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TRANSACTIONS

OF THE

THIRTY-NINTH SESSION

OF THE

HOMOEOPATHIC MEDICAL SOCIETY

OF THE

STATE OF PENNSYLVANIA.

Held at the Board of Trade Assembly Rooms, Scranton,
September 22, 23 and 24, 1903.

LANCASTER, PA:;
THE EXAMINER PRINTING HOUSE.
1903.
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**Necrologist**, ..........Chandler Weaver, M. D., Philadelphia.

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### 1904.

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(3 yrs.) Anna C. Clarke, M. D., Scranton.
(2 yrs.) Geo. W. Smith, M. D., Philadelphia.
(1 yr.) H. F. Heilner, M. D., Scranton.

(3 yrs.) D. C. Kline, M. D., Reading.
do. H. B. Ware, M. D., Scranton.
do. I. B. Gilbert, M. D., Philadelphia.

(2 yrs.) O. S. Haines, M. D., Philadelphia.
do. D. P. Maddux, M. D., Chester.
do. J. A. Bullard, M. D., Wilkesbarre.

(1 yr.) R. P. Mercer, M. D., Chester.
do. C. C. Rinehart, M. D., Pittsburg.
do. W. H. Keim, M. D., Philadelphia.

Trustees

To the Homœopathic Medical Society of the State of Pennsylvania:

Your Committee on Publication herewith presents the Transactions of the Thirty-ninth Session of the Society, held at Scranton. The committee desires at this time to express its thanks to the Hahnemannian Monthly for the cuts illustrating the article of Dr. T. L. Chase on "Uterine Fibromyomata," and that of Dr. T. J. Gramm on "Chronic Endometritis." To the North American Journal of Homœopathy thanks are due and are hereby extended for the cut illustrating the article of Dr. T. J. Gramm on "Pruritus Vulvae."

Edward M. Gramm, M. D.,
Ella D. Goff, M. D.,
George B. Moreland, M. D.,
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The President, O. S. Haines, M. D., called the meeting to order on the morning of September 22, 1903.

The divine blessing was invoked by the Rev. E. F. Ritter, of the Holy Trinity Evangelical church.

F. W. Lange, M. D., the President of the Lackawanna Homœopathic Medical Society, welcomed the State Society in the following ADDRESS OF WELCOME.

Mr. President, Ladies and Gentlemen:

The members of the Lackawanna County Homœopathic Medical Society desire to express their appreciation for the privilege and honor of entertaining the State Society at its annual convention in this city this year.

Six years have elapsed since the State Society met here; at that time it was entertained under the auspices and hearty co-operation
of the physicians of Luzerne and Lackawanna counties and North-easterne Pennsylvania in general. Since that time the physicians in Lackawanna county, and Scranton in particular, have felt them-selves sufficiently strengthened in numbers, in energy and ambition to entertain, so that the State Society has been invited to meet here this year under the auspices of the Lackawanna County Medical So-ciety. We hope we may at least approximate your idea of a hearty welcome and a hospitable entertainment in addition to what the pro-gram of the State Society offers, and we hope that you will have only pleasant reminiscences such as we understand that you have had of the convention held here six years ago.

Since the State Society met here six years ago the city of Scranton has become a city of the second class, not a second-class city, however, if you please, but a city second to none in its desire to enter-tain visitors, to show a sincere hospitality, so that the name of Scranton has become even nationally known as a city where the most successful conventions are and may be held. Under the in-spiration and influence of the convention that was held here six years ago plans were laid and measures adopted for the purpose of organizing and establishing a hospital in this city under the direc-tion of the physicians representing our local society. The then em-bryonic institution has since developed to such proportions as to be continually over-taxed by applicants who wish to be admitted for treatment, so that the name of the Hahnemann Hospital of the city of Scranton has become synonymous with everything that is hu-mane, that is kindly, that is up-to-date in the most scientific sur-gical as well as medical treatment. The Hahnemann Hospital is a public institution, maintained and sustained by the charity of a number of our good people of Scranton. The funds that are neces-sary to support a hospital seem to be continually lacking in suffi-ciency. May the kindly influence of this convention inspire that broader charity necessary for the maintenance of institutions like the Hahnemann Hospital in Scranton, as well as similar institutions throughout the State. But it is not for me to make any extended remarks at this time; our program is long and our time is short.

The Honorable Alex. T. Connell, mayor of Scranton, promised to address our visitors and give them a hearty welcome, as well as the freedom of the city, which he can most felicitously do. Owing to unavoidable circumstances he will be unable to be with us to-day, but he has sent his greetings, which will be read to us by Mr. C. S. Seamons, Secretary of the Scranton Board of Trade.
ADDRESS OF WELCOME.

Scranton, Pa., Sept. 22, 1903.

Mr. President and Ladies and Gentlemen of the Pennsylvania Homoeopathic Medical Society:

I have been very kindly asked by your committee to extend a few words of welcome to our city on the occasion of the gathering of your thirty-ninth annual convention, but owing to my departure from the city on the 9:38 train I cannot be with you at the opening:

Our city fee's highly complimented that you have, after a lapse of six years, again chosen it as your meeting place. We believe that the recollections of your last visit here must have been pleasant ones, else you would have passed us by this time.

I am informed that the convention represents more than six hundred members of the medical profession in the State of Pennsylvania. Well may we be solicitous that a good impression and a kindly feeling towards our city may go out to such a large number of the most intelligent and discriminating citizens of this great Commonwealth, of which we are all a part and in which we take so great pride.

We welcome you most heartily to Scranton. We trust your sojourn here may be made pleasant in every manner lying in the power of our citizens to make it so.

I also hope that the deliberations of your convention may result profitably to the advancement of the important science of which you are the exponents.

Very respectfully,

ALEX. T. CONNELL,
Mayor.

MR. CHARLES S. SEAMANS (After reading the mayor's letter): While no official action concerning your coming among us was taken yesterday at the meeting of the Board of Trade, I was requested by the President, Mr. A. W. Dixon, and a large number of members of the board to say to you personally, or privately, not dreaming that I would have an opportunity of saying this to you collectively, that the Scranton Board of Trade and each and every member of it tender to you a most hearty greeting, and we sincerely hope that your stay among us may be a pleasant one, and on your departure from us that you will take with you nothing but most pleasant recollections of your entertainment of our city and our people generally. We give you, as the mayor has done with the keys of the city, the
keys of this building. Make use of them in any way you see proper.

RESPONSE TO ADDRESS OF WELCOME.

W. A. SEIBERT, M. D., EASTON.

Citizens of Scranton and Members of the Lackawanna Homœopathie Medical Society:

I have been called on to respond to this address of welcome by the Homœopathic Medical Society of the State of Pennsylvania, and I am very certain that I voice the unanimous sentiment of its members when I express their thanks, and that I do not satisfy their gratitude when I say that they thank you for your hearty welcome and hospitable greeting. It is significant that this Society should accept your invitation so promptly so soon after their initial visit here. Had I been one of the fortunate former guests I suppose the reasons would have been more obvious, and the case is clearing up very rapidly. Your address of welcome, your beautiful and interesting city with its beautiful surroundings, your cordiality, the good things you have promised us for this week, make a very gratifying combination. Your invitation signifies more to us, you want us and we also want you. We come here with a program that is replete with another year’s experience and advances in our noble profession. We take pleasure in telling you that this promises to be the banner meeting of this Society’s existence, and we are glad to lay this tribute at Scranton’s feet, and thank the Lackawanna Medical Society for it.

We come here as a society of physicians and surgeons and for no bigoted, sectarian reasons. We come here as a distinct body, because we aim not only to heal the sick, but to heal them speedily, gently and promptly according to intelligible reasons. Because we dare believe that, and that there is a scientific therapeutic law, we are ostracized from the old school, and we must not meet at all, or meet as you see us proudly doing to-day. We admit that the hand of fellowship is being extended to us if we will only agree not to do or believe as we wish; but on examination it is not the right hand of good fellowship. It has been said that the two schools are always coming closer together. We are pleased to agree; but it is a significant fact that the homœopathic materia medica of seventy-five years age remains unchanged. It is classical to-day, and always will be, From personal knowledge the old school materia medica of twenty years ago is obsolete to-day. An amalgamation of the two schools will
be impossible until our inalienable rights as American citizens are untrammelled. Can that ever be unless we all believe or disbelieve similia similibus curuntur?

Not to believe in any law and to practice empirically reminds one of the Bandar-log. "Kaa's Hunting" is the title of a delightful story in Kipling's first "Jungle Book." In that story he tells of the Bandar-log. They are a purposeless people who know not the law of the jungle. They are a folk who have no leader and no remembrance. The falling of a nut turns their attention; anything or nothing disgusts them; they never do what they set out to do; always pecking at new things are the Bandar-log. They grow tired of the nuts they pick, and throw them down. They carry a branch half a day, meaning to do great things with it, and then they snap it in two. They live, as much as anywhere, in the Cold Lairs, an old and deserted Indian City lost and buried in the jungle, a heap of ruins. Once the Bandar-log conceived the idea of taking a man for a leader, because he could teach them to weave sticks and canes together for houses. They captured Mowgli, the man-cub, out of the jungle, and this they thought was to mark a new thing in the history of the Bandar-log. Mowgli picked up some creepers and began to weave them in and out and the monkeys tried to imitate, but in a very few minutes they lost interest, and began to pull one another's tails, and jump up and down on all fours, coughing. They have no law, no hunting call, and no leaders, nothing but foolish and boastful words, and little picking, thieving hands. Now, we do not come as Bandar-log, nor do we come as bigoted sectarians. Not as Homoeopathic physicians so much as Homœopathic physicians, who have the welfare of the sick at heart, first, last and all the time.

In behalf of the State Society again, Dr. Lange, citizens of Scranton and doctors of the Lackawanna County Society, we thank you heartily for your welcome and greeting. We shall endeavor to conduct ourselves so that you will take pleasure in inviting us again, as we shall ever be glad to return to you.

PRESIDENT'S ADDRESS.

O. S. HAINES, M. D.

Members of the Homœopathic Medical Society of the State of Pennsylvania, Ladies and Gentlemen:

It is not my intention to deliver a formal address upon this occa-
sion. Time will not permit of that. This Society has much important work before it. I will ask you to bear with me only until I have said some things which are in my mind. I desire to express to the members of this Society my sincere appreciation of the great honor which they conferred upon me at our last meeting held in the City of Brotherly Love, when they elected me to preside at this Thirty-ninth Annual Session, which has just opened so auspiciously. And I shall take this opportunity also to express my appreciation of the very cordial relations that have existed between the officers of this Society, the chairmen of our various bureaus and committees, the associates upon these bureaus and myself during the months of preparatory work necessary for the arrangement of this annual session. Our secretaries have used their best endeavors to smooth the rougher places and to expedite this work. I have been under great obligations for many courtesies and much patient consideration and help in the work that has been performed, and I feel it a pleasant duty to thus publicly thank you gentlemen. Officers and committees may arrange society meetings, it remains with the entire membership to ensure the ultimate success of any meeting. It may, however, be regarded as a foregone conclusion that when the State Society meets at Scranton that session will be a brilliant success, both from a scientific standpoint as well as from the social point of view. We must not overlook the importance of the fraternal intercourse and the importance of the social features of these meetings. We have learned by pleasant experiences that the Lackawanna County Medical Society knows how to look after these features. They are royal entertainers, these men of Scranton. How well we remember our last visit to this beautiful city. And how markedly has she grown in beauty since then. One of Nature’s garden spots in the proudest State of our incomparable United States, it is fitting that the homeopathic profession should meet in annual session in such a place.

The medical profession stands to-day a united profession in aims and in purposes; a divided profession, however, upon certain questions of medical belief. We stand to-day a united profession by reason of our common aims, our common cause. We stand united upon the common platform, the welfare of mankind. Would that I might announce to you that all barriers to our fraternal intercourse had been torn asunder, and that we stood to-day with all the medical men of the world a united profession in truth, united in beliefs as well as in our aims. We have common interests and a common work to perform in the world. We are all similarly trained and educated for this work.
Truly, there should be no sects in medicine. Nevertheless, the so-called "sectarian school" of homoeopathic physicians has ever been foremost in advocating and in putting into operation all that promised to make for a higher degree of medical efficiency. The graduates from this school lead in all competitive tests of ability, as any one who is interested may learn from our public press. We exist as a sectarian school in the minds of some to-day, not by choice, not because of any differences in preliminary or medical education, not because of any lacks nor deficiencies that exist in us, but simply because of the illiberality of one wing of the medical profession, and I say this not unkindly, an illiberality which has made it necessary for the homoeopathic school to build its own colleges, to erect its own hospitals, to make its own medical literature, to educate its own students in every branch of medical science, to affix to its degress the special title of homoeopathic physician. And how well we have done this work during the past century is evident. And so I say we find that our school has been forced into a so-called sectarian position during the past century, a century, by the way, that has not been found wanting in evidences of the spirit of liberality and tolerance in other fields than those of medicine and surgery. This spirit of intolerance is not the outcome of an honest, unprejudiced, scientific investigation of the law and methods of homoeopathic practitioners. It is not the result of our law of drug proving and of drug selection, having been found in any degree unworthy or untrue. It is simply the ultimate development of a disrelish, an aversion to anything suggestive of a word, Homoeopathy, which had its inception in the days of Hahnemann, and which has, by transmission through successive generations, seemingly become a habit. A habit that might, indeed, be cured if we were willing to drop the tempting words Homoeopathy and similia and law of cure. But we believe in curing habits another way.

