name und Alter in Jahren	Arbeitszeit	Necrose des Oberkiefers		Necrose des Unterkiefers		Zeit der Dauer	Genesen	Gestorben	In Behandlung
			totale	partielle	totale	partielle				

1	M. N. 40 J.	5 Jahre	1	-	-	-	1 Jahr	-	1	-
2	A. D. 32 J.	6 Jahre	-	-	1	-	6 Mon.	-	1	-
3	F. K. 23 J.	8 Jahre	1	-	-	-	9 Mon.	-	1	-
4	T. K. 27 J.	6 Jahre	-	-	-	1	5 Mon.	1	-	-
5	A. F. 21 J.	5 Jahre	-	-	1	-	7 Mon.	-	1	-
6	E. A. 23 J.	7 Jahre	1	-	-	-	1,5 Jahre	-	1	-
7	W. B. 19 J.	5 Jahre	1	-	-	-	6 Mon.	-	-	1
8	T. E. 19 J.	4 Jahre	-	1	-	-	3 Mon.	-	-	1
9	K. H. 22 J.	9 Jahre	-	-	-	1	5 Mon.	-	-	1
zusammen			4	1	2	2		1	5	3

Necrosis maxillae superioris utriusque

K. F., 23 Jahre alt, Handarbeiterin, ein gutgenährtes Mädchen von etwas scrophulösem Habitus, arbeitete schon in ihrer frühesten Jugend in Zündhölzchen-Fabriken, ohne einen bedeutenden Nachtheil an ihrer Gesundheit zu erleiden. In den letzten 8 Jahren war sie fast ununterbrochen in Phosphor-Zündhölzchen-Fabriken gewesen, und erst im Frühlinge des Jahres 1843 fing sie an über ziehende Schmerzen gegen die Schläfe hin zu klagen, wozu sich eine erysipelatöse Anschwellung beider Gesichtshälften gesellte. Da sie ihre Arbeit nicht unterbrach, so entwickelte sich ihr Übel ziemlich rasch. Einige Zähne im Oberkiefer waren locker geworden und fielen aus; aus den entstandenen Öffnungen entleerte sich dicker, übelriechender Eiter; die Anschwellung des Gesichtes nahm zwar von Zeit zu Zeit etwas ab, jedoch blieb die Haut daselbst immer etwas gerötet, und war ziemlich derb anzufühlen. Am 7. Juli 1843 kam die Kranke in das Bezirks-Krankenhaus. Das Gesicht war aufgetrieben, das Zellgewebe daselbst zum Theil ödematös infiltriert, zum Theil sclerosirt. Unter dem linken Augenhöhlenrande hatte sich eine kleiner Abscess ausgebildet; die meisten Zähne waren abgängig, die noch vorhandenen locker, von nussfärbigen Ansehen. Aus mehreren Öffnungen der Schleimhaut des Oberkiefers quoll übelriechende Jauche; die Untersuchung mit der Sonde lehrte, dass beide Oberkiefer in ihrem ganzen Umfange rau und von den Weichteilen entblößt anzufühlen waren, die Speichelsecretion war vermehrt. Appetit ziemlich gut, die Zunge belegt, Husten mit wenig dickem, zähem, eiterartigem Auswurfe, der Bauch aufgetrieben, nicht sehr empfindlich; die Stuhlentleerung träge; die Haut des ganzen Körpers schlaff, von gelblich schmutziger Farbe; der Puls ein wenig aufgeregt; Abends leichte Fieberbewegungen. Im Verlaufe von mehreren Wochen blieb der Gesundheits-Zustand der Kranken so ziemlich derselbe, ausser dass das Zahnfleisch am oberen Zahnfächerrande allmählig resorbiert oder aber durch Eiterung zerstört wurde, dergestalt, dass sich späterhin die Schleimhaut des harten Gaumens, welche nach vorne hin keine Befestigung mehr hatte, hinter den rauhen Knochen gegen das Gaumensegel zurückzog. Das Gaumengewölbe beider Oberkiefer samt dem Zahnfächerrande ragte somit vollkommen entblößt und frei in die Mundhöhle hinein. Anfangs gebrauchte die Kranke Rheum, Sulphur, Jod, späterhin *Decoct. lignorum*, ohne die geringste Besserung in ihrem Allgemeinbefinden. Allgemeine Bäder und der Gebrauch eines adstringierenden Gurgelwassers waren die Mittel, welche im weiteren Verlaufe der Krankheit noch am meisten zusagten. Die Diät blieb hierbei eine mäßige, leicht verdauliche und nährnde. Im Monate November bildete sich nach vorausgegangenem heftigen Schmerze ein Abscess am Mittelfleische, welcher eröffnet und mit lauen Fomenten und Sitzbädern behandelt wurde. Vorzüglich belästigten die Kranke nächtliche reissende Schmerzen in der Schläfengegend, welche besonders bei Temperatur-Veränderungen und bei eintretendem nasskalten Wetter einen so hohen Grad erreichten, dass die Kranke die Nächte schlaflos zubrachte; auch der Husten, welcher bisher nur mäßig gewesen war, wurde nun stärker, der Auswurf eiterförmig und copiös. Die necrotischen Oberkiefer begannen allmählig locker zu werden, und veranlassten die Kranke, dieselben öfters hin und her zu bewegen, welches jedoch immer heftige Schmerzen nach sich zog. Im Monate December waren bereits alle Zähne ausgefallen, und die Secretion der Jauche, welche aus mehreren Hohlgängen in die

Mundhöhle entleert wurde, war so bedeutend, dass selbst die fleißigste Reinigung des Mundes nicht im Stande war, den für die Kranke und ihre Umgebung unerträglichen Gestank zu verscheuchen. Dabei nahmen die Kräfte der Kranken immer mehr ab, das Fieber wurde bedeutender, es traten häufige und erschöpfende Schweisse ein, der Appetit war gänzlich verschwunden, die Darmentleerungen äusserst träge, so dass beinahe immer nur auf die Verabreichung stärkerer Purganzen Öffnung erfolgte. Im Monate Jänner 1844 verschlimmerte sich der Zustand der Kranken von Tag zu Tag, bis endlich nach vorausgegangenen Schüttelfrösten selbst das Bewusstsein der Kranken verschwand, und der Tod ihrem Leiden ein Ende machte.

Sectionsbefund. Das Schädelgewölbe normal gebaut, die harte Hirnhaut längs dem Sichelbehälter mit mehreren Granulationen der hier befindlichen Drüsen versehen, welche an der Glastafel entsprechende Ausbuchtungen hervorgebracht hatten; die weiche Hirnhaut blutreich eben so die Gehirnsubstanz, letztere überdies weich, beide Seitenventrikel sehr erweitert, von seröser, mit eiterigen und lymphatischen Flocken gemischter Flüssigkeit von beiläufig 4 Unzen ausgefüllt. Die seröse Auskleidung derselben, so wie die Sehhügel, die gestreiften Körper und die Basis des Gehirns waren an mehreren Stellen mit einer dünnen Lage eiterigen Exsudates bedeckt. Der vordere linke Lappen enthielt nach vorne und abwärts hin eine hühnereigrosse, mit grauer, missfarbiger, zerflossener Hirnmasse angefüllte Höhle, deren Umgebung grau erweicht war. An der Schädelbasis befand sich entsprechend dieser Höhle eine silbergroschengrosse Stelle, an welcher der Knochen zerstört, die Dura mater mit Jauche infiltriert war; diese Öffnung des Knochens führte einerseits nach aufwärts in die erwähnte Höhle der Hirnmasse, anderseits nach abwärts gegen die linke Augenhöhle; der untere Rand der letzteren war an seinem inneren Drittheil samt einem Theile des Nasenfortsatzes vom linken Oberkiefer von Caries zerstört. Die Gaumen- und Zahnfächer-Fortsätze beider Oberkieferknochen, die Körper derselben samt den Gaumenbeinen und dem unteren Theile des Pflugscharbeines waren necrotisch, schwärzlich, missfarbig. Diese abgestorbene Partie liess sich leicht bewegen, und konnte bei angebrachtem Drucke von der schwärzlich missfarbigen Umgebung getrennt werden. Die linke und rechte Lunge von Tuberkeln durchzogen, beide mehrere Eiterhöhlen enthaltend, die rechte überdies stark von Serum infiltriert. Die Mesenterial-Drüsen vergrössert und rohe Tuberkelmasse enthaltend. Die Schleimhaut der dünnen und dicken Gedärme mit tuberculösen Geschwüren besetzt.

Necrosis maxillae inferioris

F. A., 21 Jahre alt, Handarbeiterin von zartem, schwächlichem Körperbaue, arbeitete seit 5 Jahren in Phosphor-Zündhölzchen-Fabriken, und erfreute sich in der ersten Zeit eines blühenden, gesunden Aussehens; jedoch stellte sich ein trockenes Husteln mit Beklemmung auf der Brust schon nach kurzer Zeit ihres Aufenthaltes in der Zündhölzchen-Fabrik ein, welches die Kranke seit dieser Zeit fast nie mehr verließ. Im vorigen Jahre litt sie durch längere Zeit an der Bleichsucht. Zu Ende des Monats Juli 1843 bemerkte die Kranke zuerst eine Anschwellung der rechten Backengegend, welche schmerzhaft und rotlaufartig gerötet war. Zu gleicher Zeit empfand sie bisweilen flüchtige Stiche längs des rechtseitigen Zahnfächer-Fortsatzes am Unterkiefer; die Bewegung desselben wurde beeinträchtigt und schmerzhaft. Die Kranke achtete diese Erscheinungen, welche sie von einigen locker gewordenen Zähnen herleitete, anfangs gar nicht, und blieb bei ihrer früheren Beschäftigung. Als später das Zahnfleisch am Unterkiefer anzuschwellen begann und einzelne Zähne ausfielen, bemerkte die Kranke zugleich das Hervorsickern von einzelnen Eitertropfen aus den Zahnzellen der rechten Seite, auch die Geschwulst der Backe vergrößerte sich nach abwärts gegen den Hals hin und brach daselbst an mehreren Stellen gleichzeitig auf. Der aus diesen Abscesshöhlen sowohl, als aus den Zahnzellen entleerte Eiter war von einem äusserst widrigen Geruch. Selbst jetzt gebrauchte die Kranke nichts anderes, als einige gewöhnliche

Hausmittel, und entschloss sich erst dann, ärztliche Hülfe in unserem Krankenhause nachzusuchen, als sie von starkem Husten mit abendlichem Fieber beängstigt, ihr Bett nicht mehr verlassen konnte. Bei ihrer Aufnahme auf die chirurgische Abtheilung, am 24. November 1843, ergab sich, dass die rechte Hälfte des Unterkiefers in ihrer ganzen Ausbreitung rauh und von Weichteilen entblößt gefühlt werden konnte; die Umgebungen derselben waren von brauner stinkender Jauche erfüllt; das Zahnfleisch von mehreren Hohlgängen durchbohrt; die Zähne teils abgängig, teils locker, die Speichelsecretion vermehrt, die Weichteile am Halse unterhalb des Unterkieferwinkels von Abscessen, Eiterversenkungen und Hohlgängen durchzogen; die Haut daselbst größtenteils unterminiert, vom unterliegenden Zellgewebe entblößt, bräunlich, missfarbig; der Husten bedeutend, der Auswurf eiterig, Appetit gering, Durst vermehrt; an der rechten Seite der Brust beim Einatmen stechende Schmerzen, die Percussion daselbst bis gegen die Achselhöhle hinan dumpf, leer; die Respiration daselbst nicht vernehmbar; der Bauch etwas aufgetrieben, in der Magengegend empfindlich, die Haut des ganzen Körpers heiss und trocken, der Puls beschleunigt, klein und weich. In dem weiteren Verlaufe der Krankheit, während welchem wir die Verdauung und überhaupt die Kräfte der Kranken durch geeignete innerliche Mittel so viel als möglich zu unterstützen trachteten, zeigte sich das Übel von so verderblicher Natur, dass schon nach 4 Wochen auch an der linken Seite des Gesichtes eine ödematöse, schmerzhaftige Geschwulst der Weichteile über dem Winkel des Kiefers auftrat, und somit das Weiterschreiten des Übels auch über die linke Kieferhälfte vermuten liess. Die Eitersecretion war so bedeutend, dass sich selbst neue Hohlgänge am Halse ausbildeten, von denen einige aufgeschlitzt werden mussten. Der um die Kranke verbreitete ekelhafte Geruch konnte durch nichts beseitigt werden, der Husten verließ die Patientin bisweilen nur auf einige Stunden, um dann mit grösserer Heftigkeit zurückzukehren; der Schmerz in der Brust erstreckte sich auch nach aufwärts gegen die Schulter; hartnäckige Stuhlverstopfung wechselte mit Diarrhöen ab, und bei zunehmendem Zehrfieber schwanden die Kräfte der Kranken von Tag zu Tag. Auf diese Weise brachte dieselbe bis zu Ende des Monats Februar zu. Die grösste Erleichterung verschafften ihr lauwarmer allgemeine Bäder, erweichende warme Überschläge und fleißiger Gebrauch aromatischer Mundwässer. Narcotische Mittel, selbst in grösserer Gabe, gewährten der Kranken nur wenig Erleichterung. Unter heftigen Schmerzen, sowohl im Gesichte, als in der rechten Thoraxhälfte, nahm die Erschöpfung der Kranken immer mehr zu, und es erfolgte der Tod am 23. Februar 1844.

Sectionsbefund. Der Körper abgemagert, die Haut in der ganze Ausdehnung des Unterkiefers bläulich missfarbig, namentlich an der linken Seite in eine mit schwarzbrauner Flüssigkeit gefüllte talergroße Blase gehoben; an der rechten Seite des Halses und unterhalb des Kinnes war die Haut samt dem Zellgewebe an mehreren verschieden grossen Stellen zerstört; der Unterkiefer in seiner ganzen Ausdehnung necrosiert, in ein Jauchecavum eingeschlossen; an der äusseren und inneren Fläche seines rechten Astes, so wie an dem Kronen-Fortsatze des linken, zahlreiche schwärzlich missfarbige Osteophyten; die linke Hälfte des Körpers vom Unterkiefer war an der äusseren Fläche glatt, jedoch ebenfalls von der Beinhaut vollkommen entblößt, und nur an den Gelenken und der inneren Fläche des Kinnteiles hing der Knochen mit den Weichteilen noch lose zusammen; die Mundschleimhaut von zahlreichen Eitergängen und Jaucheherden durchzogen. Das Schädelgewölbe dünn, die weiche Hirnhaut trübe; die Gehirnsubstanz derb, die Adergeflechte stark entwickelt; beide Lungen zellicht an die Brustwand angeheftet. Der mittlere rechte und der linke untere Lappen von Tuberkeln durchzogen, derb und mit schaumig-blutigem Serum erfüllt; beide obere Lappen ohne Tuberkeln, Luft und Serum haltig. Zwischen der unteren Fläche der rechten Lunge und dem Zwerchfell befand sich eine abgesackte, bei 2 Pfd. missfarbiger Jauche enthaltende Höhle, wodurch der untere Lungenlappen daselbst komprimiert erschien; die dieser Höhle zugewandte Fläche der Lungenpleura war verdickt und teilweise zerstört. Das Herz blass, im

Herzbeutel 2 Unzen klares Serum; die Gekröse-Drüsen tuberculös infiltriert; die Schleimfollikeln des Darmtraktes angeschwollen; die Schleimhaut daselbst durch tuberculöse Geschwüre zerstört."

(Necrose der Kieferknochen, in Folge der Einwirkung von Phosphor-Dämpfen. Ein Beitrag zur Ätiologie der Knochen-Krankheiten. Mitgetheilt von F. W. Lorinser, Primar-Wundarzt des Bezirks-Krankenhauses Wieden in Wien. In: Medicinische Jahrbücher des kais. königl. österreichischen Staates, Bd. 51 (1845), III., S. 257-280)

"Es sind besonders französische Ärzte, welche akute wie chronische Bronchitis, so wie habituellen Husten bei den Arbeitern in Phosphorzündholzfabriken beobachtet haben, und diese Affektion auf Rechnung der Phosphordämpfe schreiben, welche die Arbeiter einatmen. Unter ihnen ist es vorzugsweise Gendrin, welcher am Hopital de la Pitié zu Paris diese Beobachtungen gemacht hat, und sich in einem eigenen klinischen Vortrag folgendermaßen darüber verbreitet.

"Seit dem Bestehen der Phosphorzündholzfabriken werden von Zeit zu Zeit Arbeiter aus diesen aufgenommen, meistens weiblichen Geschlechts, welche mit dem Tunken der Hölzchen in die Phosphormasse beschäftigt sind; doch befinden sich darunter auch männliche Individuen, deren Arbeit im Zerreiben der brennbaren Substanzen besteht. Alle diese Kranken stimmen in der Aussage überein, seit ihrem Eintritt in die Fabrik von Husten befallen worden zu sein. Sie suchen meist dann erst Hilfe im Hospital, wenn der Husten habituell geworden, sich verschlimmert und mit allen Zeichen der akuten Bronchitis kompliziert hat. Die Bronchitis unterscheidet sich ihrem Wesen nach nicht von der gewöhnlich vorkommenden, aber der Symptomenkomplex ist ein anderer, in sofern funktionelle Störungen anderer Organe gleichzeitig bestehen. Selbst diejenigen Kranken, welche nur in leichtem Grade ergriffen sind, befinden sich in einem auffallenden Schwächezustand, sie klagen über Appetitlosigkeit, von der sie gleich zu Beginn der Arbeit und zugleich mit dem Husten befallen worden zu sein angeben. Andere leiden zugleich an Durchfällen; der grösste Theil an Fieber, auch wenn eine entzündliche Brustaffektion noch nicht vorhanden ist. Diejenigen, welche öfters von entzündlichem Lungencatarrh befallen waren, und dies ist die Mehrzahl, sind auffallend abgemagert, leiden bisweilen an Herzklopfen, ohne dass aber das Herz oder die grossen Gefässe selbst erkrankt wären."

"Dieser Symptomenkomplex, welcher der gewöhnlichen Bronchitis nicht eigentümlich ist, muss daher der giftigen Wirkung der von den Lungen, oder vielleicht auch durch die Haut und die Schleimhaut der Speiseröhre aufgenommenen Phosphordämpfe zugeschrieben werden."

"Die bis jetzt behandelten Kranken wurden alle geheilt, wenigstens die dringendsten Zufälle beseitigt. Die Mittel bestanden in den gegen Bronchitis gewöhnlichen, so wie in Brech- und Abführmitteln, welche die gastrischen Symptome indizierten. Die Krankheit entschied sich im Allgemeinen immer langsam, und fast alle Arbeiter wurden in kurzen Zwischenräumen wiederholt von akuter Bronchitis befallen, und es blieb eine chronische sich nach jedem Recidiv verschlimmernde Bronchitis zurück. Dieses chronische Leiden so wie die durch die Wirkung der Dämpfe unterhaltene und gesteigerte Reizbarkeit der Bronchien erklärt zum Theil die sich nach jedem Recidiv steigernde Hartnäckigkeit, mit der die Krankheit der Wirkung der Heilmittel widersteht."

"Werden diese Kranken geheilt, so ist daraus nicht etwa die Folgerung zu ziehen, dass die Krankheit minder schwer sei. Wohl werden die Zufälle der akuten Bronchitis beseitigt, die Funktionen des Darmkanals wieder hergestellt, allein die Constitution des Kranken ist untergraben; häufig genug bleibt Lungenemphysem und grosse Geneigtheit zu Recidiven zurück."

Beobachtung 1. "Eine Frau, 24 Jahre alt, von kräftiger Konstitution, trotz grober Feldarbeit und der Ungunst jedweder Witterungseinflüsse, denen sie ausgesetzt war, nie krank, trat im Jahre 1843 in eine Zündholzfabrik ein, und war daselbst mit dem Tunken der Hölzchen in die phosphorhaltige Masse beschäftigt. 15 Tage nach dieser Beschäftigung hatte sie trockenen Husten, jedoch in geringerem Grade, aber 6 bis 7 Wochen darnach fühlte sie Abnahme ihrer Kräfte und verlor den Appetit. Bald darauf wurde sie von heftigem Brustcatarrh befallen, der sie zwang, durch 3 Wochen Zuflucht in einem Hospitale zu suchen. Geheilt kehrte sie zu ihrer Arbeit zurück. Kaum zurückgekehrt wurde sie wiederholt von Husten befallen, dem bald die übrigen Symptome wieder eingetretener Bronchitis nachfolgten, so dass sie sogleich in das Hospital zurückkehren musste. Auf diese Weise erlitt sie in Zwischenräumen von 3 bis 4 Wochen, während welcher sie immer wieder zu ihrer Arbeit zurückkehrte, noch 4 Recidive, und dies dauerte durch 16 bis 18 Monate an, bis sie endlich in das Hospital de la Pitié eintrat. Es war das fünfte Mal, dass sie wegen derselben Krankheitserscheinungen das Hospital aufsuchte. Seit 5 bis 6 Monaten konnte sie kaum mehr aus Schwäche und habituellem Stickschusten arbeiten."

"Die Krankheitssymptome, welche sie darbot, waren folgende: deutlich ausgesprochenes Fieber, grosse Abgeschlagenheit, blasses Aussehen, schlaffe Muskulatur, sehr grosse Abmagerung, häufiger peiniger Husten, mit schleimig-eiterigem Auswurf, mühsame und beschleunigte Respiration, grosse Oppression der Brust, so dass die Kranke während der Hustenanfälle und um auszuwerfen, im Bett aufsitzen musste, wobei sie lebhaften Schmerz mit einem zusammenschnürenden Gefühl unter dem Brustbein hatte, Schleimrasseln, Rhonchus sibilans in den beiden untern Drittteilen der rechten Lunge, am obern Drittel der rechten Lunge nach vorn und an der untern Hälfte nach hinten ungewöhnlich heller Ton bei der Percussion, fast vollkommene Unbeweglichkeit der Rippen an diesen Stellen, starke Wölbung der Brustwände."

"Diese Erscheinungen konstatierten das Vorhandensein einer Bronchitis fast der ganzen rechten Lunge, so wie von Emphysem eines grossen Theils derselben."

"Vollkommene Appetitlosigkeit, belegte Zunge, täglich 1 bis 2 weiche, wässrige Stühle mit vorausgehenden Kolikschmerzen."

"Brechmittel aus ipecac; zwei grosse Vesicantien auf die Brust."

"Die Brustzufälle verloren an Intensität, die Expektoration wurde weniger qualvoll, die Dyspnoe verminderte sich, die Zeichen des Emphysems bestehen jedoch noch fort, eben so die Appetitlosigkeit, die belegte Zunge; die Kranke klagte über grosse Schwäche, das Fieber ist nicht mehr anhaltend, macht aber jeden Tag eine Exacerbation."

"Dieser Erscheinungen, welche noch den 12. Tag nach dem Eintritt der Kranken in das Hospital vorhanden waren, veranlassten die noch zweimalige Wiederholung der Brechmittels in Zwischenräumen von 3 Tagen. Außerdem erhielt die Kranke ein leichtes Inf. polyg. seneg. und flüssige Nahrung in mäßiger Quantität."

"Erst nach 3 Wochen verloren sich die Krankheitserscheinungen, und es blieben nur Spuren einer chronischen Bronchitis so wie des Emphysems zurück. Diese letztere veranlasste noch die Anwendung schwefelhaltiger Mineralwasser, sowie die von alkalischen und Schwefelbädern."

"Die Kranke verließ nach 6 Wochen das Hospital; das Emphysem der rechten Lunge blieb jedoch in geringem Grade zurück."

"Es wurde ihr geraten, ihre bisherige Beschäftigung zu verlassen."

Beobachtung 2. "Ein in den besten Jahren stehender Mann wurde im März des Jahres 1844, erschöpft durch eiterförmigen Auswurf, auf wahrer Bronchialbleonorrhoe mit Emphysem der rechten und linken Lunge beruhend, im Hospital behandelt. Diese Blenorhoe war das Resultat einer seit zwei Jahren oft wiedergekehrten und immer unvollkommen geheilten Bronchitis und Folge der Beschäftigung, welche der Kranke als Zurichter der phosphorhaltigen Masse in einer Zündholzfabrik hatte. Der Kranke war nahe daran, zu unterliegen. Mit gutem Erfolge wandte Gendrin den Bals. terebinth. an, so dass der Kranke nach zwei Monaten zwar wesentlich gebessert, aber doch mit chronischer Bronchitis und Emphysem im leichteren Grade das Hospital verlassen konnte."

Gendrin knüpft an diese Beobachtung die Bemerkung, dass fast kein Arbeiter mit intensiver chronischer Bronchitis je vollkommen geheilt werden könne, da die Verhältnisse derselben der Heilung zu grosse Schwierigkeiten in den Weg stellen. Die Bronchitis der Zündholzfabrikarbeiter, wenn auch anfangs akut, wird durch die Fortdauer der Gelegenheitsursache chronisch, und führt die Mehrzahl derselben durch wiederholte Anfälle akuter Bronchitis einem frühzeitigen Tode entgegen.

Ähnliche gleich schwere Fälle wurden von Strohl in Strassburg, Lepine in Châlons sur Saône beobachtet."

(Dr. Freiherr Ernst von Bibra und Dr. Lorenz Geist, Die Krankheiten der Arbeiter in den Phosphorzündholzfabriken insbesondere das Leiden der Kieferknochen durch Phosphordämpfe, Erlangen 1847, S. 105-109)

An observation and its application in spasmodic respiratory affections

"In the year 1850, after submitting to the manipulations of a dentist, I was advised to wash the mouth with a solution of chlorine. A weak solution of chlorine gas in cold water was accordingly prepared, and I proceeded to rinse the mouth with it. Scarcely had the liquid been received into my mouth, when I became sensible of a spasmodic action of some part of the respiratory organs of the following character: *Inspiration* was unimpeded, and could be effected in the natural manner, but *expiration* was absolutely impossible, and this impossibility arose, if I might trust my sensations, not from any inability of the muscles of expiration, but from a closure of the rima glottidis. *Expiration* being felt to be impossible, *inspiration* was again attempted, and was accomplished, fully and easily, although the act was attended by a slight *crowing* noise. Expiration which was again attempted, was impossible as before. By these successive operations, the lungs became inflated to a moist painful degree, but, so firmly did the glottis appear to be closed, that it seemed as though air might pass through any part of the thoracic walls more readily than by the way of the larynx. This arrest of respiration having endured for about a minute, the face becoming torpid and livid, partial coma supervened, the spasm relaxed, and respiration became free again.

In 1852, I had an opportunity of witnessing the effect of a strong accidental inhalation of chlorine gas by an adult. The same phenomena of comparatively free, but *crowing* inspiration, and of absolutely obstructed *expiration* presented themselves, the face became extremely livid, convulsive movements of the extremities began, and the patient became partially comatose. I administered ammonia by olfaction, the spasm relaxed, and consciousness returned along with normal respiration.

These experiments show a power in chlorine, to produce the following condition, "Spasm of the glottis, which interferes but little with inspiration, giving to it a crowing sound, but which prevents expiration. During the continuance of the spasm, the respiratory act consists of a succession of crowing *inspirations*, each followed by an ineffectual effort at *expiration*, the whole serving to inflate the chest to a most painful extent, and attended at last, by turgescence

of the face, and more or less complete coma, with or without convulsive movements of the extremities, and during which the spasm relaxes."

In the proving of chlorine, in Vol. II., of the *Neues Archiv*, a similar effect is indistinctly indicated. Pareira says "if an attempt to be made to inhale undiluted chlorine gas, it produces *spasm of the glottis*. Twice I had suffered severely from the accidental inhalation of it; and each time it gave the sensation of constriction of the air tubes, such as might be produced by a spasmodic condition of the muscular fibres of the bronchial tubes." The peculiar nature of the chlorine spasm, viz., that it affects expiration almost exclusively, is not mentioned by Pareira.

Bearing in mind the odium, which has been attempted to be cast upon some of our colleagues, for flooding our literature with "fragmentary provings," which serve no purpose but to "cumber the *materia medica*," and to annoy our practitioners with and "*embarras de richesses*," (as if it were not worth while to publish and to study anything, however "fragmentary," if it furnish us the means of curing, were it but a single case!) I might have abstained from publishing the above symptoms of chlorine, had not the following case demonstrated their practical value.

June 24th. A female infant, seven months old, well developed and large, the fourth child of healthy parents, was brought to me with the following history: Having been previously in perfect health, she was seized three weeks ago, with a spasmodic affection of the respiratory organs. Suddenly and without any warning, she would make a long inspiration, with a slight crowing noise; an attempt to exhale would be made, but without success; another crowing inspiration followed by a forcible, but ineffectual effort to exhale; and this would be repeated until the child became blue around the mouth, and sank into partial unconsciousness, when free respiration would take place, and the child would generally sink into a deep sleep. Frequently toward the close of an attack, convulsive movements of the extremities would be noticed, and once general spasm occurred. At first, these attacks came on after some excitement, or on the child being startled. They frequently occurred during sleep, arousing the child suddenly, and they were most frequent from midnight to 7 a. m. Within the week before I saw her, they had become very frequent - as many as 30 to 40, occurring during the 24 hours.

The child had begun to emaciate, rapidly, had lost appetite, strength and playfulness, the face was pale and bloated, and the eyes had a dull and glassy expression. The child had been under most skilful homoeopathic treatment since the commencement of the attacks, and as she failed to improve, change of air was recommended, and she was brought to Newburgh. The climate failing to benefit her, the child was placed under my care. The case seemed all the more serious from the fact that, last year, the parents had lost an older child, a boy, with the same affection. In the fourth week of the disease, of which the course had been in every respect similar to that of the infant above narrated, convulsions supervened, and the child died at the end of the sixth week. This child was under enlightened allopathic care. It may be interesting to note, that the autopsy revealed no malformation, and no organic lesion; simply emaciation and atrophy.

On careful examination of my little patient, I could discover nothing abnormal in the condition of the heart or lungs, and no sign of disease that was not fairly attributed to the frequent recurrence of these spasms, with the venous congestion consequent upon them. It was evidently a case of *Spasmus Glottidis* (*Asthma thymicum*, *Asthma millari*, *Asthma laryngeum infantum*, *laryngismus stridulus*), and had advanced almost to the second or convulsive stage in which the prognosis is decidedly unfavorable.

The remedy which is recommended before all others for this disease, in our hand-books and repertories is *Sambucus*. The symptom on which this recommendation is based, is the following: "Slumber with half open eyes and mouth; on awaking from it, he could not draw a

breath, and was compelled to sit up, whereupon respiration was very hurried with wheezing in the chest, as if he should suffocate; he lashed about with his hands; the head and face were bloated and bluish; he was hot without thirst; weeping at the approach of a paroxysm; all this without cough, and especially at night, from twelve to four o'clock." On comparing this picture with the case under consideration, we find correspondences in the general characters of the affection. The spasmodic embarrassment of respiration, the absence of fever, and of cough, the occurrence of the paroxysms *suddenly*, chiefly at night, and on awaking, show a general appropriateness of *Sambucus* to spasms of the larynx and bronchial tubes. But we seek in vain for the unequal disturbance of the *inspiratory* and the *expiratory* act, which are the *individual* and therefore the *characteristic* peculiarity of the case under consideration. And failing to find this, we should as a matter of course expect that *Sambucus* would fail to cure, or in any way to affect the case. And this had been the fact. So too of *Lachesis* and several other remedies which, as well as *Sambucus* had already been tried before the case came under my care. In this very peculiarity, which was characteristic of the case, the similarity of chlorine was most striking. And it was with the utmost confidence of happy result, that I determined, after a careful examination of the case, to administer chlorine. I accordingly prepared a saturated solution of chlorine gas in water at 60° Fahrenheit, and made from this the first centesimal dilution in which the odor of the chlorine could be faintly perceived.

Of this I ordered twenty drops to be dissolved in four tablespoonfuls of water, and a teaspoonful to be given to the child, every three hours. (A porcelain spoon was used.) I also directed a few drops to be placed in the child's mouth at the beginning of each paroxysm, if this should be possible.

The first dose was given at 4 p. m., June 24th. During the preceding twenty-four hours, the child had had forty paroxysms. During the succeeding twenty-four hours, there occurred but four paroxysms; only one of which began with any severity, and this one was instantly arrested midway by a few drops of the solution placed upon the child's tongue. During the night of the 26th, not a single paroxysm. Improvement in the general condition of the patient now became apparent, appetite and playfulness returned; the bloated aspect of the face, and the dullness of the eye disappeared. On the 27th, the paroxysms increased in number and severity. On examining the solution, I found that it had changed in character, and no longer contained chlorine. A fresh solution was prepared, and henceforward it was prepared afresh every second day. From this time July 1st, the remedy was continued; a dose every four hours - when the spasms having wholly ceased, the child appearing well, it was finally discontinued. On the 2nd July, a slight spasm occurred, and the child appeared feverish and excited - with greenish diarrhoea. I found a lower incisor pressing strongly upon the gum which was hot and swollen, and which I forthwith lanced. In two hours the child had lost every trace of illness. Since this date, she had continued in good health, with the exception of some trifling disorder attendant upon dentition. * There has been no sign of a recurrence of the spasm of the Glottis.

* Marshall Hall advises, that in this disease, special attention should be paid to the state of the gums, if, as is generally the case, it occurs during dentition, and he advises frequent, even daily scarifications of the gums. Until the 2nd of July, there was no sign of irritation of the gums which had been carefully examined by me every day.

I am aware that children who are subjects of this disease have occasionally periods of exemption from its attacks, though this is not the case when the attacks are so frequent and also violent as in the above case, and it is possible that this child may be again attacked under provocation of difficult dentition or of some equal powerful exciting cause. As there can be no doubt however of the controlling power if chlorine over the first attack, I should have no misgivings about its success in subsequent attacks, should the condition be the same as before.

In connection with the above remarks upon chlorine, it may not be amiss to call attention to a kind of spasm of the glottis occasionally produced by *chloroform*, and which strikingly resembles the spasms produced by chlorine. Now, by the presence of an alkaline solution, chloroform is readily decomposed, and chlorine set free. The question at once suggests itself whether in these cases of spasms such a decomposition has been induced by the reaction of the alkaline saliva upon the vapor of chloroform, and whether the spasm is caused by the chlorine thus set free.

In this case, the spasm of the glottis constituted the whole of the morbid condition. But sometimes spasm of the glottis occurs as a complication of some affection of the throat or of the respiratory apparatus, and in such cases chlorine may be of great service. In the winter of 1853, I visited in consultation a case of Scarlatina in which sloughing of the pharynx to a great extent had taken place and in which spasm of the glottis had set in, threatening to cause a speedily fatal termination. The attacks of spasm were almost constant; the child, a boy of eight years, scarcely rallying from one paroxysm before another came on. The character of the spasm was precisely such as I had seen produced by chlorine. Chlorine water was administered, and the spasms ceased instantly, with but one or two slight recurrences." (Carroll Dunham, M.D., Newburgh, N.Y., Chlorine and Spasmus Glottidis, The American Homoeopathic Review vol. 2 (1859-1860), p. 18-24)

"In Vol. II. of the American Homoeopathic Review, 1859, I published an account of the effects of the inhalation of Chlorine gas in two instances, with the record of a case in which the symptoms of the disease were so similar to the effects which I had witnessed and experienced from the inhalation of Chlorine, that I was induced to administer a solution of Chlorine gas in water. The case was rapidly cured. The following case furnishes additional evidence of the value of Chlorine in certain spasmodic affections of the Glottis:

December 12th, 1862. J. S., aged 52 years, has suffered, from follicular pharyngitis; has had the larynx and fauces swabbed, burned and pencilled with Nitrate of silver until he could endure it no longer. For two years he has not been under medical treatment. He now suffers from pain in the throat, and has a habitual cough and expectoration of glairy mucus. Within three days the cough has assumed a spasmodic character, with the following peculiarities:

The desire to cough results from a tickling and a sensation of rawness behind the thyroid cartilage. When the patient seeks to yield to this desire, he finds it impossible to expel the air from the chest, as is required in the act of coughing. The cough is therefore abortive, although the desire grows more and more intense. The obstruction to the free and sudden expulsion of air, which would constitute a cough, he describes as resulting from an apparent constriction just below the larynx. At the same time he can *draw air into* the lungs quite freely.

This freedom of inhalation and impeded exhalation, together with the constantly increasing tickling in the larynx which compelled the patient to make very energetic but unavailing efforts to cough, continue until he sinks, exhausted and covered with sweat, upon a couch, when the spasm seems to relax and he can cough and exhale with comparative freedom. These paroxysms recur about every two hours.

I prepared immediately a weak solution of Chlorine gas in cool water, so weak that the odor of the gas could scarcely be detected, and when one of the paroxysms was at its height, administered a teaspoonful. The effect was magical. The spasm relaxed immediately and the tickling was allayed. The dose was repeated every two or three hours, as the tickling recurred, and in the course of twenty-four hours the disposition to a recurrence of the paroxysms had ceased.

Several days afterwards the patient applied to me for a quantity of "that solution," stating that since he had taken it, his throat had been more comfortable and his voice better than they had

been since the day when he was unhappily persuaded to allow caustic to be applied to his throat."

(Carroll Dunham, M.D., New York, Chlorine in Spasm of the Glottis, The American Homoeopathic Review vol. 3, February 1863, p. 370-371)

A common Disinfectant

"In December 1886, I was called to see P., a bright, manly little boy aged 5 years, and the only child of a widow.

I found him suffering from diphtheria, and in prescribing for him I ordered Platt's Chlorides to be placed in the room as a disinfectant. December 24 I discharged my little patient as cured, but early the next morning I was hurriedly called as he was much worse, and was informed that during the night the fire in the heater had gone out and that when they awoke the house was as cold as a barn; and also that the patient had a croupy cough and they were afraid of croup.

On my arrival I found the boy suffering from membranous croup as I then diagnosed the case, although I could not see any membrane.

The voice was lost; there was crowing inspiration and prolonged expiration; an incessant dry cough; great restlessness and high fever with profuse perspiration.