It is high noon in the Homoeopathic School. The high noon of successful accomplishment of long-cherished plans and purposes fulfilled. The successful outcome of a century of effort. And have we not to-day a brave showing of colleges, hospitals, dispensaries and medical journals. Do not our specialists rank with those highest in authority in the land? Are not the thousands of our practitioners the world over worthy in every sense of that noble title—physicians? Is not our clientele the world over truly representative? You will pardon me if I must add that the responsibilities of our school have never been so great as they are to-day. For success invariably
doubles responsibility. Let us hope that every member of the Homoeopathic School is keenly alive to his individual responsibility in maintaining the dignity, the public standing and the scientific status of Homoeopathy. Let us hope that every one of us fully realizes what there is to be done in the future and will pledge himself or herself to give his or her earnest support to homoeopathic institutions wherever they may be. Important among our institutions stand our societies and medical clubs. That there should be a representative gathering of the homoeopathic physicians of this great State, known as the State Homoeopathic Medical Society, is so patent as to require no further mention. Every homoeopath in our State owes allegiance to this society. But the State Society can never assume the place nor influence of the local county and urban societies; the medical clubs. There is a dearth of local societies and clubs in this State. A glance at our Transactions for 1902 will show that, outside of Philadelphia and its environs, we have but about a dozen societies. If this list is complete, and we take away the Pittsburgh and Scranton Societies, we shall have but half a dozen for the rest of this great State of ours. With what assurance can we look forward to the future growth and future success of this State Society if the local interest in the numerous communities of our practitioners is so slight. I belong to eight or ten medical societies. I count upon these for the perpetuation of youth and for the rejuvenation of my mental equipment. How any medical men can hope to succeed in the practice of medicine, without the assistance and constant mental stimulation of his medical societies, I cannot comprehend. I say then that the Homoeopathic School exists to-day as a distinct school of therapeutists; because of its recognition of the existence of a law in therapeutics, a law that has been in existence since the beginning of time, but which needed the genius of a Hahnemann for its demonstration as a law of practical utility in medical practice. No man can say that Hahnemann's methods were anything but strictly ethical. He made no secret of it. It was offered freely to the whole medical world. I feel inclined to believe myself that it was offered a century too early. I feel inclined to believe, if we may judge from what we read in the medical literature of the century thus far spent, that had the law of similia been announced in 1902 it would have been accorded a universal recognition as the greatest therapeutic advance since the days of Hippocrates. The public were quick to see the advantages of homoeopathic methods over the cruder therapeutic methods in vogue a century
ago, and were eager to reap its benefits. What has hindered its general acceptance by the entire medical profession is best known to those who have failed to acknowledge its truth and utility, and who have denied to their patients its manifold advantages and benefits. Certain we are that no attempt to prove the falsity of our guiding law that has ever been made has been in the slightest measure successful. The law of similia remains true and irrefutable. Modern research and the successive discoveries of modern science are constantly strengthening the substantial basis of truth upon which the law stands immovable. The Homœopathic School owes it to the world that no stone be left unturned, that no effort be considered too great in their earnest endeavors to perfect and complete the utilitarian side of our therapeutic system. Our Materia Medica must be perfect, our therapeutics unassailable. Our adherence to Homœopathy must not be simply a blind worship of traditions. We cannot devote too much attention to our Materia Medica and to our therapeutics. You will pardon me again if I say that it sometimes seems as if our school was resting too long in the high noon of its success, and that it is again time to get into the field. A widespread renewal of individual effort is what is needed. And this brings me to the statement of a fact which I should not like to overlook. While we, as a State Society, have been most successful, and while our meetings compare favorably with the meetings of other State societies, yet the candid observer may notice a certain lack of individual interest in certain localities which is most lamentable. May we hope that this criticism shall be out of place another year? And, if as a result of a general awakening, some future President of this Society shall announce the joyful news that the Homœopathic School no longer exists as a medical sect; but that owing to the universal recognition of the truth and utility of the law of drug selection the whole medical world has at last become one in beliefs as well as in aims and purposes,—may some of us be present to hear the glad tidings; and may some echo of the happy hour penetrate to the resting places of those of us who, having grown weary of well-doing, shall have dropped by the wayside, wrapped in that blessed sleep which only the faithful know.

Within a month one of the leading medical journals of this country said: "If medicine is a science or even approaching to scientific precision, there is no room for sectarianism. It is time that this question should be carefully considered by the profession, with a view to bringing about a better understanding of the principles un-
derlyng the practice of medicine. If the public could see one united profession, moving together and agreeing upon a common scientific basis for practice, they would be less likely to believe in the blatant professions of the irregular, unprincipled advertisers."

Another prominent authority quite recently admitted that "the time when we were accustomed to indiscriminately condemn Homœopathy is past, and at this day surely no unp prejudiced physician would desire to reject a therapy merely because it leans upon that curative method."

Again, we may read that "the 'homœopathic nothings' have been ridiculed, but numerous facts from chemistry and physiology prove to us that chemical substances can produce quite definite reactions, even in minute quantities, whether in the retort or in the living body."

All of which I have quoted not for the purpose of apology as far as Homœopathy is concerned. Far from it. I mention these things because it would appear that the dawn of reason is at hand. The question is: Will the expressed thoughts of these few rational minds leaven the mass of the intolerant and illiberal and be the means of provoking a general awakening to the existence of a scientific basis for medical practice, which any one may have for the asking.

When we contemplate the thousands of remedies which nature has so abundantly provided for the cure of the diseases of mankind it would seem incredible that no law exists whereby these might be selected for that purpose with certainty and precision.

The Homœopathic School is not deeply interested in the present discussion relative to the amalgamation of all the sects into one united profession, principally because it is inclined to distrust the outcome of such a union previous to a general recognition of the basic principles of our science, the necessity for accurate drug-proving upon the healthy, the existence of a law governing the adaptation of remedies to disease, the superiority of the single medicine over polypharmacy and the importance of the dosage. It does not seem probable that the result of the amalgamation of medical bodies, so widely divided by beliefs, opinions and practices, would be, in any sense, satisfactory. The Homœopathic School is in every sense a liberal school. Believing that the law of similia offers to every physician a substantial, scientific basis upon which to erect a science of therapeutics, believing that it is a law of wide though not universal application in practice, our school has spent a century in an earnest endeavor to spread a knowledge of this beneficent law to the four quarters of the globe. It seems that we have done our duty in this
particular. But it also seems that at the present moment we should be less concerned with the traditions of our school, less concerned with her future greatness than with the very present needs of Homœopathy. Our work lies immediately before us. We must widen the scope of our therapeutics, we must broaden our knowledge of pathogenesis, the superiority of our distinctive therapeutic methods must be still further established,—by demonstration rather than by verbal statements. Our most urgent duty then lies in the perfecting of our own methods rather than in any further attempt to modify the methods of others. While we are doing this it behooves us to be ever keenly interested in every real advance in medical science. Our patients look to us and expect us to give them the benefit of every modern procedure of well established utility and value. A general awakening of individual interest, a liberal and progressive spirit, a willingness to extend the hand of fraternal greeting to all those who seek knowledge of our law and methods, pointing them on the right path of truth; the improvement of our own methods; these are some of the most profitable things which should concern the Homœopathic physicians of today.

The Corresponding Secretary presented the following program, which was on motion adopted:

ORDER OF BUSINESS.

TUESDAY, SEPTEMBER 22, 1903.

Morning Session, 9:30 to 1 O'Clock.

1. Call to order.
2. Invocation.
3. Address of welcome.
4. Response to address of welcome. W. A. Seibert, M. D., First Vice-President.
5. Address of President O. S. Haines, M. D.
6. Roll call.
   Correction of list of members.
7. Report of Corresponding Secretary.
   Adoption of program.
ORDER OF BUSINESS.

a. Organization, registration and statistics, George B. Moreland, M. D., Chairman.
b. Legislation, D. P Maddux, M. D., Chairman.
c. Publication, E. M. Gramm, M. D., Chairman.

12. Report of the Necrologist, Chandler Weaver, M. D.
13. The following amendment to the By-Laws was presented at the last meeting by Dr. H. B. Ware:

Amend Article VI., Section 1, by adding to it the words “An invitation to hold the annual meeting in any locality shall be considered only when extended by a regularly organized society,” so that the Section shall read: “The annual meeting shall be held in the month of September on the days and at the place decided upon at the annual meeting next preceding; an invitation to hold the annual meeting in any locality shall be considered only when extended by a regularly organized society.”

SECTION OF OBSTETRICS.

Julia Gould Waylan, M. D., Chairman.


A. P. Bowie, M. D., Uniontown, “A Plea for Old-Fashioned Midwifery.”

Opening of discussion by I. B. Gilbert, M. D.
F. W. Burlingame, M. D., McKeesport, “The Care of the Breasts.”
Opening of discussion by Ella D. Goff, M. D.
D. C. Kline, M. D., Reading, “Pre-natal Impressions.”
Opening of discussion by W. G. Dietz, M. D.
W. F. Marks, M. D., Reading, “Abnormal Action of the Uterus.”
Opening of discussion by F. D. Brewster, M. D.
W. J. Martin, M. D., Pittsburg, “Technique.”
Opening of discussion by J. E. Belville, M. D.
Opening of discussion by T. J. Gramm, M. D.
ORDER OF BUSINESS.

Opening of discussion by W. F. Edmundson, M. D.

Afternoon Session, 3 to 6 o'Clock.

SECTION OF GYNÆCOLOGY.

Edward M. Mercer, M. D., Chairman.


B. F. Betts, M. D., Philadelphia, "Some Thoughts on Gynecology."

Opening of discussion by John E. James, M. D.

Opening of discussion by T. M. Bulick, M. D.
Theo. L. Chase, M. D., Philadelphia, "Fibroid Tumors of the Uterus."

Opening of discussion by J. H. McClelland, M. D.
Theodore J. Gramm, M. D., Philadelphia, "Pruritus Vulvae."

Opening of discussion by J. H. Thompson, M. D.
Theo. M. Johnson, M. D., Pittston, "Gynæcology in General Practice."

Opening of discussion by A. A. Lindabury, M. D.
N. F. Lane, M. D., Philadelphia, "The Treatment of Accumulations of Pus in the Pelvis by Vaginal Incision."

SECTION OF PATHOLOGY AND PATHOLOGICAL ANATOMY.

P. Sharples Hall, M. D., Chairman.


J. Edgar Belville, M. D., Philadelphia, "The Question of Early Operation in Appendicitis from a Pathological Standpoint."


Opening of discussion by W. D. Bayley, M. D.
Theodore J. Gramm, M. D., Philadelphia, "Pathological Processes Affecting the Endometrium."

D. B. James, M. D., Philadelphia, "Carcinoma Uteri."
Disiderio Roman, M. D., Philadelphia, "Clinical Features of Renal Pathology."
Opening of discussion by Carl V. Vischer, M. D.

Evening Session, 8 to 10:30 o’Clock.

Section of Paedology.

William A. Seibert, M. D., Chairman.
W. H. Bigler, M. D., Philadelphia, "Mental Deficiencies in Children."
Opening of discussion by C. Spencer Kinney, M. D.
A. J. Bittner, M. D., Allentown, "Epilepsy in Children."
A. L. Kistler, M. D., Allentown, "Observations and Signals in Baby-life."
C. S. Raue, M. D., Philadelphia, "The Clinical Examination of the Intestinal Contents of Children."
Opening of discussion by J. N. Mitchell, M. D.
J. L. Redman, M. D., Philadelphia, "Forty Cases of Capillary Bronchitis Treated With One Remedy."
Opening of the discussion by F. W. Boyer, M. D.
Margaret H. Schantz, M. D., Reading, "Preputial Adhesions in Little Girls and Boys."
Opening of discussion by J. L. Peck, M. D.
E. R. Snader, M. D., Philadelphia, "Some Considerations in the Diagnosis of Heart Disease in Infancy and Childhood."
W. W. Van Baun, M. D., Philadelphia, "Tuberculosis in Children."

Wednesday, September 23.

Morning Session, 9:30 to 1 o’Clock.

Section of Surgery.

Edward R. Gregg, M. D., Chairman.

E. R. Gregg, M. D., Pittsburg, "Resume of Surgical Progress of the Year."


G. M. Christine, M. D., Philadelphia, "Goitre."

L. H. Willard, M. D., Allegheny, "Compound Fractures."

SECTION OF SANITARY SCIENCE.

Edward M. Gramm, M. D., Chairman.


Edward M. Gramm, M. D., Philadelphia, "The Physician as a Sanitarian."

Isaac Crowther, M. D., Chester, "Health Boards, Doctors and the People; Their View-Points and Relationships."

I. B. Gilbert, M. D., Philadelphia, "Typhoid Infection."

A. B. Lichtenwalner, M. D., Philadelphia, "The Stamping Out of Epidemics."

W. E. Rotzell, M. D., Narberth, "The Relationship of Forestry to Hygiene."

R. E. Tomlin, M. D., Philadelphia, "Prophylaxis."

Opening of discussion by J. D. Boileau, M. D.

Afternoon Session, 3 to 6 o'Clock.

SECTION OF MATERIA MEDICA.

Edward Cranch, M. D., Chairman.


Edward Cranch, M. D., Erie, "Opium."

Millie J. Chapman, M. D., Pittsburg, "Thuja."

J. W. Dehoff, M. D., York, "Clinical Verification."

P. S. Duff, M. D., Great Belt, "Urtica Urens."
ORDER OF BUSINESS.

Chas. Mohr, M. D., Philadelphia, "Work for the Homœopathist."
E. R. Snader, M. D., Philadelphia, "Some Thoughts Concerning
the Principles of Drug Medication."

Wednesday Evening.

Entertainment of members and visitors by the Lackawanna Homœopathic Medical Society.

Thursday, September 24.

Morning Session, 9:30 to 1 o'clock.

SECTION OF CLINICAL MEDICINE.

F. W. Lange, M. D., Chairman.


F. W. Lange, M. D., Scranton, "Emergency Cases in General Practice and 'Similia' Therapeutics Applied."


Clarence Bartlett, M. D., Philadelphia, "A Case—Brain Surgery."

S. W. S. Dinsmore, M. D., Sharpsburg, "Clinical Experience and Symptomatology."

H. F. Heilner, M. D., Scranton, "Reflexes in Chronic and Obscure Cases."

M. J. Holben, M. D., Slatington, "Influenza and Its Treatment."


F. Mortimer Lawrence, M. D., Philadelphia, "Demonstration of New Diagnostic Instruments."

C. Spencer Kinney, M. D., Easton, "Our Habits and What They Do for Us."

ORDER OF BUSINESS.

S. W. Sappington, M. D., Philadelphia; W. I. Tomlinson, M. D., Mt. Holly, N. J., "The Early Diagnosis of Typhoid Fever By Means of Blood Cultures."

Afternoon Session, 3 o’Clock.

SECTION OF OPHTHALMOLGY, OTOLOGY AND LARYNGOLOGY.

E. W. Brickley, M. D., Chairman.


E. W. Brickley, M. D., York, "The Omnipresent Spectacle."


H. F. Schantz, M. D., Reading, "Epistaxis."

Conclusion of Reports of Sections and Discussions.

Final Report of the Board of Censors.

Unfinished Business.

New Business.

Election of Officers.

Selection of Place of Next Meeting.

Adjournment.

The Chairman of the Section of Surgery, in addition, issued the following program of the papers to be presented in that Section:

SECTION OF SURGERY.

Wm. B. Van Lennep, M. D., Philadelphia, title unannounced.

J. H. McClelland, M. D., Pittsburg, title unannounced.

L. H. Willard, M. D., Allegheny, "Compound Fractures."

G. M. Christine, M. D., Philadelphia, "Goitre."

J. L. Peck, M. D., Scranton, title unannounced.

H. P. Cole, M. D., Hartford, Conn., "The Treatment of Talipes."

C. P. Seip, M. D., Pittsburg, "Penetrating Wounds of Viscera."

H. L. Northrop, M. D., Philadelphia, title unannounced.


J. W. Coolidge, M. D., Scranton, title unannounced.

S. M. Rinehart, M. D., Allegheny, title unannounced.
E. R. Gregg, M. D., Pittsburg, "The American Surgeon—Should He Excel?"

TRUSTEES' REPORT.

The Trustees would report that they have attended to the business of the Society. They have nothing of any note to report, however. They have audited the treasurer's report and found it correct. The following is a synopsis of it:

To balance, cash on hand September 24, 1902 ............. $1,162.36
Received annual dues during the year up to September 22, 1903 ................................ 940.00

$2,102.36
The expenses during the same time foot up ............. 733.20
Leaving a cash balance on hand of ..................... $1,369.16

The Trustees would call attention to the fact that the treasury is in a very good condition.

REPORT OF COMMITTEE ON ORGANIZATION, REGISTRATION AND STATISTICS.

To the Homoeopathic Medical Society of the State of Pennsylvania:

Your Committee on Organization, Registration and Statistics presents its annual report for publication. A list of the local societies and of the hospitals and dispensaries under our control is given, and detailed statement of data obtainable concerning them is placed at your disposal.

We desire, through the medium of this report, to thank all who have answered our requests for information.

Respectfully submitted,

Geo. B. Moreland, M. D.,
Chairman.

C. F. Bingaman, M. D.,
Ella D. Goff, M. D.
# Homoeopathic Medical Societies

<table>
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<tr>
<th>Name</th>
<th>President</th>
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<tr>
<td>Lehigh Valley Homoeopathic Medical Society</td>
<td>E. O. Doolittle, M. D., Easton</td>
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<td>Homoeopathic Medical Society of Northeastern Pennsylvania</td>
<td>J. L. Peck, M. D., Scranton</td>
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<td>O. S. Haines, M. D., Philadelphia</td>
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<td>Frank E. Yerkes, M. D., Ambler</td>
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<td>W. D. Bayley, M. D., Philadelphia</td>
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<td>Woman's Homoeopathic Medical Club of Philadelphia</td>
<td>Julia G. Waylan, M. D., Philadelphia</td>
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<td>Böenninghausen Medical Club of Philadelphia</td>
<td>T. P. Gittens, M. D., Philadelphia</td>
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<td>M. H. Schantz, M. D., Reading</td>
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OF THE STATE OF PENNSYLVANIA.

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## HOMŒOPATHIC MEDICAL SOCIETIES

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<thead>
<tr>
<th>Name</th>
<th>President</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philadelphia Medical and Surgical Society.</td>
<td>L. T. Ashcraft, M. D.,</td>
</tr>
<tr>
<td>Women's Homœopathic Medical Association of Pittsburgh.</td>
<td>Philadelphia.</td>
</tr>
<tr>
<td>Organon Medical Club of Chester.</td>
<td>Millie J. Chapman, M. D.,</td>
</tr>
<tr>
<td>The Van Lennep Clinical Club.</td>
<td>Pittsburgh.</td>
</tr>
<tr>
<td>Goodno Homœopathic Medical Society.</td>
<td>R. P. Mercer, M. D.,</td>
</tr>
<tr>
<td>The Homœopathic Medical Society of Delaware, Chester and Montgomery</td>
<td>Chester.</td>
</tr>
<tr>
<td>Counties.</td>
<td>J. W. Hassler, M. D.,</td>
</tr>
<tr>
<td></td>
<td>Philadelphia.</td>
</tr>
<tr>
<td></td>
<td>Wm. G. Taylor, Columbia.</td>
</tr>
<tr>
<td></td>
<td>H. E. Williams, M. D.,</td>
</tr>
<tr>
<td></td>
<td>Coatesville,</td>
</tr>
</tbody>
</table>
OF THE STATE OF PENNSYLVANIA.

<table>
<thead>
<tr>
<th>Secretary</th>
<th>Organized</th>
<th>Incorporated</th>
<th>Meetings</th>
<th>Number of Members</th>
<th>Dues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wm. C. Hunsicker, M. D.,</td>
<td>1900</td>
<td>Not.</td>
<td>Monthly.</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>Philadelphia.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ella D. Goff, M. D., Pittsburgh.</td>
<td>1899</td>
<td>&quot;</td>
<td>&quot;</td>
<td>9</td>
<td>$1.00</td>
</tr>
<tr>
<td>D. P. Maddux, M. D., Chester.</td>
<td>1887</td>
<td>&quot;</td>
<td>&quot;</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>B. R. Marsden, M. D., Chester.</td>
<td>1895</td>
<td>&quot;</td>
<td>&quot;</td>
<td>19</td>
<td>2.00</td>
</tr>
<tr>
<td>Philadelphia.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E. T. Prizer, M. D., Lancaster.</td>
<td>1899</td>
<td>&quot;</td>
<td>Quarterly.</td>
<td>31</td>
<td>1.00</td>
</tr>
<tr>
<td>Isaac Crowther, M. D., Chester.</td>
<td>1858</td>
<td>&quot;</td>
<td>Bi-Monthly.</td>
<td>66</td>
<td>1.00</td>
</tr>
</tbody>
</table>
REPORT OF COMMITTEE ON ORGANIZATION.

HOMOEOPATHIC DISPENSARIES

<table>
<thead>
<tr>
<th>Name</th>
<th>Secretary</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye and Ear Dispensary of the Pittsburgh Homoeopathic Hospital.</td>
<td>D. G. Stewart.</td>
<td>Pittsburgh.</td>
</tr>
<tr>
<td>Hahnemann Medical College Hospital Dispensary of Philadelphia.</td>
<td>Charles Mohr, M. D.</td>
<td>Philadelphia.</td>
</tr>
<tr>
<td>Children's Homoeopathic Hospital Dispensary.</td>
<td>Walter Strong, M. D.</td>
<td>Philadelphia.</td>
</tr>
<tr>
<td>Hahnemann Hospital Dispensary.</td>
<td>(Superintendent.)</td>
<td>Scranton.</td>
</tr>
<tr>
<td>Homoeopathic Dispensary of Reading.</td>
<td>H. F. Schantz, M. D.</td>
<td>Reading.</td>
</tr>
</tbody>
</table>

HOMOEOPATHIC HOSPITALS

<table>
<thead>
<tr>
<th>Name</th>
<th>Location</th>
<th>Secretary or Executive Officer</th>
<th>Incorporated</th>
<th>Operated to Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical, Surgical and Maternity Hospitals of the Women's Homoeopathic Association of Pennsylvania.</td>
<td>Philadelphia.</td>
<td>Mrs. F. B. Skinner.</td>
<td>1882</td>
<td>1882</td>
</tr>
<tr>
<td>Children's Homoeopathic Hospital.</td>
<td>Philadelphia.</td>
<td>Walter Strong, M. D.</td>
<td>1877</td>
<td>1877</td>
</tr>
<tr>
<td>Homoeopathic Medical and Surgical Hospital.</td>
<td>Pittsburgh.</td>
<td>D. G. Stewart.</td>
<td>1866</td>
<td>1866</td>
</tr>
<tr>
<td>Hahnemann Medical College Hospital.</td>
<td>Philadelphia.</td>
<td>Chas. Mohr, M. D.</td>
<td>1848</td>
<td>1869</td>
</tr>
<tr>
<td>Hahnemann Hospital.</td>
<td>Scranton.</td>
<td>No Report</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Homoeopathic Medical and Surgical Hospital.</td>
<td>Reading.</td>
<td>W. W. Light.</td>
<td>1890</td>
<td>1891</td>
</tr>
<tr>
<td>Beaver Valley General Hospital.*</td>
<td>New Brighton.</td>
<td>Miss McCowen.</td>
<td>1894</td>
<td>1895</td>
</tr>
</tbody>
</table>

* Staff composed of homoeopathic and allopathic physicians.
## REPORT OF COMMITTEE ON ORGANIZATION.