The difficulty in both inspiration and expiration confirmed me in the opinion that I had a case of croup with membrane, and from the weakened condition of the child my prognosis was not favorable. I so informed the friends and wished they would call some other physician in consultation. I promised to call again in a few hours.

On my return I found no improvement as to the laryngeal trouble, though the fever was some lower.

The child was lying on a lounge near the fire. I soon discovered that all his symptoms seemed aggravated by his lying there - was easier when lying in his mother's lap, and still more relieved when carried in his uncle's arms.

After I discovered this relief his friends kept him for the most part of the time in their arms. But why should this be so was the question.

The next morning on my return I could plainly see that the patient was slowly sinking, and that some mysterious influence other than the disease was helping him to carry him to that "bourn from whence no traveller returns."

I had spent most of the night in trying to solve this mystery and the day passes without its solution. The third morning, about three o'clock, those chlorides came into my mind, and remembering that chlorine gas was 2 ½ times heavier than air, I immediately returned to my patient only to find him much weaker and the end not far distant.

I immediately lay down on that lounge and within a few minutes I could feel the irritating effects of the chlorine vapor in my throat and began to hack and cough, but on sitting up this irritation soon passed away. The chlorides were removed from the room and the apartment well ventilated. The effect on my patient was remarkable. The cough and respirations were greatly relieved, but he died that afternoon.

My diagnosis and prognosis were confirmed during his sickness by one of Chicago's best physicians, although he could not see any membrane.

I had only graduated the previous spring and was fresh from college without experience, but from the experience acquired since then I am satisfied this was not a case of membranous

croup but laryngitis, the result of the chill and the irritation produced by the chlorides, and had they been removed on my first visit I might have saved my patient. In college I had been taught to use them, and after placing them in the room I gave them no further thought till forced to do so, although from the very first I noted the similarity between the case before me and a case of poisoning by this gas, yet I did not ascribe it to the disinfectant.

Case No. 2

In January, 1892, I was called to see Mrs. C., a lady aged 71 years.

For many years she had been a sufferer from chronic bronchitis, very sensitive to cold air, and never thought of stepping outside of her house during the fall, winter and spring months, but for the past two years she had been growing better under our mode of treatment.

On this visit I found her suffering from laryngitis. Temperature 100, croupous cough and difficult breathing. I prescribed and at the end of three days she was as well as usual.

Just one week from that day I was called again and found the same laryngeal trouble and prescribed the same remedies with the same result.

One week later I was called for the third time on the same day of the week and at the same hour, and again I found my patient in the same condition.

Now there must be some cause for this laryngitis other than taking cold, and on inquiry I found that they kept chloride of lime in their bath room for a disinfectant, and that on Mondays my patient was in the habit of going there and remaining about one hour for the purpose of washing a few garments she did not care to send to the laundry.

I ordered the chloride of lime to be removed from the house and the room thoroughly ventilated, and although my patient did not discontinue her Monday's visit to the bath room, yet she had no more laryngitis.

Her case was made more susceptible to chlorine poisoning by her having chronic bronchitis and the first case by having diphtheria.

Now supposing that case No. 2 had had diphtheria and I had ordered the chlorides as a disinfectant as I did in the first case, on my next visit I should have found a new case and pronounced it croupous diphtheria and probably lost my patient.

Since 1886 I have not used chlorides or any other disinfectant in diphtheria or scarlet fever other than pure air, and I have had no laryngeal trouble as a complication in those diseases. Although I have known many cases of laryngeal complication in those diseases in my neighborhood, and in nearly every one of the cases the chlorides have been used as a disinfectant.

I think I can safely say that two-third of laryngeal complications in diphtheria and scarlet fever are brought on by the use of this disinfectant."

(E. Z. Bacon, Chicago, Chlorine Poisoning, The Medical Visitor Vol. 9 (1893), p. 365-367)

The chlorinization of drinking water as an irritational cause of cancer

"There are so many factors in cancer that we must not ignore the irritational causes and the food adjuvants. The irritational causes are many, and, if you ignore them, your remedies, however carefully selected, however closely related to the individual case they may be, will not bring the results." (...)

"Among the irritants that are most marked, outside of crude drugs, vaccination and serums is the chlorinization of drinking water which is quite prevalent throughout the country today.

Chlorine in the drinking water is bringing into being many ulcerations and cancers of the gastro-intestinal tract."

(Arthur Hill Grimmer, Differentiating symptoms of some of the Cadmium salts, The Homoeopathic Recorder vol. 45 (1930), p. 635-641)

A global health problem

"The true global incidence of envenomations and their severity remain largely misunderstood, except for a few countries where these accidents are rare or are correctly reported. Nevertheless, this information is essential for drawing up guidelines for dealing with snake-bites, to plan drug supplies, particularly antivenin, and to train medical staff on snake-bite treatments. Since the comprehensive review by Swaroop & Grab in 1954 no global survey has been carried out on snake-bite epidemiology. The present article is an attempt to draw the attention of health authorities to snake envenomations and urges them to prepare therapeutic protocols adapted to their needs.

Introduction

Snake-bites are not systematically reported in most countries. Moreover, very few countries possess a reliable epidemiological reporting system capable of providing precise data on snake-bites. Instead, scientific reports and publications have to be used to assess the magnitude of the problem posed by snakebites. The data thus obtained are generally more precise and reliable but often cover limited geographical areas or deal with special aspects. From these data, and taking into account the activities practised by a given population and the proportion living in rural zones, estimates have been made of the number of snake-bites, their severity, and mortality due to envenomations. These evaluations are summarized in this article, by region. The values are speculative, but minimal, and highlight the necessity of performing more precise investigations.

As discussed below, two methods can be used to estimate the incidence (total number of snakebites), morbidity (number of envenomations), case fatality rate (number of deaths among envenomed people), and mortality from snake-bites (number of deaths due to envenomation among the general population).

* *The household survey.* This is carried out by visiting every family in a village (or a randomized sample of a population) and questioning them about their snake-bite histories. The results obtained provide information on the incidence of snake-bites in a community and data on treatment sought or the circumstances of bites.

* *Hospital records or health authority statistics.* These can provide data on snake-bite morbidity, case fatality rate, and mortality. However, in some locations, hospitals are few and far between and hospitalized cases may represent a low proportion of total snake-bites. Also, data from some locations may be inaccurate.

A distinction is made between hazardous snakebites, which occur when humans encounter a snake, and "illegitimate" snake-bites inflicted by an animal kept in captivity or during snake handling. In industrialized countries the frequency of illegitimate snake-bites is increasing (14, 66, 76, 81), while hazardous snake-bites occur mainly in developing countries especially among rural active people, chiefly while they are working in the fields. For example, illegitimate bites represented 21% of the total snakebites in Utah, USA, during the early 1990s (70).

The incidence of bites is high in warm regions, where snakes are abundant and economic activities are mainly agricultural. In most developing countries, up to 80% of people bitten by

snakes (13, 98) consult first traditional practitioners and only subsequently resort to modern medicine, thus accounting for the long delays before they receive proper treatment.

Notified cases, data on which are used to determine morbidity, therefore cover only a small proportion of the true numbers. In some areas the high morbidity from snake-bites should denote a high prevalence of venomous species, notably in populous regions. High mortality and/or case fatality rates mean that treatment of envenomations is not adequate. There are many reasons for the high mortality rate, e.g. scarcity of health facilities, unavailability of drugs and antivenins, poor training of health workers on snake-bite management, and long delays before starting treatment. Each location has to be examined individually to determine the particular reasons which prevail there.

Snake-bite incidence and severity

Europe and the Middle East

In Europe, snake-bites are relatively rare (Table 1). The snakes involved belong to the *Vipera* genus, represented in Europe by a few species that are not among the most venomous:

V. aspis (asp viper), *V. ammodytes* (sand viper), *V. berus* (common viper), and *V. latastei* (Lataste's viper). In Great Britain, there are approximately 200 hospitalizations a year from snake-bites but no deaths have been reported since 1975 (75, 111). In France, the number of cases is higher. Chippaux et al. reported an annual incidence of approximately 5 cases per 100000 residents in the Departement of Yonne (150 km south of Paris) (17) and similar incidences have been reported elsewhere in the country (7). The annual incidence for the whole of France is about 2.5 per 100000 inhabitants; however, the annual morbidity is rather less than 0.5 per 100000 people and the case fatality rate is about 0.3% (42). In Switzerland, the morbidity is very low, corresponding to approximately 0.1 case per 100000 residents per year (100). In rural areas of southern Europe rates are higher. In Spain (33) and Italy (71) the annual incidence of snake-bites can reach 5 per 100000 people. In Italy, the morbidity is about 1 per 100000 per year with a case fatality rate of 0.1-0.6%, and the annual mortality from snake-bites ranges from 0.01 to 0.04 per 100000 people (4).

In Europe (population, ca. 730 million), the annual number of snake-bites could reach 25000, of which 8000 involve an envenomation. About 90% of envenomed patients are hospitalized and about 30 deaths could result every year.

In the Middle East, the snake species involved in bites are more dangerous than in Europe:

V. lebetina (Levantine viper), *V. xanthina*, *V. palestinae* (Palestine viper) or their cognates (1, 28, 35, 63). Although data are lacking, the incidence of snakebites appears to be low, and as in North Africa, scorpion stings are more frequent events. *Cerastes* spp., a rather common Viperidae in North Africa and in Middle East, are not very dangerous, although the venom can provoke local necrosis. In the Middle East (population, ca. 160 million), the annual number of snake-bites could be as high as 20000, with about 15 000 envenomations per year; probably not much than 60% of those bitten attend hospital and the mortality can be estimated at 100 deaths every year.

Americas

In Canada and the USA (population, ca. 270 million), the annual incidence of snake-bites, particularly in the USA, is similar to that observed in Europe. According to Parrish (65) and Russell (81), approximately 45000 snake-bites occur each year in North America. Of these bites about 10000 are inflicted by venomous species, 6500 require medical intervention, and approximately 15 individuals thus bitten die each year. The case fatality rate is very low in view of the high toxicity of the venom of some of the species of snakes (e.g. *Crotalus* spp.).

The implementation of adequate treatment is probably the reason for this low case fatality rate. The deaths that do occur are mainly due to delayed or insufficient treatment or to people refusing therapy.

In Central and South America, the prevalence of snake-bites is significantly higher (Table 2), with Crotalidae being responsible for most envenomations, provoking oedema, necrosis, and haemorrhages. In savanna areas of South America, the bite of *Crotalus durissus terrificus* (tropical rattlesnake) provokes neurotoxic envenomations associated with mild inflammation, severe rhabdomyolysis, and renal failure, while in Central America, the bite of *C. durissus durissus* induces severe local oedema and necrosis but no neurotoxicity or rhabdomyolysis.

Recent studies showed that the use of antivenin has contributed to a significant improvement in envenomation prognosis. Nevertheless, in Ecuador, for example, the case fatality rate ranges from 5.4% for envenomations treated in hospital (46) to 6.3% in some bush areas (109); the annual snake-bite morbidity has been evaluated to be 30 per 100000, with the associated mortality being 1.8 per 100000 per year (109). In Costa Rica, the current average annual morbidity and mortality reported by health services is about 20 per 100000 and 0.4 per 100000, respectively (34, 79); however, in the 1970s, mortality was around 0.5 per 100000 (6). Some surveys in forest areas have found a high incidence of snake-bites, especially among Indians (19, 21, 51). In Brazil, the notified annual morbidity from snake-bites is about 15 per 100000 people mainly from *Bothrops* spp. The reported incidence of envenomation for the whole of Brazil is about 20000 cases per year, e.g. 15 per 100000 population (41). Mortality from snakebites in Sao Paulo State, where available data are probably more relevant, reaches 0.04 per 100000 (52). However, Cruz-Rocha et al. (25) demonstrated that the real incidence in Amazonas State was at least six times greater than the notified value. The case fatality rate is less than 1% in the south of the country (10) and 1.3% in the Amazon area (25); the annual mortality rate in the Amazon basin is about 1.1 per 100000 people.

On the basis of values reported in the literature (6, 29, 34, 83), the annual incidence of snake-bites in Central and South America (population, ca. 400 million) should be at least 300000; a total of 150000 envenomations are reported every year, 65% of which are treated in hospital. The annual number of deaths from snake-bites could exceed 5000 and their distribution is probably uneven.

Africa

In Africa, the prevalence of snake-bites (Table 3) is underestimated by health authorities, mainly because the reporting system is inaccurate. Moreover, the poor organization of health facilities in many countries complicates the management of patients and accounts for the great variation in the case fatality rate (15). Bites occur especially in plantations (16, 99). In industrial plantations the snake-bite incidence can be as high as ten times that in closed village plantations, largely because the industrial plantations attract more venomous snake species because of the abundance of prey they contain. In banana plantations mainly *Causus maculatus* (spotted night adder), an aggressive adder not really harmful to healthy adults, is involved. In palm tree plantations or in rubber plantations, black cobras (*Naja melanoleuca*) and green mambas (*Dendroaspis* spp.) are frequent. In forest regions, the gaboon vipers and their cognates (*Bitis* spp.) are especially responsible for numerous bites in village plantations and in rice fields. In savanna areas, the most abundant snakes are *Echis* spp. These Viperidae are probably responsible for the greatest number of accidents and deaths by envenomation in Africa (112). Towns also are not spared venomous snakes and snake-bites occur in the capital cities of African countries (16, 57). In some rural regions, during the rainy season, envenomations involve up to 10% of hospitalized patients. In Nigeria, a study in the Benue valley estimated that the annual incidence of snake-bites was up to 600 per 100000 inhabitants and that the case fatality rate was 12.3%, mainly from *Echis ocellatus* bites (73).

In the North Province of Cameroon, *E. ocellatus* is also responsible for a high morbidity (55 and J.-P. Chippaux, personal data, 1994). A survey in a rural area of Senegal showed that the annual mortality from snake-bites was 11.7 per 100000 inhabitants (69). In Benin, the overall incidence can reach 450 bites per 100000 in some rural areas, with 5.9% lethality (13), while notifications give annual morbidity and mortality as 70 per 100000 and 1 per 100000, respectively (30, 31); less than 30% of patients treated in health centres are admitted to hospital. In rural Kenya, snakebite incidence exceeds 150 bites per 100000 and mortality is estimated to be 6.7 per 100000 (98); however, about 70% of patients do not attend health centres.

In Africa (population, ca. 760 million), probably 1 million snake-bites occur every year involving 500000 envenomations, of which 40% are hospitalized. It is likely that about 20000 deaths per year occur as a result, although less than 10000 are reported by health services.

Asia

In Asia, there is a wide variation in the incidence of snake-bites (Table 4), according to human activities and the snake species involved. In Japan, the general incidence of snake-bites is approximately 1 case per 100000 people; the case fatality rate is less than 1% and the overall mortality is about 0.5 per 100000. Nevertheless, the morbidity is more important in the south of the country, where it can reach up to 340 cases per 100000 residents (85) with a 0.7% case fatality rate (45). The incidence of snake-bites depends on human activities and snake behaviour (108). In the south of Japan, as in China (Province of Taiwan) and in south China, *Trimeresurus* spp. are responsible for at least half of the bites (85, 90, 92). *T. flavoviridis* (habu), one of the most common species, is encountered in human settlements (39); however, a control programme has been implemented successfully, leading to a decrease in the annual incidence of bites from about 300 to 150 per 100000 inhabitants (106). In the Republic of Korea, the incidence of *T. flavoviridis* bites remains unknown but quite low. The case fatality rate is about 5% from *Agkistrodon blomhoffi* bites (88). More than a half of the snake-bites that are hospitalized in Malaysia are caused by *Calloselasma rhodostoma* (89); and in Sri Lanka, the overall annual mortality rate of bites from this species exceeds 5.6 per 100000 and in some places can reach 18 per 100000 (90). About 40% of recorded deaths involve *Vipera russelli* (Russell's viper), while 35% involve *Naja naja* (common cobra). Less than 25% of patients are treated in hospital and only 43% of deaths are reported to health authorities (90, 95). In Asia, the mortality due to snake-bites seems to be highest in Myanmar, where 70% of the bites involve *V. russelli* (3, 61); however, these data for Myanmar may simply be a reflection of the better reporting system in this country, where the reporting of snake-bite deaths has been obligatory for many years. In India, data are fragmentary because less than 40% of snake-bite patients attend public hospital (87). *Echis carinatus* (the carpet or saw-scaled viper) occurs in both India and Pakistan, where it is responsible for a large number of snakebite cases, reaching 95% of envenomations in the State of Jammu (5). *V. russelli* also are frequently encountered in India and throughout south-east Asia. In Maharashtra State, in India, the annual incidence of severe envenomation is about 70 per 100000 inhabitants and the mortality rate is about 2.4 per 100000 per year (32).

In Asia (population, ca. 3500 million) as a whole there may be up to 4 million snake-bites each year, of which almost 50% are envenomed. Approximately half of the victims reach hospital and the annual number of deaths resulting can be estimated at 100000.

Oceania

In Australia, the estimated annual incidence of snake-bites ranges from 3 to 18 per 100000 (114) with the average mortality rate being 4 per 100000 per year (101). Most of bites are due to *Pseudonaja* spp., which are involved in about a half of deaths, as well as *Notechis* spp. and

Oxyuranus spp., which together are responsible of nearly all the deaths from snake-bites in Australia. Bites occur during the warm months in the south of Australia and all year round in the tropical north of the country. In Papua New Guinea, the mortality from snake-bites in the Central Province is estimated at over 7.9 per 100000 inhabitants (49).

Most of the Pacific islands are free from venomous snakes except sea snakes, whose venom is neurotoxic, but which are not aggressive. From the whole of Oceania (population, ca. 20 million), more than 10000 snake-bites and 3000 envenomations are reported every year. Most individuals involved (70%) are hospitalized and 200 people die from such bites every year.

Conclusion

It appears from the fragmentary epidemiological data presented in this article that snake-bites remain a public health problem in most countries, even if it is difficult to be precise about the actual numbers involved. The global figures given by Swaroop & Grab (102) over 40 years ago were greatly underestimated. The true incidence of and mortality from snake envenomations could exceed 5 million per year, with an associated mortality level of 125000 persons per year. About 2.5 million people are envenomed each year, half of whom request medical care, and probably more than 100000 individuals suffer from severe sequelae (Table 5).

The global disparity in the epidemiological data for snake-bites reflects the variation of health reporting accuracy and the great diversity of ecological and economic conditions throughout the world (Fig. 1). Agricultural activities are associated with most of the bites. The snake species involved can be very dangerous because of the toxicity of their venom or abundance in areas close to human settlements. Finally, health facilities and availability of antivenin have to be considered in implementing the treatment of envenomations. Clearly in developing countries, where snake-bites are the most prevalent, none of the required conditions for their correct management is fulfilled. In most developing countries, lack of medical attention, specially antivenin therapy, leads to high mortality levels. Considerable effort will be needed to develop studies on snake-bite epidemiology and improve the distribution and use of antivenin."

(J.-P. Chippaux, Snake-bites: Appraisal of the global situation, Bulletin of the World Health Organization, 1998, 76 (5): 515-524)

Eine stumme Schlange und ein unübertrefflicher Arzt

"Stumme Klapperschlange (*Crotalus mutus*)", nannte Linné eine der fürchterlichsten Grubenottern Südamerikas, den Buschmeister der holländischen Ansiedler Guianas, den Surukuku der Brasilianer, welcher den Klapperschlangen allerdings bis auf die Bildung des Schwanzes ähnelt, anstatt der Klapper aber nur vier bis fünf kleinere, zugespitzte Schuppen und einen Dorn am Ende des Schwanzes trägt und deshalb von Daudin zum Vertreter der Sippe der Parzen (*Lachesis*) erhoben wurde.

Der Buschmeister (*Lachesis muta* oder *Lachesis rhombeata*) erreicht eine Länge von 8 Fuß und darüber und ist oben auf rötlichgelbem Grunde mit einer Längsreihe großer, schwarzbrauner Rauten, deren jede zwei kleine, hellere Flecke einschließt, gezeichnet, auf der Unterseite blaßgelblichweiß, glänzend wie Porzellan. Die Rückenfärbung wird auf dem Hals dunkler, die Zeichnung geht auf dem Kopfe in unregelmäßige Flecken von schwarzbrauner Farbe über.

"Der herzförmige, durch die Giftdrüsen namhaft erweiterte Kopf der schön gezeichneten Schlange", schreibt Schomburgk, "welcher sich auffallend scharf gegen den Hals absetzt, wie die über einen halben Zoll langen Giftzähne verkünden schon von ferne die Gefährlichkeit des

Buschmeisters; - und lebte er nicht in den Hochwäldungen, in denen er während des Tages auf der Erde zusammengerollt liegt, wäre er häufiger, als er es wirklich ist: dem Wanderer würde auf jedem Schritte und Tritte der Tod entgegen lauern, da, nach der allgemeinen Aussage der Indianer, diese Schlange nicht wie die übrigen vor dem Menschen flieht, sondern, in Schraubenlinien zusammengewunden, den sich ihr Nahenden ruhig erwartet und sich dann mit Pfeilesschnelle auf ihn stürzt..... Sie ist unstreitig die giftigste und gefährlichste aller in Guiana vorkommenden Grubenottern, und ihr Biß soll unbedingt tödlich sein." Mit dieser Schilderung stimmen alle Angaben anderer Beobachter überein. "In Brasilien", sagt der Prinz von Wied, "lebt diese Schlange überall; denn ich erhielt in allen von mir bereisten Gegenden Nachrichten von ihr, und meine Jäger erlegten sie in den Wäldern am Flusse Iritiba, am Itapemirim, am Rio Doce, and Peruhype und weiter nördlich. Markgrave fand sie in Pernambuko.

"Sie ist eine große, nett gezeichnete, träge Schlange, welche, wie man sagt, die Dicke eines Mannschenkels erreicht und liebt zu ihrem Aufenthalte kühle, schattenreiche Wälder, in denen man sie gewöhnlich zusammengerollt auf dem Boden ruhend findet. Auf die Bäume steigt sie nicht. Ihre Lebensart und Sitten scheinen denen der Klapperschlange sehr zu gleichen.... Man hat behauptet, daß sie nachts auf die Feuer zukrieche; daher machen die Brasilianer, wenn sie im Walde übernachten müssen, öfters kein Feuer an. Ferner sagt man, daß sie da Gift von sich speie, wenn sie trinken wolle und dergleichen mehr. Einige Portugiesen glauben auch, daß sie mit dem Dorne ihres Schwanzes verwunde; die Wilden und Neger aber, welche ich über diesen Gegenstand fragte, zeigten mir immer den Sitz des Giftes und die Durchbohrung der furchtbaren Waffe.

"Über Nahrung und Fortpflanzung dieser schönen Schlange habe ich nicht Gelegenheit gehabt, Beobachtungen anzustellen; doch dürfte sie in dieser Hinsicht wohl mit der Klapperschlange übereinstimmen. Der Größe und Stärke ihres Körpers, sowie der Mächtigkeit ihrer Waffen zu Folge kann sie schon ein ziemlich bedeutendes Thier bezwingen.

"Es scheint, daß die Zeit des Häutens mit der Mauserzeit der Vögel in Brasilien übereinstimmt; denn ich habe in dem Urwalde zu Morro d´Arara im Monat März eine ganz frische abgestreifte Haut gefunden, in welcher noch alle knotigen Schuppenabdrücke sichtbar waren.

"Ihr Biss soll schnell töten. Bei Rio de Janeiro starb ein Neger binnen sechs, ein anderer binnen zwölf Stunden an den Folgen desselben, und man erzählt viele ähnliche Beispiele. Das Blut soll den Gebissenen aus Mund, Nase und Ohren hervordringen. Öfters werden solche Menschen geheilt, wenn man bald zur Kur schritt; es ist jedoch schwer, die Wahrheit von der Unwahrheit zu sondern, da man sich mit einer Menge von Sagen umherträgt."

Im Anschluß an diese von ihm selbst gesammelten Erfahrungen gibt der Prinz den Bericht eines holländischen Pflanzers über den Buschmeister wieder. "Zum Glück", sagt dieser, "ist diese Schlange nicht sehr häufig in der Nähe der Pflanzungen, sondern lebt mehr in den hohen Wäldungen. Da sich hier einige Sägemühlen befinden und viele Holzhändler aufhalten, so büßt zuweilen der eine oder der andere das Leben durch ihren Biss ein. Ein Arrowacken-Indianer hatte sich bei einem Herrn Moll als Jäger vermietet und ging eines Morgens in den Wald, um Wildbret zu schießen. Nach einer Weile wurde sein Hund laut und begann zu heulen, - ein sicheres Zeichen, daß eine Schlange in den Nähe. Der Indianer, besorgt für das Leben seines guten Hundes, eilt, die Flinte in der Hand, darauf zu; aber die Schlange tut schon, bevor er sie gesehen, einen Sprung nach ihm, bringt ihm einen derben Biss in den entblößten Arm oberhalb des Ellbogens bei und entfernt sich dann. Der Indianer, welcher noch keinen Schmerz fühlte, verfolgte und erlegte die Schlange, schnitt ihr den Bauch auf und rieb sich die Galle als Gegengift auf die Wunde, hob hierauf seine Beute auf und eilte nach Hause; da er aber weit entfernt war, wandelte ihm auf halbem Wege schon Ohnmacht und

Kälte an, sodaß ihm alle Glieder erstarrten und er kraftlos zu Boden sank. Der Hund lief, als er bemerkte, daß sein Herr für tot dalag, schnell nach Hause und machte einen solchen Lärm, daß man vermutete, es müsse dem Jäger Etwas zugestoßen sein. Moll nahm einen seiner Leute mit und folgte dem jetzt vor Freude aufspringenden Wegweiser. Nach einer halben Stunde fand man den Indianer, gänzlich erstarrt, auf der Erde ausgestreckt, aber noch bei völliger Besinnung. Nachdem man sein Unglück vernommen, brachte man ihn rasch nach Hause; alle angewandten Mittel erwiesen sich jedoch als fruchtlos; das Gift war schon in das Blutsystem getreten, und da seit der Zeit des Bisses schon einige Stunden verflossen waren, der Tod unvermeidlich.

"So gefährlich auch der Biss der Schlange ist, so kann man dennoch durch Anwendung der weiter unter angeführten Mittel den Leidenden retten, wenn gedachte Mittel im Verlaufe der ersten Stunde nach dem Bisse angewendet werden. Man läßt den Kranken sogleich ein oder zwei Flaschen Milch mit etwa vier bis fünf Löffeln Baumöl vermischt nach und nach trinken und, wenn es zu haben ist, rohes Zuckerrohr essen, auch als Ersatzmittel die bittere Pomeranze gebrauchen, schneidet die Wunde tief aus und legt ein Zuggpflaster von eingeweichten Tabaksblättern mit der in Westindien sehr häufig wachsenden und allgemein bekannten Distelwurzel (wahrscheinlich *Argemone mexicana*), angefeuchtet mit Benzoin und Kampfertinktur auf, erneuert aller Viertelstunden diesen Umschlag, und fügt, wenn die Wunde einen schwarzen Rand bekommt, Laudanum hinzu. Innerlich läßt man den Kranken abführende und brechenenerregende Arzneimitteln nehmen, hält aber die Wunde einige Tage lang künstlich offen." Ob diese Mittel wirklichen Nutzen gewähren, bleibt zweifelhaft, zumal der Behauptung Schomburgk's gegenüber. Letzterer teilt eine merkwürdige Geschichte mit, welche, wie er sagt, auf eigener Erfahrung beruht. "Bei meinem ersten Aufenthalte in Bartika-Grove fand ich dort einen Farbigen, dessen Sohn einige Wochen vor meiner Ankunft von dem heimtückischen Buschmeister in die linke Backe gebissen worden war. Besinnungslos wird der Sohn vom Vater gefunden, und die Wunde von letzterem ausgesogen. Schon nach Verlauf einer Viertelstunde fühlt der Mann die unsäglichsten Schmerzen; der Kopf schwillt zu einer unförmlichen Größe an und es treten alle Anzeichen der Vergiftung ein, welche, wie sich ergeben, durch einen hohlen Zahn stattgefunden hatte, in welchen etwas von dem ausgesogenen Gifte eingedrungen sein mußte. Der Knabe starb, und der Vater schleppete sich noch bei meiner jüngsten Anwesenheit siechen Leibes umher.

"Die Indianer und Neger", schließt der Prinz noch, "essen zuweilen den Surukuku, nachdem sie ihm schnell den Kopf abgehauen haben. Gewöhnlich gibt man ihm im Falle der Begegnung einen Flintenschuss; denn als ein höchst gefürchtetes, verabscheutes, vermöge seiner Größe und gefährlichen Eigenschaften imponierendes Tier, schenkt man ihm nie das Leben. In den Schlagfallen fängt er sich zuweilen und bleibt alsdann gewöhnlich lange am Leben."

Nach Europa gelangt der Buschmeister viel seltener als den Homöopathen zu wünschen wäre, Ihm zu Ehren nämlich ist eine ihrer Arzneien *Lachesis* benannt worden, vielleicht deshalb, weil Hering zuerst von einem Buschmeister Gift entnahm und verarbeitete. Welche erstaunliche Wirkung besagte Arznei hat, mag aus dem Nachstehenden hervorgehen.

"Wenn wir", so läßt sich der unfehlbare Hering vernehmen, "der alten Volksmittel gedenken, sehen wir, daß sehr viele Fische Arznei sein müssen; aber noch viel mehr finden wir die Amphibien hierzu benutzt. Diese greulichen, widerlichen Wesen sollten auch Kräfte haben, die Krankheiten und zwar die greulichsten zu überwinden. Betrachten wir die noch vorhandenen alten Sagen näher, so sehen wir, daß die gerösteten Kröten, getrockneten Eidechsen, das Fett der Schlangen, das Blut der Schildkröten, vor Allem aber die Galle gegen die hartnäckigsten Ausschläge und Geschwüre gerühmt werden. Unter allen tierischen Giften steht nun aber, wie billig, das Schlangengift obenan, dessen sich als Arznei zu bedienen man

nie wagen konnte, wenn man bedenkt, daß viele Gebissene, welche gerettet wurden, noch einige Zeit hernach, eigentlich ihr Leben lang, an demselben Teile Hautausschläge behielten, oder eine feurige Farbe, man sagt, die der Schlange selber. Wenn man dazu nimmt, daß größere Mengen des Giftes blitzschnell töten können, kleinere Geschwülste und Brände erregen, sehr kleine noch gefährliche Zufälle, so wird man wünschen, die Menge des Giftes so verringern zu können, daß die Wirkung minder stürmisch wird und leichter wahrgenommen und beurteilt werden könne. Es war daher schon früher, ehe ich noch in den Süden gelangen konnte, mein lebhafter Wunsch, dieses berühmte Gift einst untersuchen zu können. Versuche mit Schlangengift, welches mit Milchzucker abgerieben wurde, werden nicht nur lehren, daß es auf den Menschen wirke, sondern sie werden es möglich machen, daß man die Gebissenen mit Sicherheit behandle und aus der Unzahl von Gegenmitteln die rechten erwählen könne; ja, sie werden vielleicht auch das Schlangengift zu einer wichtigen Arznei erheben. Ich erinnere hier nur an die Geschichte in Galen, wo ein Aussätziger geheilt wird durch Wein, in welchem eine Natter ertrunken war. Auch hat man mir hier (in Paramaraibo) als ein großes Geheimnis eröffnet, daß der geröstete Kopf einer Giftschlange, zu Pulver zerstoßen, ein Hautbestandteil sei zu einem Pulver, welches, in kleine Hautritzchen eingerieben, nicht nur vor den Nachtheilen des Bisses schütze, sondern, nach dem Bisse angewendet, auch helfe. Ferner habe ich einen Aussätzigen gesehen, der wirklich von allen Knollen im Gesicht und sonst befreit worden war und, wie man wollte, durch dasselbe Schlangepulver. Man muß aber Volksmittel nicht verachten; sie sind vor Hahnemann fast die einzige Quelle der materia medica gewesen und wir werden dadurch noch viel lernen können. Oft hat der Instinkt dem Menschen Mittel gelehrt, auf die das Probieren in Jahrhunderten nicht hätte führen können.... So war ich denn durch dieses Alles sehr begierig geworden nach dem Besitze einer lebenden, großen Giftschlange."

Eine solche Einleitung läßt Großes erwarten und unser Hering täuscht uns nicht. Er erzählt nun ausführlich, wie er und zwar im Jahre des Heils 1828 endlich einen Buschmeister erhalten, das Gift ausgedrückt, zehn Tropfen davon auf hundert Gran Milchzucker gebracht und das Ganze verrieben habe "eine Stunde lang", "davon aber zehn Gran wieder mit hundert, um die Verdünnung von etwa hundert Theilen zu erhalten, jeden Gifftropfen als Gran-Einheit betrachtend." Zum Glück für die leidende Menschheit erfuhr der Erfinder dieser herrlichen Arznei gleich an sich selbst deren Wirkung. "Beim Verreiben des Giftes", fährt er fort, "konnte ich bemerken, daß ich den Staub davon einatmete. Es entstand davon hinten am Gaumen ein ganz besonderes, fast kratzendes Gefühl, nach einer Stunde ein Halsschmerz, ein klemmender Schmerz an einer kleinen Stelle tief innen rechts, wie auf der Seite des Schlundes, beim Schlingen nicht vermehrt, vergrößert beim Druck, nach einigen Stunden beim Fahren im Freien eine solche Bangigkeit, als geschehe etwas sehr Übles, wie schwere böse Ahnung: sie quälte mich aufs Äußerste über eine Stunde lang. Gegen Abend ganz ungewöhnliche, fast wahnsinnige Eifersucht, ebenso töricht als unbezwinglich, abends große Erschlaffung und Müdigkeit, Schläfrigkeit, dabei besondere Redseligkeit, doch oft verkehrtes Schwatzen (!), hohe Appetitlosigkeit, durch ein unangenehmes Gefühl im Leibe verursacht, Durst auf Bier, von Zeit zu Zeit der obige Halsschmerz. Endlich schläfrig zu Bette gegangen, kann ich nicht einschlafen, sondern werde recht munter, kann nicht schlafen, weil keine Lage mir recht ist, alle einen Druck auf den Nacken und Hals zu machen scheinen. Trifft mich etwas auf den Kehlkopf, so ist Dies nicht nur sehr empfindlich, sondern es will mich fast ersticken, auch vermehrt es den Halsschmerz hinten. Handteller, Fußsohle und Bauch sind den ganzen Abend sehr heiß. Nach spätem Einschlafen sehr frühes Erwachen. Nächsten Morgen ein geringer, schmieriger, wie lehmiger Stuhlgang, den zweiten Morgen breiiger Durchfall, den zweiten Nachmittag im Schlaf ganz ungewöhnlich heitere, humoristische Träume."

Beim ersten Versuche, welchen der unübertreffliche Arzt mit seinem Wundermittel anstellte, bewirkte dasselbe: wenig Lust am Tabakrauchen, Heftigkeit und Zorn, ohne sich jedoch zu ärgern, Misstrauen und Argdenklichkeit, Schauer über den Rücken weg, Grübeln in der Nasenspitze, Wässern und Drücken in den Augenwinkeln, vor Mitternacht sehr große Munterkeit, um Mitternacht plötzlich Durchfall, besonders auffallende und anhaltende Gleichgültigkeit und Vergesslichkeit, größere Neigung zum Weintrinken, beim Drücken auf die Herzgrube Schmerzen, Jucken zwischen den Fingern, Unruhe, die ins Freie treibt, Schnupfen und Durchfall, welche vielleicht beweisen, daß die Gabe zu stark war. Bei den übrigen Versuchen stellen sich alle denkbaren und undenklichen Zu- und Umstände ein, selbst wenn ein Gran Lachesis mit zehntausend Granen Wasser verdünnt wurde.

Die ganze Geschichte muß, denke ich, jeden Ungläubigen überzeugen, daß - Herr Sanitätsrath Lutze im Abfassen von Krankenberichten noch Manches lernen kann."

(A. E. Brehm, Illustriertes Thierleben, Fünfter Band, Hildburghausen 1869, S. 334-338)

Ein Vergiftungsbild und einer erste Erfahrung mit Hochpotenzen

"Im Vergiftungsbild von Lachesis tritt nach dem Biss unserer Lachesis muta, im Gegensatz zu dem ihrer Verwandten, Lachesis lanceolata, und dem der meisten anderen Giftschlangen, nur eine geringe örtliche Reaktion ein. Dafür treten aber die allgemeinen Bissfolgen bei Lachesis muta sehr rasch und intensiv ein: erst Unbehagen, Müdigkeit und Mundtrockenheit, danach Schwindel, Kopfkongestion mit Temperatursteigerung und rotem Gesicht, schwacher frequenter Puls, Brustenge und Atemnot, Betäubung mit Irrreden. Psychisch kommt es zuerst zu einer krampfhaften Erregtheit, später zu Depressionen und Lähmung. Dieses Nacheinander ist bedeutungsvoll.

Im körperlichen Vergiftungsbild kommt es dann durch Schädigung der Blutgefäße bei gleichzeitiger Zerstörung der Erythrocyten, Thrombocyten und des Fibrins zu Blutungen unter die Haut und aus allen Körperöffnungen. Die Haut selbst wird durch gleichzeitige Stase bläulich oder durch die Hämolyse gelblich. Der Bauch bläht sich auf, wird berührungsempfindlich, der Schlund krampft sich zusammen, so daß dem Vergifteten kaum Flüssigkeit beigebracht werden kann.

Im weiteren Verlauf tritt bei starker Giftdosis bald Kollaps unter Ausbruch kalten Schweißes ein, die Atmung setzt aus und das Opfer stirbt im Koma durch Versagen der zentralen Regulationsmechanismen. Bei schwächerer Giftdosis zieht sich das Erliegen über mehrere Tage bis zwei Wochen hin, in dieser Zeit werden die Stellen der stärksten Blutextravasate brandig, die Bissstelle und sonstigen Wunden infizieren sich schnell, da das Schlangengift die baktericide Kraft des Serums stark herabsetzt, und der Vergiftete stirbt praktisch an einer Sepsis. Auch die Leichen der Vergifteten zersetzen sich ungemein rasch infolge des Fehlens der Blutbaktericide, die sonst in den ersten Stunden nach dem Tode die Verwesung noch aufhält.

Bei demjenigen, der infolge von Impfung oder leichter Intoxikation die Schlangenbissvergiftung übersteht, treten zumeist im Verlauf seines weiteren Lebens im frühen Frühjahr und beim Eintritt schwüler Witterung örtliche Beschwerden an den Bissstellen und Allgemeinbeschwerden auf." (...)

"Mir drängt sich dabei immer wieder die Erinnerung an einen Fall auf, den ich Ihnen nicht vorenthalten möchte, weil er klassisch war und weil er für mich wichtig und wegbestimmend wurde. Es war nämlich mein erster Lachesis-Hochpotenzfall.

Es war einige Monate vor meiner Niederlassung. Ich hatte damals meine schriftliche homöopathische Prüfung in Stuttgart gerade bestanden und besuchte nun noch einige

Krankenhäuser in der Umgebung, um mich noch in einigen Fachsparten umzusehen, die mir während meiner internistischen Ausbildung etwas aus den Augen gekommen waren, und ich hospitierte in jenen Wochen auf einer Frauenabteilung in Br., wo ich keine eigene Station hatte, sondern überall dahin ging, wo mich etwas interessierte. Da hatte mich ein Kollege gebeten, am Mittwochnachmittag doch mal eben auf seiner Station Visite zu machen, während er sich einen freien Tennismittag machen wollte. Vormittags hatte ich bereits im Krankenhaus von einem Fall gehört, ohne ihn zu sehen, der eine Frau von etwa Mitte der dreißiger Jahre betraf, bei der die Hebamme bei der Hausgeburt einen Placentarest zurückgelassen hatte, der sich in den abgelaufenen vier Wochen zu einer massiven Beckenperitonitis entwickelt hatte, die zuletzt trotz Antibiotica so verjaucht war, daß keine Hilfe mehr möglich schien. Die Gynäkologen hatte sie unter Hinweis auf die Asepsis ihres Op. nicht haben wollen, so war sie zuerst bei den Chirurgen gelandet, die in ihrem septischen Op. aber nur eine mehrfache Drainage der Bauchhöhle und den Versuch einer Durchspülung mit Antibiotica unternommen hatten. Dann war sie wieder auf die Frauenabteilung gekommen, weil die Chirurgen die offensichtliche Todeskandidatin nicht behalten wollten und sich darauf berufen konnten, daß sie ja auch gar nicht zu ihnen gehörte. So war sie also auf die Station gekommen, auf der ich Visite machen sollte, allerdings wußte ich nichts davon, da es in der Mittagszeit geschehen war.

Da die Stationsschwester wieder einmal nicht so schnell zu mobilisieren war, ging ich schon mal voraus und geriet in das halb verdunkelte Sterbezimmer dieser Patientin, der ich mich unvermutet gegenüber sah, ohne daß sie von mir Notiz nahm. Sie lag mit halb geschlossenen Augen, bewußtlos, mit dunkelrotem Gesicht und offenem Mund in ihrem halb hochgestellten Bett. Die Atmung war beschleunigt und stridorös, die rote Zunge hing zitternd hinter der unteren Zahnreihe, die Atmungsluft, überhaupt die ganze Patientin roch sehr übel. Während ich an sie herangetreten war und ihren kleinen frequenten Puls getastet hatte, war von mir unbemerkt der Oberarzt der Abteilung mit der Stationsschwester eingetreten, der die Patientin und mich beobachtete und dann ohne große Rücksicht auf die Anwesenheit der Patientin, die ja doch nichts mehr hörte und ohnehin schon fast tot war, der Schwester Anweisungen für den Todesfall gab. Ich begleitete ihn hinaus, und wir trafen auf dem Gang auf den Chefarzt der Abteilung, der seinerseits auch kurz vorher zu der Patientin hereingeschaut hatte und sich nun mit dem Oberarzt darüber einig war, daß es mit der Patientin höchstens noch eine, allenfalls auch zwei Stunden dauern könnte. Ich hatte dabei gestanden und war nun so waghalsig zu äußern, so völlig könnte ich die Patientin noch nicht abschreiben, ich könnte mir vorstellen, daß bei ihr mit der Homöopathie noch etwas zu machen sei - nebenbei bemerkt, so frech kann man nur in der Begeisterung sein und dann, wenn man noch zu dumm ist, um auch die Gegengründe zu erwägen. Ich weiß nicht, ob ich heute so ohne weiteres noch einmal den Mut aufbringen würde, einen gleichen Fall genauso zu behandeln.

Ich machte mich also anheischig, hier den rettenden Engel zu spielen und die beiden Herren waren sehr schnell bereit, mir volle Handlungsfreiheit und Übernahme der Arzneimittelkosten zuzusichern. Je nun, die Arzneimittelkosten waren nicht groß. Ich ging ans Telefon und bestellte bei der Apotheke - sofort durch einen Motorradkurier herauszubringen - nun, was wohl: Lachesis D 30 als Dilution. Irgendwie ritt mich an jenem Nachmittag der Teufel, daß ich gerade mal an diesem Fall sehen wollte, was wohl an den Hochpotenzen dran sei, vielleicht folgte ich aber auch nur meinem Unterbewußtsein, das damals noch nicht so von einem kritischen Oberbewußtsein und der sogenannten Erfahrung in Schach gehalten wurde. Ich gab der Stationsschwester die Anordnung, der Patientin aus der Flasche, die kommen würde, alle 2 Stunden 5 Tropfen mittels eines Eierlöffels einzuflößen, und zwar unverdünnt. Ich konnte die Ankunft des Mittels nicht mehr selbst abwarten, da ich zur Bahn mußte. Meine übrige Visite hatte ich inzwischen schnell absolviert. Die Schwester, ein an sich etwas kritisches und verbiestertes Menschenkind, versprach, alles weisungsgemäß zu tun. Leider

traf es sich noch so, daß ich mir schon vormittags für den nächsten Tag Urlaub genommen hatte, da ich meinen Motorroller bei der Kraftfahrzeugsstelle vorführen sollte.

Ich kam also erst am Tage danach wieder nach Br. und näherte mich mit einigem Herzklopfen dem Krankenhaus. Inzwischen hatte ich nämlich nachgeschlagen und gelesen, daß "man" an diese Dinge mit ganz anderen Potenzen herangeht, so daß ich nicht erwartete, die Patientin noch wiederzusehen. Bevor ich ins Op. eilte, um dem morgendlichen "großen Bahnhof" für den Chef beizuwohnen, ging ich also geradewegs auf die Station und zu dem Zimmer der Patientin, öffnete voll banger Erwartung die Tür - und siehe da, sie saß im hochgestellten Bett und frühstückte. Sie war zwar blaß, hatte aber einen roten Schimmer auf den Wangen und die Augen waren klar. Sie blickte mich verständnislos und fragend an, was ich wohl wollte, hatte ich mich doch nicht einmal vorher in das Weiß der ärztlichen Unschuld geworfen. Ich entschuldigte mich also, zog mich zurück und ging nun zur Schwester und fragte, was sich zugetragen hatte. "Ja", sagte sie, "so etwas habe ich überhaupt noch nicht gesehen", und sie schilderte mir, wie sie an jenem Nachmittag der Patientin, die noch genau so dalag, wie ich sie verlassen hatte, die Tropfen eingeflößt hatte. Nach einer Viertelstunde habe die Patientin die Augen aufgeschlagen und etwas zu trinken verlangt, dann habe sie sich weiter zusehends erholt, bis sie nach 2 Stunden ein paar Happen zu essen verlangt habe und so sei es nun bis heute morgen weitergegangen, das Fieber ginge zurück, der Prozess schein sich zu lokalisieren und die Nacht sei schon sehr gut gewesen. Alle Ärzte seien schon dagewesen und ständen vor einem Rätsel. So ging ich nun ins Op. und wurde von den Assistenten mit Hallo begrüßt. Dann kam auch der Chef und fragte: "Na, haben Sie Frau Sowieso schon gesehen?" Ich bejahte. "Na, sehen Sie", sagte er, "da sehen Sie wieder einmal, was unsere modernen Antibiotica zuwege bringen!" "Ja", sagte ich, "eben", konnte es mir aber anschließend doch nicht verkneifen, den Witz von dem Sultan auf Löwenjagd und dem Eunuchen, der zu Hause geblieben war, zum Besten zu geben, wo sich die auftauchenden Fragen dadurch geklärt hatten, daß hinter beiden einer mit einem richtigen Gewehr gestanden hatte.

Ich halte diesen Fall in mehrerlei Hinsicht für bedeutungsvoll:

1. Es war mein erster Hochpotenzfall, der mich natürlich schnell der Arbeit mit Hochpotenzen näherbrachte, denn für den Kritischen ist ja D 30 schon eine unvorstellbar hohe Potenz.
2. Dieser Fall bewies die Wirkungsmöglichkeit der Hahnemannschen Homöopathie noch bei einem von der Schule aufgegeben Fall.
3. Es handelte sich, im Sinn der zur Zeit modernen Forschungen um einen Blindversuch, nicht nur um einen einfachen oder doppelten, sondern sogar um einen dreifachen, denn die Patientin sah nichts mehr, die Schwester wußte nicht, was sie gab, und ich war vielleicht der Blindeste von uns allen dreien, sonst hätte ich sicher nicht ein so unverschämtes Glück gehabt, am Anfang meiner homöopathischen Tätigkeit einen Fall in dieser Weise zum Guten zu führen.
4. Wir können aus diesem Fall sehen: man kann als Homöopath einen noch so offensichtlichen Heilerfolg haben, der schulmedizinische Nachbar wird immer noch eine andere Erklärung wissen, "weil, so schloss er messerscharf, nicht sein kann, was nicht sein darf!"

(Hans Wirsam, Lachesis, Zeitschrift für klassische Homöopathie 1960/2, S. 57-58, 60-62)

A case report of hemorrhagic stroke in a child

"Snakebites were included by the World Health Organization on the list of neglected diseases. An incidence of 5 million envenomings annually worldwide is estimated, with the highest incidence in developing countries with agricultural activities. In Latin America there are approximately 129,084 cases annually, with the vast majority being caused by species of the

family Viperidae. In Brazil, from 2011 to 2014 there were 112,249 accidents, 72 % caused by Bothrops.

The genus Bothrops has neotropical distribution, with the species *B. marajoensis* Hoge, 1966 being found in the savannas of Marajó Island, Pará state, Brazil. This species is part of the complex *B. atrox*, popularly known as “jararaca”, “surucucurana”, “combóia” and even by “surucucu”. The Bothrops are implicated in a large number of envenomings in the Brazilian Amazon, where they affect mainly rural areas and are considered a public health problem. The epidemiological data on this species are scarce and underestimated in this region.

A male child younger than 10 years old, from Anajás city, Marajó Island, Pará, was bitten in an attack by a snake identified as *B. marajoensis* Hoge, 1966, in the plantar region of the right foot, on July 14, 2013, while harvesting açai. After the bite, the patient reported local pain then local edema. His parent took him by motorized boat for medical assistance in Anajás. During the trip the boat malfunctioned, which delayed medical care for 25 h. During transport, the child became somnolent and stopped communicating. Upon admission at the hospital, he presented with edema on the entire right leg, ecchymosis, blisters, hematuria and a comatose state, and was classified as severely poisoned. The child received all four vials of antiotherapeutic antivenom available in the service unit. A transfer to Belém city, the capital of Pará state, was requested, and effected 2 days after to the Emergency Department Mario Pinotti by helicopter. He was admitted with the aforementioned clinical manifestations and the same severity, with eight antivenom vialshaving been infused to complete the number of ampoules required due to the gravity of the case. He was transferred on 19 July to the University Hospital João de Barros Barreto in Belém, where he was admitted comatose, with right hemiplegia, labial commissure deviation to the left side, heart and lung auscultation without abnormalities, swelling from the foot to the knee, blisters, normal urinary color and volume and signs of infection at the bite site.

He was evaluated by a neurologist who requested laboratory tests and acomputed tomography of the brain that showed hemorrhagic lesions. Conservative therapeutics and antibiotic therapy were applied. During the 19 days of hospitalization, the patient received medical and physiotherapist follow-up, receiving medical discharge with sequelae including right flaccid hemiplegia.

Discussion

A case of hemorrhagic stroke in a child associated with envenoming by *B. marajoensis* in Anajás city, Marajó Island, is herein reported. This type of accident in the pediatric age group is rarely described in the literature, but is more frequently reported in adults. Mosquera, Idrovo and Tafur reported an incidence of 2.6 % of strokes in Bothrops victims in Ecuador, where as Thomas et al. found 2.3 % in Martinique. Santos-Soares et al. and Machado et al. also reported cases of stroke following snakebites in Brazil.

Bothrops is the main genus involved in snakebites in Brazil. In the Amazon, ophidic accidents are attributed mostly to *B. atrox* species complex, represented in the archipelago of Marajó by *B. marajoensis*. In all 144 cities of Pará state in the 2012–2014 period, there were 14,842 snakebite accidents in total; of these, 86.84 % by Bothrops. Two thousand two hundred and seventy-one (2271, i.e., 15.3 %) of these envenomings occurred in the 16 cities of Marajó Island.

The venom of snakes of the genus Bothrops are complex mixtures of proteins and peptides that present various toxic activities leading to inflammatory, coagulant and hemorrhagic effects. Symptoms of envenoming are determined by the type of venom, the agent, the severity of the accident and by the conditions inherent to the victim, which may include local manifestations (pain, swelling and redness) and systemic manifestations (bleeding).

Complications of envenoming with hemorrhagic stroke are more evident in patients with pre-existing risk factors such as cardiovascular disease, particularly systemic hypertension, which was not detected in this case."

(Pedro Pereira de Oliveira Pardo et al, Hemorrhagic stroke in children caused by *Bothrops marajoensis* envenoming: a case report, in: *Journal of Venomous Animals and Toxins including Tropical Diseases* (2015) 21:53)

Purpura haemorrhagica in a widow aged sixty

"A case of this disease, of a serious nature, occurred in the practice of Dr. A. Shough, in South Easton, in July last. Its history is as follows:

Mrs. J. F. S., a widow, aet. 60 years, had complained for several days, before the doctor was called, of lassitude, diminished appetite, and general malaise, followed by bleeding from the mouth and nostrils.

The symptoms present at his first visit, were paleness of the skin; an anxious, alarmed, and confused expression of countenance; bleeding very freely from the mouth and nose; tongue coated and covered with dark blood; phlyctenae in the buccal cavity. Hamamelis 6th, in water, was given in teaspoonful doses, every half-hour for twelve hours, without effect. An alarming prostration of the patient, and an increase of the bleeding from the mouth and nose ensued, to which was added a discharge of dark, coagulable blood *per anum*, and haematuria.

A consultation was proposed and the reporter of the case was sent for. Joint examination showed the pulse to be 67 to 70; skin dry; tongue thickly coated with sordes and dark blood; blood oozing from its side and under surface, as well as from the gums and the whole epithelial or mucous lining of the mouth, palate, tonsils and fauces; three isolated phlyctenae of the size of a large lima bean, resembling thrombi, on the right, and one on the left, inside of the cheek, which were very prominent and from which dark blood oozed freely. Blood was passed *per anum* without faecal admixture; and the urine contained black, rather rosy blood, which constituted about three-fourths of its entire quantity; ecchymotic spots or petechiae were very numerous on the upper and lower extremities, and were increasing in number. Phosphorus was given, but without effect, as we learned on visiting her the next morning, and all the symptoms had rather increased since our visit on the preceding evening. She now had no appetite; extreme prostration; fainting when raising the head; the pulse was unchanged. Terebinthinae 6th cent., six pellets in a tumbler full of water, of which solution she was to receive a teaspoonful every half-hour until visible improvement took place, then every hour or two hours. At our next visit we found the patient much better in every respect, and she made a speedy recovery.

The bleeding preceded the appearance of the ecchymoses on the lower extremities. On the hands and forearms they were observed on the first visit, and continued to increase.

Note. - In 1818, J. A., a young man aet. 22 years, had taken, at the recommendation of a layman, one teaspoonful of oleum terebinth., for a so-called rheumatic affection of the hip, which was followed by a severe burning sensation in the epigastric region, and copious haematuria with considerably stranguria, and small livid spots on the skin of the back and abdomen."

(Henry Detwiller, M.D., Easton, Purpura Haemorrhagica; or Morbus Maculosus Werlhoffii. Transactions of the Homoeopathic Medical Society of the State of Pennsylvania. Sixteenth annual session. Pittsburgh 1880, p. 184-185)

Two cases of insanity caused by accidental "gassing"

"CASE I. - B. H., aged 30, was admitted into Rainhill Asylum, September 20th, 1888. There was no history of insanity in the family. The patient himself was said never to have had any

illness, but he appears to have drunk somewhat. He was a single man and a labourer in some chemical works. On the morning previous to his admission into the asylum he went to his work as usual. About 9 a. m., he was observed to be acting strangely, throwing his arms about wildly and shouting. In addition he lost power over his legs. As he was engaged in an occupation which exposed him to some chemical fumes (probably sulphuretted hydrogen) it was supposed - apparently with very good reason - that he had inhaled the gas. He remained excited and rough all the day, laughing and shouting by turns, and did not appear to recognise his brother. When admitted into the asylum on the following day he was in a very maniacal condition, shouting and throwing himself about, and it took several men to carry him to the ward. He kept throwing his arms about, but was distinctly unsteady on his legs when made to stand. In bed he wriggled about, throwing his head back on the pillow, and waving his right arm round and round. This condition of things lasted for two or three days, when he became more quiet; and he then gradually passed into a taciturn, depressed state, sitting or standing about for hours doing nothing, and never speaking except when addressed. After remaining in this condition for many months he gradually developed delusions of persecution and interference, and became very dangerous, making assaults on those around him. This condition of things lasted for upwards of a year; but during the last few months an improvement has set in, and at the present time, although apparently not altogether free from delusions, these are nevertheless much less prominent; and though still excitable and talkative, he is much more tractable, and is regularly employed at outside labour. It is improbable, however, that he will ever fully recover.

CASE II. - R. H. aged 32, was admitted into Rainhill Asylum on January 27th, 1890. He was a married man with three children, and was employed as an engineman at some chemical works. He had always been healthy and temperate, but shortly before the onset of the mental affection he had had an attack of bronchitis, which kept him at home for about ten days. Whilst at his work a few days after this he accidentally inhaled sulphuretted hydrogen and became "gassed", as it is called at the chemical works. This produced headache, stupor, and prostration, for which he was kept at home for a few days, when he became delirious. He passed rapidly into a very violent excited state, shouting and gesticulating; said he was Jesus Christ, etc.; tried to bury his head in the floor, and to raise his feet above his head. When admitted into the asylum, three days later, he was still very violent and excited, gesticulating and talking incoherently chiefly on religious subjects. He continued in a maniacal condition for two or three weeks, but at the end of a month from admission he had distinctly improved; he had then become rational and was working fairly well. The improvement continued and he slowly recovered mental vigour, and was discharged recovered on June 27th, just five months after his admission into the asylum.

REMARKS. - I have grouped these two cases together, although it is not quite certain that in the first case the gas which affected the patient was sulphuretted hydrogen, details being wanting as to the exact fumes to which the man had been exposed. That he had inhaled gas of some sort is, however, I think pretty clear from the history, and there can, I think, be little doubt that sulphuretted hydrogen was the agent in question. That it was so in the second case is clearly stated in the history obtained from the patient's friends. There was a good deal of similarity between the two cases as regards the symptoms presented at the onset, there being in both a greater amount of muscular excitement than is usual in ordinary mania, and both men exhibiting a curious tendency to roll the head on the floor or pillow.

Labourers in chemical works are quite familiar with sulphuretted hydrogen gas and its usual effects on the system; for it is not by any means unusual for persons exposed to its fumes to become "gassed", as the saying is - that is, they pass into a condition of insensibility which lasts a variable time, and when coming round they are very often sick and dazed, and have a sense of oppression about the chest, and there is often a good deal of prostration for a day or

two afterwards. Sometimes indeed, though very rarely, the insensibility ends in death. It is, however, very unusual for lasting or permanent effects to be produced upon the nervous system as such as come under the designation of insanity. Indeed, I am not aware that any such cases have been recorded before. It does not, however, appear to me matter of surprise that such effects should at times occur. That the gas has powerful narcotic properties is evidenced by the rapid insensibility it produces when inhaled in any quantity. Cases have been recorded by Savage and others in which insanity - generally taking the form of mania - has resulted from the inhalation of chloroform, ether, nitrous oxide gas, and other similar agents, and the cases just described as produced by sulphuretted hydrogen, seem quite to fall into line with case.

The effect of all these agents appears to be to paralyse, in the first instance, the highest controlling and co-ordinating plexuses in the brain. If the dose be large or the administration continued, more and more of the cortical centres in a descending series are involved, and insensibility ensues. But when the paralysis is confined to the highest cortical arrangements, the immediate result is not lethargy but excitement owing to the centres next in series being emancipated from the control of the higher, and hence acting over-vehemently and incoherently. Such, at least, is the explanation which I have to offer of the pathology of these toxic cases, which are hence assimilated to the more ordinary forms of mania which we meet with in practice."

(Remarks on two cases of insanity caused by inhalation of Sulphuretted Hydrogen. By J. Wigglesworth, M.D., London. British Medical Journal, July 16, 1892, p. 124-125)

A "most misunderstood remedy"

Blutsturz nach Entbindung

"Die außerordentlichen Erscheinungen, welche auf Ahnungen, Prophezeiungen oder andere dunkle und unbekanntere Gefühle gegründet, bei Schwangeren und Neuentbundenen nicht selten über Tod und Leben entscheiden, veranlassen mich, nachstehenden interessanten Fall mitzuteilen.

Dem allöopathischen Heilverfahren ist es, wie einige öffentlich bekannt gemachte Fälle beweisen, bisher nicht gelungen, die alle Lebenskraft zerstörenden Einwirkungen der erkrankten Psyche zu heben und das Leben zu erhalten. Auch der geschätzte Dr. Groß gab früher in diesem Archiv einen ähnlichen Fall an, wo, indem diese unglückliche Richtung der Phantasie von **außen** angeregt worden, weder psychische noch somatische Mittel halfen und ein junges, rüstiges Weib aus bloßer Einbildung starb.

In einem anderen, eben daselbst angegebenen Falle, wo aber der Grund der falschen Einbildung **im eigenen Gemüt** der Kranken lag, war der Herr Verfasser durch homöopathische Heilmittel so glücklich, alle Todesgedanken binnen zwei Stunden zu verscheuchen. Folgender Vorfall reiht sich diesem an.

Karoline K., 22 Jahre alt, von derbem, rüstigem, wenig erregbarem Körper, war als Mädchen stets gesund, heiter und so froh, ja leichtsinnig, dass sie die Lebensbegegnisse nur als Scherz betrachtete und über alles lachte. Im 21. Jahre heiratete sie einen jungen, braven Handwerksmann. (Ihre ältere verheiratete Schwester starb 36 Stunden nach der ersten Entbindung. Die eigentliche Ursache des Todes derselben konnte ich nicht erfahren.) Bald nach der ehelichen Verbindung und zugleich stattgehabten Konzeption, wurde sie trübsinnig und wortkarg. Alles was ihr sonst Lachen erregte, stimmte sie jetzt zur Trauer und zum Weinen. Gänzliche Freudenlosigkeit und Niedergeschlagenheit war an die Stelle früherer Heiterkeit getreten. Je mehr sie in der Schwangerschaft vorrückte, desto trüber wurde ihre Stimmung, und sie glaubte ganz fest, dass sie gleiches Los mit ihrer älteren Schwester teilen

und nach der Entbindung sterben werde. Mit unbeschreiblicher Furcht sah sie die Stunde der Geburt herannahen.

Die Entbindung von einem Mädchen ging schnell und für eine Primipara ohne sonderliche Schmerzen vorüber. Die Placenta folgte sogleich, und, wie die Hebamme versicherte, freiwillig. Ein starker Blutstrom folgte nach und die Entbundene behauptete mit aller Gewissheit: "das ist mein Tod, nun sterbe ich." Ihr Mann, der sie innig liebte, kam atemlos zu mir und bat um Hilfe. Schleunigst ging ich zu ihr.

Ihr Gesicht war eingefallen, blass und mit großen kalten Schweißtropfen dicht bedeckt. Als ich mich dem Bett näherte, sagte sie, mit schwacher, kaum vernehmlicher Stimme: "es hilft alles nichts, ich sterbe wie meine Schwester." Das Blut stürzte auch in der Tat mit furchtbarer Heftigkeit von ihr. Doch entgegnete ich ihr mit aller mir möglichen Ruhe und Festigkeit: "es sei alles in Ordnung; das Blut solle gleich stehen und sie sterbe durchaus nicht." Zugleich ging ich mit der Hand in den Uterus ein und komprimierte die Aorta descendens. So wie der Reiz der Hand in dem halbgelähmten Fruchtblase neue Zusammenziehungen hervorrief, so wurde auch momentan der Blutfluss durch den Zusammendruck der großen Pulsader so weit gemindert, als es hier (ohne zugleich die höher entspringenden arterias spermaticas internas mit komprimieren zu können) möglich ist.

Die Bewährung meines Versprechens durch den schnellen Nachlass des Blutflusses machte Eindruck. Ihre Seele wurde wieder etwas freier und zur Herrschaft über den Körper geschickt. Doch bald kamen wieder neue Angstanfälle. Sie verlor das Bewußtsein und bekam Konvulsionen der oberen Extremitäten.

Ich reichte nun einen kleinen Teil eines Tropfens der 24. Potenzierung von **Aconit**. Kurz nach Darreichung dieses Heilmittels verfiel die Kranke in einen natürlichen Schlummer, (*) aus welchem sie nach einer reichlichen halben Stunde erwachte und sich gestärkt fühlte. Schwermut lagerte noch auf ihrem Gesicht, doch war sie ruhig.

(*) Unter den Frauen und Hebammen gilt in hiesiger Gegend noch die alte, von manchem unwissenden Geburtshelfer unterstützte Ansicht: "dass der Schlaf, kurz nach der Entbindung, höchst schädlich sei." Nicht selten müssen zwei Frauen Wache halten, um ja die Neuentbundene, welche nach Schlaf lechzt, nicht einschlafen zu lassen, sondern sogleich zu rütteln, wenn sie die Augen schließt. Aus ganz anderem Grund (nämlich um die Entbundene wirklich schlafen zu lassen) habe ich hier in diesem Fall, so wie auch zuweilen anderwärts, am Wochenbette strenge Wache halten müssen, um nur das gewaltsame Erwecken zu verhüten. Man nimmt an, dass im Schlaf leicht Blutflüsse eintreten, und will, indem man jenen verscheucht, auch diese unterdrücken!

Drei Stunden später besuchte ich sie wieder. Lächelnd und freudig reichte sie mir ihre blasse Hand entgegen und sagte: "ich habe recht viel Angst ausgestanden und weiß gar selbst nicht, wie nur alles so gut abgelaufen ist, denn jetzt ist mir ganz wohl." Bald erholte sie sich wieder, und gern vertauschte sie jetzt Tod und Sterben mit Heiterkeit und Leben.

Die Seele schien sowohl hier, als wie auch in den anderen oben angeführten Fällen, so gewaltig auf die Gesundheit des Körpers gewirkt zu haben, dass diese in dem Grade abnahm, als sich die Seele dem sich einge bildeten Ziele zu nähern glaubte. Die Einbildungskraft wurde daher physischer Grund des Todes. Die Richtung der Seele übt hier ihre Macht als Prinzip des Lebens, durch eine sieche Idee gebunden im negativen Verhältnis ihrer sonst zweckmäßigen Tätigkeit, auf ihren eigenen Körper aus. Unheilbar wäre bei dieser krankhaften Richtung der Seele das junge Leben untergegangen, hätte nicht ein homöopathisches Heilmittel die gelähmte Naturkraft wieder erregt, gehoben, und so noch zu helfen vermocht.

Dr. von Klein's Ausspruch, "dass die Einbildung im Durchschnitt, bei den reizbarsten Personen weit weniger Folgen habe, als bei den stumpfesten" wird hierdurch einigermaßen bestätigt. Beispiele, wo das Leben lediglich durch Einbildung bei jugendlichen Individuen abgekürzt wurde, finden wir in vielen Schriften der Ärzte. Nirgends finden wir aber ein Heilmittel dagegen, wie das eben mitgeteilte.

Mag auch dasselbe bei den wenigen Erfahrungen, welche bis jetzt öffentlich vorliegen, der allgemeinen Spezifität noch ermangeln, so bleibt es doch wohl keinem Zweifel unterworfen, dass nicht auf homöopathischem Wege, für andere Fälle, auch andere individuell spezifische Mittel aufzufinden sind."

(H. Bethmann, Homöopathische Heilungen, Archiv für die homöopathische Heilkunst Bd. 9 (1830), Heft 1, S. 114 ff)

The Value of Aconite

"There are no specifics in Homoeopathy. You do not prescribe for the disease, you prescribe for the individual in question. This is a great stumbling-block to both doctors and lay people. On the one hand we get asked over and over again: 'What do you give for a cold, or for bronchitis, or for rheumatism!' - just to mention a few of the commoner complaints. And one has to answer, 'It depends on the patient.' On the other hand, because we consider the individual and do not prescribe according to the name of the disease, we get the reputation of not making a diagnosis. Diagnosis is necessary, always, though it does not help very much in finding a remedy, at least not in all cases. Let me elucidate.

A friend of mine was telling me that her grandfather was a homoeopathic doctor, and they still followed some of his instructions; such as, they always took *Aconite* in small doses for a cold. This is prescribing for a disease, and therefore not homoeopathy. It is not the small dose which makes a medicine homoeopathic to the disease; the question always should be asked: 'Is the medicine or medicines *similar* to the kind of patient afflicted with this disease?'

Aconite sometimes is the simillimum for a certain kind of cold; but there are a number of other medicines which are frequently necessary and indicated for a chill and its effects, and in order to treat them, you have to consider the kind of weather which prevailed when the patient caught his cold, whether wet or dry, cold or not, windy and stormy. It all makes a difference.

I came across a book on homoeopathic treatment, published 100 years ago, which clearly showed that the earlier homoeopaths, at any rate in England, relied largely on *Aconite* for the early treatment for all acute diseases. It did not invariably stop or abort the disease; they had to go on giving other remedies to follow up; the disease seemed to progress, in spite of *Aconite*. The routine treatment seemed to be, whether it was pneumonia, or typhus - just to mention at random two diseases common then - *Aconite* followed by *Bryonia*, or alternating with *Bryonia* or a similar acute remedy. There was no difference as regards the duration of the disease from the ordinary orthodox treatment in this kind of haphazard routine method of prescribing remedies for names of diseases; the death rate was decidedly lower, less harm was done to the patient, it is true, which was an advantage, but it was not and never will be true, or the best homoeopathy.

And again very few people can or do understand why we say that a certain medicine can and does cure different kinds of disease. We are considered quacks because we prescribe, say, *Bryonia* for rheumatism, bronchitis, pleurisy, constipation, gastric disturbance, hepatic chill, etc., just to mention one remedy. *Bryonia* may come in for any one of these complaints, but the symptoms necessary for *Bryonia* are what we are look for and the identical symptoms may be found in either rheumatism or pneumonia or bronchitis, etc.

Let us return to *Aconite*. I do not very often prescribe *Aconite* for a chill, not in England anyway; but I have found *Aconite* symptoms in a variety of complaints. One very hot summer *Aconite* was always cropping up. During the spell of almost tropical heat, two cases of intussusception in infants round about five or six months were admitted within a day or two. The histories were similar. Each child had been seized with a sudden attack of screaming, great restlessness, the abdomen was distended, which was soon followed by the child passing

blood and clear mucus from the back passage. I felt a lump in the right iliac region, the rectum was distended like a balloon when I examined it digitally, and I definitely felt the invaginated piece of bowel high up, and there was this red jelly-like substance oozing from the rectum. I gave the No. 1 child two doses of *Aconite M* at fifteen minutes' interval, the intussusception disappeared and there was no need for any operation. The child was kept in for observation for several days, but there was no need to repeat the medicine, nor was the surgeon required.

Child No. 2 was seen by the surgeon on admission, as he was on the spot; he made the diagnosis. While we were waiting to get the infant into the theatre, I gave him two doses of *Aconite M*, and when the surgeon re-examined him on the operating table, he could find no sign of any intussusception. The bowel had slipped back in the interval after the *Aconite*, and the surgeon decided not to operate. I told him, then, I had give the *Aconite* as it had cleared up a similar condition two days previously. The temperature outside was very high, tropical in fact. He was astonished how quickly the medicine had acted.

The symptoms indicating *Aconite* in bowel troubles are passage of pure, bright red blood and mucus, with tenesmus, with high fever which comes on suddenly in well-developed, active, healthy children in hot weather. Great restlessness, anguish and much screaming with pain.

I saw another infant about that time. She passed light green motions with much restlessness, her face was red, her eyes were glassy, her temperature was 104°, a typical case of summer diarrhoea. A few doses of *Aconite M* and the diarrhoea disappeared, the temperature dropped to normal, and the storm was over. Within twenty-four hours everything had cleared up.

Bowel troubles like these are apt to come on in hot summer; and are frequently found in tropical countries. Here the disease would be called Dysentery, and bacteriologically you might find the particular *Bacillus Dysenterius* or the '*Sonne*' *Bacillus*. But I am quite sure that *Aconite* would have cleared up a certain percentage of the dysentery cases which occurred in Mesopotamia during the 1914-18 War, and it will always cure rapidly a large number of dysentery cases in the tropics, or in any other country during a hot spell.

There is another totally different set of circumstances which call for *Aconite*, and that is intensely cold winds; or cold wind combined with snow. I saw several children this spring suffering from bronchitis which cleared up with a few doses of *Aconite*. One child I remember, I was sent for some years ago; the parents were in a great state about him; he was a fair, chubby child, he had been playing about in an icy cold wind the day before, and in the night he was suddenly seized with a dry barking cough, high fever, somewhere round about 103°. He was restless, frightened, the throat and larynx burned and he asked for cold water and could hardly swallow it. It was an attack of croup or acute laryngitis; but a few doses of *Aconite* soon set him right; he was well in a day and there was no return of the trouble.

This reminds me of another case of croup which always came on after exposure to a cold east wind. He was wakened night after night with a constant dry, barking cough; usually it came on after midnight. The child was five years old, he had been taken to various hospitals and doctors, had swallowed a great many bottles of medicine - with no effect. Whenever there was an east wind, the child developed laryngitis and bronchitis. The mother brought him to me for an overhaul before going to school. I gave him - not *Aconite* this time - *Aconite* has not got this constantly recurring condition: cough coming on night after night, waking him up in the latter part of the night; he was not restless and anguished enough for *Aconite*. No, I gave him *Hepar sulphur.*, one powder high, I think it was the 1,000 potency - and promptly forgot about him. I did not hear anything more of the child until six or seven years later, when the mother turned up with another baby. The first thing she said to me: 'Do you remember, doctor, the powder you gave to Harry for his croup when he was five years old; he has never had another attack of croup since, he can go out in all kinds of weather, wind does not effect

him any more. He is perfectly well. If I had given him *Aconite*, on the diagnosis: croup after exposure to cold wind, I should have failed in this case; it was a *Hepar* case and *Hepar* cured him miraculously and at once.

I had another patient, an old lady this time. It was a cold spring again; she was very sensitive to cold winds, and she got a chill on the bladder quite suddenly; burning pains with hot, scalding urine - which was bright red in colour, and contained blood. She was always sitting on the commode and straining and straining to pass water. Extremely restless and frightened, so frightened, she *knew* she was going to die, so that she sent for the whole family, and they all of them arrived promptly, sons and daughters and grandchildren, to see the old lady pass away. Only it did not come off, for a few doses of *Aconite* had been given her, and the cystitis stopped, the pain and the urging went, and also the fear of death. And the old lady - she was seventy-five years at least - survived for several years.

Death was cheated by a few minute doses of *Aconite*.

Have I made myself clear? *Aconite* is not a panacea for all evils. Homoeopathy is not quackery, we have a scientific law, which says 'Like cures like'. *Aconite* taken in material doses produces these symptoms of anguish, restlessness, fever, heat, thirst, in the healthy person, and if you give *Aconite* when you find these same symptoms in the sick, you will cure cases of diarrhoea, dysentery, intussusception, croup, bronchitis, pneumonia, cystitis and others - instantly. But do not prescribe *Aconite* for every case of chill or cold; it will fail you, unless you know the indications. So it is with every remedy. Treat the patient and not the disease; this is the great principle of Homoeopathy.

Let me recapitulate. *Aconite* is a fine remedy, it does cut short diseases, when it is indicated, but it has no periodicity; it is of no use in a continuous fever, or in an intermittent one. It is short-acting, quick in its action. *Aconite* is not homoeopathic or similar to every rise of temperature or pyrexia as such. How easy homoeopathy would be if we had little pigeon-holes for diseases and their respective remedies."

(Dorothy Shepherd, *More Magic of the Minimum Dose* (1946), p. 83-87)

When the telephone rings exactly at midnight

"I will now speak to you of all the cases which are so frequent that at midnight, exactly at midnight, the telephone rings. In a month I may say two or three times the telephone rings at midnight. You take the telephone and a mother tells you, 'Oh, Doctor! can you come?' You hear the terrible shrieking on the telephone. Baby was shrieking because the baby had pain in the ear. What it is? It is midnight. The child is restless. His face is red and the mother does not know what to do. The child is shrieking with pain. Now what to do? Every patient who comes to me goes back with a bottle of *Aconitum napellus* 200 in his pocket. I tell the mother, 'Have you got *Aconite*?' Oh yes, because I give this for the cold. For the beginning of the cold, for everything that comes on suddenly, everything that comes on especially at midnight, any inflammation in appendix, or the ear, eye, anything where it is sudden, like a storm in good weather, coming suddenly. Everything which is sudden, comes suddenly and when there is restlessness, when there is anxiety, when there is thirst, when there is especially redness of the parts, think of *Aconite*. So I tell them, 'You have got *Aconite*?' 'Yes.' 'Put a few globules in a glass of water. Give a teaspoon every five minutes. And if after 15 minutes, the child still shrieks, will you phone me again?' And since 4 years I was never called a second time after midnight. The proof of the pudding is in the eating and there, I tell you, the pudding is very nice because it comes in nice little globules. And now you see, I come in the morning. Either I see a little blood, if it was haemorrhage or a little pus, or there is nothing for the inflammation has subsided. The child is quiet. The indication is given of another remedy according to the

quality of the pus - if it is red over the ear, if it is of bad odour, colour, consistency, etc. Everything is in the repertory. You have only to open the page and look at it and you see, you find your remedy and you can cure the patient very easily."