### OF THE STATE OF PENNSYLVANIA.

<table>
<thead>
<tr>
<th>Incorporated</th>
<th>Opened</th>
<th>No. of New Patients Last Year</th>
<th>Treated Last Year</th>
<th>Prescriptions Last Year</th>
<th>Out Visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1866</td>
<td>1866</td>
<td>. . . .</td>
<td>16,303</td>
<td>. . . .</td>
<td>None.</td>
</tr>
<tr>
<td>1886</td>
<td>1886</td>
<td>. . . .</td>
<td>4,229</td>
<td>. . . .</td>
<td>None.</td>
</tr>
<tr>
<td>1848</td>
<td>1848</td>
<td>35,563</td>
<td>35,797</td>
<td>317,317</td>
<td>3,021</td>
</tr>
<tr>
<td>1877</td>
<td>1877</td>
<td>. . . .</td>
<td>9,783</td>
<td>51,929</td>
<td>1,194</td>
</tr>
<tr>
<td>1897</td>
<td>1897</td>
<td>. . . .</td>
<td>155</td>
<td>441</td>
<td>113</td>
</tr>
<tr>
<td>1890</td>
<td>1888</td>
<td>. . . .</td>
<td>1,763</td>
<td>5,835</td>
<td>50</td>
</tr>
<tr>
<td>1882</td>
<td>1884</td>
<td>5,056</td>
<td>17,816</td>
<td>10,214</td>
<td>2,500</td>
</tr>
<tr>
<td>1896</td>
<td>1896</td>
<td>2,876</td>
<td>17,540</td>
<td>16,230</td>
<td>None.</td>
</tr>
</tbody>
</table>

### OF THE STATE OF PENNSYLVANIA.

<table>
<thead>
<tr>
<th>No. of Beds</th>
<th>Treated Last Year</th>
<th>Cured</th>
<th>Relieved</th>
<th>Not Relieved</th>
<th>Died</th>
<th>Estimated Value of Property and Grounds</th>
<th>Source of Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>80</td>
<td>983</td>
<td>843</td>
<td>18</td>
<td>6</td>
<td>40</td>
<td>$250,000.00</td>
<td>State aid. Donations.</td>
</tr>
<tr>
<td>57</td>
<td>508</td>
<td>292</td>
<td>79</td>
<td>11</td>
<td>82</td>
<td>160,000.00</td>
<td>State aid. Donations.</td>
</tr>
<tr>
<td>125</td>
<td>2,678</td>
<td>. . . .</td>
<td>.</td>
<td></td>
<td></td>
<td>.</td>
<td>State aid. Donations.</td>
</tr>
<tr>
<td>140</td>
<td>2,053</td>
<td>1,725</td>
<td>272</td>
<td>20</td>
<td>136</td>
<td>894,187.00</td>
<td>State aid. Donations.</td>
</tr>
<tr>
<td>. . . .</td>
<td>. . . .</td>
<td>. . . .</td>
<td>. . . .</td>
<td></td>
<td></td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>22</td>
<td>192</td>
<td>139</td>
<td>41</td>
<td>3</td>
<td>9</td>
<td>36,000.00</td>
<td>State aid. Donations.</td>
</tr>
<tr>
<td>25</td>
<td>190</td>
<td>126</td>
<td>27</td>
<td>14</td>
<td>11</td>
<td>20,000.00</td>
<td>State aid. Donations.</td>
</tr>
<tr>
<td>29</td>
<td>429</td>
<td>296</td>
<td>53</td>
<td>10</td>
<td>47</td>
<td>29,000.00</td>
<td>State aid. Donations.</td>
</tr>
<tr>
<td>26</td>
<td>276</td>
<td>239</td>
<td>5</td>
<td>6</td>
<td>26</td>
<td>25,000.00</td>
<td>State aid. Donations.</td>
</tr>
</tbody>
</table>
CHANDLER WEAVER, M. D.

1867—Gustavus Edward Gramm, M. D., died November 2, 1901, at his son’s residence, 846 North Broad street, Philadelphia. He was born near Halle, Germany, on November 18, 1823. After receiving a thorough classical education at Halle, he spent thirteen years as a private tutor in families of the German and Austrian nobility.

In 1856 he visited America, and while in Baltimore was induced to remain in this country and prepare for the ministry. He was ordained at the Third Reformed Church in Baltimore. Received a call to Philadelphia, and was instrumental in founding Fifth Reformed Church, of Kensington, Philadelphia, where he devoted a number of his best years in ministerial and philanthropic work. Later, through friendship of Dr. Hering, took up the study of medicine, and graduated from the Homœopathic College of Pennsylvania, 1867.

He was the pioneer of homœopathic method of practice in Kensington, Philadelphia. Failing health in 1884 induced him to take a rest. Later he moved to Ardmore, Penna., where he continued the practice of medicine. He was ardently devoted to the study of the Materia Medica, and a thorough believer in the value of the homœopathic system of practice.

He contributed to the current medical literature of his earlier times, and made a number of translations from the German. He was Senior of the American Institute of Homœopathy, and of our Pennsylvania State Society, and was connected with the Philadelphia County Society and other local clubs. He was a member of Meridian Sun Lodge, No. 158, F. and A. M., also of the Oriental Chapter, No. 183, R. A. M.

He died of heart failure while dozing in his chair.

1866—Bushrod Washington James, M. D., died January 6, 1903, of anæmia following an attack of pneumonia. He was born in Philadelphia, 1836. Son of Dr. David James, a noted physician of the old school, who gave up allopathy for Homœopathy, after trying the former for fourteen years.

His early education was in the Central High School, of Philadelphia. After graduating from the above school he entered the Homœopathic Medical College, of Philadelphia, graduating in 1857. He was a member of the International Congress of Homœopathy,
Senior of the American Institute of Homœopathy, of the Homœopathic Medical Society of Pennsylvania, of the Homœopathic Medical Society of Philadelphia, a member of the Union League of Philadelphia, the Philadelphia Academy of Natural Sciences, Franklin Institute, Horticultural Society, Anglers' Association of Pennsylvania, Young Men's Christian Association of Philadelphia, Grand Lodge of Free and Accepted Masons of Pennsylvania, Masonic Veterans' Association, Knights Templar and other Masonic bodies. He was a man cultured in arts and sciences. Wrote several books from his numerous travels, as "Alaskana or Legends of Alaska," "Alaska, Its Neglected Past and Brilliant Future;" a novel, "The Political Freshman," the latter being published in the last year of his life.

1899—Samuel George Godshall, M. D., died April 4, 1903, of nephritis, in his 43d year. He was born November 9, 1860, at Flat Rock, Montgomery County, Pa. Early education was in public schools of Philadelphia and Central High School. Graduated from Hahnemann Medical College, of Philadelphia, 1888. He was a member of the American Institute of Homeopathy, of our Pennsylvania State Society, the Tri-County Homœopathic Medical Society, Homœopathic Medical Society of the 23d Ward, Philadelphia, and Peace and Love Lodge, I. O. O. F.

1877—William M. Griffith M. D., died April 20, 1903, aged 53. Was born in Honeybrook, Chester County, Penna., 1849. Received his early education there, and graduated from Pennington Seminary 1869 or 1870, and from Hahnemann Medical College, of Philadelphia, Pa., 1872. He belonged to the American Institute of Homeopathy, the Pennsylvania State Society, the Philadelphia County Homœopathic Medical Society, and the Oxford Medical Club. He was a member of Mt. Horeb, No. 528, F. and A. M., trustee and treasurer of the 20th street M. E. church, and superintendent of its Sunday-school.

1874—Francis R. Schmucker, M. D., died ———. Dr. Schmucker was one of the oldest homœopathic practitioners in Reading, Pa.

Dr. Schmucker was born in this country, and was in his 64th year. After attending schools in this section, he graduated from Yale College in 1860, and in 1862 began the study of law.

At the outbreak of the Civil War he enlisted, and was made first lieutenant of Company A, 128th Regiment, Pennsylvania Volunteers. After serving nine months, he returned to Reading, and on February
8. 1863, he re-enlisted, and was made captain of Company C, 42d Regiment. Later, he held the office of adjutant.

In 1873 he graduated from the New York Homöopathic College, and in 1874 began to practice in Reading.

He was a member of the American Institute and of our State Society.

Dr. Schmucker was a member of the First Presbyterian church for nearly forty years, and many years was a ruling elder of the congregation.

Our Fathers—where are they? And the prophets, do they live forever? Some of the above lived long, useful, mature lives, while others seem to be removed in their prime of usefulness. How brief this journey is, how swiftly we are passing, how soon will all our labors be ended on earth—no one knows. We meet so seldom, we clasp each other’s hand so rarely, that I fear we fail to appreciate and love each other as we ought. Let us be friendly, unselfish and nearer to each other with a loving, social, fraternal willingness to help each other in this warfare of life and the cause of Homœopathy. We miss the cheer, the counsel, the encouragement, and wisdom of those who have gone to their rewards. Let those who knew them best, let those in palaces and those in humblest homes who have so often felt their kindly sympathy and been helped by their cheering ministrations speak, as they only can speak. Farewell!

SUMMARY.

1867—Gustavus E. Gramm, M. D., died November 2, 1901.
1866—Bushrod W. James, M. D., died January 6, 1903.
1899—Samuel G. Godshall, M. D., died April 4, 1903.
1877—William M. Griffith, M. D., died April 20, 1903.
1898—Charles C. Cresson, died ______, 5909 Germantown Avenue, Philadelphia.
1895—Chas. W. Roberts, M. D., died March 20, 1903, Scranton, Pa.
1887—J. C. Millen, M. D., died ______, 911 Downing Avenue, Denver, Col.
1874—Francis R. Schmucker, M. D., died ______, 228 North 5th Street, Reading.

On motion the following amendment to the By-Laws was adopted:
It was presented at the last meeting by Dr. H. P. Ware, and announced in the program of the present meeting.

Amend Article VI., Section 1, by adding to it the words: "An invitation to hold the annual meeting in any locality shall be considered only when extended by a regularly organized society," so that the Section shall read: "The annual meeting shall be held in the month of September on the days and at the place decided upon at the annual meeting next preceding; an invitation to hold the annual meeting in any locality shall be considered only when extended by a regularly organized society."

REPORT OF THE BOARD OF CENSORS.

The names of the following applicants for membership were referred to the Board of Censors, and, after having been favorably passed upon by the board, they were elected:

Bernard E. Bigler, M. D., 1425 Spruce St., Philadelphia.
G. M. DeWitt, M. D., Scranton.
M. B. Gerberich, M. D., 428 Cumberland St., Lebanon.
Malcolm D. Holben, M. D., Slatington.
D. B. James, M. D., 2005 North 12th St., Philadelphia.
Nathaniel F. Lane, M. D., 1620 Green St., Philadelphia.
A. S. McDowell, M. D., Reading.
A. Clement Shute, M. D., Pottstown.
Wm. A. Stewart, M. D., Pittsburg.
Francis A. Whitman, M. D., Wilkesbarre.
Henry E. Williams, M. D., Coatesville.
Dr. D. P. Maddux, Chairman, presented the following

REPORT OF THE LEGISLATIVE COMMITTEE.

The Legislative Committee of the State Society was not able to effect a complete organization until January last, on account of a change in the by-laws, which rendered the composition of committees only effective on the incoming of the president. This committee, which has aimed to be as representative as possible, composed as it is of members elected from numerous local organizations, met in Philadelphia. On account of the size of the committee an Executive Board was created to look after the Society's interests, and proceeded immediately to work. The important items affecting our
school and our profession of which this committee took cognizance were the Eaton bill, introduced in the interest ostensibly of the Osteopathic School of Medicine; the Ray bill, and the bills of appropriation affecting those institutions in which the profession at large are interested.

In regard to the general appropriation bill, I think all the institutions in which our school is interested were favored this year as never before. I feel quite sure the aggregate was much in excess of former years. As you know, our new asylum for the insane is well provided for and will unquestionably become one of the great institutions of the State.

In regard to the matter of expenses, there was a certain definite fund from a previous solicitation that was made available to the Legislative Committee for its legitimate expenses. This has been about exhausted by the necessary expenses of the committee.

We found that the time taken up in organizing and getting to work was quite long, and I should recommend that in future the committee be appointed to serve a longer time than a single year.

On motion, the Trustees were directed to place fifty (50) dollars at the disposal of the Committee.

The election of officers resulted in the selection of the following:

President, D. C. Kline, M. D., Reading;
First Vice-President, Theo. Sureth, M. D., Scranton.
Second Vice-President, E. R. Gregg, M. D., Pittsburg.
Recording Secretary, George B. Moreland, M. D., Pittsburg.
Corresponding Secretary, Edward M. Gramm, M. D., Phila.
Treasurer, Ella D. Goff, M. D., Allegheny.
Necrologist, Chandler Weaver, M. D., Fox Chase, Philadelphia.
Censor, Anna C. Clarke, M. D., Scranton.
Trustees, D. C. Kline, M. D., Reading; H. B. Ware, M. D., Scranton; I. B. Gilbert, M. D., Philadelphia.

On motion, Easton was selected as the place for the next meeting.

On motion, the Trustees were directed to fix the date of the next meeting of the Society so that it will occur the week previous or following the date of the meeting of the Old School State Society next September.

On motion, a vote of thanks was tendered to the President for the courteous manner in which he presided over the deliberations of the Society.

On motion, a vote of thanks was tendered to the Homeœopathic
Medical Society of the County of Lackawanna for its generous hospitality.

On motion, a vote of thanks was tendered to the press for the careful reports of the meeting.

On motion, a vote of thanks was tendered to the Scranton Board of Trade for the use of the meeting room.

On motion, a vote of thanks was tendered to Mr. Charles S. Seams, Secretary of the Scranton Board of Trade, for personal courtesy shown to the Society.

On motion, a vote of thanks was tendered to Mr. Shepherd, superintendent of the Oxford mine.

On assuming office the President, Dr. O. S. Haines, appointed the following

COMMITTEES.


Committee on Organization, Registration and Statistics.—G. B. Moreland, M. D., Chairman; Associates, Drs. C. F. Bingaman, E. M. Gramm.

Committee on Publication.—E. M. Gramm, M. D., Chairman; Associates, Drs. Ella D. Goff, G. B. Moreland.

CHARTER OF THE HOMŒOPATHIC MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA.

To the Honorable, the Judges of the Court of Common Pleas of Philadelphia County, Pennsylvania.

In compliance with the requirements of an act of the General Assembly of the Commonwealth of Pennsylvania, entitled "An Act to Provide for the Incorporation and Regulation of Certain Corporations," approved the twenty-ninth day of April, A. D. 1874, and
the supplements thereto, the undersigned, all of whom are citizens of Pennsylvania, having associated themselves together, with others hereinafter named, for the purpose hereinafter specified, and desiring that they may be incorporated according to law, do hereby certify:

First, The name of the proposed Corporation is The Homœopathic Medical Society of the State of Pennsylvania.