(Pierre Schmidt, The Art of Case Taking, Lectures given in India 1932; republished by B. Jain Publishers 1976, p. 45-46) [Adolph Lippe once called Aconitum "a most misunderstood remedy".]

Eine Arzneiprüfung der Akademie in Allentaun

"Wir erhielten den bekannten Saft des Stinktiers (mephitis putorius) durch Doktor Sachse, jetzt in Pittsburgh, und sind ihm besonderen Dank schuldig, dass er sich diesem äußerst unangenehmen Geschäfte mit Sorgfalt unterzog. Doktor Bute in Philadelphia hatte schon früher die Prüfung vorgeschlagen, das Mittel wurde durch die Ärzte in Philadelphia 1834 gewählt und vorgeschlagen, hierauf ebenfalls durch die Northampton-Gesellschaft geprüft.

Fast alle Zeichen sind nach dem mehrmaligen Einnehmen einiger Streukügelchen der 30. Potenz bewirkt worden. Mehrere entstanden vom Riechen des Saftes und der Verdünnungen beim Bereiten. Bei den Heilungen diente bisher nur 30.

Aufs Neue im August 1836 zur vervollständigenden Prüfung gewählt, wird dieses Mittel angelegentlich empfohlen und gebeten, gelungene so wie mißlungene Heilversuche ebenfalls einzuschicken. Ganz besonders ersuchen wir nicht nur um Einsendung des Tieres, lebend oder tot, frisch oder in Spiritus, sondern auch um Einsendung des Stinksaftes, damit wir eine wiederholte chemische Untersuchung des Saftes veranlassen und eine anatomische des Tieres selbst anstellen können.

Zeichen von I. C. Becker, Bute, Hering, Kummer, Lingen, Wohlfahrt - im Auszuge (* bedeutet Heilwirkungen)

Verdrießlich über Kleinigkeiten, oder nur Eingebildetes.

Unaufgelegt zu Geistesarbeiten, wegen störender Lebhaftigkeit der Phantasie.

Sehr gesprächig und fast wie trunken.

Aufgeregt, bei Wärme des Kopfes.

(5) Schwindel beim Bücken; plötzlich im Sitzen; bei manchen Bewegungen des Kopfes; beim Umwenden im Bette.

Dumpfe Eingenommenheit, als vergrößerte sich der Kopf, mit Mißmut und Übelkeit.

Heftig Kopfweh, nach oben drängende Vollheit; wie Schwere, dumpfer Druck, besonders im Hinterkopfe, hie und da wie mit Fingern hineingedrückt.

Schmerz über den Augen.

Kopfweh beim Fahren.

(10) **Stiche in den Augen**, wie mit Nadeln.

Schmerz der Augen bei manchen Drehungen; als wäre etwas im Auge; wie von Anstrengung.

Hitze, **Brennen** und brennendes Drücken, besonders Morgens und Abends.

Drücken auf die Lider, Brennen der Ränder, als wollte ein Gerstenkorn entstehen.

Rote Äderchen im Auge.

(15) **Röte der Bindehaut**, wie von Blut unterlaufen.

* Dasselbe geheilt.

Kurzsichtig, **er kann die Buchstaben nicht unterscheiden**, sie fließen zusammen.

Trübheit.

* Kann nur feinen Druck lesen.

(20) (Nachtblindheit.)

Bei Schwäche im Sehen gewöhnlich auch Schmerz in den Augen oder im Kopfe.

Reißen im Ohr oder in der Kinnlade und Zähnen.

Ohrenzwang.

Jucken, Hitze, Röte und Rose mit Bläschen am rechten äußeren Ohr.

(25) Nase trocken - blutet.

Schmerzen in hohlen Backenzähnen besonders im Unterkiefer; plötzliche Rucke in der Wurzel; Reißen, Ziehen.

Übelkeit; mit Kratzen am Gaumen; bei Gefühl als sei der Kopf aufgetrieben, bei Leerheit.

Schluchsendes Aufstoßen; erleichterndes Aufstoßen bei Blähbeschwerden.

Verschluckern bei Trinken und Sprechen.

(30) Lästiger Reiz zu vergeblichem Räuspern.

Kupfergeschmack.

* Neigung zu stark Gesalzenem.

Bald viel, bald wenig Appetit.

Morgens ohne Appetit, selbst nicht zum Tabakrauchen.

(35) Nach dem Essen zerschlagen und schläfrig.

Schmerz in der Lebergegend; in der rechten Seite, rheumatischer; in der linken wie von Blähungen.

Druck im Magen und Leibweh.

Leerheitsgefühl und Übelkeit.

Leibweh wie zu Durchfall, ohne Stuhl.

(40) Drücken und Winden im Leibe wie von Erkältung, mit Kältegefühl, Schütteln und Harndrang, besser am warmen Ofen.

Der Stuhl selten aber dünn.

Durchfall.

Harndrang, sehr oft Harnen, mehr Nachts, Harn hell; nach dem Abendfieber des Morgens trübe mit Bodensatz.

Jucken am Hodensack; Wärme der Geschlechtsteile.

(45) Wundheit der weiblichen Geschlechtsteile, und Geschwulst der Schamlippen.

Langer Reiz zum Niesen.

Fließschnupfen und Husten mit Wundheit in der Brust.

Husten beim Lautlesen, bei Sprechen, nach Trinken von Verschluckern.

* Morgenhusten mit Auswurf, von Katarrh übrig geblieben.

(50) * Schleimaushüsteln alle Morgen.

* Frische Katarrhe und **langwierige Reste** derselben.

Schmerz links an den letzten Rippen, bei Berührung, Druck, besonders Husten und Niesen.

Wundschmerz hinten an den letzten Rippen und innen in der Brust hinauf, bei Tiefatmen und Bewegen des Rückens.

Schmerz an der rechten Halsseite; Spannen in den Nackenmuskeln, rechts.

(55) Schmerz im Rücken und allen Gliedern, mit Art Lähmung.

Stiche im Rückgrat bei Bewegung.

Müdigkeit im Kreuze, Morgens.

Rheumatische Schmerzen in den Armen, lähmend Ziehen, besser bei Bewegung; Reißen oder wie zerschlagen in den Knochen.

Unruhe im linken Arme, der wie gefühllos.

(60) Zittern des Arms beim Aufstemmen.

* Zucken mit der Hand.

Unangenehmes Gefühl im ersten Gelenke des Zeigefingers, was zum Dehnen und Knacken nötigt.

Ziehende, rheumatische Schmerzen in Schenkel und Hüfte bis zum Fuß, besonders im Unterschenkel.

Knie wie zerschlagen.

(65) Plötzlicher krampfhafter Schmerz im linken Fuße, der zum Herumhüpfen nötigt.

* **Unruhe in beiden Unterschenkeln**, als sollten sie gefühllos werden.

Stiche im Fuße.

Schmerz in der Ferse wie Gicht.

Pucken in der großen Zehe wie Abkneipen.

(70) Brennen in der kleinen Zehe.

Anhaltende **Schmerzen und Brennen der Hühneraugen**.

Rheumatische Schmerzen verschiedener Art kehren wieder bei verschiedenen Prüfern; - herumfliegende Schmerzen, mit Harndrang. - Manchmal Gefühl dabei wie elektrischer Schlag.

Lähmigungsgefühl, besonders bei den Schmerzen.

Größte Mattigkeit und Müdigkeit, wobei die Muskeln schmerzen bei Berührung und Bewegung.

(75) **Arbeitsunlust mit Neigung zu Dehnen und zu Renken**.

Unruhe innen im ganzen Körper, mit unbeschreiblichem, höchst unangenehmem Gefühl.

Sehr beunruhigende feine Nervenschwingungen, wie bis ins Innere der Knochen.

Schläfrigkeit, schläft mitten in der Gesellschaft; - schläft den größten Teil des Tages, nach gutem Nachtschlaf.

Öfteres Gähnen, dass die Tränen laufen.

(80) **Sehr lebhaft, erinnerliche Träume**, von Wasser, Feuer, Blutspeien, betrübenden Verlusten.

Alpdrücken.

Erwachen bei Nacht, mit **Blutandrang nach den Unterschenkeln**; Hitze darin.

Ärgste Verschlafenheit des Morgens, stundenlanges Dehnen, wie betäubt, mit Brennen in den Augen, Reißen in allen Gliedern; es erquicke ihn ungemein, sich auf die andere Seite zu legen.

Viel zeitiger Erwachen.

(85) * Zeitiger Erwachen, mit Wohlsein, in mehreren Fällen.

Kälte des Abends und Harndrang mit Leibweh wie zu Durchfall.

Wärme am Kopf, den Geschlechtsteilen, den Unterschenkeln, Nachts.

Vermehre Wärme, besonders des Morgens, friert weniger in der Kälte, scheut kaltes Wetter nicht.

Eiskaltes Waschen wird sehr angenehm.

(90) Jucken am Haarkopf, Gesicht, Kinn; Blütchen an der Stirn, Unterkiefer, Rücken, Hintern, innen **an den Oberschenkeln**.

Abends Schwindel, Kopfweh, Augenbeschwerden, Zahnweh, Leibweh, Kätegefühl, Unruhe.

* Viele Morgenbeschwerden geheilt.

Die Zeichen wechseln rasch mit gegenteiligen oder ganz anderen, während der ersten Tage, werden dann mehr anhaltend, bis sie endlich nach mehreren Wochen erlöschen.

Die heilende Einwirkung war in vielen Fällen nach 30 auf wiederholte Gaben nur von kurzer Dauer.

(95) Riechen an Kampher erleichtert nur kurze Zeit, ohne aufzuheben."

(Mephitis putorius, Correspondenzblatt der homöopathischen Ärzte in Allentaun, Zweites Heft, Nr. 1 (1837), S. 4-6)

Ein ungemütlicher Gesellschafter

"Man kann nicht eben sagen, daß irgendein Mitglied aus der Familie der Marder Wohlgerüche verbreite; wir finden im Gegenteil schon unter den bei uns hausenden Arten solche, welche von dem Volke mit dem Namen "Stänker" bezeichnet werden und diesen Namen auch mit Fug und Recht tragen. Was aber ist unser Iltis gegen einige seiner Verwandten, welche in Ostindien und Amerika leben! Wenn man liest, was für ein Entsetzen sie verbreiten können, sobald sie sich nur zeigen, begreift man erst, was eine echte Stinkdrüse besagen will." (...)

"Alle Berichte von amerikanischen Reisenden und Naturforscher stimmen darin überein, daß die eigentlichen Stinktiere (Mephitis) die eben genannten Verwandten und Gesinnungsgenossen ⁽¹⁾ noch weit übertreffen. Wir sind nicht im Stande, die Wirkung der Drüsenabsonderung dieser Tiere uns gehörig ausmalen zu können. Keine Küche eines Scheidekünstlers, keine Senkgrube, kein Aasplatz, kurz, kein Gestank der Erde soll an Heftigkeit und Unleidlichkeit dem gleichkommen, welchen die äußerlich so zierlichen Stinktiere zu verbreiten und auf Wochen und Monate einem Gegenstande einzuprägen vermögen. Man bezeichnet den Gestank mit dem Ausdruck "Pestgeruch"; denn wirklich wird Jemand, welcher das Unglück hatte, mit einem Stinktiere in nähere Berührung zu kommen, von Jedermann gemieden, wie ein mit der Pest Behafteter. Die Stinktiere sind trotz ihrer

geringen Größe so gewaltige und mächtige Feinde des Menschen, daß sie Denjenigen, welchen sie mit ihrem furchtbaren Saft bespritzen, geradezu aus der Gesellschaft verbannen und ihm selbst eine Strafe auferlegen, welche so leicht von keiner andern übertroffen werden dürfte. Sie sind fähig, ein ganzes Haus unbewohnbar zu machen und ein ganzes Vorratsgewölbe, gefüllt mit den kostbarsten Speisen, vollkommen zu entwerten. Mehr brauche ich wohl nicht über diese Tiere zu sagen, um ihnen die Teilnahme meiner Leser, wenn auch nicht im guten Sinne, zu sichern.

Die Stinktiere unterscheiden sich von den Dachsen durch den gestreckten, marderartigen Leib mit langem, buschigen Schwanz, durch die kleinen halb nackten Pfoten und die schwarze Färbung mit weißen Längsstreifen. Die Schnauze ist sehr gestreckt und spitzig; die Beine sind niedrig und die fünf Zehen an beiden Füßen mit starken, langen Grabkrallen versehen. Hinsichtlich des Zahnbaues zeigen sie noch große Ähnlichkeit mit den Dachsen. Ihre Stinkdrüsen sind von bedeutender Größe und öffnen sich innen in dem Mastdarme. Durch einen besondern Muskel können sie zusammengezogen werden. Das Tier vermag, je nachdem der Druck schwächer oder stärker ist, seinen Pestsaft von zwei bis auf sechs, ja acht Fuß weit von sich zu spritzen. Dieser fürchterliche Saft ist bei älteren Tieren und bei Männchen stärker, als bei Jungen und bei Weibchen, und seine Wirkung steigert sich während der Begattungszeit.

Alle eigentlichen Stinktiere sind Bewohner Amerikas und zwar eben sowohl des Nordens als des Südens. Bei Tage liegen sie in hohlen Bäumen, in Felsenspalten und in Erdhöhlen, welche sie sich selbst graben, versteckt; nachts werden sie munter und springen und hüpfen höchst beweglich hin und her, um Beute zu machen. Ihre gewöhnliche Nahrung besteht in Würmern, Kerbtieren, Lurchen, Vögeln und Säugetieren; doch fressen sie auch Beeren und Wurzeln. Nur wenn sie gereizt werden oder sich verfolgt sehen und deshalb in Angst geraten, gebrauchen sie ihre sinnbetäubende Drüsenabsonderung zur Abwehr gegen Feinde, und wirklich besitzen sie in ihrer stinkenden Flüssigkeit eine Waffe, wie kein anderes Tier. Sie halten selbst die blutdürstigsten und raubgierigsten Katzen nötigenfalls in der bescheidensten Entfernung, und nur in sehr scharfen Hunden, welche, nachdem sie bespritzt worden sind, gleichsam mit Todesverachtung sich auf sie stürzen, finden sie Gegner. Abgesehen von dem Pestgestanke, welchen sie zu verbreiten wissen, sind sie dem Menschen nicht eben schädlich; ihre Drüsenabsonderung aber macht sie entschieden zu den von Allen am meisten gehassten Tieren.

Schon während der Vorzeit waren Stinktiere über Brasilien verbreitet, und gegenwärtig sind sie noch in ganz Amerika keineswegs seltene Erscheinungen. Die vielen Arten, welche man unterschieden hat, sind wahrscheinlich auf einige wenige zurückzuführen, weil alle neueren Beobachter darin übereinstimmen, daß sie sämtlich hinsichtlich ihrer Färbung außerordentlich abändern. Neuere Naturforscher ordnen sie in zwei Untersippen, welche sich hauptsächlich durch den Zahnbau und die behaarten oder nackten Sohlen unterscheiden.

Unserem Zweck genügt es vollkommen, wenn wir das Leben und Treiben einer der bekanntesten Arten, der **Chinga** (*Mephitis Chinga*), betrachten.

Dieses Tier ist ungefähr von der Größe einer Hauskatze, hat einen kleinen, breiten Kopf, eine spitzige Schnauze mit nackter Nase und kurze zugerundete Ohren, einen nicht besonders gestreckten Leib und einen dicht- und lang behaarten, deshalb länger, als er wirklich ist, erscheinenden Schwanz. Die Länge des Leibes beträgt etwas über einen Fuß, die des Schwanzes etwa die Hälfte, während die Höhe am Widerrist sich auf fünf und einen halben Zoll beläuft. Der glänzende Pelz hat Schwarz zur Grundfarbe. Von der Nase zieht sich ein einfacher, schmaler, weißer Streifen zwischen den Augen hindurch, erweitert sich auf der Stirn zu einem rautenförmigen Flecken, verbreitet sich noch mehr auf dem Halse und geht endlich in eine Binde über, welche sich am Widerrist in zwei breite Streifen teilt, die bis

zudem dem Schwanzende fortlaufen und dort sich wieder vereinigen. Am Halse, an der Schultergegend, and der Außenseite der Beine, seltener auch an der Brust und am Bauche treten kleine, weiße Flecken hervor. Über den Schwanz ziehen sich entweder zwei breite, weiße Längsstreifen, oder er erscheint unregelmäßig aus Schwarz und Weiß gemischt.

Die Chinga ist wegen der rücksichtslosen Beleidigung eines unserer empfindlichsten Sinneswerkzeuge schon seit langer Zeit wohlbekannt gewesen und macht noch heut zu Tage fast in allen Reisebeschreibungen von sich reden. Ihr Verbreitungskreis ist ziemlich ausgedehnt; am häufigsten wird sie in der Nähe der Hudsonbay gefunden, von wo aus sie sich nach dem Norden verbreitet. Im Süden findet sie vollkommen ebenbürtige Genossen, welche sie in jeder Hinsicht ersetzen. Ihre Aufenthaltsorte sind höher gelegene Gegenden, namentlich Gehölze und Wälder längs der Flußufer, oder auch Felsengegenden, in deren Spalten und Höhlen sie wohnt.

Der Erste, welcher eine ausführlichere Beschreibung des Stinktieres gibt, ist Kalm. "Das Tier", sagt er, "ist wegen einer besonderen Eigenschaft bekannt. Wird es von Hunden oder Menschen gejagt, so läuft es Anfangs so schnell, als es kann, oder klettert auf einen Baum; findet es keinen Ausweg mehr, so wendet es noch ein Mittel an, welches ihm übrig ist; es spritzt seinen Feinden seinen Harn entgegen, und zwar auf große Entfernung. Einige Leute haben mir erzählt, daß ihnen von diesem schändlichen Saft das Gesicht ganz bespritzt worden wäre, obwohl sie noch gegen achtzehn Fuß davon entfernt gewesen seien. Diese Feuchtigkeit hat einen so unerträglichen Gestank, daß kein schlimmerer gedacht werden kann. Ist Jemand dem Tiere zur Zeit des Ausspritzens nahe, so kann er wohl kaum Athem holen und es ist ihm später zu Mute, als wenn er ersticken sollte. Ja, kommt dieser Pestsaft in die Augen, so läuft man Gefahr, das Gesicht zu verlieren, und aus Kleidern ist der Geruch fast gar nicht wieder herauszubringen, man mag sie waschen, so oft man will. Viele Hunde laufen davon, sobald sie der Guss trifft, richtige Fänger hören aber nicht eher auf, dem Flüchtigen nachzusetzen, als bis sie ihn tot gebissen haben. Sie reiben jedoch ihre Schnauze auf der Erde um den Gestank einigermaßen zu vertreiben."

"Der widrige Geruch geht selten vor einem Monat aus den Kleidern; doch verlieren sie das Meiste davon, wenn man sie vier und zwanzig Stunden lang mit Erde bedeckt. Auch die Hand und das Gesicht muß man wenigstens eine Stunde mit Erde reiben, weil das Waschen Nichts hilft. Als ein angesehenener Mann, der unvermutet bespritzt wurde, sich in einem Hause waschen wollte, schloss man die Türe und die Leute liefen davon. Bespritzte Hunde läßt man Tage lang in kein Haus. Wenn man in einem Walde reitet, muß man sich oft lange Zeit die Nase zuhalten, falls das Tier an einer Stelle seinen Pestgeruch verbreitet hat. Ich schlief einmal auf einem Hofe, wo ein Lamm getötet lag, und es schlich sich ein Tier heran; der Hund sah und verjagte es. Da entstand plötzlich ein solcher Gestank, daß ich glaubte, ersticken zu müssen; sogar die Kühe blökten aus vollem Halse. Die Köchin bemerkte, daß verschiedene Tage nach einander das Fleisch im Keller benascht worden war; sie versperrte deshalb alle Zugänge, um die Katzen abzuhalten. Allein in der folgenden Nacht hörte sie einen Lärm in dem Keller und ging deshalb hinab. Da sah sie ein Tier mit feurigen Augen, welches sie ganz ruhig zu erwarten schien. Sie fasste sich jedoch ein Herz und schlug es tot. Plötzlich aber entstand solch ein abscheulicher Gestank, daß sie einige Tage krank wurde und man alle Eßwaren im Keller samt Brod und Fleisch wegwerfen mußte."

Das Stinktier ist sich seiner furchtbaren Waffe so wohl bewußt, daß es keineswegs scheu oder feig ist. Alle seine Bewegungen sind langsam. Es kann weder springen, noch klettern, sondern nur gehen und hüpfen. Beim Gehen tritt es fast mit der ganzen Sohle auf, wölbt den Rücken und trägt den Schwanz nach abwärts gerichtet. Trifft man nun zufällig auf das Tier, so bleibt es ganz ruhig stehen, hebt den Schwanz auf, dreht sich herum und spritzt den Saft gerade von sich.

"Als mein Sohn", so erzählt Siedhof, "eines Abends langsam im Freien herumging, kam plötzlich ein Stinktier auf ihn los und biss sich in seinen Beinkleidern fest. Er schüttelte es mit Mühe ab und tötete es durch einen Fußtritt. Als er aber nach Hause kam, verbreitete sich von seinen durch das gefährliche Tier benetzten Kleidern ein so durchdringender, abscheulicher Knoblauchgeruch, daß augenblicklich das ganze Haus erfüllt wurde, die befreundeten Familien, welche gerade zu Besuch anwesend waren, sofort davonliefen und die Einwohner, welche nicht flüchten konnten, sich erbrechen mußten. Alles Räuchern und Lüften half Nichts; selbst nach einem Monate war der Geruch noch zu spüren. Die Stiefel rochen, so oft sie warm wurden, noch vier Monate lang, trotzdem sie in den Rauch gehängt und mit Chlorwasser gewaschen wurden. Das Unglück hatte sich im Dezember ereignet. Das Tier war im Garten vergraben worden, aber noch im nächsten August konnte man seine Ruhestätte durch den Geruch auffinden."

Auch Audubon erfuhr die Furchtbarkeit des Stinktieres an sich selbst. "Dieses kleine, niedliche, ganz unschuldig aussehende Tierchen", sagt er, "ist doch im Stande, jeden Prahlhans auf den ersten Schuss in die Flucht zu schlagen, so daß er mit Jammergeschrei Reißaus nimmt. Ich selbst habe einmal, als kleiner Schulknabe, so ein Unglück erlitten."

"Die Sonne war eben untergegangen. Ich ging mit einigen Freunden langsam meinen Weg. Da sahen wir ein allerliebstes, uns ganz unbekanntes Tierchen, welches gemütlich herumschlich, dann stehen blieb und uns ansah, als warte es, wie ein alter Freund, um uns Gesellschaft zu leisten. Das Ding sah gar zu unschuldig und niedlich aus, und es hielt seinen buschigen Schwanz hoch empor, als wolle es daran gefaßt und in unseren Armen nach Hause getragen sein. Ich war ganz entzückt, griff voll Seligkeit zu - und patsch! da schoss das Höllenvieh seinen Teufelssaft in die Nase, in den Mund, in die Augen. Vom Donner gerührt, ließ ich das Ungeheuer fallen und nahm in Todesangst Reißaus."

Fröbel hörte einmal ein Geräusch hinter sich und bemerkte, als er sich umwandte, das ihm unbekanntes Stinktier, welches, als er sich nach ihm hinkehrte, augenblicklich zu knurren begann, mit dem Fuße stampfte und, sobald er seinen Stock ergriff, ihm Kleider, Gesicht und Haare mit seiner entsetzlichen Flüssigkeit bespritzte. Voller Wut schlug er das Tier tot, eilte über den Platz und wollte dem Hause zu, verursachte aber allgemeine Furcht. Die Thür wurde verrammelt, und nur aus dem Fenster rief man ihm guten Rat zu. Wasser, Seife, kölnisches Wasser half Nichts; endlich wurde ein kräftiges Feuer angebrannt, und der arme, verstärkerte Reisende legte die ihm von einem Ansiedler geborgten Kleider an und räucherte die bespritzten, nebst Gesicht und Haar, im dichten Qualm einige Stunden lang, worauf dann wirklich der Geruch verschwand.

Zuweilen greift das Tier auch ganz ungereizt an, jedenfalls aber bloß dann, wenn es glaubt, gereizt worden zu sein. So wurde ein an einem Zaune dahinlaufendes Stinktier durch eine vorbeifahrende Kutsche erschreckt, versuchte zu fliehen, kam aber nicht gleich durch den Zaun und spritzte jetzt seinen ganzen Saft gegen die Kutsche, an welcher unglücklicher Weise die Fenster offen standen. Eine gehörige Ladung drang in das Innere und dort verbreitete sich dann augenblicklich ein so fürchterlicher Gestank, daß mehrere von den mitfahrenden Damen sofort in Ohnmacht fielen.

Die in Südamerika lebenden Stinktiere unterscheiden sich, was die Güte ihres Pestsaftes anlangt, durchaus nicht von den nordamerikanischen. Azara fand ein Stinktier in Paraguay, wo es Yaguaré, zu deutsch, "stinkender Hund" genannt wird, und berichtet, daß es im Freien von Kerfen, Eiern und Vögeln lebt, und sowohl bei Tage als bei Nacht still umherschleicht. Es ergreift niemals die Flucht, nicht einmal vor dem Menschen. Sobald es bemerkt, daß man ihm nachstellt, macht es Halt, sträubt sein Haar, hebt den Schwanz in die Höhe, wartet, bis man ihm nahe gekommen ist, dreht sich plötzlich um und schießt los. Selbst der Jaguar soll augenblicklich zurückweichen, wenn er eine gehörige Ladung von dem teuflischen Gestank

bekommt, und vor Menschen und Hunden ist das Tier fast ganz gesichert. Selbst nach zwanzigmaligem Waschen bleibt der Gestank noch so stark, daß er das ganze Haus erfüllt. Ein Hund, welcher acht Tage vorher bespritzt und mehr als zwanzig Mal gewaschen und noch öfter mit Sand gerieben worden war, verpestete eine Hütte noch derartig, daß man es nicht in ihr aushalten konnte. Azara glaubt, daß man den Gestank wohl eine halbe englische Meile weit riechen könne.

Ungeachtet des abscheulichen Geruches ist das Stinktier doch nützlich. Aus seinem Pelze machen sich die Indianer weiche und schöne Decken, welche man trägt, obgleich sie sehr schlecht riechen. Um es zu fangen, gebrauchen dieselben eine List. Sie nähern sich ihm mit einer langen Gerte und reizen es damit, bis es wiederholt seine Drüsen entleert hat; hierauf springen sie plötzlich zu und heben es beim Schwanz empor. In dieser Lage soll es dann nicht weiter spritzen können und somit ganz gefahrlos sein. Ein einziger Schlag auf die Nase tötet es augenblicklich. Dann werden die Drüsen ausgeschnitten und die Indianer essen das Fleisch ohne Umstände. Aber auch Europäer nützen das Tier, und zwar das Allerfürchterlichste von ihm, nämlich die stinkende Flüssigkeit selbst. Sie wird in derselben Weise gebraucht, wie unsere Damen wohlriechende Wässer anwenden, als nervenstärkendes Mittel. Aber da der Aberglaube in Amerika noch etwas stärker ist, als bei uns in Deutschland, so glaubt man, wunder welch ein vortreffliches Mittel erhalten zu haben, wenn man stinkende Flüssigkeit sich vor die Nase hält. Daß dabei Unannehmlichkeiten mancherlei Art vorkommen können, zumal in Gesellschaft, ist leicht zu erklären. So erzählt man, daß ein Geistlicher einmal während der Predigt sein Fläschchen herausgezogen habe, um seine Nerven zu stärken, die Riechnerven seiner andächtigen Zuhörer dabei aber dergestalt erregte, daß die gesamte Versammlung augenblicklich aus der Kirche hinausstürmte, gleichsam als wäre der Teufel, den der würdige Diener Gottes mit ebenso viel Achtung, als Liebe vorher behandelt, leibhaftig zwischen den frommen Schafen erschienen, und zwar mit allem Pomp und allen höllischen Wohlgerüchen, welche ihm als Fürsten der Unterwelt zukommen.

Es ist noch nicht ausgemacht, ob die Stinktiere auch einander anspritzen, und es wäre jedenfalls wichtig, Dies genau zu erforschen. Freilich finden wir, daß die Gerüche, welche ein Tier verbreitet, ihm gewöhnlich durchaus nicht lästig fallen, ja sogar gewissermaßen wohlriechend erscheinen. Dem ungeachtet wäre es doch möglich, daß ein Stinktiermännchen durch eine gehörige Ladung Pestsaft von einem von ihm verfolgten Weibchen hinlänglich abgeschreckt werden könnte.

In der Gefangenschaft entleeren die Stinktiere ihre Drüsen nicht, wahrscheinlich, weil man sich sorgfältig hütet, sie zu reizen. Sie werden nach kurzer Zeit sehr zahm und gewöhnen sich gewissermaßen an ihren Pfleger, obgleich sie anfangs mit dem Hinterteil vorangehen, den Schwanz in die Höhe gerichtet, um ihr Geschütz zum Losbrennen immer bereit zu halten. Nur durch Schlagen oder sehr starke Beängstigung sollen sie veranlaßt werden, von ihrem Verteidigungsmittel Gebrauch zu machen. Heu ist ihr liebstes Lager. Sie machen sich ein ordentliches Bettchen und rollen sich dann wie eine Kugel zusammen. Nach dem Fressen putzen sie sich die Schnauze mit den Vorderfüßen, denn sie sind reinlich und halten sich stets zierlich und glatt, legen auch ihren Unrat niemals in ihrem Lager ab. Man füttert sie mit Fleisch; am liebsten fressen sie Vögel. Sie verzehren oft mehr, als sie verdauen können, und erbrechen sich dann gewöhnlich nach einer solchen Überladung. Ihre Gier ist aber immer noch so groß, daß sie das Erbrochene wieder auffressen, wie es die Hunde auch tun. Bei reichlicher Nahrung schlafen sie den ganzen Tag und gehen erst Abends herum, selbst wenn sie keinen Hunger haben. Ein gefangenes Stinktier bleibt jedoch unter allen Umständen ein ungemütlicher Gesellschafter, weil er in einem Augenblicke schlechter Laune dem Menschen immer noch gehörig zu schaffen machen kann."

(A. E. Brehm's Illustriertes Tierleben, Erster Band, Hildburghausen 1864, S. 502, 505-509)

⁽¹⁾ die ostindischen Stinkdachse und der Balisaur der Gebirge von Bhutan und Indien - siehe S. 503-505.

Skunk cabbage

"This is one of our most noticeable plants, both from the frequency of its occurrence and the peculiarity of its sensible properties.

Scarcely a swamp or meadow is found in the middle and northern parts of the United States in which this vegetable may not be discovered at a distance, especially in the spring season, by its large tufts of rank, crowded leaves.

Its singular flowers are among the first which break from the ground, after the rigours of winter, appearing in different latitudes, from February to April.

The vegetation is rapid, so that in most instances the fruit is ripe and the leaves wholly decayed before the end of August.

From this precocity of the plant together with the depth to which the roots penetrate the earth, it seems calculated to bear the cold of high latitudes.

I have found the flowers a second time formed, and shooting from the ground in November.

The strong and unpleasant odour which every part of the plant emits on being broken, and which is precisely similar to that of the *Viverra mephitis*; has given it by an almost common consent, in every part of the country, the appellations of *Skunk weed* and *Skunk cabbage*."

(Jacob Bigelow, American Medical Botany Vol. II (1818), p. 41-42)

"Als Nachtrag, weil der Geruch ganz dem der Mephitis gleicht; ist bekannt als sogenanntes krampfwidriges Mittel.

Auszug der Zeichen von Hering, Humphreys und Lingen.

So zerstreut und gedankenlos, dass er ohne Anklopfen in die Krankenzimmer tritt; die zu ihm Sprechenden gar nicht anhört.

Ärgerlichkeit, Neigung zu Widerspruch, Heftigkeit.

Kopfschmerz an einzelnen Stellen, von kurzer Dauer, bald hier bald da, mit Eingenommenheit.

Drücken in beiden Schläfen abwechselnd in der einen und anderen stärker, mit heftigem Pulsieren der Schläfearterien.

(5) Ziehen in der Stirne, in zwei Linien von den Stirnhügeln zur Glabella, wo es so stark nach außen zieht, als würde es durch einen Magnet gezogen.

(Die Nase über dem Nasenknochen geschwollen, rot, wie ein Sattel, mit Schmerz bei Berührung, besonders oben links neben der Nase, dabei der knorpliche Teil kalt und blutlos; mit roten Flecken auf der Wange, links kleinen Blütchen; Hals- und Unterkieferdrüsengeschwulst.)

Unangenehme taube Empfindung in der Zunge, kann sie nicht gegen die Zähne bringen; Zungenwärtchen aufgerichtet; Zunge röter und wund schmerzend an Spitze und Rande.

Brennend Gefühl vom Rachen aus durch die Brust hinunter. Tabak schmeckt schlecht bei Lust zum Rauchen.

Schmerz in der Herzgrube, als ginge etwas los, bei heftigen Tritten.

(10) Aufblähung und Spannung im Unterleibe.

Leibweh hie und da an einzelnen Stellen.

Beim Gehen als schlotterten die Eingeweide, ohne Schmerz.

Stuhl früher, öfter, weicher.

Harndrang; sehr dunkler Harn.

(15) Schmerzhafter Wollustkitzel am ganzen Umfange der Eichelkrone.

Heftiges Niesen und Schmerz davon im Gaumen, Rachen, Schlund, bis zum Magen und langes Nachschmerzen am Magenmunde.

Schmerz in der Brust und im Mediastinum posticum, minder im anticum, mit Schmerz unter den Achseln, was mit Brennen im Schlunde scheint in Verbindung zu stehen.

Druckschmerz auf dem Brustbein.

Plötzliches Angstgefühl mit Atembeengung und Schweiß, worauf Stuhl erfolgt mit Nachlass dieser und anderer Beschwerden.

(20) Neigung zum Tiefatmen mit Hohlheit in der Brust, später mit Zusammengezogenheit im Rachen und der Brust.

Atembeschwerden besser im Freien.

Knochenschmerz in der rechten Schienbeinkante.

Rheumatische Beschwerden erhöht.

Abends zeitige Schläfrigkeit.

(25) Alle Beschwerden verschwinden im Freien."

(Pothos foetida, Correspondenzblatt der homöopathischen Ärzte, ausgegeben durch die Nordamerikanische Akademie der homöopathischen Heilkunst in Allentaun an der Lecha, Zweites Heft (1837), Nr. 1, S. 6-7)

"Miss B., aet. 20; a tall, spare brunette, and a good specimen of Fothergill's Arab type, brainy and vivacious. General health has been good, but she was never robust; could not go to school regularly. Between her thirteenth and fifteenth years grew in stature, and then she was easily wearied on walking; knees tired and limbs ached. Had good digestion through the growing period, but subsequently became subject to 'bloat of wind' in abdomen. These meteoristic attacks came when lying down. A 'weight rises from the abdomen up to the heart.' She must at once spring up. This condition is relieved by eructating, by liquor, and by drinking hot water. The night attack of meteorism are by far the worst. *She is now subject to them.*

Her grandmother had such 'spells of bloating'; would spring out of bed at night, lose consciousness, and 'bloat up suddenly.' If she had such an attack when dressed, they had often been obliged to cut open her clothes.

Patient has found that apples, tomatoes, cabbage, and onions disagree with her; no other food. She is constipated - 'wants to and can't.' Her hair is unusually dry; scalp full of dandruff; skin, generally, soft and flexible. She has frequent epistaxis; has had four and five attacks a day. Blood bright red, 'runs a perfect stream,' does not clot at the nostrils. Had previously a 'heavy feeling' in the head, which the bleeding relieved. In appearance she is 'the picture of perfect health'; good complexion, fairly ruddy cheeks, sparkling eyes - in a word, she is an incarnated protest against 'single blessedness.'

In the latter part of July, 1886, had her first 'fit.' She had arisen with a headache, which kept on increasing in severity. Just after a light meal had the attack; 'Oh dear! Oh dear!' and fell insensible. Stiffened at first, then had clonic spasms. Neither bit the tongue nor frothed at the mouth. No micturition or defecation. On coming to, did not remember that she had fallen, but recalled being borne up stairs. Had a 'dreadful nosebleed' after the attack. Left her very weak; could hardly lift her feet from the floor. Before the 'fit' the headache had become unbearably severe.

Had her second 'fit' on August 7th, 1887. Headache came on and kept growing worse; was in temples, beating and throbbing, and in eyes, 'light hurt' - also on vertex, 'pressing-down' pain. At 4 p. m. suddenly fell down insensible. No cry. Tongue bitten. Slight frothing at the mouth. First 'stiff all over,' then clonic spasms. After the 'fit' knew that something had happened to her. Was prostrated for nearly a month, but not so much as after her first attack.

December 10th, 1887, third 'fit.' On the night of the 9th her mother had been very ill, and she herself was very uneasy and alarmed. Had the attack before breakfast. Blurred vision, headache, fall; no biting of tongue, nor frothing. First rigid, then clonic spasms; after attack, nose bleed profusely, head ached all day, face flushed and dark. Prostrated as usual.

In none of the attacks was there any involuntary micturition or defecation, nor was it ever necessary to use any force to hold her on the bed.

One other fact I gathered from her brother, namely: during her 'fits' her abdomen bloated so rapidly and to such a degree that the family had learned to remove her clothing as soon as possible after she fell. Of course, Thacher's case, wherein the 'abdomen was remarkably tumefied and tense,' came into memory at once. The old volume was taken down, and that case re-read. Then followed the *Encyclopedia*, and then the English *Symptomen Codex*. No pathogenetic light or corroboration there. Then *Curie's Jahr*. Ah! '*Inflation and tension in the abdomen.*' Only a straw, but a pathogenetic, and I grasped it thankfully. I found also, '*aching in the temples with violent arterial pulsation.*'

It was an open winter; my son dug some skunk cabbage roots in a swamp; a tincture was made; ten-drop doses, four times daily, were taken until six ounces had been consumed. No 'fit' up to date; no epistaxis; only once a slight headache.

I never made a diagnosis in this case; have not reached one yet, nor am I grieving over that omission. I did rashly declare that it was *not* epilepsy, because Sauvages *tympanites intestinalis* is a feature of hysteria, but not of epilepsy. But not a word of this was said to the patient. It was not a 'mind cure,' for I have no 'mind' to spare; nor was it 'Christian science,' for I am not up to that. I had an *anamnesis* in which grandmother and granddaughter participated. Nature had put the 'keynote' in italics, not only in the patient, but also in the drug. Thacher stumbled upon it empirically; Hering found it pathogenetically, and that led to its application under the guidance of the only approximation to a *law* in therapeutics that has yet been discovered by any of woman born: *similia similibus curantur!* "

(S. A. Jones, *Pothos foetida*, The Homoeopathic Recorder vol. 4 (1889), p. 101 ff; reprinted in: E. P. Anshutz, *New, Old and Forgotten Remedies* 2. ed. (1917), p. 471-474)

Ten remedies in gall stones with indications and cases

"The presentation of a paper upon the indications for a remedy in any particular disease condition is a difficult matter from the fact that a true homoeopathic prescription for any local disease condition must not only include those particular symptoms relating to the diseased organ, but in order to be curative must include the general symptoms relating to the diseased patient. When we start to include the general and particular symptoms of a remedy there results a mass of symptoms which, when read before a society, is so confusing that it goes in one ear and out the other, and nothing definite is left with the hearers that may be taken and used to advantage in their work. In no diseased condition is this more true than in the subject under discussion today, for in order that a remedy may be curative, that it may remove the tendency to attacks of colic due either to the passage of calculi or thickened bile, it must cover the diseased patient and so change the constitutional state that nature will correct those conditions which made thickened bile or the formation of calculi possible. When I promised the chairman to give a paper to his bureau on some remedies useful in a disease, with the

indications for their use, I did not realize what a task I had elected, or how foolish it would be to attempt such a paper. In order that I may in a way keep to the text assigned me I will give only those particular symptoms of the remedies which refer to the stomach and hypochondrium. I shall let this explanation solace you for the somewhat meagre indications given, and trust that the eases given, with the symptoms which led to the selection of the remedy and the results procured by the remedy, will demonstrate to you the feasibility of the point in question.

The first remedy that we will consider is *calcarea carbonica*, the particular symptoms of which are as follows: Pressing pain in stomach as from load or stone in pit of stomach. Pit of stomach swollen like saucer. Squeezing, cutting in stomach. Hypochondria extremely sensitive; pressure of clothes unbearable. Throbbing; stitches; and tightness in hypochondria. Stitches and pressure with each step. Hering says "Pains attending passage of stones relieved by this remedy." You find in some books the advice given to prescribe *calcarea* in all cases, not only for the pains of the colic but for the prevention of the recurrence. While *calcarea* will be indicated in many of these cases, especially in the lax fibered women, it will never cure unless it corresponds to the whole patient. A case to illustrate:

Case I. Mrs. Mary S., age 34 years. Six children. Two abortions. History of gall stone colic for five years. Attacks every three weeks to two months. Fair; light complexioned; fat, flabby. Attack begins with vomiting of sour, bitter, yellow substance with stitching pains in epigastrium working into liver. Attacks relieved by bending double and hard pressure. Attacks last six hours to one day. Sweats easily but only on face and across shoulders. Takes cold easily - very sensitive to cold air - aggravation from cold. Feels best in warm weather. Cannot sleep after 3 a. m. Great desire to yawn and stretch mostly before attack. Dreams of falling which awaken. Feet cold - cold damp sweat at night. Epigastrium swollen hard feels as if lump of lead in stomach worse from pressure. Stomach and hypochondria sensitive to pressure even clothes painful; cannot wear corsets. Stitches in liver with any jar. Eructations bitter sour; burn the throat - worse eating. Sour taste in mouth; food tastes sour. Menses every nineteen days - profuse last six days - during menses cutting in abdomen and fullness in head. Breasts swollen and painful before menses. Leucorrhoea stains clothes black and causes itching and burning in vulva. Aversion to meat - desire sweets but they disagree.

July 6, 1911, gave *calcarea carbonica* 1m 3 powders. July 26, 1911, attack which was relieved in half hour with *belladonna* 200. August 5, 1911, stomach symptoms worse. *Calcarea carbonica* 1m one powder. October 15, 1911, up until this time all symptoms had been disappearing, now they seem to be returning. *Calcarea carbonica* cm. one powder. After this prescription all symptoms left; the menses became normal, as to time and quantity, the leucorrhoea disappeared, the liver and stomach symptoms left and up to date she has never had another attack of gall stone colic.

Case II. Mrs S. G. C, age 37. Blond; fat. Gall stone colic for three years - attacks every six weeks to three months. Attacks relieved by sitting half inclined. Always more frequent in cold weather. General aggravation from cold weather - always has cold all winter. Much gas in stomach with severe pressure after each meal. Eructations tasting of food and sour. Great hunger in morning, aversion to meat, great thirst at night, urine profuse five to six times each night. Itching and burning in vagina during menses. Much mucus in stools. Hands sweat profusely - spoil gloves in once wearing.

April 16, 1911, *calcarea carbonica* 200. three powders. May 26, 1911, all symptoms improving up until today had slight attack which called for *belladonna*. May 29, 1911. *calcarea carbonica* 1m. two powders. June 26, 1911, diarrhea, watery, sour, containing particles of food - smells like rotten eggs - worse afternoon and walking. Cold sweat on feet. *Calcarea carbonica* cm. one powder. September 10, 1911, all symptoms much better until this week are

now returning. At this time last dose of calcarea carbonica was given after which there was a rapid and steady improvement until all symptoms were gone. Patient was seen last April 5, 1912, when she stated that she never was so well and that it was the first winter she could remember that she did not have colds.

The next remedy we will consider will be chelidonium. The particular symptoms of this remedy will be as follows: It is a right sided remedy - The pains are sharp and stitching. Constant pain under lower inner angle of right scapula going through from abdomen - worse from change of weather. Constriction, tension and sensitiveness in pit of stomach. Gnawing, grinding pain relieved by eating and very hot drinks. Stitches from liver through to back - chilliness with pains. This remedy is the favorite one for liver trouble. The first thing most of you think about doing for these cases is to give chelidonium but unless it covers the patient it will be of little or no value.

Case III. Will illustrate its curative action when indicated. Mrs. A, age 33. History of liver trouble for three years and gall stone colic for eight months. Attacks of colic every six or seven weeks. Attacks begin with nausea and vomiting of bitter yellow substance during this has sensation as if navel was being pulled in. Much rumbling of gas. Gnawing pain in pit of stomach relieved while eating. Pains, sharp, going through to shoulder. Liver enlarged and sensitive - feels heavy, wants to hold it up while going downstairs. Tearful, irritable - fear she will be insane. Vertigo as if she was going to fall forward, worse in morning. No appetite, craves sour things, especially vinegar, aversion to cheese. Constipated, stools hard rough balls covered with mucus. Menses irregular and profuse - week before menses has burning pain in vagina which comes about 4 p. m. each day. Tearing pain in lumbar region, worse motion and pressure and bending forward. Sleepy all the time but difficult to get to sleep before midnight.

September 20, 1910, chelidonium 200, eight powders. After slight aggravation all symptoms were relieved, the stools became normal. November 3, 1910, slight attack of colic followed by some sensitiveness and jaundice. Chelidonium 1m. After this all symptoms disappeared until January 5, 1911, when backache and constipation returned. Chelidonium cm. This was the last dose of the remedy. The symptoms disappeared and did not return; up to date she has had no more colic and she says she does not know she has a liver.

From the fact that the stomach symptoms of china resemble those symptoms most often found associated with gall stones, one can readily see why so many give china in these cases. While china may be frequently indicated unless it covers the whole patient we cannot hope for a cure. The particular symptoms of china are as follows: No desire for food or drink - loathing of food - even slightest food causes pressure in the stomach. Pains in liver, worse bending; coughing; and taking deep breath. Much flatulency. Food or drink taste bitter. Bitter or tasteless risings after meal. Pains are worse from eating. Incarceration of flatus. Pains worse when touched.

Case IV. Illustrates the curative action of this remedy. Jacob R., 44 years. Gall stone colic five years. Attacks every month to ten weeks. Attack preceded by much belching - eructations tasting of food. During attack severe pressure in epigastrium. Throbbing in epigastrium. Liver swollen, sensitive to lightest pressure. Abdomen distended after meals - sensation of band about lower abdomen. Flatus seems to lodge in one spot, cannot get it up or down - passing flatus gives relief. No desire for food or drink. Worse at night, from drafts and light pressure. Sweats profusely after midnight but only on side laid upon. July 8, 1908, china 200. ten powders - The administration of this remedy caused an immediate relief of the stomach symptoms as well as the distention of the abdomen. He went on getting better until September 26, 1908, when he had a slight attack of colic; at this time he received one dose of the 1m. From this time there was a steady and general improvement not only of the liver and stomach

symptoms but his general condition. In January, 1909. he had a slight attack of indigestion, that is, a little gas in the stomach after meals. China 1m. one dose was then given which was the last remedy given for this condition. Mr. R. has been a patient of mine since that time and he has never had any further trouble either with the liver or stomach since.

The next remedy we will consider will be *carduus marianus*, Some of our writers have given great power to this remedy in liver conditions but like all our other remedies it must cover more than one symptom in order to be more than palliative. The particular symptoms are as follows: Much nausea - vomiting sour greenish substance - sour eructations, painful retchings, pressure and burning in stomach, fullness in liver which requires them to take a deep breath, drawing stitching pains with short dry cough. Lungs and liver both affected. Pain from right to left, sensation as if something crawling from liver to stomach.

Case V. Illustrates the curative action of *carduus marianus*. Mr. J. H. Attacks of colic every four to six weeks. Attacks begin by feeling of pressure as from gas under margins of ribs; changing from right to left side. Painful griping in stomach. Burning pain in stomach with burning eructations. Sensation as if bug was crawling from back of liver to stomach. Attacks begin in the morning and last all day. Fullness constant in hypochondria, wants to take deep breath to relieve stitches in liver; worse lying on left side. Abdomen distended, pulsating pains, rumbling, passage of flatus does not relieve. Stools hard balls or at times pasty. Burning in anus, worse sitting; burning in glans after urinating, drawing pains in left testicle worse mornings, irritable, gets angry at trifles. January 7, 1911, *carduus marianus* 200. three, powders. Symptoms relieved until February 124, 1911, when he reported a slight attack on the 20th, with cough with bloody expectoration, worse at night. *Carduus marianus* 1m. one powder. After this steady improvement until July 22, 1911, when patient was discharged with all symptoms having disappeared not to return.

Kali carbonicum is another remedy often indicated in gall stone cases. The following particulars may be found in those cases requiring this remedy: Sticking, pinching, burning pains; pressure from right breast to liver; throbbing in epigastric region, worse on motion; must sit bent forward with elbows on knees and face in palms of hands; walks stooped forward with hands on knees; pain in liver as if sprained. Worse lying, cold air and at night and deep inspiration. Throbbing pains, worse after meals; everything eaten produces pressure and tension in stomach. Feels as if it would burst. Great sensitiveness of external epigastrium.

Case VI. Presented the following symptoms that were removed by *kali carbonicum*. Mrs. Olga S., age 52 years. Married; ten children. History of attack for four years, at first came every three to four months, last year increased until now they occur every two to six weeks. Attacks preceded by bloating, seems as if stomach would burst. Much belching, vomiting greenish and bitter. Severe stitching pain in liver, seems as if it would take her breath, worse from pressure and lying on the affected, side. Does not want to be touched, yells if anyone gets near her. Does not want to be alone. Throbbing in epigastrium. Burning in stomach worse after eating. Thirsty. Desires sugar and sweets. Dyspnoea awakens at 2 a. m., worse from drinking and walking. Great itching between shoulder blades with stiffness. July 5, 1908 *kali carbonicum*, 200. six powders. No attack until August 2, 1908, which was light and of short duration. August 5, 1908, *kali carbonicum*, 1m. one powder. This dose was followed by herpes zoster (returned after five years) Symptoms gradually left after this until January 10, when there were slight stitches, through the liver. *Kali carbonicum* cm. one powder. Patient went to Dakota to live in March of that year, last time I saw her she seemed to be perfectly well and have never heard to the contrary.

Lycopodium is the next remedy we will consider and the following particular symptoms will be indicative of this remedy: - Tension as from hoop about abdomen - worse bending the body or pressure of the hand and on breathing. Cannot stretch or stand upright. Cannot eat

enough on account of pressure. Sore pain, as from blow. Pains sore griping, stitching, from right to left - Sensation as if something was moving up and down in the bowels. Tearful and depressed.

Case VII. Was one in which lycopodium was curative. John H. C. - age 46 years. Attacks of colic for four years attacks increased from four to five months to six to eight weeks. Attacks begin with heartburn and waterbrash, hiccough nausea and vomiting of sour dark green fluid worse from drinking. Sensation of crawling in stomach. Pain extends from liver into bladder causing frequent urination, attacks begin in afternoon, last all night sometimes into the following day. Abdomen distended and sensitive to pressure. Sensation as if hoop around liver; worse pressure, bending double, relieved by passing flatus. Tongue red, dry, cracked and feels stiff. Very hungry but few mouthfuls fill him up. Worse cold food. Back stiff in sacral region worse on rising. One foot burns the other cold. March 6, 1910, lycopodium 1m. two powders. On April 26, 1910 had severe attack of asthma for which lachesis 200th was given. May 15, 1910 slight attack of colic and all symptoms returning, lycopodium m.m. one powder. July 18, 1910 all liver soreness and symptoms gone. Patient discharged. Attacks have never recurred.

Natrum sulphuricum is a remedy that will be indicated in many of our old chronic liver cases and one which has cured several cases of gall stones for me. The particulars of this remedy are as follows: - Beating pain in stomach - slight nausea - constant taste of bile - bitter eructations - stitches in liver worse walking in open air - stitch as if liver would burst open on taking deep breath; worse while sitting, vomiting bitter fluid worse lying on left side - colic in the morning before breakfast - Pains relieved by kneading the abdomen.

Case VIII. Was promptly cured with this remedy. Mrs. Samuel P. - Age 36 - Three children. Family history of gall stones mother, two sisters and aunt, died of gall stones. Patient gave history of gall stone colic for six years attacks now from nine to six weeks. Pains relieved by heat - pain from sacrum (right) extends to thigh. Headache recurrent following by vomiting bile (for last 16 years) Pain in right eye over forehead to occiput with heavy drawing feeling in occiput. Extremely nervous - apprehensive, starts at slightest noise. Feet cold takes hot water bottle to bed the year round. Menses scant-dark-clotted-thick. Fears she will kill herself. June 28, 1912 natrum sulphuricum 1m. one powder. This case went on to recovery with but one slight attack on Aug. 16, 1912, after which she received natrum sulphuricum 10m; patient was discharged December 20, 1912, with all symptoms gone. Mentally and physically perfectly well.

Case IX. Mrs. Gertrude L., ae 35 years. Gall stone colic 13 years. Attacks from six months to three weeks. Attack begins with aching below right scapulae extending through to abdomen, down to lumbar region - Pains spasmodic last 2 or 3 days; relieved by flexing the legs and bending double. Heat sometimes relieves. Aggravated by lying on the left side; usually come at night always most severe from eleven P. M. to six A. M. Worse from cold. Urine profuse during attack. Irritable worse mornings, tearful and melancholy. Always subject to periodical headache. Pressure in forehead - top of head hot, worse after sunset and from pressure. Vomiting of sour greenish fluid. Tongue coated greenish brown at base. Aversion to bread. Stomach always sour. Stool hard rough lumps sometimes streaked with blood. Always has nosebleed before menses. General aggravation from damp weather. March 6, 1911, natrum sulphuricum 200th, four powders. April 27, 1911, severe attack of colic but of shorter duration. Natrum sulphuricum 1m. Headaches left, other symptoms getting better. On December 29, 1911, stomach symptoms returned and had a headache the week before, natrum sulphuricum 10 m. After this all symptoms left and did not return, July 9th, 1912 was the last time I saw this patient at that time she said she was perfectly well.

Nux moschata is a remedy that I have found useful many times in these cases. The particular symptoms of which are as follows: - Mouth dry no thirst, crawling from stomach to throat, sleepy and drowsy in day time, Bloody stools, Pain spasmodic from right to left relieved by hot wet applications, Liver feels heavy as a stone, Pains extend to epigastrium and works down to lower bowel relieved bending double.

Case X. Was cured after repeated doses, of this remedy; given at long intervals. Jennie W. age 39 years, single. History of gall stone colic for seven years. Attacks at first two to four months, lately attacks three to six weeks. Attacks preceded by sleepiness, drowsy feels as if she must go to bed. Pressure in pit of stomach. Distention which impedes breathing. Stitches in liver, liver feels heavy, pains extend to epigastrium works down to lower bowel relieved by bending double. Attacks followed by diarrhea worse at night. Stools thin yellow burns rectum, stitches in anus during stool. Much gas in stomach, everything she eats seems to make gas. Milk causes diarrhea. Chalky taste in mouth. Menses every twenty days lasts five days, flow black and thick like tar. Severe pressing pain in back before menses with bearing down pains during flow. Abdomen sore and sensitive, worse damp cold weather and mornings. February 5, 1912 nux moschata 200th, five powders. March 29, 1912, slight attack, menses better. Nux moschata 1 m. A dose of the cm. was given on June 20th, 1912 and August 27th, 1912. The patient was discharged December 20th, 1912 feeling fine, eats and sleeps well, menses normal and liver symptoms all gone.

Podophyllum while indicated in many cases resulting from disordered liver has not been indicated in my cases of gall stones as often as many other remedies; when of use the following particulars may be found: - Nausea and vomiting of small quantity of food. Satiety, great thirst for large quantities of water. Eructations hot, sour smelling like rotten eggs. Gagging - Sensation of hollowness in epigastrium, twisting pain in liver with heat, chilly with cold perspiration, prostration, constipation and diarrhea alternating. Pains from left to right; from stomach to gall bladder.

Case XI. Was cured with this remedy and never had another attack after its administration. William Mc, age 45 years., had liver trouble for ten years has been jaundiced for eight months. History of alcoholism. Attacks of colic every six weeks to three months, attacks begin with severe soreness and fullness in liver followed by great nausea and retching; after a time vomits bile. Severe pains go from stomach to liver somewhat relieved by rubbing epigastrium, momentarily relieved by eating. Much gas in stomach eructations sour, smell like rotten eggs. Burning in stomach; soreness in epigastrium worse from eating; no appetite, few mouthfuls fill him up. Craves lemonade, pickles, acid fruits. Tongue feels as if burned, coated white. Vertigo worse in open air, sensation of falling forward. Burning pain in occiput going to neck and shoulders with numbness of right arm. Much rumbling of gas in the bowels in the morning. Hard dry clay-like stools covered with mucus. March 6th, 1911, podophyllum 200th, eight powders. April 15, 1911, jaundice gone, soreness in liver gone. April 20th, 1911, jaundice returning, gas worse. Podophyllum 1 m. This was followed by a typical podophyllum diarrhea after which there was a steady and rapid improvement in all symptoms until on June 29, 1911, patient discharged himself as he said he felt so well he did not know why he should see a doctor.

The last remedy we will consider is silicea. The particulars of which are as follows: - Canine hunger but upon attempting to eat has a disgust for food. Desire for cold food. Vomiting of large quantity of water. Burning throbbing in pit of stomach. Aching, beating, soreness in liver worse walking, motion, lying right side, and stepping on right foot. Constipated, cold, icy cold feet.

Case XII. Was a hard long case which was cured by this remedy. Nellie S., age 38, married. Thin, lax, light hair, pale, some jaundice. Attacks of colic six years; last the most severe of all.

Attack begins in morning increases all day gradually, decreases during night. Nausea, chilly vomit bile, very nervous, restless, fidgety starts at least noise. Great weakness after the attack but tired all the time, wants to lie down most of the time. Any mental exertion exhausts, reading always aggravates. Always cold and chilly even in summer. Vertigo beginning in the back and going into head, worse looking up. Headache every two weeks, since childhood; begin in the occiput go overhead and settle in right eye worse from cold, draught; relieved by pressure and wrapping the head tight and warm. Hemorrhoids, fistulae for four years. Constipated before and during menses. Stool hard, dry clay colored, difficult to expel. Menses irregular every two to three months; acrid, profuse leucorrhoea before menses. Silicea 1 m. one powder. August 6, 1909, a severe attack followed on the tenth. October 20, 1909, reports menses more nearly normal, feels stronger and less nervous. No headache for four weeks. November 15, 1909, severe attack but of shorter duration. Silicea 1 m. Reports December 10, 1909 fistula healed, only one headache in ten weeks. Feet do not sweat as much. February 10, 1911, Vertigo returning, some headache, more constipated, silicea cm. This was followed by slight aggravation after which there was a steady but slow improvement. August 7, 1911, reports perfectly well has gained twenty-four pounds, eats, sleeps, plays and feels fine, foot sweat entirely gone.

My first case after entering practice was an old chronic gall stone case and from this one and others that came through it indirectly I have treated considerably more than a hundred cases (a large number of my records were destroyed some time ago so the exact number cannot be given.) With the exception of two cases all have been cured; one of these being a lady sixty-eight years old who died with pneumonia but who had not had an attack in three months before her death; the other case being incurable, an operation was advised but a malignancy of the liver was found and patient died from shock of operation.

While these ten remedies do not represent all those that have been curative in my cases still they are perhaps those used in the majority of the cases treated. Any remedy in our vast materia medica may be indicated in these cases for the remedy which will cover your sick patient will cure her gall stones if the case be curative. Many of my cases I have never seen in an acute attack, all of them had been given morphine and many of them chloroform to control the attack before they came to my hands but in no one of my cases, those seen during the attack or those who were given a remedy to control the pain, have they ever required anything but the homoeopathic remedy to relieve the colic and in every case the remedy worked better and more quickly than the morphine in the hands of my predecessor.

In these days when the surgeon is so anxious to open up the gall bladders of every jaundiced patient, suffering patients have a right to demand the closer application of the physician to his materia medica and at least a fair trial of his remedies before submitting to the knife which in these cases so many times means a speedy death. As a prescriber and a firm believer in our remedies when applied according to the law; I make an appeal to you as humanitarians as well as physicians to give your remedies a fair trial in these cases and see if your results will not justify your efforts."

(Glenn I. Bidwell, M.D., Rochester, New York, Ten remedies in gall stones with indications and cases, Read before the Homoeopathic Medical Society of the Stat of New York, in: The North American Journal of Homoeopathy, Third Series, vol. 28 (1913), p. 332-341)

The story of a so-called "small" remedy

"Homoeopathy enables us to utilize accidental cases of poisoning for therapeutic purposes, as no other therapeutic method of enquiry will do - a poisoning is a proving, and when carefully studied one of the best kind."

(Alfred C. Pope, The Monthly Homoeopathic Review vol. 48 (1904), p. 12)

"Ich übergehe die nicht selten lebensgefährlichen, auch wohl tödlichen Erfolge solcher Gaben, auch bringe ich nicht in Erwähnung, dass ein Paar Spulwürmer bei muntern Kindern noch nicht als bedeutende Krankheit anzunehmen und dem Kindesalter (bei noch schlummernder Psora) gewöhnlich fast ohne Beschwerde, eigen sind; dagegen ist so viel wahr, dass wo sie in Menge vorhanden waren, der Grund davon stets in einer krankhaften Beschaffenheit des Körpers, nämlich in der sich dann entwickelnden Psora lag, ohne deren Heilung die, auch in Menge mit Cina ausgetriebenen Spulwürmer, sich bald wieder zu erzeugen pflegen, daher durch solche Wurm-Austreibungen nicht nur nichts gewonnen, sondern solche fortgesetzte, zweckwidrige Kuren sich oft mit dem Tode der gequälten Kinder zu endigen pflegen."

(Samuel Hahnemann, Reine Arzneimittellehre Bd. 1, 3. Auflage 1830, Vorrede zum Cinasamen, S. 119-120)

The American Worm Seed Oil

„Die Melte mit ausgeschweiften Blättern (*Chenopodium anthelminticum* Linn. Spec. 220) stand gar häufig, so an dem Wege, als an dem Ufern des Flusses, doch an trocknen Stellen, in einer losen sandigen Erde. Die Engelländer, so hier wohnten, nannten diese Pflanze theils den Wurmsamen, teils die Jerusalemseiche (Wormseed, Jerusalem Oak). Sie hat einen unangenehmen Geruch. Der Same aber wird in Pennsylvanien und Neu-Jersey den Kindern, zur Abführung der Würmer, eingegeben. Und dazu ist er vortrefflich. Die Pflanze selbst wuchs, in beiden Landschaften, wild.“

(Des Herrn Peter Kalms Beschreibung der Reise die er nach dem nördlichen Amerika unternommen hat, Zweiter Theil, Göttingen 1757, S. 305)

"From this plant - which grows plentifully throughout the State of Tennessee -, and too well known by almost every person to require a description - the oil called worm seed oil is made. This oil has for some time attracted a considerable share of popular favor, as an antidote against worms in children. It is sold in almost every store, under the name of "worm seed oil;" and persons who purchase this oil or medicine, should be careful that they are not imposed upon; because it is very often adulterated with spirits of turpentine, by which they are always disappointed in their expectation of benefit.

In its pure and unadulterated state there is no medicine preferable to the oil from the Jerusalem oak for expelling worms from children; but it must never be given when the child has fever, because it will in that case increase the fever."

(Gunn's Domestic Medicine, or Poor Man's Friend, Thirteenth Edition, Pittsburg 1839; Jerusalem Oak, p. 536)

"*Chenopodium anthelminticum*, the Wormseed Goosefoot (vulgar names: Jerusalem Oak, Wormwood, Worm seed, Stinking weed) grows from New England to Missouri and Georgia, more abundant and larger in the South : common in old fields, along fences, in alluvions, gravel, rubbish, and even in streets; but never in woods nor mountains.

The whole plant has a strong, pungent smell, somewhat like valerian, which is disgusting to many persons; this smell is easily known and enables to distinguish it from some other consimilar species, which are often blended with it: such are the *Ch. ambrosioides* & *Ch. botrys*, whose smell is agreeable and fragrant, although strong.

The strong and lasting smell of the whole plant, is owing to an essential oil, very penetrating or pungent, and in which resides the medical property. It is diffused throughout the plant, particularly in the globular dots of the leaves, and the seeds. The taste is bitter, acrid and aromatic.

It is a powerful vermifuge used both in America and Europe; found equal to the officinal wormseed, which is the *Artemisia Santolina*, a very different plant, native of Syria and Africa. It expels speedily, the Lumbricis and other worms of the intestines, It must be given in repeated small doses, and the most palatable form: the seeds and their essential oil are the most efficacious, eight or ten drops of the oil, mixed with sugar are a common dose for a child, or a table spoonful morning and night fasting, of an electuary made of the pulverized seeds with honey. A conserve, marmelade, syrup, beer, decoction in milk, of the leaves, (or even their juice,) are also used. Children often dislike the strong smell of this medicine, and it must be disguised by orange peel or sweet substances. The seeds and oil are now kept in the pharmacies, but the last is often adulterated with oil of Botrys or of Turpentine; which lessen its power; it may then be known by a less pungent smell.

This plant has only been employed against worms, as yet, but it possesses probably all the properties of the *Ch. Botrys* and *ambrosioides*, which are pectoral, resolvent, carminative and emmenagogue: useful in asthma, suppressed menstruations, &c.

Many other species of *Chenopodium* are medical; but none vermifuge like this; those which approximates in appearance and smell are the following; which must not be mistaken for this although useful in other respects.

Ch. botrys or sweet Jerusalem oak, has oblong obtuse sinuate leaves, and crowded panicles. Common all over the United States, in sand, and gravel near streams.

Ch. ambrosioides or Fragrant Jerusalem oak, has narrow or lanceolate toothed leaves, and leafy panicles, with a very fragrant smell, stronger than in the foregoing. Grows promiscuously with *Ch. anthelminticum*.

The whimsical name of Jerusalem oak has been given to these plants, from a fanciful similitude to the leaves of the oak."

(Extracted from: C. F. Rafinesque, *Medical Flora; Or; Manual of the Medical Botany of the United States of Amerika*, Philadelphia 1828, p. 103-106)

A small proving with a special indication

"It is always of great importance in homoeopathic practice to know of a remedy which acts upon the parts in a particular locality of the organism. We have an example of this in the value of *Viola odorata* in rheumatism of the right wrist. The recommendation of Dr. Kitchen of this remedy for such cases, has been fully justified in my own experience, as also in that of many other physicians.

I wish this evening to communicate to you several experiences in my own practice in regard to the important local symptoms of a few remedies. And first of the tincture of the seed of the *Chenopodium anthelminticum*.

Of this, an important local symptom is, a slight dull, pain a little lower than the inferior angle of the right scapula, but nearer the spine. The record of my proving of this medicine by chewing the seed, made in March, 1842, reads as follows:

Pains through the breast under the right scapula, and in the right shoulder; pain in the head and eyes, neuralgia.

Of the above symptoms it is only the infrascapular pain which has been proved to be important, and this, in the record, is wrongly stated, because the word under is employed

instead of the word below. But, whilst the fact of below and the exact location of the pain was fresh in my memory, it happened that an old lady applied to me for the relief of an asthmatic affection with which she had been troubled for twenty years. It was very severe, compelling her to sit up the greater part of the night, for many years. I could not satisfy myself that either of the remedies with which I had successfully treated asthma was adapted to her case, and as she had pain in this locality I concluded to give the *Chenopodium* in the eighteenth centesimal dilution. Four powders were given, which not only removed this pain but also the asthmatic disorder. Some years afterwards she was attacked by hydrothorax, and not receiving any important benefit from my prescriptions, employed an allopathic physician and experienced relief for some time, but died suddenly.

Since then, I have often employed the *Tr. Sem. Chenop.*, when this pain was present, and have seen it not only remove this pain, but also benefit the patients in other respects."

(Jacob Jeanes, *Special Indications*, *The Hahnemannian Monthly* vol. 6, February 1871, p. 331-333. Read before the Philadelphia County Medical Society, Jan. 12, 1871)

A fatal poisoning

"The following history of a most interesting case of poisoning, by wormseed oil, is submitted somewhat in detail:

Mr. X., occupation merchant, single, age 31, was a man of really excellent health, though subject to what may be styled constant "fits" of unrest and anxiety as to some imaginary disease, for which he was repeatedly physicking himself. These medicines would be either those prescribed by a physician or druggist, he always reserving to himself the right which he indulged freely, of entirely altering the prescription in kind or quantity to such an extent as to produce effects different to what were intended.

For example I have known him in one of these "fits" of depression, caused as he stated, by a serious decline in his sexual powers, a by no means uncommon fear with those who often, as he did, would *test his virility*, failing to get prescription from me, purchased from a druggist a number of those phosphorus and nux vomica pills prepared by Warner & Bro., of Philadelphia. He did not discontinue these remedies until after he had taken in the neighborhood of 25 dozen pills. On another occasion he continued the notion that he needed toning up for which he prescribed iron, that he gravely took before meals, which were almost invariably taken in such enormous quantities, and with such gusto as to make his family jocosely question the necessity for the tonic course that he had mapped out for himself.

On still another occasion I met him when he told me that he had sent to the drug store for medicine, and that to make sure of desired effect he had taken double the quantity ordered. I might add to these numerous illustrations of a typical "hypo" in the way of urged examinations of lungs, heart, belly, penis, testicles, urine, etc., but enough has been offered to show his peculiarity. Now in striking contrast with all this, I can state that he was actually a man of good physical health, and mentally, so far as related to his business capacity, he compared favorably with most men. He had a good appetite, regular bowels, normal urine, a muscular development which qualified him for enduring a great amount of exertion in gunning, boating and playing baseball. On Friday September 5th, he returned from an extended and successful business tour through the South. Soon after his return he consulted me, saying that he had been feeling very badly and generally "out of sorts." With the exception of a fatigued appearance, having been up a good part of the night, he looked as well as ever. Amongst other things complained he informed me that he had been "passing worms." He seemed very positive about this, and I prescribed for him verbally one ounce of castor oil and twenty drops of turpentine. He immediately inquired of me if after the action of the

medicine it would not be a good idea to "shape off", as he expressed it, with iron and quinine. To this I assented; he procured the medicine from a druggist nearby, returned to my office, and after I had mixed it with whiskey he swallowed it. I remarked to him that castor oil was such a stinking thing that I would throw the bottle away at once, but, knowing his propensity as described above, I did not do this until I had observed from the label whether he had gotten the prescribed quantity of turpentine. He had ordered 30 in the place of 20 drops. I never thought of looking immediately above to note the quantity of the oil for the reason that I could not imagine a patient voluntarily increasing the dose of this disgusting medicine, and secondly that the quantity presented was evidently that or about that ordered. He remained under my sight for about one hour, during which time he spoke of being annoyed by disagreeable eructations, which made him a little sick. I left him, went on my rounds, and did not see him until 6 p. m., or about seven hours after the medicine has been taken. His first remark was that "that infernal medicine had not moved his bowels, but had made him deathly sick." He had been to witness a game of baseball, and while on the grounds he retired several times behind the benches and made unsuccessful attempts to vomit himself by using his finger. As just stated his chief and only complaint on his return was the great nausea. I gave him, one-twelfth of a grain of calomel to be repeated every half hour, the explanation for the unusual effect of the oil which I offered that for some reason it had been retained in his stomach and that the nausea had been kept up by the constant eructations. My engagements kept me from seeing him until ten o'clock, four hours after. I found that he had remained in his dining room with a cousin during this interval, playing cards. The latter on my arrival, at once asked what my patient had taken as in addition to the sick stomach he observed that there was such difficulty in walking as to make him stagger like a drunken man and to require assistance in getting him to the water closet, situated in the story above, where I found him feeling, as he said, better after his bowels had begun to move slightly. When he descended to the dining room his behavior was simply such as might be explained by a severe attack of stomachic vertigo, and he looked badly, having a good deal of pallor, and was manifestly anxious. He retired early, having failed as was his custom to close the windows and lower the gas lights.

The next morning, Saturday September 6th, he did not join his family at breakfast, which did not occasion surprise, as he had already announced his intention of getting rested and taking three days holiday after his labors. Soon after his breakfast hour I entered his room and found him sleeping as quietly and sweetly as possible. This time, after a more careful scrutiny of himself and his apartment, I discovered that he had vomited freely over the sheet and especially on the floor. The vomit consisted of particles of meat and bread, the constituents of the breakfast taken the day before. Not only what had been ejected but the entire chamber was strongly scented with the unmistakable odor of wormseed.

It was evident that he had retired in great confusion and haste, a box of cigars, which he had brought to his room the night before, had been thrown at a table and was found on the floor, with the lid open and the contents partly emptied. He was lying on his back partly covered with a thin spread, and so eager had he been to reach the bed that he had not put on his night shirt. His pulse, respiration, physiognomy, and skin were perfectly natural. I left the room without rousing him, but did not begin my rounds until I had visited my office for the purpose of consulting Stillé, Ringer, Taylor and Orfila, not to mention a number of other works that could in any way enlighten me, as to symptoms of poisoning from Wormseed. Besides the known fact of the danger from an overdose no information was obtained. I returned to my patient at about 4.30 p. m. of the same day, and found him precisely as I had left him, still soundly asleep. Without much difficulty, by calling and shaking him slightly, he awoke to perfect consciousness, and at once began to call my attention to the vomiting that had taken place during the night. On questioning him he placed his hand to his ear and indicated that he could scarcely hear a word I would speak. He was much surprised at the length of his sleep

and the hour of the day. I asked him where he had gotten wormseed medicine and he denied having taken any. I asserted him that the odor had charged the matter he had vomited and that he must have taken some. He again denied having had any. After directing him to get up and dress himself I left the room. I returned in less than one hour to find him again asleep on the bed and all dressed excepting as to his coat. He had buttoned his gaiters, prepared a clean shirt which required him to transfer the buttons, bent his collar, in short had attired himself in his accustomed manner. I easily roused him, he still showing marked deafness, took him by the arm and escorted him to the dining room, his gait being only a little unsteady but none of the staggering nor the anxious pallor of the night before was observed. He saluted his sister and her baby in a very cheerful way and immediately asked for food. Whilst waiting he commented upon his mysterious attack, and stated that with the exception of his deafness to the sounds of voice, but exquisite sensitiveness to the sounds of the passing vehicles and the cracking of ice by the waitress, and an annoying buzzing in his ears, he felt as well as he ever did in his life. In great doubt, under necessity, I was obliged to leave him for my office near by where he soon joined me. For a short time I was engaged in my private office and left the patient in the waiting room. When seen again he had fallen soundly asleep. As soon as practicable I roused him, took him by the arm and walked with him in the open air for about one-half a mile. His intellection was clear, his gait steady and nothing unusual was observed but his deafness to my voice, and a painful sensitiveness to the sounds made by passing wagons. He remarked as each vehicle rolled by that it sounded like the roaring of immense cannons right into his ear. On returning to my office he spoke, for the first time, of a slight uneasiness in his belly and made an ineffectual attempt to vomit. During our walk I again inquired about the taking of wormseed medicine. I could not abandon the idea that anything but this drug could produce the odor encountered in his room. He again as before, denied having taken any.