Second, The said Corporation is formed for the purpose of organizing the Homœopathic Medical Profession in the State of Pennsylvania and advancing Medical Sciences.

Third, The business of said Corporation is to be transacted in the City of Philadelphia.

Fourth, The said Corporation is to exist perpetually.

Fifth, The names and residences of the Corporators are as follows: William W. Van Baun, M. D., Philadelphia; John F. Cooper, M. D., Allegheny; Edward M. Gramm, M. D., Philadelphia; Z. T. Miller, M. D., Pittsburg; William B. Van Lennep, M. D., Philadelphia; Edward Cranch, M. D., Erie; Augustus Korndoeerfer, Sr., M. D., Philadelphia; Alonzo P. Bowie, M. D., Uniontown; Clarence Bartlett, M. D., Philadelphia; Hugh Pitcairn, M. D., Harrisburg; Pemberton Dudley, M. D., Philadelphia; L. H. Willard, M. D., Allegheny; William C. Goodno, M. D., Philadelphia; Daniel P. Maddux, M. D., Chester; J. N. Mitchell, M. D., Philadelphia; Horace B. Ware, M. D., Sr. canton; William H. Keim, M. D., Philadelphia; W. A. Seibert, M. D., Easton; Charles M. Thomas, M. D., Philadelphia; J. H. McClelland, M. D., Pittsburg; John E. James, M. D., Philadelphia; Joseph E. Jones, M. D., West Chester; Isaac G. Smedley, M. D., Philadelphia; H. C. Chisholm, M. D., Huntingdon; T. H. Carmichael, M. D., Philadelphia, all of the State of Pennsylvania.

Sixth, The number of Trustees of said Corporation is fixed at nine, and the names and residences of those who are chosen as Trustees until the next annual election are as follows: William W. Van Baun, M. D., Philadelphia; John F. Cooper, M. D., Allegheny; E. M. Gramm, M. D., Philadelphia; Z. T. Miller, M. D., Pittsburg; William B. Van Lennep, M. D., Philadelphia; Edward Cranch, M. D., Erie; William H. Keim, M. D., Philadelphia; J. N. Mitchell, M. D., Philadelphia; Daniel P. Maddux, M. D., Chester.

Seventh, At the next annual election for Trustees for the Corporation three Trustees shall be elected to serve for the term of one year, three others to serve for the term of two years, and three
others to serve for the term of three years, and thereafter annually
three Trustees shall be elected to serve for the term of three years
in the place of those whose terms expire.

Witness our hands and seals this third day of November, A. D.
eighteen hundred and ninety-six.

WILLIAM W. VAN BAUN, M. D. [L. S.].
WILLIAM B. VAN LENNEP, M. D. [L. S.].
CLARENCE BARTLETT, M. D. [L. S.].
W. C. GOODNO, M. D. [L. S.].
J. NICHOLAS MITCHELL, M. D. [L. S.].

Commonwealth of Pennsylvania, County of Philadelphia, ss:

Before me, the subscriber, a Notary Public for the Common-
wealth of Pennsylvania, residing in the City of Philadelphia, per-
sonally appeared Wm. W. Van Baun, M. D., Wm. B. Van Lennep,
M. D., and Clarence Bartlett, M. D., three of the subscribers of
the above and foregoing certificate of incorporation of The Homeo-
pathic Medical Society of the State of Pennsylvania, and in due
form of law acknowledged the same to be their act and deed.

Witness my hand and official seal the third day of November, A.
D. 1896.

[L. S.]

Winfield S. Sheard,
Notary Public.

In the Court of Common Pleas for Philadelphia County.
In the matter of the Incorporation of The Homoeopathic Medical
Society of the State of Pennsylvania.

And now, to wit, this seventh day of December, A. D. 1896, the
within Certificate of Incorporation having been on file in the Office
of the Prothonotary of said Court since the twelfth day of Novem-
ber, A. D. 1896, on which publication of notice of intended appli-
cation was first made, as appears from the entry thereon, and due
proof of said publication having been presented to me, I do hereby
certify that I have perused and examined said instrument, and find
the same to be in proper form and within the purposes named in the
first class of Corporations specified in Section 2 of the Act of April
29, 1874, and that said purposes are lawful and not injurious to the
community. It is, therefore, on motion of William C. Hannis,
Esq., ordered and decreed that said Charter be approved and is
hereby approved, and upon the recording of the said Charter and
its endorsements and this decree in the office of the Recorder of
Deeds in and for said County, which is now hereby directed, the
subsribers and their associates shall thenceforth be a Corporation
for the purposes and upon the terms and under the name therein stated.

[...] 

[...] 

Recorded in the Office for Recording Deeds, etc., in and for the City and County of Philadelphia, in Charter Book No. 22, page 284, etc.

Witness my hand and Seal of Office this seventh day of December, A. D. 1896.

[...] 

T. K. Finletter, Judge.


BY-LAWS.

ARTICLE I.—Title.

This Corporation shall be known by the name and title of The Homœopathic Medical Society of the State of Pennsylvania.

ARTICLE II.—Object.

The said Society is formed for the purpose of organizing the homœopathic medical profession in the State of Pennsylvania and advancing medical sciences.

ARTICLE III.—Membership.

Section 1. This Society shall be composed of active, honorary and corresponding members.

Sec. 2. A candidate for active membership shall present to the Board of Censors an application, signed by himself, certifying that he has received the degree of Doctor of Medicine from an incorporated medical college, that he subscribes to the doctrine of Similia Similibus Curentur, and that he sustains a good moral character—these statements to be vouched for by two members of the Society in good standing. If found qualified, he may be elected a member. He shall not, however, be considered a member until he has paid the first year’s dues and signed the Constitution, either in person or by proxy. An active member removing from the State, wishing to retain his membership, shall notify the Corresponding Secretary to that effect, otherwise the Corresponding Secretary shall drop his name from the roll. Any active member who shall be three years in arrears for dues shall forfeit his membership, and he shall
not be reinstated until all arrearages shall have been paid. Membership shall also be forfeited by vote of the Society if a member fails to attend the meetings of the Society or present a paper once in five years. Any active member who shall be unable to comply with the requirements of this Society may be continued as an active member, without the payment of dues, by vote of the Society.

SEC. 3. Any homœopathic physician not a resident of Pennsylvania who, from his superior attainments, may be judged worthy, may, by a two-thirds vote of the members present, be elected an honorary member at any annual meeting: but no more than two shall be elected in one year. Honorary members shall have all the privileges of membership except the right to vote and to hold office, and shall be exempt from dues.

SEC. 4. Any homœopathic physician residing outside of the United States may be elected a corresponding member by a vote of two-thirds of the members present at any annual meeting, but not more than two shall be elected in one year. Corresponding members shall have all the privileges of membership, except the right to vote and to hold office, and shall be exempt from dues.

ARTICLE IV.—Officers.

SEC. 1. The officers of this Society shall be a President, a First Vice-President, a Second Vice-President, a Recording Secretary, a Corresponding Secretary, a Treasurer, a Necrologist, a Board of Trustees consisting of nine members, and a Board of Censors consisting of three members.

SEC. 2. The officers shall be elected by ballot at each annual meeting of the Society, and shall enter upon their respective duties on the first day of January next succeeding their election, to serve for the term of one year, or until their successors are elected, except as hereinafter provided.

SEC. 3. The Board of Trustees shall serve for a term of three years, three members to be elected annually.

SEC. 4. The Censors shall be elected to serve for three years, one member to be elected annually.

ARTICLE V.—DUTIES OF OFFICERS.

SEC. 1. The President shall preside at all meetings of the Society. He shall preserve order, appoint all committees, unless otherwise directed, and discharge all other duties usually pertaining to a presiding officer in accordance with the provisions of the Charter
and these By-Laws. He shall be ex-officio a member of all standing committees of the Society and Chairman of the Board of Trustees. He shall not be eligible to two terms in succession. On assuming office it shall be his duty to appoint a Chairman of each of the sections designated in Article VIII., Section 1, and the Chairman, in conjunction with the President, shall select his associates.

Sec. 2. The Vice-Presidents, in the order of their election, shall perform the duties of the President in his absence.

Sec. 3. The Recording Secretary shall keep correct minutes of the proceedings of the Society, and, when approved, transcribe them in a book kept for that purpose. He shall have charge of the minute-book, all papers, documents, etc., belonging to the Society, other than those pertaining to the Treasurer, the Trustees, or the Committee on Publication, and shall keep them during the intervals of the meetings of the Society. Within twenty-one days after adjournment he shall furnish the Committee on Publication with a correct copy of the minutes for publication in the Transactions, countersign orders upon the Treasurer in accordance with the By-Laws, and shall perform such other duties pertaining to his office as may from time to time be required. He shall be, ex officio, Chairman of the Committee on Organization, Registration and Statistics.

Sec. 4. The Corresponding Secretary shall preserve all letters received by the Society, conduct such correspondence as shall tend to advance its interests, prepare the order of business for the annual session of the Society, give at least two weeks' notice of all meetings, keep a record of all members, with the date of admission of each; present all communications to the Society, notify all committees of their appointment and of the business referred to them, and notify all members of their election. He shall be, ex officio, Chairman of the Committee on Publication.

Sec. 5. The Treasurer shall hold the evidence of all property belonging to The Homœopathic Medical Society of the State of Pennsylvania, receive all moneys intended for the Treasury of the Society, and deposit the same in the name of The Homœopathic Medical Society of the State of Pennsylvania as shall be directed by the Board of Trustees, make no payments except on orders drawn in accordance with the By-Laws, keep a full account of receipts and expenditures, which shall at all times be open to the inspection of the Board of Trustees; make a report to the Society in writing at each annual meeting, and, whenever required, of the state of his accounts and the
condition of the Treasury, and shall annually notify all members of their arrearages.

Sec. 6. The Necrologist, upon the death of a member of the Society, shall prepare a suitable obituary and present it to the Society at its annual meeting.

Sec. 7. The Trustees shall have general supervision of the business of the Society, hold at least one meeting every year, and make a report at the annual session of the Society. The Trustees shall have the power to disburse all money belonging to the Society. No money shall be paid from the Treasury, except upon a written order, drawn on the Treasurer, and countersigned by the Chairman and Secretary of the Board of Trustees.

The Trustees, acting as the Judicial Council, shall take cognizance of, and decide upon all questions of an ethical or judicial character. All questions of a personal character shall be referred at once, without discussion, to the Judicial Council. Every decision of the Council shall be in writing, signed by a majority of the members present, be reported to this Society at the earliest practical moment, and shall be final. The Council shall preserve permanent records of all its proceedings.

Sec. 8. The Censors shall examine the credentials of candidates for membership, and report to the Society for election those who may be found qualified. They may report in the regular order of business, or at the close of the report of any section.

ARTICLE VI.—Meetings.

Section 1. The annual meeting shall be held in the month of September on the days and at the place decided upon at the annual meeting next preceding; an invitation to hold the annual meeting in any locality shall be considered only when extended by a regularly organized society.

Sec. 2. Nine members shall constitute a quorum for the transaction of the ordinary business of the Society; but for scientific or literary purposes, unless an actual count be called for, a quorum shall always be presumed. For amending the By-Laws, twenty members shall constitute a quorum.

Sec. 3. The Board of Trustees shall have power to direct such other meetings as it may judge advisable.

Sec. 4. Should occasion arise making it necessary to change the time and place of meeting agreed upon at the previous annual session, the same may be done by a vote of the Board of Trustees.
ARTICLE VII.—Dues.

Active members shall pay annually, in advance, the sum of five dollars towards defraying the expenses of the Society. Any member who shall fail to pay his annual dues for three successive years shall be dropped from the roll of members, after having been notified by the Corresponding Secretary of the forfeiture of his membership. The published proceedings of the Society will be furnished only to those members who are not in arrears for dues.

ARTICLE VIII.—Sections.

SECTION 1. The following sections shall be appointed as hereinafter provided:
Materia Medica and Provings.
Homoeopathic Institutes and Clinical Medicine.
Surgery.
Obstetrics.
Gynæcology.
Pathology and Pathological Anatomy.
Ophthalmology, Otology and Laryngology.
Paedology.
Sanitary Science.
Sec. 2. Each Section shall be composed of not less than five members, and no member shall be placed on more than one Section.
Sec. 3. The Sections shall report in order of rotation each succeeding year, except the Section of Materia Medica, whose report shall be a special order of business at the opening of the afternoon session of the second day of the Society meeting.
Sec. 4. If a member of a Section shall resign or decline to serve, the Chairman of the Section shall fill the vacancy and notify the Corresponding Secretary of his action.

ARTICLE IX.—Standing Committees.

The following Committees shall be appointed by the President on assuming office:
A Committee on Legislation, of at least nine members, to be appointed by the President, whose duty it shall be to give special attention to all legislation involving the interests of the Society.
A Committee on Organization, Registration and Statistics, of at least three members, to be appointed by the President, of which the Recording Secretary shall be Chairman. It shall receive all creden-
fials of delegates to the Society; receive and preserve reports from local and State societies, colleges and other institutions; keep a record of the number of members admitted and withdrawn from the Society, and perform such other duties as may be directed by the Society. From these data the annual report of the Committee shall be prepared.