After our walk he went to his home accompanied by myself, when I suggested to himself and his sister a game of casino for the purpose of keeping him awake. He played with his unusual cleverness and nothing unusual occurred until between ten and eleven o'clock when his sister played in violation of the rule by attempting to "build from the table." He instantly, sooner than myself, detected the false play and offered interruption but could not command the words to complete his sentence. After a vain effort, made for about one-half a minute, he appealed to me in gesture if he was not right. In this he was clearly aphasic. The games having been finished I was left to watch him during the night. During the night the deafness and roaring in his ears continued. His temperature was taken and found normal as were his pulse, respiration, and physiognomy. There was some thirst. His speech was as good as ever, as shown by the anxiously clear and direct questions which he repeatedly made as to the "meaning of all this." He walked in a perfectly steady manner and the steadiness of his gait was especially noticeable as he gave chase to a rat that suddenly appeared in the room. He took during the night a few doses of a mixture containing about two drops of laudanum and whiskey, given as stimulants. Towards morning his drowsiness returned and he slept naturally for about two hours. I left until eleven o'clock of that same (Sunday) morning. During my absence, he was constantly attended by some member of his family and while in conversation with his sister, he for the first time admitted to his sister having taken wormseed oil. When again seen by me he was wide awake lying on his bed and smoking a cigar, but disinclined to converse. His manner in smoking was peculiar. He would scarcely light the cigar before he would lay it down and take a fresh one, arguing clearly some perversion in his taste. This was kept up until interdicted and by the afternoon his mantel piece was strewn with cigars only slightly used. From 12 o'clock to his dinner hour - 1.30, he remained in his room either on his bed or sitting up. His relations remained constantly by his side, he showed not the least disposition to engage in conversation. To one of his attendants he again showed signs of distinct aphasia. He

clearly wanted him to get or to do something for him, but could not make himself understood. His friend replied by writing on paper "Don't understand" at the same time handing him the paper and pencil with which to make known his wish. After holding them in his hand, in a pensive state for some minutes with a sort of a flourish, he wrote in a perfectly distinct hand "The paper mu," waited awhile and then with a painful expression of the realization of his difficulty returned the materials and laid down. I then repeated the attempt by asking him what medicine he had bought while away from home. After similar preliminaries as before he only managed to write two letters "Th." In reply to my question as to how he felt he responded "I fell all right." The latter, like the other words were written in a perfectly distinct manner.

I prescribed for him small doses of bromide of iodide of potash. During all this time his deafness as described, was progressive and became so pronounced as to make it impossible to talk to him. Still there was the same kind of sensitiveness to other sounds. For example when the tea bell rang, though he was in the third story, three flights from there where the sound came, he without notice from members of his family to their utter astonishment got up and walked as deliberately as ever into the dining room. He did not seem to know his accustomed seat and sat at the wrong place. During the afternoon his aphasia was complete so that he no longer found it possible to express his ideas to any one which seemed to amuse him very much as he laughed heartily over it. His behavior all of this time deserves comment. Whatever he did he would keep repeating for a considerable time. When I entered the room he rose, shook me cordially and firmly by the hand, and then took his seat. In about a minute he arose solemnly, came forward and again shook hands with me so that by twenty minutes he had shaken hands with me as many times. He then began to wash his hands and though the basin contained no water he went through the form of using soap and wiping with the towel as often as a dozen times in one hour. Many acts of similar import might be offered, some of which I observed and others were described by members of his family. He urinated normally during the day and the water as seen by me looked natural.

I joined the patient at his tea for the purpose of watching what up to this time had been to me an unsolved mystery. He appeared to relish his food, taking simply tea and bread. Towards the close of the meal while grasping a fragment of bread, there was a distinct spasm of the right forearm and hand. His fingers were firmly clenched, and his hand forcibly flexed on the forearm. He was assisted to his room, his walk entirely natural and when placed on his bed he showed some resistance in striking at me. He at once commenced to groan, draw himself up, and tossed from side to side of the bed, suggesting abdominal distress. An enema of soap and water, about one quart, was given, followed by a free involuntary movement.

He soon became unconscious, and from his movements in bed it was clear that he was paralyzed in right arm. This member was dragged helplessly after him, as my attention was first called to it by a looker on. He remained in a stupor without stertor, with a pulse of seventy, temperature and skin normal, all of Sunday night. On Monday he was seen with me by Prof. Latimer who agreed as to the evidence of cerebral pressure. There continued impairment of motion and sensation of the right side together with insensibility to touch of the right eyeball. Towards the evening of Monday September 8th, his temperature began to rise, and by Tuesday evening the thermometer registered one hundred and four in the axilla. For the pyrexia hypodermic injections of quinine were given in large doses. All during Monday there were frequent twitching and stiffness of the right limbs, which yielded to inhalations of chloroform. These culminated in a unilateral convulsion at daylight Tuesday morning. At about noon Monday he passed, as he continued to do to the end except when drawn off, a large quantity of his urine involuntarily in bed. A microscopic and chemical examination of the urine showed nothing of special significance. Its odor, color and general properties were such as are met with in cases of high temperature. On Tuesday afternoon the heavy breathing,

with flapping of the cheeks, of apoplexy appeared. There was also a more or less constant regurgitation of yellow frothy material from the mouth, which like the emanations from his skin smelled of wormseed. The accumulations of this material would at times be so profuse as to embarrass respiration. During one of these attacks of dyspnoea, and while in a drenching sweat, which suggested the approach of dissolution, he was gently turned in bed, immediately a general convulsion markedly opisthotonic appeared, lasting about two minutes, despite the use of chloroform. By this time a decided icterus appeared, which had been only noticed the day before. With the exception of distressing rattling which kept up through the night of Tuesday, associated with profuse sweating, nothing worthy of note occurred.

He died about eight o'clock on the morning of September 10th, five days from the beginning of his illness in profound coma and with a high temperature in his axilla. His yellowness at the end was so marked as to make it very difficult for me to discredit a rumour, that already had become current, that my patient had yellow fever. Unfortunately no post mortem was obtained. Immediately after death I examined his body and found a threatening bed sore over the sacrum, notably on the left side. The excessive heat continued for some hours after death. There was no rigor mortis. Decomposition set in so early as to necessitate a hasty funeral.

The history of the origin of this case continued to be uncertain until the day before his death, when on visiting the drug store where my patient had purchased his medicines, I learned for the first time that he had changed my prescription for one ounce of castor oil to about one ounce and a-half of wormseed oil, this being the whole of the druggist's store. To this the turpentine was added. Had I been in the habit of directing wormseed oil, I might have thought that it had been taken under a misapprehension. It is the case however that only during my service at the Baltimore Special Dispensary, where this was the chief ingredient of a favorite worm mixture, did I ever administer it. I do not remember a single instance in private practice where this remedy has been prescribed by me. No matter as to this I have learned a lesson about ordering physic verbally.

One of the many points of interest in connection with this case was the clearly defined aphasia. Which the centre of speech, wherever and whatever this may be should have been elected, as it were, as the chief seat of the attack, is a profound mystery. By referring to page 311 of the London *Lancet*, for this year, it can be seen that Dr. Lawson, in his article on the effects of hyoscyamine upon himself states, among many other symptoms, that "after sleep there still remained incoherence and aphasia."

My excuse for this detailed report, lies in the fact that in no work on materia medica, practice nor forensic medicine which I have consulted, which includes almost every modern work (English), have I yet met with a single case of fatal poisoning from wormseed oil. Since the occurrence I have heard of others, and I have therefore determined to place mine on record." (Thomas R. Brown, M.D., Case of Poisoning by Oil of Chenopodium, Maryland Medical Journal vol. 4, November 1878, p. 20-28)

Experiences in affections of the inner ear

"CASE I. - Mrs. B., about forty years old, in good health, first consulted me for an affection of the internal ear, in January, 1894, and gave the following history: Four years previously when much debilitated, in consequence of care and anxiety, she experienced suddenly a sensation of a blow upon the left ear, attended with roaring tinnitus. These symptoms lasted three or four days and disappeared completely. About one year subsequently, that is, three years before consulting me, she awakened suddenly one morning with roaring tinnitus, as of water running over a dam. This has continued with more or less severity ever since, and has been associated with diminished acuteness of hearing. At times there have been intermissions,

lasting for days and weeks, when the tinnitus has been very slight or entirely absent, and at such times she thinks her hearing has been normal. She made no mention of vertigo in connection with the initial attack, or with the one occurring a year later, but states that frequently, when the tinnitus has been most severe, it has been accompanied with vertigo, but that for several months she has been free from dizziness.

The subjective sounds she described as synchronous with the action of the heart. They were always most annoying and persistent in the left ear, but the right had not been entirely free from them. She had never had pain in the ears or head aside from periodical headaches. Hearing for the voice was considerably impaired, but was not accurately measured. Rhd. (w)=4/60. Lhd. (w)=18/60. Bone conduction was absent for the fork on both mastoids. Each membrana tympani was in normal condition, save a trifling dullness. She had slight atrophic postnasal catarrh, without obstruction of the eustachian tubes. She had been previously under the care of a physician who made some claim to special skill as an aurist, but she grew worse instead of better, and discontinued his treatment in despair.

Cautious use of the vibrometer, in connection with internal remedies, gave transient improvement, but at the end of three weeks her condition was the same as at the first visit. She then remarked that she heard shrill, high-pitched noises better than low sounds, and had most difficulty for the voice. As she expressed it, she heard many sounds that she was not expected to hear, but was deaf for the voice. This at once suggested *Chenopodium*, which was prescribed in the sixth attenuation. This was on January 25, 1894, and followed by rapid improvement. The remedy was continued four times a day for several months with no other treatment.

On March 17 she reported that she had been nearly free from tinnitus, and had heard much better.

September 6, she said the noise was so slight that she did not "mind it", and that her hearing seemed perfectly restored. *Chenopodium* continued. Since then I have seen her frequently, and she had always given the same report.

Yesterday, August 19, 1895, almost a year since the date of my last prescription, she came into the office, at my request, for examination. Result was follows: No apparent deafness for the voice, and she stated that she now never had any difficulty in hearing; free from tinnitus except on rare occasions, after loss of sleep or from similar cause, and then so slight as to be scarcely noticeable; no vertigo; membrana tympani of good lustre, somewhat retracted, vibrating well with the otoscope. Fork heard distinctly in each mastoid. Rinnè positive, right; negative, left. Rhd. (w)=27/60. Lhd. (w)=33/60.

It is difficult to make a positive diagnosis in this case, but a sudden exudation, serous or bloody, in the labyrinth, followed by inflammation, and preceded and followed by a slight catarrhal otitis media, seems to afford the most rational explanation of the symptoms exhibited.

Our means of curing or even alleviating affections of the internal ear are so meagre that anything which promises to extend them is deserving of record. The improvement in the case narrated, it seems to me, may be fairly attributed to the remedy prescribed. The condition had lasted for upward to three years, and had not been benefited by previous treatment. No other treatment was employed while taking *chenopodium*, with the exception of a single application of the faradic electric current at the date of the first prescription, and it is no probable that the one application could have had any decided or permanent effect.

The following case affords further evidence of the value of this remedy in such affections:

CASE II. - Miss C. E. B., age fifty, school-teacher, September 2, 1894. Slightly deaf in left ear for several years; no tinnitus; "conscious of my ear"; sensitive to musical sounds; deaf for the watch and voice. Right membrana tympani normal; left somewhat retracted and dull; no light spot; good vibration with otoscope. Eustachian tubes dilatable. Rhd (w)=36/60. Lhd. (w)=8/60. Bone conduction diminished from left mastoid. R. Chen. 6x.

October 2. - Rhd (w)=21/60. Lhd (w)=16/60. Pol. R. 36/60. L 24/60. Ears less sensitive. Continued chen. 6x.

October 20. - Ears no longer sensitive to sound, but sensitive to cold. Wants to cover them. Cracking in ear when swallowing. "Hearing seems perfectly restored." Rhd. (w)=29/60. Lhd. (w)=27/60. Pol. produces stopped feeling and no improvement in hearing. Continued medicine.

December 15. - "No trouble in hearing." Slight sensitiveness still. Rhd. (w)=52/60. Lhd. (w)=50/60. Small light spot in each membrana tympani. Improvement has been permanent.

Here again we had an implication of the left labyrinth in connection with slight otitis media chronica of both ears.

In the proving of chenopodium we find recorded, "Progressive deafness to the voice, but great sensitiveness to the sounds of passing vehicles, each one of which sounded like roaring of a immense cannon right into his ear, the same sensitiveness to other sounds, for example the tea bell; also buzzing in the ears."

This condition, deafness to the voice but sensitiveness for other sounds, was present in both of the cases recorded above, and I have found it a reliable indication for the remedy. In addition, I would like to put on record as cured symptoms, the following, viz.: Absent or deficient bone conduction restored under the use of the drug; roaring tinnitus synchronous with the action of the heart. A consciousness of the ear; sensitiveness to musical sounds and to cold. Hearing better for shrill, high-pitched sounds than for low tones."

(E. H. Linnell, M.D., Norwich, Conn., Chenopodium in Otitis interna, The Journal of Ophthalmology, Otology and Laryngology vol. VII (1895), p. 297-299)

Ein Kind starb nach der Einnahme an "zerebraler Kinderlähmung"

"In einem 1906 von Brüning veröffentlichten Vergiftungsfalle wurden einem vierjährigen, sonst kräftigen Kinde vom Arzt gegen Askariden 6 Geloduratkapseln Wurm Samenöl der Firma H. Pahl-Schönbaum-Danzig mit je 8 Tropfen Oleum Chenopodii verordnet. Irrtümlicherweise wurden vom Apotheker Kapseln mit 16 Tropfen verabreicht. Gleich nach dem Einnehmen der ersten Kapsel erbrach das Kind, klagte über Kopfschmerzen und ziehende Schmerzen in den Waden. Trotz dieser Erscheinungen erhielt das Kind noch eine zweite Kapsel, da angenommen wurde, dass die geschilderten Symptome nicht bedenklich seien. Kurze Zeit darauf war das Kind benommen und erbrach das als Laxans hinterher gegebene Rizinusöl. Keine Diarrhoen, Pupillen intakt. Am nächsten Tage hatte sich unter tetanischen Zuckungen halbseitige Parese ausgebildet, die auch die Gesichtsmuskulatur betraf. Dabei bestand Strabismus, Puls 120-150, mittelkräftig. Lumbalpunktion: erhöhter Druck, im Punktat vereinzelt Lymphozyten. Die vom Hausarzt gestellte Diagnose "zerebrale Kinderlähmung" wurde von einem Konsiliarus bestätigt. Nach 2 Tagen Exitus. Keine Obduktion."

(Brüning, H., Zur Behandlung der Askaridiasis, Medizinische Klinik 1906, Nr. 29; zitiert in: Aloysius Preuschoff, Über Vergiftungsfälle mit amerikanischem Wurm Samenöl, Zeitschrift für experimentelle Pathologie und Therapie November 1920, vol. 21, Heft 3, S. 432)

Eine Frau nahm 20 Gramm Wurmsamenöl

"Eine 31 Jahre alte Frau nahm am 20. Dezember 1917 morgens 6 ½ Uhr in nüchternem Zustande 20 g Wurmsamenöl, ohne ein Abführmittel hinterher folgen zu lassen. 2 Stunden nach der Einnahme traten Kopfschmerzen, Übelkeit, Zittern am ganzen Körper und heftiger Schwindel auf, so dass sie wie eine Betrunkene taumelte. Als sie wegen Erbrechens den Abort aufsuchte, fiel sie zu Boden und konnte sich nur mit Mühe erheben. Jetzt telefonierte sie der Hausfrau und konnte konstatieren, dass sie (also bereits 2-3 Stunden nach der Einnahme des Wurmsamenöls) wegen heftiger Ohrgeräusche Mühe hatte, das Gespräch zu verstehen. Sie legte sich zu Bett und schlief ununterbrochen von morgens 10 Uhr bis abends 10 Uhr. Erst am folgenden Morgen, 24 Stunden nach der Einnahme des Wurmsamenöls wurde der Arzt gerufen; dieser konnte konstatieren, dass auch sogar in die Ohren geschriene Worte nicht gehört wurden. Die Patientin, die bei klarem Bewusstsein war und die niedergeschriebenen Fragen sofort verstand, klagte ausser über Taubheit und anhaltende Ohrgeräusche immer noch über Schwindel, der so stark war, dass sie nicht aufstehen konnte; sobald der Kopf gehoben oder nur die Körperlage geändert wurde, traten sofort heftiger Schwindel und Brechreiz auf, und drehten sich die Gegenstände des Zimmers. Die letzteren konnte die Patientin auch bei Ruhelage des Körpers nur undeutlich erkennen, und das Lesen war nur schwer möglich, da beständig ein Nebel vor den Augen lag. Krämpfe oder Lähmungen bestanden nicht.

Drei Tage nach der Vergiftung sah die Patientin wieder klar und konnte auch laut ins Ohr geschriene Worte verstehen, auch der Schwindel war nach drei Tagen geringer. Elf Tage musste die Patientin im Bett bleiben und konnte erst nach 14 Tagen leichte Arbeit verrichten. Die Ohrgeräusche, einem Bienenschwarm, Wasserfall, Glockengeläute ähnlich, störten auch fernerhin zeitweise die Nachtruhe. Die Patientin, aus gesunder Familie stammend, erinnert sich keiner früheren Allgemeinerkrankung. Das Gehör war bis zu dem Unfall auf beiden Ohren fein, und Ohrgeräusche hatten früher nicht bestanden. Fälle von Schwerhörigkeit sind in der Familie unbekannt. Einen Monat nach der Vergiftung ist die beiderseitige Schwerhörigkeit immer noch hochgradig, und die Ohrgeräusche sind noch belästigend und anhaltend. Fünf Monate nach der Vergiftung wird Flüstersprache direkt am Ohre gehört. Die Ohrgeräusche sind auf beiden Seiten noch kontinuierlich und namentlich in der Nacht lästig, so dass die Patientin dadurch manchmal im Schlaf gestört wird."

(Oppikofer, Chenopodiumölvergiftung und Gehörorgan, Korrespondenzblatt für Schweizer Ärzte, Bd. 49 (1919), Nr. 6, S. 165; zitiert in: Aloysius Preuschoff, Über Vergiftungsfälle mit amerikanischem Wurmsamenöl, Zeitschrift für experimentelle Pathologie und Therapie Bd. 21 (1920), S. 433)

Ein vormals gesundes Kind

"Oben haben wir versucht, alles was in der Literatur über die Vergiftung mit *Oleum chenopodii anthelminticum* bis heute mitgeteilt wurde, kurz zusammenzufassen. Wir wollen jetzt über einen in der Basler Kinderklinik beobachteten Vergiftungsfall ausführlich berichten, den wir am Licht dieser gesammelten Kenntnisse beurteilen werden.

Das vierjährige Mädchen E. K. wurde am 19.3.1947 ins Basler Kinderspital mit der Diagnose 'Vergiftung mit *Oleum chenopodii*.' eingewiesen. Die anamnestischen Angaben der Begleitperson lauteten: das Kind hatte von jeher mit Spulwürmern zu tun. Sonst war es immer gesund. Vor einigen Wochen wurde eine Wurmkur vorgenommen und es gingen 5 Würmer ab. Die Kleine erbrach etwas, sonst war sie beschwerdelos. Nach einiger Zeit wurden im Stuhl noch Wurmeier gefunden, und das Kind bekam ½ Teelöffel eines Wurmmittels, welches die Adoptivmutter in einer Flasche in der Menge von ca. 10 ccm. geschickt hatte. Durch uns nicht genau bekannte Umstände handelte es sich versehentlich um unverdünntes *Oleum chenopodii*. Die Kleine erbrach sogleich nachher, und seither dauernd, bis es gallig kam. Sie war auffallend blass. 3 Stunden später wurde sie apathisch und sprach nicht mehr.

Beim **Spitaleintritt** war das Kind nicht bewusstlos, sprach etwas, verlangte nach der Mutter. Die Reflexe waren normal. Therapeutisch wurden sofort eine Magenspülung mit Karlsbader Salz-Auflösung vorgenommen, dann wurde Tierkohle in Aufschwemmung gegeben, hohe Darmspülungen, subcutane Glucose-Kochsalz-Infusionen, endlich Coramin. Das Erbrochene und das Spülwasser waren gelblich gefärbt.

Der am folgenden Tag (20. März) vorgenommene **Status praesens** zeigt ein altersgemäß entwickeltes Kind, bei klarem Bewusstsein, mit regelmäßiger Atmung, das den Aufforderungen prompt nachkommt, ohne jedoch zu sprechen.

Kopf: freibeweglich, nicht druck- oder klopfempfindlich.

Ohren: Trommelfell beidseits blass, spiegelnd.

Augen: reine Skleren, isocore, runde, auf Licht reagierende Pupillen.

Mundhöhle: feuchte Zunge, blasse Schleimhäute, Tonsillen mittelgroß, etwas gerötet, ohne Belag.

Thorax: symmetrisch, Lungen o. B.

Herz: leises syst. Geräusch.

Abdomen: weich und indolent.

Reflexe: normal, lebhaft, nichts Pathologisches!

Temperatur leicht subfebril, Blutdruck normal, im Harn etwas Azeton und eine Spur Zucker, wie auch in den folgenden Tagen erhöhte Werte des Nüchternblutzuckers.

Der Verlauf der Erkrankung.

Wir werden, nach Bekanntgabe des Status praesens, den Verlauf ausführlich darstellen, um das chronologische Auftreten der Vergiftungssymptome gut verfolgen zu können.

Die leichte **Zuckerhaushaltstörung** (Nüchternhyperglykämie und Glykosurie sowie die untern angegebenen erhöhten Liquorwerte) verschwand Ende März 1947. Ein schwerer Leberschaden ist nicht nachgewiesen worden (Serumbilirubin, Takata, Weltmann, Hijmanns van den Bergh normal!), sodass diese Störung wohl als zentralbedingt aufzufassen ist.

Am 20. März liegt das Kind noch ruhig im Bett, verfolgt mit den Augen alles was sich bewegt, zeigt aber einen unüberwindlichen **Mutismus**. Das Gehör ist noch intakt.

Am 21. März: in der Nacht und am Morgen deutliche Verschlechterung des Bildes. Das Kind verfällt in ein schweres **Koma**, es erbricht 2 mal gallig und zeigt eine deutliche **Spastizität**, wobei die rechte Seite besonders betroffen ist. Zähneknirschen und unruhiges Benehmen wird beobachtet. Das Reflexbild ist nun verändert: **Steigerung der Sehnen- und Periostreflexe** rechts, Auftreten von **Babinski** rechts, die Bauchdeckenreflexe sind verschwunden. Im Verlaufe des Morgens treten zwei kurzdauernde **Krämpfe** im Bereiche der rechten Gesichtshälfte und im rechten Arm auf. Das Kind zeigt horizontalen Rucknystagmus. Diese Krampfneigung besteht noch weiter, es wird zu Nervenberuhigungsmitteln gegriffen (abwechselnd Chlorhydantoin und Cloetta) bis Beruhigung und Sistieren der Krämpfe. Die **Hypertonie der Muskulatur** bleibt jedoch angedeutet bestehen.

Es wird eine **Lumbalpunktion** vorgenommen, die einen erhöhten Anfangsdruck von 400 mm ergibt. Die Zellzahl ist mit 136/3 Zellen erhöht, das Eiweiss mit 0,25 % normal, der Pandy negativ, dagegen der Zucker auf 119 mg % ebenfalls erhöht. Tryptophan negativ. Die Kleine beruhigt sich während des Abfließens des Liquor zusehends. Diese Liquorveränderungen haben sich bis auf eine Zellzahl von 18/3 zurückgebildet, wie eine am 14. April ausgeführt zweite Lumbalpunktion gezeigt hat.

Am 22. März wurde eine mit Fieber einhergehende **Leucocytose** vom neutrophilen Typus mit leichter Linksverschiebung festgestellt (25 500 Leukozyten).

Im Laufe des folgenden Tages erwacht das Kind nur langsam aus seinem soporösen Zustand. Vereinzelt Krämpfe treten hie und da noch auf.

Am 28. März kann die Patientin aufsitzen und essen. Sie spricht noch immer nicht. Es wird eine eindeutige **Schwerhörigkeit**, besonders rechts, festgestellt.

Anfang April: das Mädchen sitzt im Bett meist bewegungs- und mimikarm, völlig stumm, weint ohne äussere Gründe, lächelt auch etwas. Der Gebrauch des rechten Armes ist grob gestört. Puppenspielen geschieht mit der linken Hand. Dabei tritt rechts eine **Facialisparese** deutlich in Erscheinung. Eine flüchtige **Oculomotoriusparese**, die sich als Strabismus kennzeichnet, war bereits verschwunden. Seelisch bezeugt die Kleine ihre Teilnahme an den Vorgängen der Umgebung.

Am 9. April wird die Patientin etwas aus dem Bett genommen. Sie kann gehen, doch mit deutlicher Spastizität rechts, mit Circumduktion des rechten Beines. Die Tätigkeit des rechten Armes wird durch gelegentlich sich bemerkbar machende **Zwangsbewegungen von choreiform-athetoidem Charakter** behindert.

Am 12. April um 6.00 Uhr setzen anfangs tonische, dann auch klonische Krämpfe der rechten Seite ein. Doppelseitig werden Babinski und Hyperreflexie festgestellt. Die Temperatur steigt bis 38,7°. Die üblichen therapeutischen Maßnahmen kupieren den Anfall.

In der folgenden Zeit wird eine schwere **Ataxie** rechts beobachtet. Der Mutismus muss als **motorische Aphasie** aufgefasst werden. Eine gewisse 'kataleptische Starre', wie der Beobachter sich ausdrückt, scheint vorhanden zu sein.

Ende April war das Reflexbild immer noch durch rechtsseitige Hyperreflexie und Babinski charakterisiert, während die Bauchdeckenreflexe wiedergekehrt waren, jedoch mit einer deutlichen Abschwächung der rechten Seite.

An Hand sämtlicher Befunde nimmt ein als Consiliarius zugezogener Neurologe (*Prof. R. Bing*) eine Läsion der linken Hirnhälfte mit Beteiligung der Stammganglien an.

Seelisch zeigt das Kind in dieser Zeit ein stilles, eher gedrücktes Wesen, die Mimik wird ärmer als dem Alter entspricht; die Gestik primitiver. Es singt jedoch manchmal spontan, ohne deutliches Artikulieren.

Ende Mai ist erstmals ein **Erregungszustand** vermerkt mit turbulentem, störrischem Wesen, Lärmen und Unzugänglichkeit. Therapeutisch wird die Muskulatur mit Massage und Gymnastik geübt und der gesunde linke Arm zeitweise immobilisiert, um die Kleine zum Gebrauch des geschädigten rechten Armes anzuregen.

Am 13. Juli wird sie mit dem folgenden Status entlassen: schwere spastische Parese des rechten Armes, leichter des rechten Beines, Facialisparese rechts, athetoide Bewegungen des rechten Armes, motorische Aphasie.

Der Fall kann während 2 Jahren noch an Hand poliklinischer Kontrollen verfolgt werden.

Nach Angaben der Adoptivmutter sind zu Hause periodisch schwere **Krampfanfälle** aufgetreten, unter Aufschreien, Blauwerden, allgemeiner Steifigkeit, sodann Konvulsionen und mit völligem Bewusstseinsverlust. **Erregungszustände**, sogar **Wutanfälle** sind häufig vorgekommen.

Am 8. April 1948, also etwas ein Jahr nach der Vergiftung, ergibt die Untersuchung eine **rechtsseitige spastische Hemiparese**, einen positiven Babinski rechts. Die Bauchdeckenreflexe sind in allen Etagen auslösbar. Die Facialisparese hat sich zurückgebildet. Befehle einfacher Art werden vom Kind nicht befolgt, vermutlich nur

mangelhaft gehört und gar nicht begriffen. Das Kind lallt etwas in unverständlichen Lauten, spricht aber nicht.

Nach Verordnung von Antiepileptica werden die Anfälle seltener. Es treten **Absencen** auf. Nach Angaben der Adoptivmutter, macht sich eine eindeutige, nach der schlechten Seite gerichtete Charakterveränderung bemerkbar. Das Kind sei störrisch, unlenksam geworden, es schlage darauf los, wenn etwas nicht nach seinem Willen gehe. Die Kleine hat für Kinderspiele kein Interesse mehr, offenbar aus mangelndem Verständnis für den Sinn der Spiele.

Eine Spitalbeobachtungsperiode im Januar 1949, fast 2 Jahre nach der Vergiftung, ergibt folgenden Status:

'Die vegetativen Funktionen sind in der Ordnung. Das Kind ist gut gewachsen und hat sein Gewicht vermehrt. Als erstes fällt die **furchtbare Veränderung des Gesichtsausdruckes** auf für jeden, der das Kind früher gekannt hat, eine Veränderung im Sinne der Entseelung und Verrohung. Das sonst als Spiegel der Seele dienende Menschenantlitz ist zu einer leeren, wüsten Larve geworden. **Das Kind spricht nicht**, gibt nur verwaschene, dumpfe Laute von sich. Das Hörvermögen ist herabgesetzt, Reste sind vorhanden. Eine am 20. Januar 1949 vorgenommene spezialärztliche Untersuchung stellt eine hochwahrscheinlich **irreversible, an Taubheit grenzende Schwerhörigkeit** fest. Das Sprachverständnis ist höchstens in ganz beschränktem Maße vorhanden. Neurologisch ist der Status der rechtsseitigen spastischen Parese wie früher vorhanden. Babinski und pathologisch veränderter Grundgelenkreflex nach *Maier* ist rechtsseitig positiv. Der rechte Oberarm ist um 2 cm im Umfang dünner als der linke, an den Beinen sind die Unterschiede gering und nicht verwertbar.

Die Intelligenzprüfung mit einfachen praktischen Tests (Figuren einpassen, Bauen nach Vorbild der Kindergärtnerin, Perleneinfädeln und ähnliches) ergibt bei dem sechsjährigen Kinde die **Intelligenz eines 1-2jährigen**.

Der soziale Kontakt fehlt. Das Kind rennt am liebsten wild herum, ist bisweilen in Aufregungs- und Wutzuständen. Wo es Freundlichkeit und Güte bei Erwachsenen fühlt, geht es leicht zu ungehemmten und etwas gewaltsamen Liebesbezeugungen über.' (aus einer Begutachtung des Falles von Herrn *Prof. E. Freudenberg*)."

(Mario Rosetti, Über das Schicksal Überlebender nach Vergiftung mit *Oleum chenopodii anthelmintici*, Inaugural-Dissertation, Basel 1951, S. 18-20)

Eine nahe verwandte Heilpflanze

"Der Mexikanische Drüsengänsefuß (*Chenopodium ambrosioides* L., Synonyme: *Herba Botryos mexicana*, Mexikanische Traubenkraut; Jesuiten-Thee, Epazote) stammt aus dem tropischen und subtropischen Nord- und Südamerika. Es hat sich durch Anpflanzung oder Verwilderung weltweit in warmen Gebieten angesiedelt. In Europa ist diese Art in allen warm-gemäßigten Regionen eingebürgert.

Capsar Bauhin zog die Pflanze 1619 aus mexikanischen Samen; nach andern sollen die Jesuiten sie auch eingeführt haben.

Das Wort epazote stammt aus dem Nahuatl und setzt sich zusammen aus epatl für Stinktief und sotl, gleichbedeutend mit Schweiß oder Schmutz. Es weist auf den intensiven Geruch des Krautes hin.

Der Mexikanische Drüsengänsefuß ist eine vielseitig genutzte Heilpflanze. Wegen der desinfizierenden Wirkung des Ascaridols vermindert die Zugabe von Epazotablättern zu gekochten Bohnen die sonst leicht auftretenden Blähungen. Ein Aufguss der Blätter wird bei Verdauungsproblemen, Kolik oder Magenschmerzen angewendet (Karminativum). Er wirkt auch gegen Husten (Antiasthmatikum). Äußerlich als Umschlag wird er bei Haemorrhoiden,

Insektenstichen oder Schlangenbissen und zur Wundheilung eingesetzt. Er wirkt schmerzlindernd (Analgetikum) und gegen Pilzkrankungen (antifungal). Das ätherische Öl aus der Pflanze findet auch in Kosmetikprodukten Verwendung. Die Pflanze wirkt insektizid und wird als Repellent gegen Moskitos, als Zusatz im Dünger gegen Insektenlarven sowie gegen Läuse und Bettwanzen eingesetzt. Sie dient auch als Färbepflanze, wobei gold-grüne Farbtöne erzielt werden."
(Wikipedia)

"Herr D. Rudolph, zu Jena, schreibt mir am 5ten Oct. (1783). Diese Pflanze verdient mehr Aufmerksamkeit als man bisher dafür gehabt hat. Ich kenne keine Pflanze, die ihre durchdringenden Kräfte so leicht an den Tag legt, als diese. Der Naphthe ähnlicher Geruch und Geschmack laden einen aufmerksamen Arzt von selbst zum Gebrauch in Nervenkrankheiten ein. Ich habe davon die trefflichsten Wirkungen erfahren. Schon lange sagte Welsch; (Mictomim. ad Soc. N. C. Cent. II., Obs. 35) mulierum Venetarum creberrimum certissimumque experimentum ad hystericam affectionem est H. Botrys externo et interno usu mire utilis. Meine eigenen Erfahrungen haben mich überzeugt. Aber noch einen ganz vorzüglichen Nutzen hat mir das Decoct dieses Krauts in paralyti geleistet. Einen Tischler von 52 Jahren, der plötzlich paralytisch wurde, half das starke Dek. von Chenop. ambros. daß er bald wieder Empfindung und Bewegung der paralytischen Füße bekam. Nun ist ein Jahr vorbei, daß er sein Handwerk munter fortreibt, und wenn er bisweilen eine widernatürliche Empfindung in seinen Füßen empfindet, so nimmt er dies Dekokt mit schleunigem Nutzen. In Nervenkrankheiten empfiehlt sie Hr. D. R. sehr."
(Vermischte Nachrichten, Ueber das Chenopodium ambrosioides, Neus Magazin für Aerzte, Fünfter Band, Leipzig 1783, S. 495-496)

"Vor einiger Zeit schrieb mir der verdiente Herr Assessor Borries in Stralsund: 'Ich schätze das *Chenopod. ambros. L. (Botrys mexic. off.)* bei Nervenkrankheiten sehr hoch. Bei einer alten Dame, die seit mehreren Jahren, nach einem apoplektischen Anfalle, eine Lähmung der Zunge behalten hatte, hat es, nach vergeblichem Gebrauche aller in solchen Fällen gewöhnlichen Mittel, die besten Dienste getan und die Lähmung gehoben. Auch bei einem jungen Menschen, der nach den natürlichen Blattern an grosser Nervenschwäche und Verlust der Sprache litt, hat es trefflich gewirkt. Ich hatte es schon vorher, und habe es seitdem noch mehr gebraucht, und kann es ebenfalls als ein vorzügliches Hilfsmittel bei Nervenschwäche, Krämpfen, Lähmungen, insbesondere bei Brustkrämpfen und asthmatischen Beschwerden empfehlen. - Das Infusorium und die Tinctur sind die besten Formen der Anwendung."
(Kurze Nachrichten und medizinische Neuigkeiten, 2. Empfehlung des Chenopodium ambrosioides, Journal der practischen Arzneykunde und Wundarzneykunst, herausgegeben von W. Hufeland, Vierzehnter Band, Zweites Stück, Berlin 1802, S. 201-202)

"Das Chenopodium mexicanum hat sich mir kürzlich in einer halbseitigen Lähmung als Folge des Scharlachs, so wundertätig erwiesen, dass ich es nicht genug preisen kann. Ausleerungen, Vesicatoria an den ganz lahmen Extremitäten, aromatische Einreibungen fruchteten nichts. - Nun setzte ich, nachdem ich mich mehrere Wochen dabei bei der China vergebens aufgehoben hatte, alle anderen Mittel bei Seite, und ließ alle 2 Stunden eine Tasse recht starken Chenopodium-Tee trinken und immer, zuerst 20 Tropfen, von der Essenz, dann immer mehr bis 75 einmischen, und in 14 Tagen wurde der welke Fuß des 10jährigen Mädchens zuerst angesetzt, in 4 Wochen bekam ich auch schon einen Händedruck und jetzt ist die gänzliche Heilung erfolgt."
(Neue Erfahrung über die trefflichen Wirkungen des Chenopodium ambrosioides bei Lähmungen, Auszug aus einem Briefe, Journal der practischen Heilkunde, herausgegeben von C. W. Hufeland, 3. Stück, März 1814, S. 122-123)

"Eine Erstgebärende von 35 Jahren wurde nach dem äussert langsam, sonst aber regelmässig abgelaufenen Geburtsakte von einer Lähmung der rechten Körperhälfte ergriffen, und verlor zugleich das Vermögen artikulierte Töne von sich zu geben. Nach einer achtwöchentlichen Dauer dieser Lähmung wurde zwar die Beweglichkeit in den Extremitäten wieder hergestellt, aber die Sprachlosigkeit dauerte fort. Es wurde nun 8 Tage hindurch täglich ein Aufguss des *Chenopodium Ambrosioides* (aus ½ Unze auf 8 Unzen Colatur) gegeben, worauf die Kranke wieder zu sprechen anfang.

Eine gleich auffallende Wirkung dieses Krautes beobachtete ich bei einem jungen Manne, der sich durch heftige Erkältung eine halbseitige Lähmung des Körpers nebst Sprachlosigkeit zugezogen hatte. Nach einer mehrmonatlichen Dauer wurde die Lähmung der Gliedmaßen endlich durch das oftmalige Peitschen mit Brennesseln gehoben, und auf den Gebrauch des *Chenopo. Ambros.* bekam der Kranke das Vermögen zu sprechen wieder.

Wegen der schon lange bekannten spezifischen Wirkung des *Botrys mexicana* auf die Bewegungsnerven der Zunge dürfte ein beharrlicher Gebrauch derselben bei dem nervösen Stammeln und Stottern, in Verbindung mit zweckmäßigen methodischen Sprachübungen, vielleicht günstige Resultate herbeiführen."