A Publication Committee, consisting of the Treasurer, Recording Secretary and Corresponding Secretary, the latter being Chairman; but the number of its members may be increased at the discretion of the Society. It shall be the duty of the Committee within six months from the date of the annual meeting to publish and issue the Transactions to all who are entitled to receive them, unless otherwise directed by the Society.

ARTICLE X.—PAPERS AND DISCUSSIONS.

Section 1. Each paper presented to this Society shall be through its appropriate Section. All papers to be presented by any Section shall be in the hands of the Chairman thereof at the opening of the session. All papers shall be subject to the approval and revision of the Publication Committee. No paper will be received by the Society in an incomplete condition, and no paper will be published as part of the Transactions which has been published previous to its presentation to this Society. No paper shall occupy more than fifteen minutes in the reading, unless the time be extended by an affirmative three-fourths vote of the members of the Society present. In the absence of the author of a paper the Chairman of its appropriate Section may request any member to read the same, or it shall be read at the request of five members. Any paper may be published in a medical journal subsequent to its presentation to the Society, providing that the original be retained in the custody of the Publication Committee.

Sec. 2. The discussion shall follow the reading of each paper, unless otherwise ordered by the Society. All discussions shall be confined to the subject of the paper or report. No member shall speak more than twice on the same subject, except by vote of the Society, and each speaker shall be limited to a speech of ten minutes, and to one of five minutes if he speaks a second time. No excess of time shall be allowed, except by consent of the Society. The reader of the paper shall be allowed ten minutes at the close of the discussion.
ARTICLE XI.—Seal.

The Society shall have and use one common seal. The Corresponding Secretary shall be the custodian of the seal.

ARTICLE XII.—Senior Members.

Members of the Society who shall have maintained twenty-one years of consecutive membership shall be Senior Members, and their names shall be printed in capital letters in the list of members in the Transactions.

ARTICLE XIII.—Code of Ethics.

Section 1. The Code of Ethics of the American Institute of Homeopathy is adopted by this Society for its guidance.

Sec. 2. All complaints of violation of the Code of Ethics shall be referred to the Judicial Council, and the decision of the Council shall be final.

ARTICLE XIV.—Minutes.

The reading of the minutes for approval and record shall be the first order of business at the morning meetings of the Society, and at the close of the final session.

ARTICLE XV.—Amendments.

These By-Laws may be altered or amended by a vote of two-thirds of the members present at any annual meeting; provided, that notice of such proposed alteration or amendment shall have been given to the Society in writing at the annual meeting next preceding, and notice of such proposed alteration or amendment shall appear in the call for the meeting at which it is to be acted upon.
OFFICERS OF THE SOCIETY FROM ITS ORGANIZATION TO THE PRESENT TIME.

PRESIDENTS.

1866. J. B. GOOD, M. D.
1867. W. WILLIAMSON, M. D.
1868. C. PRESTON, M. D.
1869. W. WILLIAMSON, M. D.
1870. O. B. GAUSE, M. D.
1871. M. COTE, M. D.
1872. J. H. MARSDEN, M. D.
1873. B. W. JAMES, M. D. (February.)
1873. J. F. COOPER, M. D. (October.)
1874. C. A. STEVENS, M. D.
1875. R. J. McCLATCHLEY, M. D.
1876. J. E. JONES, M. D.
1877. J. C. BURGHER, M. D.
1878. H. N. GUERNSEY, M. D.
1879. L. H. WILLARD, M. D.
1880. J. K. LEE, M. D.
1881. J. H. McCLELLAND, M. D.
1882. J. C. MORGAN, M. D.
1883. P. DUDLEY, M. D.
1884. W. R. CHILDS, M. D.
1885. J. E. JAMES, M. D.
1886. D. COWLEY, M. D.
1887. A. R. THOMAS, M. D.
1888. HUGH PITCAIRN, M. D.
1889. W. B. TRITES, M. D.
1890. C. F. BINGAMAN, M. D.
1891. AUGUSTUS KORNDÆRFER, SR., M. D.
1892. E. C. PARSONS, M. D.
1893. J. C. GUERNSEY, M. D.
1894. C. S. MIDDLETON, M. D.
1895. W. J. MARTIN, M. D.
1896. W. W. VAN BAUN, M. D.
1897. Z. T. MILLER, M. D.
1898. W. H. KEIM, M. D.
1899. B. F. BETTS, M. D.
1900. C. C. RINEHART, M. D.
1901. H. B. WARE, M. D.
1902. R. P. MERCER, M. D.
1903. O. S. HAINES, M. D.

FIRST VICE-PRESIDENTS.

1866. J. H. P. FROST, M. D.
1867. J. H. MARSDEN, M. D.
1868. H. HOFMAN, M. D.
1870. C. A. STEVENS, M. D.
1871. R. FAULKNER, M. D.
1872. H. N. GUERNSEY, M. D.
1873. M. PRESTON, M. D. (February.)
1873. M. FRIESE, M. D. (October.)
1874. I. LEFEVER, M. D.
1875. J. E. JONES, M. D.
1876. J. C. BURGHER, M. D.
1877. L. H. WILLARD, M. D.
1878. W. R. CHILDS, M. D.
1879. M. M. WALKER, M. D.
1880. H. DETWILLER, M. D.
1881. B. F. BETTS, M. D.
1882. P. DUDLEY, M. D.
1883. HUGH PITCAIRN, M. D.
1884. C. MOHR, M. D.
1885. D. COWLEY, M. D.
1886. W. H. BIGLER, M. D.
1887. W. J. MARTIN, M. D.
1888. W. B. TRITES, M. D.
1889. C. F. BINGAMAN, M. D.
1890. C. S. MIDDLETON, M. D.
1891. E. C. PARSONS, M. D.
1892. F. R. SCHMUCKER, M. D.
1893. SARAH J. COE, M. D.
1894. Z. T. MILLER, M. D.
OFFICERS OF THE SOCIETY FROM ITS ORGANIZATION.

1895. M. M. WALKER, M. D. 1900. E. H. HILL, M. D.
1896. R. W. McCLELLAND, M. D. 1901. H. L. NORTHRUP, M. D.
1897. W. H. KEIM, M. D. 1902. W. F. EDMUNSON, M. D.
1898. H. B. WARE, M. D. 1903. W. A. SEIBERT, M. D.
1899. A. P. BOWIE, M. D.

SECOND VICE-PRESIDENTS.

1866. J. C. BURGHER, M. D. 1884. H. DETWILLER, M. D.
1867. W. J. BLAKELY, M. D. 1885. J. K. LEE, M. D.
1868. J. J. DETWILLER, M. D. 1886. J. R. READING, M. D.
1870. J. H. McCLELLAND, M. D. 1887. EDWARD CRANCH, M. D.
1871. H. M. LOGEE, M. D. 1888. C. F. BINGAMAN, M. D.
1872. S. F. CHARLTON, M. D. 1889. JOHN MALIN, M. D.
1873. J. C. BURGHER, M. D. (February.) 1890. C. H. LEE, M. D.
1873. H. R. FETTERHOFF, M. D. (October.) 1891. M. J. CHAPMAN, M. D.
1874. W. F. SPETH, M. D. 1892. SARAH J. COE, M. D.
1875. H. N. MARTIN, M. D. 1893. J. L. FERSON, M. D.
1876. J. E. JAMES, M. D. 1894. ELIZA L. McCLURE, M. D.
1877. J. E. JAMES, M. D. 1895. A. P. BOWIE, M. D.
1878. A. KORNDORFER, SR., M. D. 1896. E. R. SNADER, M. D.
1879. L. M. ROSSEAU, M. D. 1897. H. B. WARE, M. D.
1880. J. W. ALLEN, M. D. 1898. EDWARD CRANCH, M. D.
1881. J. J. DETWILLER, M. D. 1899. ANNA C. CLARKE, M. D.
1882. J. B. WOOD, M. D. 1900. R. P. MERCER, M. D.
1883. C. F. BINGAMAN, M. D. 1901. W. J. MARTIN, M. D.
1886-1872. B. W. JAMES, M. D. 1902. W. A. SEIBERT, M. D.
1873-1878. M. W. WALKER, M. D. 1903. THEODORE SURETH, M. D.
1879-1882. Z. T. MILLER, M. D. 1888, 1889. J. H. CLOSSON, M. D.
1883. T. M. STRONG, M. D. 1890-1894. J. R. HORNKR, M. D.
1884, 1885. C. BARTLETT, M. D. 1895. E. M. GRAMM, M. D.
1886, 1887. H. F. IVINS, M. D. 1896-1903. G. B. MORELAND, M. D.

RECORDING SECRETARIES.

1888-1889. J. H. CLOSSON, M. D.
1890-1894. J. R. HORNKR, M. D.
1885. E. M. GRAMM, M. D.
1895-1896. G. B. MORELAND, M. D.

CORRESPONDING SECRETARIES.

1866-1872. R. J. McCCLATCHEY, M. D.
1873-1875. P. DUDLEY, M. D.
1876-1879. J. C. GUERNSEY, M. D.
1880-1885. R. E. CARUTHERS, M. D.
1886-1888. C. BARTLETT, M. D.
1889-1894. E. R. SNADER, M. D.
1895. J. R. HORNKR, M. D.
1896-1903. E. M. GRAMM, M. D.
OFFICERS OF THE SOCIETY FROM ITS ORGANIZATION.

TREASURERS.

1866. D. COWLEY, M. D.
1867. H. H. HOFMAN, M. D.
1868. W. WILLIAMSON, M. D.
1870. W. J. BLAKELY, M. D.
1871-1873. (Feb'y) O. B. GAUSE, M. D.
1873. (October) and 1874. R. J. MC-CLATCHEY, M. D.
1875-1899. J. F. COOPER, M. D.
1900-1903. ELLA D. GOFF, M. D.

NECROLOGISTS.

1872-1883. W. R. CHILDS, M. D.
1884. M. M. WALKER, M. D.
1885-1889. W. R. CHILDS, M. D.
1890-1894. W. J. MARTIN, M. D.
1895-1896. T. S. DUNNING, M. D.
1897-1901. T. L. BRADFORD, M. D.
1902. J. W. HASSLER, M. D.
1903. C. WEAVER, M. D.
LIST OF MEMBERS.

1899—Adams, T. Louis, M. D., 1831 Chestnut Street, Philadelphia.
1899—Artz, Jerome L., M. D., 30th and Westfield Streets, Camden, N. J.
1898—Ashcraft, Leon T., M. D., 1833 Chestnut Street, Philadelphia.
1892—Baier, George F., M. D., Norwood.
1889—Baily, A. W., M. D., 1809 Pacific Ave., Atlantic City, N. J.
1896—Baker, Albra W., M. D., 427 Park Ave., Williamsport.
1899—Baker, Daniel J., M. D., 1706 N. 19th Street, Philadelphia.
1898—Barnes, Alonzo M., M. D., 3517 N. Broad Street, Philadelphia.
1901—Barnes, W. A., M. D., Kittanning.
1881—BARTLETT, CLARENCE, M. D., 1506 Arch Street, Philadelphia.
1889—Bayley, Weston D., M. D., 1438 Poplar Street, Philadelphia.
1902—Belville, J. E., M. D., 5915 Green Street, Gtn., Philadelphia.
1897—Berlinghof, George J., M. D., 1507 Capouse Ave., Scranton.
1875—BETTS, B. F., M. D., 1609 Girard Ave., Philadelphia.
1886—Bier, P. A., M. D., 4200 Butler Street, Pittsburg.
1900—Bierman, H., M. D., Bloomsburg.
1892—Bigelow, W. S., M. D., Phillipsburg.
1903—Bernard, E. Bigler, M. D., 1425 Spruce Street, Philadelphia.
1872—BIGLER, W. H., M. D., 118 N. 17th Street, Philadelphia.
1873—BINGAMAN, C. F., M. D., 412 Smith Block, Pittsburg.
1894—Bittner, Albert Jacob, M. D., Allentown.
1892—Blair, W. W., M. D., 400 Penn Ave., Pittsburg.
1898—Boericke, Felix A., M. D., 1011 Arch Street, Philadelphia.
1892—Books, B. F., M. D., 1117 Twelfth Ave., Altoona.
1872—BOWIE, A. P., M. D., 87 Main Street, Uniontown.
1884—Boyd, G. S., M. D., Beaver Falls.
1882—BOYER, FRANCIS W., M. D., Pottsville.
1894—Bradford, Thomas Lindsley, M. D., 1862 Frankford Ave., Philadelphia.
1883—Branson, Mary, M. D., 1719 Arch Street, Philadelphia.
1862—Frankford Ave., Philadelphia.
1898—Brickley, E. N., M. D., York.
1891—Brown, C. H., M. D., 1022 Walnut Street, Philadelphia.
1894—Burlington, F. W., M. D., 317 N. Second Street, Harrisburg.
1900—Chase, Theo. L., M. D., Connellsville.
1902—Clark, Ernest L., M. D., Media.
1893—Clark, George H., M. D., 4 Walnut Lane, Germantown, Philadelphia.
1889—Clarke, Anna C., M. D., 426 Adams Ave., Scranton.
1901—Cochran, Mary J., M. D., Belleview.
1883—Coe, Sarah J., M. D., 108 N. Franklin Street, Wilkesbarre.
1894—Conarroe, Thomas H., M. D., 1807 Wallace Street, Philadelphia.


1894—Cooke, Mary A., M. D., 2113 N. 18th Street, Philadelphia.


1887—Cooper, John, M. D., 54 Arch Street, Allegheny.

1901—Cooper, R. C., M. D., 1111 Federal Street, Allegheny.

1895—Cooper, Wm. H., M. D., Oakmont.

1882—Cranch, Edw., M. D., 109 W. Ninth Street, Erie.

1885—Crowther, Isaac, M. D., 700 Madison Street, Chester.

1891—Davis, B. L., M. D., 575 Lincoln Ave., Bellevue.

1897—Dehoff, J. W., M. D., York, Pa.

1866—Detwiller, John J., M. D., 52 Centre Square, Easton.

1893—Detwiller, W. K., M. D., Easton.

1903—De Witt, G. M., M. D., Board of Trade Bldg., Scranton.

1886—Dietz, W. G., M. D., 21 N. Vine Street, Hazleton.

1878—Dinsmore, S. W. S., M. D., 60 N. Main Street, Sharpsburg.


1891—Drake, J. C. Merle, M. D., 720 Sassafrass Street, Erie.

1867—Dudley, Pemberton, M. D., 1405 N. 16th Street, Philadelphia.

1878—Duff, P. S., M. D., Great Belt.

1882—Du Four, W. M., M. D., 755 W. Third Street, Williamsport.

1881—Dunning, T. S., M. D., 1328 N. 15th Street, Philadelphia.

1893—Ealer, Percy H., M. D., 2027 Spring Garden Street, Philadelphia.

1901—Elliott, J. D., M. D., Pittsburg.

1873—Edmunson, W. F., M. D., 1321 Fifth Ave., Pittsburg.

1896—Esrey, L. K., M. D., 1642 Pine Street, Philadelphia.


1884—Fleming, R. K., M. D., 6224 Station Street, Pittsburg.

1892—Flint, Harvey E., M. D., West 11th Street, Erie.

1892—Flint, John F., M. D., 1112 Peach Street, Erie.

1873—Fulton, H. W., M. D., 325 N. Highland Ave., Pittsburg.

1902—Furman, Horace S., M. D., 1705 Tioga Street, Philadelphia.

1898—Gann, G. W., M. D., DuBois.

1901—Gates, W. D., M. D., Indiana.

1892—Gerberich, D. P., M. D., Lebanon.

1903—Gerberich, M. B., M. D., 428 Cumberland Street, Lebanon.
1879—GETZE, G. M., M. D., Tarentum.
1894—Gittens, Theodore P., M. D., 1716 Diamond Street, Philadelphia.
1891—Goff, Ella D., M. D., 10 N. Diamond Street, Allegheny.
1903—Golden, G. Morris, M. D., 1449 Venango Street, Philadelphia.
1875—GOODNO, W. C., M. D., 1724 Chestnut Street, Philadelphia.
1883—Gramm, Edward M., M. D., 1833 Chestnut Street, Philadelphia.
1895—Gregg, Edw. R., M. D., 334 S. Highland Ave., Pittsburg.
1889—Gregory, G. W., M. D., Troy.
1881—GRIFFITH, SILAS, M. D., 1431 Girard Ave., Philadelphia.
1874—GUERNSEY, J. C., M. D., 1932 Chestnut Street, Philadelphia.
1867—GUMPERT, B. BARTON, M. D., 840 Franklin Street, Philadelphia.
1886—Gundlach, F. C., M. D., 1722 Sarah Street, Pittsburg.
1894—Haas, George H., M. D., Allentown.
1902—Haines, Edward Steel, M. D., Rutledge.
1885—Haines, O. S., M. D., 137 N. 15th Street, Philadelphia.
1896—Hall, P. Sharples, M. D., 1604 Arch Street, Philadelphia.
1887—Haman, W. A., M. D., 122 N. 8th Street, Reading.
1898—Hammond, W. Wilson, M. D., 1420 Poplar Street, Philadelphia.
1883—Hancock, Jos., M. D., 1639 Columbia Ave., Philadelphia.
1899—Harner, D. W., M. D., New Holland.
1888—Harner, John E., M. D., 117 S. 5th Street, Reading.
1891—Harpel, F. E., M. D., Danville.
1884—Harris, D. R., M. D., 41 N. Jefferson Street, New Castle.
1892—Hassler, J. Wyllis, M. D., 861 N. Broad Street, Philadelphia.
1883—Hassler, W. A., M. D., 105 N. 8th Street, Allentown.
1893—Heath, L. R., M. D., Mercer.
1895—Heilner, H. F., M. D., Scranton.
1883—Helfrich, J. H., M. D., Allentown.
1892—Heritage, A. C., M. D., Jenkintown.
1873—HERRON, C. D., M. D., 3505 Butler Street, Pittsburg.
1902—Heysinger, Isaac W., M. D., 1521 Poplar Street, Philadelphia.
1892—Hill, E. H., M. D., Pittston.
1873—Holben, Malcolm D., M. D., Slatington.
1883—Holben, M. J., M. D., Slatington.
1892—Holsberg, W. H., M. D., Lebanon.
1883—Horner, J. Richey, M. D., 275 Prospect Street, Cleveland, O.
1889—Hoy, H. K., M. D., 1203 Fourteenth Street, Altoona.
1880—HUMES, J. R., M. D., Hollidaysburg.
1881—JOHNSON, THEODORE M., M. D., 200 Susquehanna Ave., Pittston.
1901—Johnston, Anna, M. D., 5115 Liberty Ave., Pittsburg.
1892—Karsner, Charles W., M. D., 1320 S. Broad Street, Philadelphia.
1881—KARSNER, DANIEL, M. D., 205 Tulpehocken Street, Germantown, Philadelphia.
1891—Kaufman, John, M. D., Hazleton.
1902—Keen, George I., M. D., Reading.
1894—Kehler, B. Frank, M. D., 1708 N. 8th Street, Philadelphia.
1885—Keim, William H., M. D., 1716 N. 18th Street, Philadelphia.
1901—Kinney, C. Spenser, M. D., Easton.
1892—Kistler, A. L., M. D., N. E. Cor. 9th and Linden Streets, Allentown.
1897—Kistler, D. S., M. D., 307 S. Franklin Street, Wilkesbarre.
1891—Kline, D. C., M. D., 5th and Chestnut Streets, Reading.
1891—Knauer, J. C., M. D., 233 S. 9th Street, Reading.
1899—Knerr, Bayard, M. D., 12th and Spruce Streets, Philadelphia.
1877—KNERR, C. B., M. D., 1833 Chestnut Street, Philadelphia.
1872—KORNDÆRFER, AUGUSTUS, SR., M. D., 1728 Green Street, Philadelphia.
1896—Korndærfer, Augustus, Jr., M. D., 142 N. 18th Street, Philadelphiah.
1896—Krusen, Edward A., M. D., Collegeville.
1903—Lane, Nathaniel F., M. D., 1620 Green Street, Philadelphia.
1894—Lawrence, F. Mortimer, M. D., 1831 Chestnut Street, Philadelphia.
1888—Layman, Alfred, M. D., 1630 N. 18th Street, Philadelphia.
1887—Leake, E. N., M. D., Butler.
1884—Leckie, J. W., M. D., Hazleton.
1894—Lichtenwalner, A. B., M. D., 2435 N. 7th Street, Philadelphia.
1895—Lindabury, A. A., M. D., Scranton.
1868—MACFARLAND, MALCOLM, M. D., 1805 Chestnut Street, Philadelphia.
1893—Macfarland, Duncan, M. D., 3924 Chestnut Street, Philadelphia.
1886—Maddux, D. P., M. D., 801 Madison Street, Chester.
1878—MALIN, WILLIAM H., M. D., 8408 Germantown Ave., Chestnut Hill, Philadelphia.
1891—Marks, William F., M. D., 118 N. 9th Street, Reading.
1885—Marsden, Biddle R., M. D., Chestnut Hill, Philadelphia.
1883—Marshall, Anna M., M. D., 1420 Chestnut Street, Philadelphia.
1891—Marshall, R. S., M. D., 424 Shady Ave., Pittsburg.
1899—Martin, Robert W., M. D., 1831 Chestnut Street, Philadelphia.
1877—MARTIN, W. J., M. D., 1712 Carson Street, S. S., Pittsburg.
1901—Martin, W. Joline, M. D., Wilkinsburg.
1891—McCauley, J. C., M. D., 128 Connecticut Street, Rochester.
1879—McCLELLAND, J. B., M. D., 409 Penn Ave., Pittsburg.
1867—McCLELLAND, J. H., M. D., 5th and Wilkins Ave., Pittsburg.
1884—McClelland, R. W., M. D., 5th and Wilkins Ave., Pittsburg.
1883—McClure, Eliza H. Lang, M. D., 1919 Wallace Street, Philadelphia.
1893—McCrae, William, M. D., 2110 Carson Street, Pittsburg.
1903—McDowell, A. S., M. D., 155 N. 5th Street, Reading.
1888—Mercer, Edward W., M. D., 1705 Arch Street, Philadelphia.
1871—MERCER, ROBERT P., M. D., 223 W. 3d Street, Chester.
1896—Merrell, A. F., M. D., Hallstead.
1871—MIDDLETON, CALEB S., M. D., 1523 Girard Ave., Philadelphia.
1900—Minahan, Thomas, M. D., Carnegie.
1883—Mitchell, J. N., M. D., 1505 Spruce Street, Philadelphia.
1875—MOHR, CHARLES, M. D., Lawnton Ave., above Oak Lane, Philadelphia.
1893—Monroe, J. E., M. D., Orange, Mass.
1893—Moon, S. B., M. D., 1314 Eighth Ave., Beaver Falls.
1901—Moore, J. E., M. D., Coraopolis.
1893—Moreland, George B., M. D., 1321 Fifth Ave., Pittsburg.
1901—Morrow, Emory H., M. D., Altoona.
1891—Mueller, G. A., M. D., Empire Bldg., Liberty Ave. and 5th Street, Pittsburg.
1888—Murdock, Robert, M. D., 160 S. Main Street, Wilkesbarre.
1894—Myers, Charles Elwood, M. D., 170 Green Lane, Manayunk, Philadelphia.
1866—NEVILLE, W. H. H., M. D., 1833 Wallace Street, Philadelphia.
1901—Nicholson, H. S., M. D., 621 Arch Street, Allegheny.
1893—Northrop, H. L., M. D., 1729 Arch Street, Philadelphia.
1891—Norton, Claude R., M. D., 700 N. 40th Street, Philadelphia.
1898—Palen, Gilbert, J., M. D., 1831 Chestnut Street, Philadelphia.
1896—Palmer, Charles R., M. D., West Chester.
1884—Parker, G. W., M. D., 1404 S. 6th Street, Philadelphia.
1883—Parker, T. Elwood, M. D., Woodbury, N. J.
1870—PARSONS, ANSON, M. D., Springboro.
1881—PARSONS, E. C., M. D., 275 Walnut Street, Meadville.
1897—Paxson, O. H., M. D., 1733 Arch Street, Philadelphia.
1880—PEACH, WILLIAM, M. D., 58 Monterey Street, Allegheny.
1881—PERKINS, C. W., M. D., 403 Broad Street, Chester.
1894—Peters, J. Elwood, M. D., Jenkintown.
1883—Pettengill, Eliza F., M. D., 300 N. 10th Street, Philadelphia.
1891—Phillips, Joseph R., M. D., 15 E. 8th Street, Erie.
1897—Piper, R. L., M. D., Tyrone.
1880—PITCAIRN, HUGH, M. D., 206 State Street, Harrisburg.
1895—Pitcairn, R. C., M. D., 5518 Ellsworth Ave., Pittsburg.
1894—Pollock, Martha H., M. D., 210 Pine Street, Harrisburg.
1891—Pond, Edward H., M. D., Smith Block, Pittsburg.
1886—Posey, L. P., M. D., 1435 Walnut Street, Philadelphia.
1896—Powel, Franklin, M. D., Madison and 5th Streets, Chester.
1883—Powell, W. C., Jr., M. D., Bryn Mawr.
1871—PRATT, TRIMBLE, M. D., Media.
1900—Prizer, E. T., M. D., Lancaster.
1901—Ramsey, H. E., M. D., 713 Arch Street, Allegheny.
1897—Raue, C. Sigmund, M. D., 1621 Chestnut Street, Philadelphia.
1883—Reading, J. H., M. D., 1811 Green Street, Philadelphia.
1886—Reading, L. W., M. D., 1629 Green Street, Philadelphia.
1888—Reading, Thomas, M. D., Hatboro.
1896—Redman, John L., M. D., 1336 Spruce Street, Philadelphia.
1886—Reeves, Joseph M., M. D., 1525 Spruce Street, Philadelphia.
1896—Ridge, Jonathan T., M. D., 1617 N. 7th Street, Philadelphia.
1878—RINEHART, C. C., M. D., 4037 Centre Ave., Pittsburg.
1894—Rinehart, S. M., M. D., 293 Western Ave., Allegheny.
1901—Roberts, E. S. Pettit, M. D., 1221 3d Ave., New Brighton.
1894—Rotzell, W. E., M. D., Narberth.
1888—Sandel, J. H., M. D., 49 Centre Ave., Plymouth.
1872—SARTAIN, HARRIET J., M. D., 212 W. Logan Square, Philadelphia.
1901—Sawers, F. C., M. D., Pittsburg.
1896—Schantz, Henry F., M. D., 402 N. 5th Street, Reading.
1892—Schantz, M. Hassler, M. D., 402 N. 5th Street, Reading.
1883—Schreiner, Emma T., M. D., Cor. Wayne and Maplewood Aves., Germantown, Philadelphia.
1889—Schwenk, C. S., M. D., 1319 Jefferson Street, Philadelphia.
1886—Seibert, W. A., M. D., 43 N. 4th Street, Easton.
1900—Seibert, Walter M., M. D., Easton.
1889—Shallcross, I. G., M. D., 1631 Arch Street, Philadelphia.
1879—SHANNON, S. F., M. D., Sewickley.
1885—Shellenberger, C. N., M. D., 1831 Wallace Street, Philadelphia.
1892—Shoemaker, D. W., M. D., 1824 Green Street, Philadelphia.
1903—Shute, A. Clement, M. D., Pottstown, Pa.
1900—Simmons, C. W., M. D., 1628 N. 18th Street, Philadelphia.
1879—Simmons, S. S., M. D., Susquehanna.
1889—Smith, George W., M. D., 806 N. Broad Street, Philadelphia.
1887—Smith, Mary E., M. D., 48 E. Diamond Street, Allegheny.
1887—Snader, E. R., M. D., 1919 Arch Street, Philadelphia.
1900—Snyder, E. S., M. D., Lancaster.
1894—Somerville, W. H., M. D., 1214 Hanover Street, Philadelphia.
1896—Spahr, Charles E., M. D., 10 W. Market Street, York.
1889—Spencer, William, M. D., 1820 Chestnut Street, Philadelphia.
1881—STAMBACH, H. L., M. D., 15 W. Victoria Street, Santa Barbara, Cal.
1894—Stewart, G. W., M. D., 1728 Chestnut Street, Philadelphia.
1901—Stitzel, J. W., M. D., Hollidaysburg.
1885—Strong, J. Wilmer, M. D., 2049 N. 13th Street, Philadelphia.
1889—Strong, Walter, M. D., 2103 N. 13th Street, Philadelphia.
1896—Sureth, Theodore, M. D., Scranton.
1901—Taylor, Amos O., M. D., 1415 12th Ave., Altoona.
1902—Taylor, William Gardiner, M. D., Columbia.
1881—THATCHER, J. W., M. D., 35th and Hamilton Streets, Philadelphia.
1877—THOMAS, CHARLES MONROE, M. D., 1623 Arch street, Philadelphia.
1886—Thompson, J. H., M. D., 515 Penn Ave., Pittsburg.
1897—Thompson, J. J., M. D., Carbondale.
1887—Thompson, Landreth W., M. D., 1701 Green Street, Philadelphia.
1898—Thurston, Leon, M. D., Pittsburg.
1886—Tindall, Van R., M. D., 323 Reed Street, Philadelphia.
1891—Tomlin, R. E., M. D., 2057 N. 8th Street, Philadelphia.
1896—Trites, Charles S., M. D., 4500 Baker Street, Manayunk, Philadelphia.
1901—Tuller, John J., M. D., 1935 Chestnut Street, Philadelphia.
1896—Ulrich, Silvester, M. D., Middletown.
1883—Van Baun, W. W., M. D., 1402 Spruce Street, Philadelphia.
1886—Van Deusen, Edwin H., M. D., 2105 Tioga Street, Philadelphia.
1881—VAN LENNEP, W. B., M. D., 1421 Spruce Street, Philadelphia.
1901—Varner, Anna D., M. D., 616 Wood Street, Wilkinsburg.
1889—Vischer, Carl V., M. D., 1429 Poplar Street, Philadelphia.
1902—Von Scheliha, Paul F., M. D., 333 S. 12th Street, Philadelphia.
1892—Waggoner, G. W., M. D., Corry.
1897—Walter, J. A., M. D., Punxsutawny.
1896—Walter, Robert, M. D., Walters Park.
1894—Ward, J. D., M. D., 806 S. 3d Street, Philadelphia.
1894—Ware, H. B., M. D., Cor. Washington and Linden Streets, Scranton.
1894—Wasserman, Flora E., M. D., 1909 N. Broad Street, Philadelphia.
1894—Waylan, Julia Gould, M. D., 1832 Tioga Street, Philadelphia.
1881—WEAVER, CHANDLER, M. D., Fox Chase, 23d Ward, Philadelphia.
1894—Weaver, H. S., M. D., 1621 Chestnut Street, Philadelphia.
1902—Weaver, W. A., M. D., 1534 Master Street, Philadelphia.
1883—Weaver, W. P., M. D., Bristol.
1894—Webster, Samuel C., M. D., Media.
1901—Welsh, Thomas, M. D., 2414 Carson Street, Pittsburg.
LIST OF MEMBERS.