(Dr. Leopold Beer in Brünn, Mexikanisches Traubenkraut gegen Zungenlähmung, Oesterreichische Medicinische Wochenschrift, Drittes Quartal, No. 28, Wien 1842, S. 42)

Note - Cures with *Chenopodium anthelminticum*

Guy Kokelenberg, M.D., published the cure of a woman aged 70 who suffered from acute pain under the right scapula and chronic complaints of Menière's disease and recurrent sore throats (Homoeopathic Links, Fall 1991, p. 18-19)

Prashant Shah, M.D., published the cure of a two year old child with cerebral palsy (Homoeopathic Links, Summer 1999, p. 97-98).

Anhang / Appendix

Umschau - Von den Ursachen der Krankheiten / Periscope - On the causes of diseases

Samuel Hahnemann

"So lange es Menschen gab, waren sie auch einzeln, oder in Menge Erkrankungen ausgesetzt von physischen und moralischen Ursachen her. Im noch rohen Naturzustande bedurfte man der Hilfsmittel wenige, da die einfache Lebensweise wenige Krankheiten zuliess; mit der Bildung der Menschen im Staate wuchsen die Veranlassungen zum Erkranken und das Bedürfnis von Hilfe dagegen, in gleichem Maße."

(Samuel Hahnemann, Organon der Heilkunst, 6. Auflage, Einleitung)

" Uneigentlich werden diejenigen Krankheiten chronische genannt, welche Menschen erleiden, die sich fortwährend *vermeidbaren* Schädlichkeiten aussetzen, gewöhnlich schädliche Getränke oder Nahrungsmittel geniessen, sich Ausschweifungen mancher Art hingeben, welche die Gesundheit untergraben, zum Leben nötige Bedürfnisse anhaltend entbehren, in ungesund, vorzüglich sumpfigen Gegenden sich aufhalten, nur in Kellern, feuchten Werkstätten oder anderen verschlossenen Wohnungen hausen, Mangel an Bewegung oder freier Luft leiden, sich durch übermässige Körper- oder Geistesanstrengungen um ihre Gesundheit bringen, in stetem Verdrusse leben, usw. Diese sich selbst zugezogenen Ungesundheiten vergehen, (wenn nicht sonst ein chronisches Miasm im Körper liegt) bei gebesserte Lebensweise von selbst und können den Namen chronischer Krankheiten nicht führen."

(Samuel Hahnemann, Organon der Heilkunst, 6. Auflage, § 77)

"Bei Erkundigung des Zustandes chronischer Krankheiten, müssen die besonderen Verhältnisse des Kranken in Absicht seiner gewöhnlichen Beschäftigungen, seiner gewohnten Lebensordnung und Diät, seiner häuslichen Lage usw. wohl erwogen und geprüft werden, was sich in ihnen Krankheit Erregendes oder Unterhaltendes befindet, um durch dessen Entfernung die Genesung befördern zu können."

(Samuel Hahnemann, Organon der Heilkunst, 6. Auflage, § 94)

Die Veranlassungen der Epidemien - James Lembke

"Neben den in lokalen und klimatischen Verhältnissen liegenden Veranlassungen zu Erkrankungen beruht ein Teil derselben auf Übermaß im Trinken und syphilitischer Ansteckung, ein viel grösserer Teil auf Mangel der zur Existenz, besonders unter unserem Himmelsstrich, notwendigsten Bedingungen, ein grosser Teil liegt in den mit verschiedenen Gewerben, Berufsarten, Beschäftigungen notwendig verbundenen Schädlichkeiten und Gefahren, viel wohl auch in den im Kampfe ums Dasein aufs Äusserste angespannten Kräften des Körpers und Geistes. Dieses sind nun alles in den allermeisten Fällen gar nicht wegzuschaffende Ursachen, und es bleibt nichts weiter übrig, als die schlimmen Folgen wenigstens notdürftig zu verschmieren und zu verkitten, da von Heilen bei fortdauernder Veranlassung gar nicht die Rede sein kann.

Als Arzt in diesen Kampf hineingedrängt, von dessen Hartnäckigkeit, Gefährlichkeit und Aussichtslosigkeit - indem der Tod schliesslich als Sieger im Streit nachbleibt - er keine Ahnung hatte, soll nun mit den von der Natur hier und da zerstreut gebotenen Stoffen, gegen die von eben derselben Natur hervorgebrachten Leiden zu Felde gezogen werden."

(Über den Genius epidemicus in Russland im Jahre 1875, von Dr. James Lembke in Riga, Hirschel's Zeitschrift für homöopathische Klinik Bd. 21 [25], (1876), S. 48)

Die Fesseln der Ökonomie - Eduard Reich

"Wären die ökonomischen Verhältnisse nicht die Fesseln, welche die Unvernunft und Lieblosigkeit, die Habgier und Herrschsucht schmiedete, um Millionen von Menschen zu Gunsten einer verschwindend kleinen Zahl von Mitbrüdern, ja in Wirklichkeit nur zum eingebildeten, nicht zum tatsächlichen Vorteile dieser letzteren, an der Erringung von Lebensglück, an der Erhaltung von Gesundheit und guter Sitte zu verhindern, so hätte ein jeder Schwächliche, jeder Kränkliche, der gegenwärtig als Sklave und Arbeitsmaschine sein Leben unter Seufzen verbringt, die beste Gelegenheit, sich zu kräftigen, sich gesund zu machen. Es verschwänden also bald die Siechen, die zu Lastern und Ausschreitungen durch das Siechtum Disponierten, Gesundheit und Naturwüchsigkeit machten den herrschenden Zustand aus, und von Skrophulose und Syphilis, von der durch diese beiden verderbten Denkungsart und Fühlungsweise wäre nicht die Rede."

"Überall, wo Syphilis, Alkohol, der Geist der Fabriken und Banken, und mit demselben das Elend und die Üppigkeit einzogen, wuchs die Skrophulose aus dem Boden empor. Nicht die Einführung der Kartoffeln als allgemeines Nahrungsmittel leistete an sich selbst der Verbreitung der Skrophelsucht Vorschub, sondern erst das Elend der grossen Massen, welches durch den Geist der Fabriken und Banken veranlasst wurde, machte die Kartoffeln zum fast ausschließlichen Nahrungsmittel von Millionen, und die unpassende Nahrung förderte mit anderen schädlichen Einflüssen in Verbindung die Skrophelsucht."

"Der gegenwärtig herrschende und in ekelhaftester Weise Alles zurückdrängende Kaufmannsgeist ist auch ein Ergebnis der Entartung der Massen durch Syphilis, Skrophulose und Nervosität. In früheren Jahrhunderten, zumal vor dem Zeitalter des dreißigjährigen Krieges, konnte dieser niederträchtige Dämon nicht herrschen, weil Syphilis und Skrophulose noch nicht das Bürgerrecht erlangt hatten, noch nicht in Fleisch und Blut übergegangen waren."

(Eduard Reich, Medicinische Abhandlungen, 2. Band (1874), Studien über das tägliche Leben, S. 64, 65, 68)

Poverty, Riches and Insanity

"Perhaps one, and certainly not the least, of the ill effects which come from some of the conditions of our present civilization is seen in the general dread and disdain of poverty, in the eager passion to become rich. The practical gospel of the age, testified everywhere by faith and works, is that of money getting; men are estimated mainly by the amount of their wealth, take social rank accordingly, and consequently bend all their energies to acquire that which gains them esteem and influence. The result is that higher departments of trade and commerce speculations of all sorts are eagerly entered on, and that many people are kept in a continued state of excitement and anxiety by the fluctuations of the money market. In the lower branches of trade there is the same eager desire for petty gains ; and the continued absorption of the mind in these small acquisitions generates a littleness of mind and meanness of spirit, where it does not lead to actual dishonesty, which are nowhere displayed in a more pitiable form than in certain petty tradesmen. The occupation which a man is entirely engaged in does not fail to modify his character, and the reaction upon the individual's nature of a life which is being spent with the sole aim of becoming rich, is most baneful. It is not that the fluctuations of excitement unhinge the merchant's mind and lead to maniacal outbreaks, although that does sometimes happen ; it is not that failure in the paroxysm of some crisis prostrates his energies and makes him melancholic, although that also is occasionally witnessed ; but it is that the exclusiveness of his life-aim and occupation too often saps the moral or altruistic element in his nature, makes him become egotistic, formal, and unsympathetic, and in his person deteriorates the nature of humanity. What is the result? If one conviction has been fixed in my mind more distinctly than another by observation of instances, it is that it is extremely

unlikely such a man will beget healthy children, that, in fact, it is extremely likely that the deterioration of nature, which he has acquired, will be transmitted as an evil heritage to his children. In several instances in which the father has toiled upwards from poverty to vast wealth, with the aim and hope of founding a family, I have witnessed the results in a degeneracy, mental and physical, of his offspring, which has sometimes gone as far as extinction of the family in the third or fourth generation. When the evil is not so extreme as madness or ruinous vice, the savor of a mother's influence perhaps having been present, it may still be manifest in an instinctive cunning and duplicity, and an extreme selfishness of nature - a nature not having the capacity of a true moral conception or altruistic feeling. Whatever opinion other more experienced observers may hold, I cannot but think, after what I have seen, that the extreme passion for getting rich, absorbing the whole energies of a life, does predispose to mental degeneration in the offspring - either to moral defect, or to moral and intellectual deficiency, or to outbreaks of positive insanity under the conditions of life." (Maudsley, Poverty, Riches and Insanity, The Ohio Medical and Surgical Reporter vol. 5 (1871), p. 186-187)

The direct causes of diseases

“The need and help of the social worker in connection with hospitals and dispensaries is becoming, or, I might better say, has already become, an accepted fact. Different hospitals establishing social service work more as an experiment at first find their physicians at once interested and later leaning on this department, which, in correcting adverse home conditions, makes the patient's cure more easily possible and often complete. At Flower, as with other hospitals, the social worker seems to come in closer touch with the dispensary and outdoor patients. The outdoor department furnishes the bulk of the home investigations. Home conditions in many cases not only prevent ultimate recovery, but often point to the direct cause of the disease, and to the reasons for the physical and moral discouragement.

During the past year 1,921 cases were visited by the Flower Hospital social service workers; 1,711 of which received help of one kind or another. Many of these people coming weekly to the clinics for treatment are too proud to apply for help, and it is only after friendly overtures from the social worker at the desk that they tell their pitiful stories.

One old woman with chronic bronchitis had been coming on a crutch once a week for over three years. No one knew where or how she lived until this spring when she asked to borrow five cents which she would repay when she got work. It took quite some maneuvering to draw out the real state of affairs in this case. At one time comfortably well off, she had become a widow, but was able to support herself by sewing until she fell and lost the use of one leg for a time. The little she had saved was soon gone, and her working power so diminished she could hardly get the absolute necessities of life. Still clinging to her little home, she worked as she could to pay the rent until the lack of sufficient food broke her down, and from a cold she developed bronchitis. After a few weeks in a hospital she took up a miserable existence with a family almost as poor as herself, paying for her board by helping in the home. In a few months this home, too, was broken up for lack of funds, the Children's Society taking care of the three babies, the father going to the Metropolitan Hospital with tuberculosis, and the mother taking a place as houseworker. Mrs. A., with a horror of institutions, kept the true state of affairs to herself, and entered a lodging house at fifteen cents a night, where she has slept ever since, sometimes making enough to pay a week ahead by sewing, and again only enough for one night, getting her food at the coffee stands or wherever she can pick it up. She cannot be forced into the almshouse as she is not a vagrant, and all the persuasion up to this time has only gained her consent to go into a home next fall if conditions are no better. The Social Service Department helps her a little each week, against its general rule, as there is nothing

permanent in the relief, but in the hope of keeping in touch with the poor old soul until she is safely lodged within the walls of a home.

An almost similar case is that of "Old Anne," as she is known in the dispensary; though in her case funds were raised with the help of one of the charity societies to send her back to Ireland where she has friends willing to care for her.

A sadder case than either of these was Mrs. H., an artist and musician, whose name is well known to both continents. For years earning a large income by her paintings, she supported her family in luxury, and paid for her husband's maintenance in a sanitarium for the insane, at that time using her musical talent only as a pleasure for herself and friends, or sometimes in the aid of charity. With scarcely any warning she found herself bereft of both means of earning a living - a victim of arthritis deformans. Then living in California, she called in the best specialists known, and failing in a cure after several months of most expensive treatment came to New York and from there to Europe, visiting nearly all the "baths" and sanatoria devoted to such troubles, and finally coming back to New York, little improved but still hopeful. Here the funds began to give out, and one comfort after another had to be given up until we found her through one of our physicians who was treating her gratis in sparsely furnished rooms in a tenement nearby with her daughter attempting to nurse her, the latter expecting to become a mother almost any day. The fate seemed hard enough, but on questioning further we found the daughter's condition due to a relative who had been helping in the lifting and care of the invalid some months before, and who, on finding the havoc he had wrought, had fled to parts unknown, taking with him the few hundred dollars left and leaving these two poor women to face the misery of shame, poverty and illness alone, the daughter's condition precluding them from going to the few friends they had in New York. The morning I reached there after a two hours' visit in which the keen mind of Mrs. B. had won my complete sympathy and friendliness, they told me they had passed the night talking over the ways and means at hand of committing suicide, as that seemed the only way out, for in a few days everything that could be turned into cash would be gone.

Through the small fund this department has at its disposal they were given a little money until something better could be arranged. The fear of their affairs getting into the hands of a charitable society or becoming public threw the patient into such a state of health that all aid in that direction had to be abandoned. The physician at this time succeeded in interesting a relative who added materially to their comfort, and almost immediately after we found a friend who supplied the means for taking care of the daughter through her confinement - which occurred within a couple of weeks. The baby then had to be put in a temporary home, as another care could not be added; and with a little help from the physician's friend, this department and the forced sale of a picture things went on almost smoothly for a month or two when the case reached the ears of a charitable organization, and a visitor called asking the necessary questions, etc. This caused such a state of desperation that the next time I called I found Mrs. B. had sold every picture she had with her for just what she could get, and they were then packed up and ready to leave the country by steamer for Jamaica in a few days. Only two letters were received from them, giving no address, and saying the warm climate seemed to be doing wonders for the patient, - and then after several weeks the daughter appeared in the dispensary bursting into tears upon seeing me. The bright, patient little mother had contracted "the fever" and died after an illness of one week.

The daughter has gone back to her profession, and is earning her living with the expectation of marrying a friend they made in the South, to whom they truthfully told all particulars, and who is still willing and anxious, when he has completed some business transactions in the South, to take this girl and her child and protect them with his name and home.

These are but few of our cases, but they show the field for this work, and the stories, almost stranger than fiction, that are being lived right within the shadow of the hospital walls.”

(Some cases of the Social Department of the Flower Hospital, by Jeanette C. Deady, Superintendent of the Department, *The Chironian* vol. 28 (1911-1912), p. 19-22)

The Disease of the Poor

“Until very recent years the problem of educating the tuberculous poor with a view to raising the standard of living in their homes and ultimately stamping out the disease itself, was not even thought of, much less attempted. In no way criticizing the different organized societies that have sprung up in almost every city and town in the country within the past five years, and which are thoroughly investigating and observing the sanitary and general home conditions of the victims of this "white plague," without in any way questioning the good that undoubtedly has been and is being done to *prevent* tuberculosis, another and yet nonetheless significant question is gradually but persistently forcing itself to public notice in a most startling and unexpected manner.

That is, the care and moral responsibility to the unfortunate sufferers we have with us at the *present* time.

The disease itself is being brought to light, recognized and followed up in its earliest incipiency, so that practically all cases applying for treatment, whether ambulant or bedridden, are entered eventually on the department of health's archives and kept under close observation by its physicians and nurses.

As the patients themselves say when they have been visited by one or two health department and the district clinic nurses, "You can't get away from them." Which in itself, by teaching in the home and keeping every patient somewhere near the standard of hygienic living, must of necessity in the generations that follow show a decided decrease in the mortality of the disease.

But to return to to-day!

By *branding* every tuberculosis suspect, educating the public to shun his society for fear of the bacilli he is spreading around his vicinity - what is the natural outcome? Not one city has enough hospitals to care for the second and third stage cases that require skilled attention, and practically almost no accommodations for incipient patients still strong and willing enough to earn a living and regain health under the right conditions while doing so. For example:

Take a man who has worked from early youth and is now 28 or 30 years of age, earning a fair salary as clerk. Not married, nor having a parental roof, he naturally drifts into one of the many boarding or furnished room houses.

Late in the summer, when the first cool evening breezes start the germ of hay fever, influenza, etc., he, like thousands of others, "takes cold" and develops a cough which hangs on in spite of the simple remedies and precautions at hand. Rather indifferently a few days later and more to quiet the concern of his landlady, who usually takes the breakfast or dinner table to sympathize most volubly on his "terrible cough," or on the recommendation of a friend or fellow worker, he buys one of the many patent "cough cures," and for a few days is considerably less troubled with cough and advice. But he feels *generally more miserable or tired*, and this condition continues for days or perhaps weeks, when he seems to take "more cold," feels a little feverish and the cough returns more bothersome and persistent.

More weeks of patent medicines, home cures, etc., and for the first time the advice of a physician is suggested.

The expense of the fee plus medicine, time wasted going to and from and waiting in doctor's office without immediate apparent benefit, soon discourages the patient, and he decides after a few visits to "let it go; nothing helps, and it'll have to wear off."

A few more weeks without noticeable gain or loss then a "fresh cold" drives him to the nearest clinic for examination and advice.

He is seated before the doctor, who asks something less than seventy-five questions from the regulation health department history card, which he answers more or less truthfully and intelligently, and is then directed to go behind the screen and prepare for a physical examination of the lungs.

After from ten to thirty minutes the doctor emerges from behind the screen bearing a somewhat puzzled expression. The examination has shown nothing but a "slight wheezing" or a "few rales" entirely out of proportion to the severity of cough; and a subsequent examination of a specimen of sputa is again "negative." But the malaise, cough and persistent rise in temperature each afternoon are *ominous*. The physician is loath to say he *has* or *has not* tuberculosis, and he is entered on the report to the health department at the end of a month as a "suspect" under observation.

But in the meantime, he is treated, told how and what to eat, and advised to "live out in the open air as much as possible." Results in a few weeks show that he has lived up to directions when he begins to improve. With improvement comes ambition and an anxiety to work, and in a little while he discontinues his visits to clinic and, in apparently better health than he has enjoyed for year, presents himself to his former employer and tries to "get back his job." This ought to be the happy ending of the story, but it is not, it's the beginning of another longer and unhappier tale.

At first the employer, whom we will say is a just and humane man, having learned that "Jack Jones" is a tuberculosis suspect, tells him to "rest awhile and get real strong," and if he recalls that he has served faithfully for some years his salary or part thereof is allowed to continue and the man goes back to *idleness*. Being now in good health he drifts into some kind of pleasure or amusement to pass the time, eventually rendering himself more loath to return to work, or he frets and becomes discouraged and morose.

About now the landlady is tired of the clinic and health department nurses who call almost daily to see why he does not attend clinic, and in return to his impatient refusal to listen to her repetition of their messages, etc., she becomes angry and in a few words tells him his room is more desirable than the amount of trouble he causes - and he leaves.

He finds another home with little inconvenience and perhaps "out of the district," so he never finds time nor inclination to return to the clinic in which he still stands a "*suspect*." He feels well so why should he see a doctor?

Very presently he tries again to go back to work, and this time is advised kindly but none the less firmly to try and get employment elsewhere - "lighter, open air work" that will help him keep strong and well. To all of which he rebels but learns finally that being of tuberculous tendency there is an objection on the part of other workers to being housed with him.

As considerately as the blow is delivered, he goes forth none the less dazed and hopeless! Having done but one kind of work in perhaps the one place for years, where and how is he to set about getting other employment?

But necessity now urges him on and perchance he *does* succeed in getting work, and on the appointed day to start his new duties he arrives on time, only to be turned off again. The

former employer's reference, though first-class as to ability, etc., gives the *cause of dismissal*, which is fatal to his hopes.

He may go on in this way some months and at last swallowing his pride may seek and get work in any shape that will supply daily bread, maybe as conductor, ticket chopper or in a stable. But *nine-tenths* of this particular class will become discouraged after several attempts to earn an honest living, take to drink or some other form of vice and end by becoming a public *charity charge*.

Should his case have been pronounced "positive" in the first place the same course is followed more rapidly, except at the end, when perhaps after weeks of waiting, driven from one place to another, he is taken from the last bed he had the strength to reach and get into to the ward of a charity hospital where he is allowed to die in peace unless he linger too long when he will be "transferred" to one of the few hospitals open to this disease.

Proving the same condition exists with female patients we have only to quote the story told to the physician in a tuberculosis clinic of one of our largest cities: -

A Russian by birth, "Sarah B.," came to this country when in her eighteenth year. She found employment almost immediately as houseworker in the family of a physician of her own country.

She served in this capacity for three years with very little rest or recreation, earning the small sum of twelve dollars per month, of which, however, she managed to save more than half. In March of last year she "took cold while hanging out clothes"; neglected and let it run on without care or consideration until the annoying cough disturbed members of the family, and the physician, in consultation with a friend, decided there was trouble with the lungs. Before further examinations were completed to verify the diagnosis the maid developed pneumonia and was forthwith sent to the hospital. Here she made a good recovery and following, in due course of time, was sent to a convalescent home, where, after several weeks of rest and fresh air, she regained her robust health and energy, and returned to resume work where she had left off! - as she supposed !

Arriving late one afternoon she found the inevitable! The position was no longer open to her, as the physician was afraid to have anyone with a suspicion of this dread disease in the close proximity of his home. Not an unkindly man, he telephoned one of the many homes for friendless girls, and she was taken in and accepted as an inmate until work could be procured! It came in a few days and the necessary exchange of references, etc., brought to light the cause of her enforced idleness, and the position was refused her.

She entered the clinic a few days later, - a stout, healthy and willing woman, asking for a thorough examination and certificate of health to take back to the *home* which, since hearing of her *disease*, refused to keep her longer.

What is to become of her? She has no place in a sanatorium or hospital, for she is *well!* In *her* case, - should the doctor brand her as suspicious, - with her savings, she can take a few rooms and eke out a bare living by day's work or, being young and fairly attractive, she may fall into the many pitfalls of vice that do, not question her tuberculous history.

What is most glaringly apparent now is the need of a home or homes in which these people will find protection, and the chance to do some honest work, living under sanitary conditions and observations, until the stigma of the outcast is lifted and they can resume their rightful places in life's workshop without a loss of self-respect and ambition : - then, "*the stamping out of tuberculosis*" will not result in the increase of the equally formidable human tragedy, the "*disease of poverty!*"

(The Pauperization of the Tuberculous Poor, by Jeanette C. Deady, Superintendent of the Department, The Chironian vol. 28 (1911-1912), p. 362-366)

Vergiftungen können Krankheiten täuschend ähnlich sein - Louis Lewin

"Schon früh erkannten die Menschen, dass unauffälliger und ärztlich schwerer nachweisbar als eine akute, jäh verlaufende Vergiftung die langsam sich bildende und abspielende bewerkstelligt werden könne. Bei ihr entwickeln sich das Anwachsen des anfänglichen, durch das Gift bedingten Hauptleidens und die Abhängigkeitssymptome von diesem so wie bei einer Krankheit.

Je mehr die Gesamtheit der Vergiftungserscheinungen einer sog. natürlichen Krankheit ähnelt, umso schwerer ist das unterscheidende Erkennen - zumal wenn der Verdacht auf ein künstliches Herbeigeführtsein der Erkrankung nicht rege wird. Denn eine natürliche Krankheit ist nichts anderes als eine örtliche oder allgemeine Vergiftung. Aus dieser Erkenntnis ergibt sich als notwendige Folgerung, dass es Verlaufsarten von akuten einmaligen und wiederholten Vergiftungen und natürlichen Krankheiten gibt, die einander zum Verwechseln ähnlich sein können. Es geht dies ja soweit, dass es Erkrankungen an bösartigen Geschwülsten gibt, die nur durch wiederholte Zufuhr bestimmter Giftgruppen entstehen und nicht von gleichartigen zu unterscheiden sind, die ihre Ursache in innerlichen Gründen haben. Um ein natürliches Leiden vorzutäuschen ist es demnach nur erforderlich, Gift und Giftdosis so zu wählen, dass die Symptome möglichst in allmählicher Entwicklung zu der gewünschten Höhe kommen. Eine gewisse Geschicklichkeit darin haben Eingeweihte zu allen Zeiten besessen und auch Erfolge gehabt. Sie kannten und benutzten hauptsächlich zwei der hierfür geeignetsten Stoffe: das *Blei* und das *Arsen*. Jedes von ihnen kann ein Siechtum mit sich sukzessiv steigenden Krankheitssymptomen und mit Aussicht auf einen tödlichen Ausgang hervorbringen. Man nahm sogar an, dass von bestimmten Giften auch nur eine einzige Dosis - die man freilich kennen müsse - genüge, um anfangs keine sinnliche wahrnehmbaren Symptome und doch eine allmähliche Untergrabung der Gesundheit zu veranlassen." (Louis Lewin, Die Gifte in der Weltgeschichte (1920), S. 28)

Vom "Tod in der Luft" - Hermann Eulenberg

"Denn Nichts kann bedeutungsvoller sein, als die Sorge für eine gute Luft. Sie ist das Hauptrequisit eines gesunden Lebens, während der "Tod in der Luft" es ist, welcher schleichend einhergeht und überall unsichtbar Verderben bringt. Dieses zu bekämpfen und Krankheiten zu verhüten, hält Verfasser für die grösste Aufgabe der Medicin." (...)

"Die Untersuchungen im Gebiete der Sanitätspolizei verschaffen immer mehr die Überzeugung, dass die Zukunft der Medicin in dem Bestreben liegen muss, Krankheiten zu verhüten. Die unvergänglichen und ewigen Gesetze der Krankheit sind unantastbar; aber großartig sind die Erfolge, welche aus der Wegschaffung der Schädlichkeiten, die tausendfältig unsere Gesundheit bedrohen, entstehen. Um Schädlichkeiten wegzuräumen, muss man sie vorher kennen lernen. Aus dem Nichtwissen entspringt überall das grösste Unglück."

(Herrmann Eulenberg, die Lehre von den schädlichen und giftigen Gasen, Braunschweig 1865, Ankündigung und Vorrede X)

The Epidemic in the North of England and the Midland Counties in 1900 **- Ernest S. Reynolds**

"For the last twelve months I noticed, both in the medical wards of the Manchester Workhouse Infirmary and in the out-patient department of the Manchester Royal Infirmary, a considerable number of cases presenting unusual skin eruptions of a more or less indefinite character, such as erythema, keratosis, and pigmentation, the last being particularly common among the pauper patients. Some of the pigmented cases were diagnosed as Addison's disease by my assistants, but I could never satisfy myself that this diagnosis was correct. In June, 1900, about six patients presented themselves in one week who were suffering from the typical erythromelalgia or painful red neuralgia of Weir Mitchell, not only the feet but in some cases the hands also being affected; so marked were these cases that in June I gave a clinical lecture on the condition to the students of the Manchester Royal Infirmary. During the last seven months, I noticed a remarkable increase in the number of cases of herpes zoster, which appeared to be in epidemic form, and during this period I saw probably more cases than I had seen altogether in the past two years.

At the beginning of August quite an extraordinary number of cases of so-called "alcoholic paralysis" were admitted into the workhouse hospital, principally among women. So-called alcoholic peripheral neuritis is a fairly common disease in the Manchester district, very much more common as I understand than in London and the south, and perhaps I may be excused for saying that we are specially well acquainted with the affection, for it was principally owing to the work of our physicians Dr. Dreschfeld and the late Dr. J. Ross, that such excellent descriptions were given to the medical world. By it we understand a peripheral neuritis associated with paraesthesiae and numbness in the hands and feet, paralysis of the arms and legs, cramps of the muscles, and especially great pain on pressure of the muscular masses of the limbs; in addition there is frequently a dilated left heart with cardiac muscle failure, and marked oedema of the trunk and legs and often albuminuria; very rarely indeed, almost never, is there any affection of the cranial nerves. In some cases there is an almost characteristic mental condition with loss of memory for time and place. It may be at once mentioned that the only forms of peripheral neuritis associated with great pain on muscular pressure are, the alcoholic, (1) the arsenical, and that form found in beri-beri.

(1) By "alcohol paralysis" or neuritis in this paper I mean so-called alcoholic paralysis or neuritis.

This great increase in the number of cases of alcoholic neuritis was noted by many observers, some of whom thought that it was due to increased drinking, owing to the war fever, or to a wrongful expenditure of the money given by the charitable towards the war funds. There was at the beginning of November no longer any doubt that a serious epidemic existed not only in Manchester and Salford, but also in neighbouring towns. Now, rightly or wrongly, - and this is a matter far too large and important to discuss in this paper, - I have for many years doubted whether ethylic alcohol *per se* does cause peripheral neuritis at all, and I have personally felt more confirmed in this opinion each succeeding year. I was therefore, in the present epidemic, not content with the alcoholic theory, but was at once on the look-out for some other possible cause of the neuritis. I could not at first find a satisfactory explanation, but at any rate I confirmed a previous opinion, (2) that in this district alcoholic neuritis only occurred among beer drinkers, not amongst pure spirit drinkers. Then we noticed at the workhouse, that the peculiar skin lesions already mentioned in passing were very often found in the patients who were suffering from neuritis; secondly a few cases of beautiful herpes zoster were found in the neuritic cases. Thereupon I remembered that arsenic was the only known drug which produced herpes, and so if there was any known drug acting as a poison in the beer it was almost certainly arsenic.

(2) See 'Medical Chronicle,' June, 1890, p. 189.

Improbable as this hypothesis at first seemed, yet it was a valid hypothesis, for it was not known to be untrue, it explained all the facts, and it was easily capable of proof or disproof. This hypothesis I imagined on November 15th, 1900. On November 17th I obtained some of the beer most commonly partaken of by the sufferers, and on November 18th, by Reinsch's test, I easily obtained a deposit on the copper foil, and driving this off in a combustion tube, I got well-marked crystals of arsenious oxide, and thus the hypothesis became a fact.

Source of the arsenic. - On speaking to Dr. H. A. G. Brooke about the skin lesions he told me that he was treating a young London hop merchant for similar eruptions, and by his kindness I saw the patient with him, and we found that he had undoubtedly got slight arsenical poisoning, although he took very little beer; but he frequently chewed hops, and we concluded that the sulphur with which the hops were treated would be found to be the source of the arsenic. This was soon found, however, not to be the cause of the present epidemic, especially as so little hops are used in making cheap beers. I have, however, been informed that the sulphur is often contaminated with arsenic, and in this way hops on the market often yield a reaction showing the presence of traces of arsenic, thus accounting for the symptoms in a gentleman constantly tasting them. I communicated my discovery of the arsenic to Professor Dixon Mann on November 19th, and on November 20th he examined a different sample of beer and also found arsenic. He informed Professor S. Delepine, who was, unknown to me, also investigating the epidemic at the request of Mr. C. H. Tattersall, the medical officer of health of Salford, and he, on November 22nd, traced the arsenic to certain sugars used in brewing. These were invert sugar, made by the action of sulphuric acid on cane sugar, and glucose, made by the action of sulphuric acid on various forms of starch. It was easy to see that the sulphuric acid was the common source of the arsenic, and on being examined large quantities were found, the original source being the Spanish pyrites from which the sulphuric acid is made, and which often contains a very large percentage of arsenic. As it happened, the brewing sugars from one firm only were found to be thus contaminated, but as this firm supplies no less than 200 breweries in the North of England and Midland Counties, it will be seen how wide-spread the epidemic was likely to be.

Quantitative analyses. - By the kindness of Professor Delepine, I am able to give some interesting quantitative determinations, the arsenic being estimated as arsenious oxide. Various beers were found to contain from two to over four parts per million, that is from 0.14 to 0.3 grain per gallon. The invert sugar contained 0.25 part per 1000, the glucose 0.8 part per thousand, and the sulphuric acid no less than 1.4 per cent., or four ounces per gallon.

Other sources of arsenic. - From a legal and commercial point of view these results are of the highest importance, but from a scientific point of view it is equally important to know that traces of arsenic may get into beer from other sources. I have already mentioned that it is contained in sulphured hops; it is also found in many samples of malt, getting there either from sulphur or from anthracite coal; it has been found by Dr. John Brown, of Bacup, in the vulcanite tubing used for conveying the beer to the pumps. Again, calcium bisulphate and sulphuric acid are used in "fining" the beer, and also, I believe, for cleansing the barrels. Another point worth recording is that many artificial manures are contaminated with arsenic. A possible explanation of the manner in which arsenic may be retained in beer during the various processes, and may be of peculiar virulence, is that, according to the researches of Selmi, Hamberg, Sanger, Saccardo and others, (3) certain micro-organisms, especially *Aspergillum glaucum*, *Mucor mucedo*, and *Penicillium brevicaulis*, seem to have a special tendency to seize hold of any arsenic in their vicinity, and to manufacture specially poisonous arsenical products. This has so far been worked out more particularly in connection with arsenical wall papers, but, as Dr. R. T. Williamson (4) points out, it is very desirable that further researches on these arsenio-bacteria should be made.

(3) Allbutt's 'System of Medicine,' vol. ii, p. 989.

(4) 'Brit. Med. Journ.,' December 1st, 1900.

Extent of the epidemic. - Although the epidemic seems to have fallen most heavily on Manchester and Salford, and the vicinity, yet many more distant towns in the North of England and the Midlands have been affected, wherever indeed the contaminated brewing sugars were used. Thus we hear of outbreaks in Liverpool, Chester (where the cases were associated with so much heart failure and so little pigmentation that they were diagnosed as beri-beri), Warrington, Heywood, Bacup, Preston, Lancaster, Penrith, Ilkley, Leicester, Stourbridge, Lichfield, and Darlestone.

Although very many thousands of people have probably been affected, yet it is impossible to say how many, and equally impossible to give the number of deaths. For the epidemic had been in existence for nearly six months before anything except alcohol was suspected as the cause; many cases were treated as rheumatism, others as gastritis or diarrhoea, large numbers simply for the skin eruptions, and many merely as cases of chronic alcoholism. Some patients only had slight symptoms, and did not have medical attention, while in others the cardiac and hepatic symptoms were the important features.

But some idea may be obtained from certain statistics obtained by Dr. J. Niven, Medical Officer of Health of Manchester, and Mr. Tattersall, Medical Officer of Health of Salford. The former, in response to a circular received information from ninety practitioners, and came to the conclusion that there had been up to the end of November in Manchester only at least 2000 cases. Investigating his death tables and including deaths certified as due to neuritis, alcoholism, or cirrhosis of the liver, for the first ten months of the years 1897, 1898, 1899, and 1900, he found them to amount to 172, 141, 188, and 253 respectively. In Salford, Mr. Tattersall found that in the four months from the end of July to the end of November, 1900, there were forty-one cases of death certified as due to neuritis, and twenty-five as due to alcoholism; this total of sixty-six contrasted with twenty-two in the first seven months of the year, thirty-nine in the whole of 1899, thirty-one in 1898, and twenty-seven in 1897.

SYMPTOMATOLOGY.

1. **Complaint of patient.** - In answer to the usual question, "What is the matter with you?" the patients have complained of one or more of the following symptoms: pains in the feet, hands, and limbs, burning in the soles of the feet, tingling, and "pins and needles" in the fingers and toes, shooting neuralgic pains in the trunk and limbs, difficulty of walking, weakness in the hands and legs, rashes on the body, frontal headache, running of the eyes and nose (cold in the head), bronchitis and hoarseness, a "tired-out" feeling, shortness of breath, swelling of the feet, vomiting, and diarrhoea.

2. **Aspect.** - The aspect of most of the patients is so typical that their cases can generally be diagnosed at sight, not only as they come into the out-patient room, or lie in bed, but as they walk about the streets of the city, The face is puffy, especially about the eyelids. The eyes are suffused and watery, and sometimes running with tears; in some cases the conjunctivae being oedematous, and the vessels so congested that at first sight there appear to be subconjunctival haemorrhages. The colour of the face varies from crimson to a dusky red, or even a copper colour. The voice is often "husky," sometimes intensely so, and the walk is that of a patient with very sore feet, so that they seem afraid to put the foot to the ground; or it is somewhat unsteady; or else there is the "high-stepping" gait from paralysis of the dorsal flexors of the ankle. In many cases the gait can be diagnosed merely by the noise of the footfall on the ground - the "double-rap" step as I call it, - the heel coming down first, quickly followed by a sudden (not gradual as in health) descent of the anterior part of the foot, and so making the

second rap. The patients very frequently are found to be rubbing the fingers together because of the numbness and tingling.

3. The skin lesions. - These are very numerous, and almost invariably present in some form or another in greater or lesser degree.

(a) Erythromelalgia. - This condition, described as "painful red neuralgia of the extremities" by Weir Mitchell, or "acrodynia" by older observers, was one of the commonest lesions. The soles of the feet are crimson, as if stained with red ink, sometimes the whole surface, but more generally only where the surface touches the ground, so that there is left a normal appearance on the inner side at the hollow of the foot, and also a transverse line just beyond the distal extremities of the metatarsal bones. The sole and often the whole foot is bathed in perspiration, which may be stinking (but this is rare). The skin is also puffy, even if no true dropsy is present. On the palm the redness may, again, be uniform; but, again, more frequently it is most marked on the thenar and hypothenar eminences, and on the palmar surfaces of the terminal phalanges, the centre of the palm being normal in colour; the whole palm is wet, and may be actually pouring with sweat. Both soles and palms are tingling and burning hot, and painful, and these signs are greatly intensified by heat, so that the patient cannot sleep unless the feet are exposed to the air outside the bedclothes. (5) The pressure of the bedclothes cannot be borne, and the surfaces are exquisitely painful on pressure, so that, as I have said, the gait is affected, and the patients cannot use the hands even if no paralysis is present. This erythema does not become pigmented, but passes on to keratosis.

(5) Rarely the patient says his feet are very cold, but on examination they are proved to be hot.

(b) Keratosis. - This condition seems to be a somewhat late manifestation, and is, at any rate, very frequently secondary to the erythema and hyperhidrosis of the palms and of the soles. I have watched it develop on the hands and feet, and can thus speak with some certainty. It may take several forms; it may be in a few isolated scaly masses, either thin or very heaped up in marked prominences, and in this way previous corns on the feet, or patches of tylosis on the soles or palms become extraordinarily prominent. In some cases the keratomatous patches appear on the dorsum of the hand, between the webs of the fingers, and on the knuckles. In more marked cases, either the whole palm or sole is thickly covered with large white or dirty grey scales, which are constantly being shed into the bedclothes; or the centre of the palm and inner side of the sole may be merely erythematous and dry, but not covered by scales. Sometimes the keratosis extends up to the ankles and on to the wrists, but the scales are now not thick, but more like a brawny desquamation. The palms and soles may both be affected, but the soles are almost always the worst, and sometimes are affected alone. Moreover, in cases where there is no pigmentation, keratosis may be present, and forms a most valuable aid in the diagnosis of a case which might otherwise appear to be merely one of alcoholic paralysis. The process is very slow (many weeks) in its development, and seems to be, if untreated, extremely chronic.

(c) Erythemata. - These are very varied in character, and are often accompanied by great irritation. There is sometimes a scarlatiniform eruption on the upper part of the chest spreading to the neck and face, sometimes on the forearms and rest of the body. At other times, and perhaps more frequently, it is a morbilliform rash on the trunk and limbs, running into scarlatiniform patches; often it is a more distinctly papular erythema, and not unfrequently there is an acute urticaria. In some the change is so intense that there is a vesicular eruption, in which the lesions may vary in size from that of a pin's head to large bullae several inches in diameter. Those I have seen have been almost always on the limbs. In one or two cases the appearance has been that of a true pemphigus, and when the contents have been shed circular marks have remained, like very superficial scars. These vesicular eruptions are probably a late form of rash, even coming on six weeks after the last glass of

beer has been taken. The erythematous papules sometimes become larger, run together, and are covered with scabs in patches, so that there may be after many weeks an appearance somewhat like lupus, or even of syphilitic superficial ulcerations.

(d) Pigmentation. - This is generally not present in light-complexioned patients, or merely amounts to a darkening of pre-existing freckles. In darker people it is practically always present in greater or less degree, but in many is so diffuse that it may entirely escape notice. In most of the cases it follows on (after many weeks) the erythematous blush, which gradually turns from red to copper-colour, then to bronze, and in severe cases almost to black, so that many of the cases resemble mulattoes. Even if it is thus almost universal, it does not affect the palms and soles, nor as a rule does it touch old scars in which the deeper layers of the skin have been destroyed; but round the edge of the scar it is much intensified, the scar thus seeming of an especially white character. Round the neck, in the armpits, round the nipples, on the abdomen, round the genitals, and on the buttocks, where there has been pressure, as round the waist, or under the garters, it is much deeper in tint, and indeed resembles the pigmentation of Addison's disease; but I have not seen any pigmentation of the mucous membrane of the mouth. Although well seen on the face of many patients, yet on the whole it is more marked on the trunk. Frequently the pigmentation shows well marked lighter spots, like "rain drops." In other cases the pigmentation is seen on close examination to be punctiform. In others it is in isolated spots varying in size from a pin head to patches equal in size to the palm of the hand, clear light-coloured skin intervening, and often these isolated patches run together to form a continuous pigmentation. Not only is the colour like that of a mulatto, but the texture of the skin takes on the same beautifully soft velvety feel to the touch, quite different from that of normal English skin. In many cases, after many weeks a branny desquamation of the pigmented skin takes place, so that by friction one can rub off the pigmentation, as it were, and leave healthy skin underneath. Having watched numbers of these cases for weeks, I am convinced that there is a distinct sequence of events, namely an erythema followed by pigmentation, and then a desquamation, so that the pigment is really a part of the general altered nutrition of the skin and is not due to a deposit of metallic arsenic in the skin, as was once thought; this view does not necessarily exclude the idea that the drug may be partly eliminated by the skin.

(e) Herpes zoster. - This was the tell-tale eruption which, as I have said, gave me the key to the puzzle. When it occurred without any other very definite symptoms, then I considered I was dealing with epidemic specific herpes, but when I found other signs of arsenic poisoning present, there could be no doubt that it was also arsenical in origin. Since the discovery of the arsenic, practically every case of herpes zoster has been found to have other unmistakable signs of arsenic poisoning in greater or less degree. I have seen rarely herpes of the fifth cranial nerve, a few cases of the ascending branches of the cervical plexus, several of the other cervical nerves, many of the dorsal nerves, and one of the first lumbar nerve. In no case has the herpes been bilateral, and generally only one nerve-root was affected; but in two cases I have seen two succeeding nerve-roots affected; I have seen no herpes below the elbow or below the knee. From the great number of cases seen in this district, there is to my mind no longer any doubt that arsenic causes herpes by a direct action on the posterior spinal ganglion, just as much as it acts directly on the motor and sensory nerve-fibres. This seems to me to be a much more probable view than that put forward by Dr. H. Head, that arsenic is only a remote cause of herpes, inasmuch as it renders a person more liable to attack by specific herpes. In fact how many of the epidemics of so-called specific herpes (such as that described by Dr. Head as occurring in 1897, during the long drought that lasted from July to November) have not really been due to arsenical poisoning? From actual therapeutical observation, I have seen a few cases of herpes develop when I have been giving small doses of arsenic in which the only other sign of arsenical poisoning was lachrymation and a silvery tongue. I am,

indeed convinced, that it may come on with quite small doses. The herpetic eruptions have always been preceded and accompanied by very severe neuralgic pains along the course of the nerve or nerves affected. And I may here state that I have had many cases with severe neuralgic pains in the arms or round one side of the trunk which I expected would be followed by herpes, but none appeared.

(f) Nails. - In many cases the nails are affected. After the patients have stopped taking the beer for some weeks the best appearances are seen, for then there is a transverse white ridge across the nail; proximal to this the nail is normal, but distal to it the nail is whiter, cracked, thin, and towards the tip almost papery and much flattened. In some cases there have been a series of parallel transverse ridges of the nails, also suggesting a series of week-end "drinking bouts." These deformed nails of course break easily.

(g) Loss of hair. - One or two women have told me that they have lost the hair during the attack, but this has certainly not been a marked feature.

4. **Nervous system.** - (a) Sensory affections have been present in practically all the cases. In the mildest they have merely consisted of paraesthesia and tinglings, and burning and pricking sensations in the fingers and toes; in others this has been combined with numbness of the hands and feet, and sometimes of the legs below the knees. I have not seen a case of *total* loss of sensation, although the numbness has been very pronounced. Part of the apparent loss of power in the hands and feet has been due to this partial loss of sensation. In one case there was very marked, but not total, anaesthesia of the whole left fifth cranial nerve, but its motor fibres were unaffected. This is the only instance in which I have seen any affection, either sensory or motor, of the cranial nerves. Neuralgia of the arms or trunk, either followed or not by herpes, I have already alluded to. Finally, and of the greatest diagnostic importance, there was in a large number of the cases (but only if there was some loss of power) tenderness on pressure of the muscular masses of the legs and arms; sometimes deep pressure was required, but in other cases light pressure produced most exquisite pain, and caused the patients to scream out, and to exhibit a very typical facial expression of terror, or in less marked cases merely a screwing up of the facial muscles in a "grin of pain."

(b) Motor - These symptoms were similar to those ordinarily found in so-called alcoholic neuritis. They were present in greater or less degree in about 70 per cent. of the cases. In the slighter cases there was only slight loss of grip and slight affection of the gait, and there was then no appreciable atrophy of the muscles. In more marked cases there was a total paralysis of the affected muscles, with very marked atrophy. The small muscles of the hands, especially the interossei; the muscles of the fore-arms, especially the extensors; and in severe cases all the muscles of the arm were involved. If the muscles of the upper arm were not affected, then also the supinator longus escaped to a large extent, as in lead poisoning. In the early stages in the feet there was loss of power with some slight irritation of the extensors of the toes, so that the great toe was well extended and "cocked up." In this stage the knee-jerk was always either present or exaggerated, but there was never any ankle clonus. But soon the muscles became paralysed and atrophied; first the interossei and the anterior tibial and peroneal groups, so that the toes were flexed, and the whole foot dropped at the ankle into a position of talipes equinovarus. The calf muscles were next affected, and at about the same time those of the thigh, accompanied, of course, with rapid wasting and loss of the knee-jerks. The superficial reflexes were normal or exaggerated. Even in this stage the muscles on the front of the trunk were weak, so that the patients could not raise themselves in bed, and in some advanced cases there was well-marked diaphragmatic paralysis, with laboured breathing and a markedly ineffective power to cough. In one case, with comparatively slight loss of power in the limbs, the diaphragm was entirely paralysed. It goes without saying that in the most advanced cases the patients lay in bed totally helpless. There was no paralysis of the sphincters, except in the

most marked cases, in which some of the incontinence was possibly due to the mental condition, and the intercostal muscles were never paralysed. I never saw any paralysis of the cranial nerves in any case. The walk I have already described as the "stepping" gait, but many of the patients were distinctly incoordinate in their movements, and swayed slightly on standing with the eyes closed, but to my mind there was never any real resemblance to the ataxic walk of a case of tabes.

(c) **Mental:** In many of the cases of advanced paralysis there was the peculiar mental condition commonly found in alcoholic paralysis. This has been called confusional insanity, but it is more accurately described as a total loss of memory of time and then of place. There is a loss of initiation of ideas, but any suggestion, however absurd, is at once accepted. Thus a totally paralysed patient, who has been in bed for weeks, when asked if he has not been for a walk this morning, will say that he has, and will tell you with much circumstance where he has been; and when asked about yesterday, will perhaps say, with a little prompting, that he has been to the seaside. If asked when he came into hospital, he will always turn towards the nurse at the other side of the bed and say, "Let me see, I think it was yesterday [or some other near date], wasn't it, nurse?" But taking only the paralysed cases, I am inclined to think that the amount of mental confusion has been distinctly less than I should have expected from as many cases of ordinary alcoholic paralysis, which rather leads me to think that arsenic has not much effect on the cerebral cortex.

5. Circulatory system. - In the majority of the patients there has been some heart failure. In the milder cases this has been limited to dyspnoea on slight exertion, palpitations, post-sternal or epigastric pain, and a low tension pulse. In more marked cases the heart muscle has shown great failure, and the left side of the heart has been dilated, the apex beat has been in or outside the nipple-line and the left border not infrequently outside the nipple-line; the beat was sometimes diffuse. On auscultation the heart-sounds have approached the foetal "tic-tac" type, the second sound being accentuated, and the diastole shortened to the length of the systole; in some cases there was a soft systolic mitral murmur. Exertion has increased the pulse rate considerably, and there has sometimes been a rapid heart without accompanying fever. So great has been the cardiac muscle failure that several patients have fainted on getting up for the first time, and undoubtedly the principal cause of death has been cardiac failure; this has been noticed as the chief cause of death in arsenical poisoning by Brouardel in the Havre epidemic in 1888 (homicidal poisoning). Oedema affecting merely the feet only or almost the whole body has been observed in 25 per cent. of the cases. On the trunk it may manifest itself by the skin taking and retaining the impression of the stethoscope over the heart. There is often a well-marked pad of oedema over the sacrum, and the genitals are sometimes enormously oedematous. The legs may have such a tense hard oedema that it is difficult to make an impression on them with the finger. There has been a fair amount of ascites, but no great amount of pericardial or pleuritic effusion, certainly not so much as is said to occur in beri-beri. In the Chester cases there seems to have been an unusual amount of heart failure and oedema. Both from the cases which I have seen and from those reported in other epidemics I have no doubt that arsenic will seriously affect the heart muscle quite independently of alcohol.

6. Respiration. - Just as the skin is irritated by the arsenic so the respiratory mucous membrane seems to be in its whole course. There are in the early stage running from the eyes and nose, congestion of the fauces; a very marked congestion and thickening of the vocal cords producing the typical hoarse or husky voice (not due to any paralysis, as I have proved by laryngoscopic examination) and very pronounced bronchitis. Not infrequently there has been hemoptysis in patients who were certainly not suffering from phthisis. Not a few of my cases have shown signs of phthisis with fairly rapid breaking down of the lung tissue. And it is interesting to note at the present time, when arsenic is being largely recommended for the

treatment of phthisis, that some of our patients with signs of rapid phthisis give a history of apparently previous phthisis which has seemed to be in abeyance but has been lighted up in a virulent form by drinking the arsenicated beer.

7. Digestive system. - In many of the cases digestive troubles were the first signs; although loss of appetite was present in severe gastric cases, on the contrary in mild cases the appetite seems to have been definitely increased. There was, of course, no blue line on the gums in any case, but in a few the gums were red and softened. The tongue in the early stage had a typical thin white silvery coat, as if it had been brushed over with lunar caustic. In later severe stages it was brown, but as a rule it was moist. Vomiting quite sudden and very copious was a marked feature, sometimes occurring immediately after each pint of beer taken, or immediately after a meal. Many patients came to the hospital suffering from sensory disturbances and said that they were spirit drinkers only, but on inquiry I found that they had been beer drinkers a few weeks previously, but had voluntarily stopped the beer because it was not "agreeing" with them, as they were so sick; and this occurred before it was known that arsenic was present in the beer. Some cases complained of diarrhoea, and as these cases occurred in October and November, I was quite at a loss to explain the cause, especially as they had not as yet other signs of arsenical poisoning, although they were obviously alcoholics. In a few cases there has been passing of blood by the stool, but whether this was secondary to congestion of the liver or to ulceration of the intestine I cannot say. At the workhouse hospital during the last six months we have had quite an unusual number of cases of cirrhosis of the liver (this organ being much enlarged, hard, and tender) with great ascites. Dr. Sturrock, the resident medical officer at the Manchester Royal Infirmary, has noticed the same increase there. (6) Brouardel has also mentioned cirrhosis of the liver in pure cases of arsenical poisoning, and I cannot doubt but that arsenic will set up an interstitial hepatitis. (6) 'Brit. Med. Journ.,' December 22nd, 1900, p. 1815.

8. Urine. - In a considerable number of cases there has been a trace of albumin in the urine, but quite possibly this has been secondary to the cardiac failure. In many cases this disappears later on, so that I have no evidence to prove that there has been renal cirrhosis. We have not found any sugar in the urine. But a more interesting and important fact is the presence of arsenic in the urine of those patients who had been drinking quite recently. Professor Dixon Mann, on November 26th, obtained the arsenical reactions quite easily from only six ounces of urine passed by a woman who had been recently drinking, and its presence in the urine has also been detected by Dr. J. H. Abram and Dr. Nathan Raw (7) and others. There is no doubt, also, that the arsenic is excreted by the milk, as I was informed by a mother who was affected that her suckling child vomited after each meal (which had never been the case with any of her previous children); Dr. Taylor, of Salford (8) reports also a clear case of the suckling infant being affected.

(7) 'Brit. Medicine. Journ.,' December 8th, p. 1683.

(8) 'Medical Press and Circular,' December 5th, 1900, p. 585.

9. Temperature. - In the early stages in several cases the temperature has been raised, varying from 101° or 102° F. in the morning, to 102° to 103° in the evening, the other signs of early arsenical poisoning being fairly acute. In some cases this pyrexia has disappeared after a week or ten days in bed; in other cases it has lasted two or three weeks, and in a few has continued until death. Thus in the early stages in previous epidemics there has been some excuse for the cases having been diagnosed as influenza or even as typhoid fever.

Summary of symptoms and order of sequence. - From the above account it is clear that arsenic is almost certainly a cumulative poison, although some authors say that it is not so. Moreover, it is a poison which affects both the skin and the respiratory and digestive mucous membranes, the nerve-trunks, both sensory and motor, the muscles, including the heart-muscle, and the liver. As regards the sequence of the symptoms, Brouardel (9) has clearly laid

them down, and I can confirm his statements; the sequence is - (1) digestive symptoms; (2) laryngeal catarrh, bronchitis, and acute skin symptoms; (3) disturbances of sensibility; and (4) motor paralysis (and pigmentation and keratosis). Widal, in the 'Hyères Epidemic,' gives the following actual dates in one of his cases: - February 8th, gastric disturbance and diarrhoea; March 4th, acute cutaneous eruptions, spasmodic cough, running of the eyes and nose; March 31st, sensory disturbances in the limbs; then, some days later, paresis of the upper and lower limbs. Health was only restored after one year.

(9) 'Annales d'Hygiene,' 1889, p. 479.

The course of the disease is a slow one, the gastric, coryzal and laryngo-bronchial symptoms pass off first, then the acute skin lesions, which pass on to the chronic skin lesions, which I think will be found to last many months. The erythromelalgia and sensory symptoms are still almost as marked as ever in patients whom we have had under observation for four or five months, and judging from analogy of so-called alcoholic paralysis, the motor disturbances will last for from eighteen months to two years before they entirely disappear.

Mode of death. - In most of the cases this seems to be from cardiac failure, either quite suddenly or gradually. Some patients have died from paralysis of the diaphragm, with secondary broncho-pneumonia, and in one case at least phthisis contributed to the fatal issue.

Classification of cases. - The cases may be roughly divided into groups:-(1) Those with all symptoms fairly well marked; (2) those with skin lesions principally; (3) those with cardiac and hepatic lesions principally; and (4) those with paralytic lesions principally.

A careful examination into the history and present state of any case will, however, reveal some concurrent symptoms quite characteristic of arsenical poisoning. Thus, in a fair-complexioned woman who had no apparent symptoms but paralysis, which could not be diagnosed from so-called alcoholic paralysis, there was in addition keratosis of the soles of the feet.

Diagnosis. - Once the possibility of arsenic poisoning is recognised, there is no difficulty whatever in diagnosis. There is no other disease which will produce the same grouping of symptoms. In the early stages it is possible to mistake the condition for measles or scarlet fever, and in the later for Addison's disease, and in some cases it will be difficult in the present state of our knowledge to say that certain cases cannot be entirely explained by chronic alcoholism. Only a thorough consideration of the history, and full examination of the patient, will prevent mistakes being made. In beri-beri there are said to be but few skin lesions.

Treatment. - I shall say little on this point, for having entirely stopped the intake of the poison, the treatment becomes merely a matter of dealing with symptoms. One point, however, is of great importance; on account of the alarming heart symptoms from muscle failure no depressing drugs should be given. We must thus avoid potassium iodide, sodium salicylate, antipyrin, exalgin, phenacetin, etc. Small doses of digitalis, with some other diuretic, tonic doses of strychnine, gastric sedatives, carbonate of ammonia and senega will probably be required. For the pains we must have recourse to small doses of morphia. The burning sensation in the hands and feet is much relieved by spirit lotion. The other skin lesions must be dealt with *secundum artem*, but this is a subject which I would rather leave to the dermatologists. The treatment of the neuritis does not differ from that which is already well known.

Previous epidemics. - Space will not allow me to do more than mention some previous epidemics of arsenic poisoning. Graves (10) mentions that he had witnessed part of the curious "épidémie de Paris," which occurred in 1828, in which there were peripheral neuritis, acrodynia, and many other of the symptoms which I have above described. There can be little

doubt that this was an epidemic of arsenic poisoning. I have been unable to find Chomel's original paper, but Barthelemy (11) says, also, that it appears to have been due to arsenic, and that in four or five months it caused the deaths of 40,000 persons on the western bank of the Seine, near Paris. Brouardel and Pouchet (12) call attention to an epidemic affecting nearly 500 persons at Hyeres in 1888, and reported by Widal, in which white arsenic had by mistake been put into wine instead of gypsum; also an epidemic at Havre in 1888, in which fifteen persons were affected from arsenic put intentionally into food. Brouardel also alludes in passing to an epidemic which he had investigated from arsenic in bread, (13) and I have seen a statement made, but cannot confirm it, that in 1884, in the Departement du Midi (France) some wine sold was found to contain a considerable quantity of arsenic, which was derived from the sulphuric acid with which the old wine barrels had been repeatedly washed, whereas the same wine which had been stored in new barrels was quite free from the poison.

(10) 'Clinical Lecture,' *New Sydenham Society's Transactions*, vol. i, 1881, p. 578.

(11) Nielson's article in *New Sydenham Society's Transactions*, vol. clxx, p. 237.

(12) *Annales d'Hygiène*, 1889, vol. xxii.

(13) At St. Denis, where 250 were affected.

Pathological anatomy. - This subject I do not intend to allude to, as it is being investigated by others. In the few cases in which I have been present at the post-mortem examinations, the only prominent signs were the interstitial hepatitis and the dilated flabby heart.

Personal statistics. - During the three months - October, November, and December, 1900 - I had charge at the Manchester Workhouse Infirmary of 343 patients suffering from arsenical poisoning, 192 being men and 151 women. During November and December, at the Manchester Royal Infirmary (out-patient department), I treated 157 patients similarly affected, 99 being men and 58 women. This gives a total of 500 cases, 291 being men and 209 women. This preponderance of men over women is contrary to what I supposed at first was the case, but the symptoms were on the whole more pronounced in women. The deaths were thirteen, five of men and eight of women. The ages varied from twenty-six years to seventy years, and either beer or porter was invariably taken as a beverage alone or together with spirits. The amount taken has varied from as small a quantity as two pints (possibly only one and a half pints) to sixteen pints a day. The herpes was more common in men, for out of a total of twenty-one cases seen in three months, sixteen were in men. The heart symptoms with anasarca, and the liver enlargement and cirrhosis with ascites, were also more common in men. But the gastro-intestinal, the coryzal, and the sensory and motor disturbances were more common in women, and as a rule were shown in a much more marked degree. In eighty cases in which specially careful notes were taken, seven women out of thirty-seven had marked loss of memory of time and place, but only one man out of forty-three was thus affected. Also of these thirty-seven women twenty-seven were suffering from loss of power, ten of them to such a degree that movement of the much atrophied limbs was practically impossible. Of the forty-three men seventeen had loss of power, the loss being of a total character (in the limbs) in six cases. In all the cases of paralysis the legs were more affected than were the arms."

(An Account of the Epidemical Outbreak of Arsenical Poisoning Occurring in Beer Drinkers in the North of England and the Midland Counties in 1900. By Ernest Septimus Reynolds, M.D., F.R.C.P. Lond., Assistant Physician to the Manchester Royal Infirmary; Visiting Physician to the Manchester Workhouse Infirmary. Read January 8th, 1901. In: *Medico-Chirurgical Transactions by the Royal Medical and Chirurgical Society of London*, vol. 84 (1901), p. 409-430)

The new artificial environment - Wilhelm C. Hueper

"The great majority of disease conditions results from an interaction of the cells of an organism with some animate or inanimate, exogenous, environmental agent. Until the early part of the nineteenth century the general knowledge concerning the nature and causative mechanism of these etiological factors was highly deficient for most of the diseases known to occur up to that time. The deep ignorance prevailing in such matters was hidden behind the vague concept of miasma.

A fundamental change in this deplorable condition was brought about during the latter half of the past century through the discovery and subsequent intense study of the numerous pathogenic micro- and macro-organisms, such as bacteria, protozoa, viruses, and worms. Since then, and until rather recent times, the chief interest and energy of medical research has been expended upon the elaboration and accumulation of data regarding the characteristics and properties of, and the pathogenic effects produced by, these animate constituents of our natural environment.

The remarkable achievements contributed in this respect by the various and, in part, newly developed branches of medical science (clinical medicine, bacteriology, parasitology, immunology, pathology, physiology, pharmacology, and hygiene), aided by the simultaneously rapidly advancing basic sciences of chemistry and physics, have led to the institution of protective, preventive and therapeutic measures controlling effectively a great number of the formerly dreaded and often fatal or disabling infectious diseases.

However, during the same period in which these noteworthy advances concerning the animate pathogenic environment were made, a revolutionary change in our inanimate, external environment took place through the development of modern industry and the general use of its products in daily life, transforming thereby the former state of an agricultural civilization into an industrialized one.

While the inanimate, exogenous environment, to which man and animals are exposed, depended through the preceding ages mainly upon the locally prevailing geological and climatic conditions determining the type of fauna and flora and represented in this sense a part of the natural environment, the gigantic growth of modern industry occurring in its main portion within the lifetime of men now living, i.e., within the last one hundred years, has introduced numerous artificial, heretofore unknown, exogenous factors in constantly increasing number and variety. The creators and beneficiaries of the industrial development are thereby made potential victims of health hazards which cause numerous and diverse acute as well as chronic and insidious diseases never observed before. This powerful impact of the rapid rise of modern industry upon the inanimate exogenous environment affects mainly and primarily the industrially employed parts of the present-day population, but extends also to a considerable degree upon practically all other portions of the population and influences all branches of human activity, including personal and public hygiene, nutrition, clothing, living quarters, habits and customs.

The rise of industrialization during the past century has vastly expanded the production and use of formerly known substances and manufactured goods and has resulted as well in the manufacture of innumerable new ones, entailing the employment of new techniques of production, handling, and consumption, and necessitating the application of many new physical and chemical agents. There have appeared entirely new methods and means of power production, transportation, communication, lighting, heating, water supply, disposal of industrial wastes and municipal sewage, road construction, printing and illustration, food production, processing of foodstuffs, clothing, mining, metallurgy, and other forms of industrial production.

The chemical industry especially has excelled in the creation of this new artificial environment by producing new synthetic substances in never-ending number and for ever-increasing purposes (dyes, mordants, explosives, plastics, fertilizers, insecticides, fungicides, solvents, rubber, resins, lacquers, pigments, paints, finishes, textile fibers, fuel and lubricants for motors and machines, refrigerants, building materials, radioactive substances, food components, drugs, toilet articles, pharmaceuticals, household supplies, and innumerable other articles.

The introduction of air pressure tools, air pressure chambers, biologically highly active rays (roentgen-rays, radium rays, ultraviolet rays), the use of airships and airplanes, etc., has widened greatly the influence of occupational conditions of a physical nature upon the health of the modern industrial worker.

The growth of metallurgical establishments has brought about an intensified utilization of the various metallic natural resources, many of which were unknown and never before used for industrial purposes, such as aluminium, magnesium, chromium, nickel, vanadium, and radium. This has increased the number of potential health hazards, and also is responsible for a greatly augmented exposure of the industrially employed as well as general population to substances of marked toxicity, such as arsenic, lead, mercury, antimony, manganese, chromium, and radium, used industrially or released as waste products into the environmental air (carbon monoxide, sulfur dioxide, arsenious oxide, etc.), or into the waters of lakes and rivers (phenols, arsenicals, etc.) serving as water supply of adjoining communities.

Additional sources of chemical pollution of water supplies can be traced to the discharge of wastes from chemical factories, paper plants, cellulose manufacturing establishments, gas works, rayon plants, textile dyeing plants, tanneries, etc., and to the introduction of tarry substances from freshly tarred or oiled roads with the rain water, or of arsenicals used for the spraying or dusting of fields, orchards, and woods, or released from copper and iron smelters into the air and carried down by the rain. The use of chemical insecticides on fruits and vegetables containing lead, arsenic, copper, nicotine, etc., and the employment of numerous organic and inorganic chemicals in the processing of foodstuffs for various purposes (preservation, coloring, consistency, etc.) have added greatly to the number of exogenous agents composing this new artificial environment whose biological effect upon the human organism is often unknown or little appreciated.

This very incomplete list of new environmental agents may suffice as an illustration of the degree and character of the changes which the inanimate exogenous environment has undergone during the last five to ten decades. While thus the factors composing the old natural environment are still present and active to some measure in a more or less modified form, the agents constituting the new artificial environment are superimposed upon them to an increasing degree, not only producing diseases of purely industrial origin but, through interaction with the pathogenic influences of the natural environment, also giving rise to disorders of complex etiology.

The immediate and great significance which this situation possesses from the standpoint of medical care and public health is reflected to some extent in the legislative measures taken in various countries in the form of food and drug acts and industrial health laws as well as in the increasing interest industrial diseases have aroused in the medical profession in recent years. It must be admitted, however, that these reactions can be considered only as **the first steps** toward an adequate and general appreciation, knowledge and control of health hazards which have arisen as the result of this industrialization and which produce diseases neither properly understood nor recognized in an appreciable number of instances.

The situation existing in this respect is less alarming with regard to the acute industrial poisonings than to the chronic poisonings, especially those of metatoxic type. It is in general neither very difficult to determine the nature of the various causative agents responsible for the majority of the acute industrial poisonings nor is it hard to recognize the etiologic character of the symptomatic manifestations produced by them, because of the special circumstances which, as a rule, surround such events. The often rapid onset of impressive symptoms following a usually accidental exposure to rather massive amounts of a particular agent of known toxic qualities furnishes in general the conclusive evidence.

The various possible sources of acute poisonings are obvious in well conducted industrial establishments when medically properly supervised, where adequate precautions for prevention under ordinary working conditions, as well as appropriate therapeutic facilities in case of their accidental occurrence, are provided. It must be noted, however, that less favorable conditions are apt to exist in this respect in plants which employ only a small number of men or where products with proprietary names and of unknown chemical nature are handled. Serious difficulties in regard to a correct and prompt diagnosis of acute industrial poisonings may be encountered in those cases in which the initial symptoms are rather mild and uncharacteristic, while being followed only after a more or less prolonged period of delay by manifestations of more severe nature.

It is obvious that the diagnostic obstacles offered by chronic poisonings are often greatly magnified, as the symptoms elicited by a prolonged exposure to comparatively small amounts of toxic agents are not infrequently neither characteristic nor appreciable for a varying period and may be considered even as "insignificant" from a medical standpoint, especially in the presence of metatoxic effects. Serious manifestations appear in many instances only after many months, or years, of exposure, or may be noted only many years after cessation of exposure to the injurious agent. The proper recognition of the causes and symptoms of many of these medically as well as socio-economically highly important diseases occasioned by the agents of the new artificial environment represents one of the chief problems with which the medical profession, public health agencies, industrial managements and legislative bodies will be confronted in the near future. At the present time, an appropriate progress, which may be considered as commensurate with the already existing tremendous significance of these environmental diseases, is obviated by various factors.

There exists among the members of the medical profession an inadequate knowledge and appreciation of these sources of disease conditions and of the symptoms produced by these environmental agents. In addition to the lack of proper training in this respect during the years devoted to medical education, the average physician has little opportunity to familiarize himself with the nature and possible biological action exerted by the multitude of substances used, produced or handled in the various industrial operations. His patients employed in such establishments are frequently not able to provide him with reliable or adequate data upon inquiry, while the plant management may be reluctant to divulge such information to a physician not connected with the industrial organization.

Environmental diseases of industrial origin present, moreover, not infrequently marked diagnostic difficulties, as an appreciable number of these disorders may masquerade symptomatically under the disguise of known infectious diseases or are readily and often complicated by such conditions, so that the primary, occupational, etiological aspect becomes obscured.

Some industrial diseases, on the other hand, exhibit symptoms simulating closely those found in certain diseases of unknown etiology (so-called "idiopathic diseases"), or are mistaken for organic changes observed with the "physiological" aging of the organism. The following examples may serve as illustrations of these points:

The occupational exposure to benzol and to certain benzol derivatives may lead to the development of a great variety of **hyperplastic and hypo-plastic reactions** of the blood and blood-forming organs resembling in many respects those caused by some infectious, endocrine, or unknown agents. **Certain disorders of the central and peripheral nervous system** which are elicited by contact with a great number of industrial poisons (carbon monoxide, hydrogen sulfide, carbon disulfide, chlorinated aliphatic hydrocarbons, aromatic hydrocarbons, organic and inorganic compounds of lead, mercury, arsenic, manganese, etc.) may mimic closely those accompanying infectious diseases or appearing as degenerative manifestations of unknown etiology. The inadequate knowledge as to the existence of such causal connections is the reason that the industrial factors producing nervous disturbances often remain unappreciated, resulting in the institution of ineffective therapeutic measures and in the complete omission of essential preventive procedures. The causal role which an occupational exposure to noxious gases and vapours (sulphur dioxide, nitrous oxide, etc.) as well as to various kinds of organic and inorganic dusts (manganese, soot, iron oxide, and especially silica) plays in the production of **chronic inflammatory conditions of the respiratory organs**, is not rarely more or less obliterated by the secondary onset of a bacterial infection, for which the industrial agent has prepared the soil. The occurrence of **peptic ulcers** in individuals exposed to carbon disulfide vapours is generally little considered in the diagnosis of gastric disorders. Likewise is the production of degenerative and fibrosing lesions of the liver by aliphatic chlorinated hydrocarbons, aromatic hydrocarbons, etc., not taken into account in determining the causation of **cirrhosis of the liver**. A considerable number of **irritative or allergic cutaneous lesions** occurring among the industrially occupied, as well as among the general population, can be traced to an exposure to some of the innumerable new chemical compounds employed in industry and incorporated in articles of every-day use. These manifestations are not infrequently mistaken for bacterial or fungal infections which, however, are often superimposed upon, or activated by, the chemical agents.

Apart from these medical difficulties which impair the proper advancement in the knowledge and recognition of these environmental diseases there exists a fundamental and serious lack of information concerning **the biological effects exerted by many of the new synthetic compounds**. While the manufacturers of such chemicals, as well as the users of new and old substances for new purposes, are usually well acquainted with, or anxious to determine over a wide range, the various chemical, physical, and technical properties of these agents, they do not, in general, feel obliged, or consider it apparently less important, to conduct equally thorough and detailed investigations in regard to the possible injurious effects which their products may produce in the human organism, prior to their introduction into large scale industrial operation or before they are offered for sale to the public.

This increase in the number and types of industrial and environmental diseases following upon the rise of the modern and artificial environment furnishes the background for the prominence which occupational neoplasms and related hyperplastic cellular responses of exogenous origin have now attained. Industrial tumors and allied diseases constitute an integral part of the pathological reactions resulting from the change which the inanimate environment has undergone during the past century. While a few of the industrial cancers have been known or have existed without correct recognition prior to the advent of the modern industrial era (pulmonary cancers of the Schneeberg and Joachimsthal miners, scrotal cancers of the chimney sweeps and arsenic workers in England), the great majority of the occupational blastomas appeared after the start of modern industrial development. In fact, the overwhelming number of occupational neoplasms has been placed on record during the last forty years. During this period there was not only a constant rise in the absolute number of these disorders, but also a marked increase in their organic types and in the exogenous sources. It must be pointed out, however, that the different occupational cancers participated

in a very irregular fashion in this evolution. While some of them regressed in frequency in practically all countries in certain occupations, such as roentgen cancer of the skin among the medical profession, after the hazard had been properly appreciated and adequate precautionary and preventive measures had been instituted, they did not take the same course in other occupations into which they had more recently gained access to an increasing degree.

Other industrial neoplasms, such as aniline cancers of the urinary bladder, exhibited a decreasing incidence in some countries in which their development was originally favoured by special industrial conditions (Germany, Switzerland), and where effective preventive measures were first developed. On the other hand, the same cancers appeared with increasing frequency during more recent years in other countries (England, Italy, United States), following the establishment of etiologically important chemical industries.

The promoters and managers of such newly developed manufacturing industries apparently neglected to profit from other countries adverse experiences. It may be noted that the technical changes which resulted in an amelioration of the industrial cancer situation in some instances were prompted mainly, until rather recent times, by a desire of plant management to reduce production costs and to improve the quality of the manufactured goods for sales reasons, and were not instituted primarily to provide better working conditions and protection to the workers.

The variations which the numerical and organic incidence of industrial neoplasms have displayed in recent decades and in different countries and industries, reflect, to a certain extent, the general and local growth of modern industrial enterprises. It may be conceded that occupational risk represents only one of several predisposing causes of cancer which may be operative in different instances or under different circumstances, as it is not uncommon to find in occupations an excessive mortality from cancer in certain sites for which no apparent explanation can be found in the industrial risks. While it may be possible that in some occupations the excessive indulgence of habits, like smoking and drinking, may play a predisposing role, this conception should not be unduly encouraged in view of the serious ignorance existing concerning the cause or causes of cancer in general and industrial cancer in particular. Past experiences suggest that such observations regarding an unexplainable high organic incidence of cancer in certain professions can be traced more likely to an industrial source than to habit factors.

The medical, medico-legal, sociological, and scientific significance of occupational tumors extends far beyond the limited importance these proliferative reactions possess as an industrial disease. Industrial neoplasms are, at present, with the exception of a few tumors of non-occupational, environmental origin, the only blastomas in man of which the approximate cause is known. Occupational cancers represent, because of this fact, a challenge to the industry as well as to public health agencies, as they are the only malignant neoplasms the development and occurrence of which can be largely or completely eliminated, if proper precautionary measures are taken to prevent any undue contact of the workers with the offending agents, or if the cancerogenic factors are excluded from industrial operations.

Occupational cancers have attained additional importance as the study of these neoplasms has resulted in the discovery and synthesis of a large number of chemical carcinogens (dibenzanthracenes, cholanthrenes, etc.), some of which were found to be closely related to substances occurring normally in the body (bile acids, sex hormones), or forming constituents of our food and our cells, such as cholesterol and vitamin D. Occupational cancers have thus furnished the basis for one of the greatest advances ever made in the knowledge of cancer in general.

Inasmuch as the crude cancer death rate has markedly increased in all civilized countries, the increase in the United States being nearly 65 per cent between 1900 and 1933, and considering the fact that cancer ranks now second as a cause of death, killing every tenth individual dying after the age of forty years, any addition to existing information on the causation and causative mechanism of cancer is a highly important matter. This statement receives additional emphasis from the fact that in spite of definite advances made in the diagnosis and therapy of malignant diseases, and in spite of the increased cancer-consciousness of the general public, there has not been noted any appreciable reduction in the rate of cancer mortality. The far-reaching practical significance of the study of industrial cancers is derived from the light which such investigations shed upon the importance of preventive measures in the fight against cancer and upon the causes and causative mechanism responsible for these growth manifestations."

(Wilhelm C. Hueper, Occupational Tumors and Allied Diseases, Springfield 1942, p. 3-10)