1891—Wesner, M. A., M. D., Houtzdale.
1889—White, Roland T., M. D., 273 Western Ave., Allegheny.
1903—Whitman, A. Francis, M. D., Wilkesbarre.
1892—Wilbur, B. K., M. D., Bryn Mawr.
1899—Wilford, H. H., M. D., Bangor.
1866—WILLARD, L. H., M. D., 236 Western Ave., Allegheny.
1870—WILLETTS, WILLIAM, M. D., Williamsport.
1903—Williams, Harry E., M. D., Coatesville, Pa.
1873—WILLIAMSON, M. S., M. D., 1311 Arch Street, Philadelphia.
1888—Yocum, C. A., M. D., 365 Chestnut Street, Pottstown.
1880—YODER, DANIEL, M. D., Catasauqua.
1896—Youngman, Maurice D., M. D., Atlantic City, N. J.
1894—Ziegenfus, A. Frank, M. D., 1124 Wallace Street, Philadelphia.

HONORARY MEMBERS.

1883—Allen, H. C., M. D., 5142 Washington Ave., Chicago, Ill.
1898—Custis, J. B. Gregg, M. D., 110 E. Capitol Street, Washington, D. C.
1866—Doran, Charles R., M. D., Jacksonville, Fla.
1885—Houghton, Henry C., M. D., 7 W. 39th Street, New York.
1900—Nash, E. B., M. D., Cortland, New York.
1883—Phillips, W. A., M. D., Cleveland, Ohio.

CORRESPONDING MEMBERS.

1873—Alvarez, Paz, M. D., Madrid, Spain.
1873—Chauvet, Fernand, M. D., Tours, France.
1873—Eidherr, Francis, M. D., Vienna, Austria.
Necrological List.

1902—Adams, W. K., M. D., died July 17th, 1903.
1866—Ashton, A. H., M. D., died February 18th, 1883.
1866—Barnaby, John E., M. D., died January 5th, 1869.
1867—Barrett, Charles B., M. D., died June 5th, 1871.
1882—Bernard, H., M. D., died ——.
1866—Blakeley, W. James, M. D., died January 14th, 1877.
1884—Boyd, G. S., M. D., died May 10th, 1901.
1870—Bratt, Benjamin R., M. D., died January 31st, 1872.
1895—Brierly, Frank Walter, M. D., died June 17th, 1899.
1866—Brooks, Silas S., M. D., died July 2d, 1871.
1883—Brown, Samuel, M. D., died March 22d, 1892.
1891—Brown, Wm. K., M. D., died October 3d, 1900.
1885—Buchman, Francis, M. D., died July 14th, 1898.
1883—Burr, Richard, M. D., died March 30th, 1885.
1873—Caruthers, R. E., M. D., died January 3d, 1885.
1868—Charlton, S. T., M. D., died November 9th, 1886.
1863—Childs, William R., M. D., died November 11th, 1888.
1866—Cook, William H., M. D., died March 11th, 1879.
1866—Cooper, John F., M. D., died August 19th, 1899.
1866—Cote, M., M. D., died May 29th, 1878.
1866—Cowley, David, M. D., died October 30th, 1886.
1898—Cresson, Charles C., M. D., died ——.
1866—Detweiler, Henry, M. D., died April 21st, 1887.
1886—Dowling, John W., M. D. (honorary), died January 14th, 1892.
1871—Dreibelbis, David L., M. D., died March 24th, 1872.
1870—Earhart, Jacob R., M. D., died June 23d, 1891.
1891—Ely, J., M. D., died ——.
1870—Farrington, E. A., M. D., died December 17th, 1885.
1880—Ferson, John L., M. D., died July 12th, 1896.
1866—Freise, Michael, M. D., died February 4th, 1880.
1866—Frost, J. H. P., M. D., died January 21st, 1875.
1889—Gangloff, Charles, M. D., died January 22d, 1898.
1866—Gardiner, Richard, M. D., died March 22d, 1877.
1866—Gause, O. B., M. D., died January 11th, 1895.
1899—Godshall, Samuel G., M. D., died April 4th, 1903.
1867—Gramm, Gustavus E., M. D., died November 2d, 1901.
1886—Griffith, Jethro J., M. D., died July 5th, 1893.
1877—Griffith, Wm. M., M. D., died April 20th, 1903.
1877—Grumbeid, William, M. D., died ——.
1860—Guernsey, H. N., M. D., died June 27th, 1885.
1870—Guernsey, W. F., M. D., died February 16th, 1877.
1895—Hall, William D., M. D., died August 2d, 1897.
1888—Hawley, S. B., M. D., died March 6th, 1890.
1868—Helmuth, William Tod, M. D. (honorary), died ——.
1886—Herron, James A., M. D., died November 15th, 1868.
1866—Hofmann, Herman H., M. D., died April 4th, 1891.
1886—Holcombe, John Randolph, M. D., died December 17th, 1896.
1884—Hosfeld, George, M. D., died November 9th, 1884.
1873—Houard, J. G., M. D., died April 24th, 1878.
1882—Ivins, Horace F., M. D., died January 1st, 1899.
1866—James, Bushrod W., M. D., died January 6th, 1903.
1866—James, David, M. D., died June 6th, 1873.
1866—Jeanes, Jacob, M. D., died December 18th, 1877.
1866—Koch, Augustus W., M. D., died May 4th, 1886.
1889—Lazear, Lyttleton L., M. D., died ——. 1898.
1866—Lee, J. K., M. D., died November 10th, 1887.
1869—Lee, John K., M. D., died May 31st, 1899.
1876—Lilienthal, S., M. D. (honorary), died October 3d, 1891.
1867—Lippe, Adolph, M. D., died January 23d, 1888.
1871—Lovejoy, E., M. D. (honorary), died August 15th, 1872.
1868—Malin, George W., M. D., died January 18th, 1883.
1886—Malin, John, M. D., died November 29th, 1889.
1866—Marsden, J. H., M. D., died August 27th, 1883.
1865—Martin, Henry Noah, M. D., died September 1st, 1889.
1881—May, Newton, M. D., died January 27th, 1889.
1866—McClatchey, R. J., M. D., died January 15th, 1883.
1887—Millen, J. C., M. D., died ——. 1901.
1870—Moore, Thomas, M. D., died March 25th, 1882.
1867—Morgan, John Coleman, M. D., died June 27th, 1899.
1873—Nichol, Thos., M. D. (corresponding), died June 14th, 1890.
1869—Ostrander, W. M., M. D., died August 23d, 1881.
1868—Payne, Wm. E., M. D. (honorary), died March 9th, 1877.
1878—Pereira, Ignacio, M. D. (corresponding), died April 18th, 1881.
1868—Pfoutz, J. S., M. D., died ——.
1866—Preston, Coates, M. D., died August 9th, 1881.
1868—Pulte, J. H., M. D. (honorary), died February 24th, 1884.
1882—Pursel, J. E., M. D., died March 15th, 1885.
1873—Rankin, John Stephen, M. D., died April 21st, 1899,
1870—Reinhold, H. E., M. D., died March 6th, 1879.
1871—Taudte, F., M. D., died March 27th, 1878.
1871—Thomas, Amos R., M. D., died October 31st, 1895.
1870—Speth, W. F., M. D., died May 11th, 1881.
1889—Starr, Pearl, M. D., died July ——, 1900.
1866—StaufTer, D. R., M. D., died March 16th, 1874.
1867—Stevens, C. A., M. D., died January 17th, 1881.
1868—Talbot, I. Tisdale, M. D. (honorary), died July 2d, 1899.
1870—Taudte, F., M. D., died March 27th, 1878.
1871—Thomas, Amos R., M. D., died October 31st, 1895.
1891—Tindall, Harry Brooks, M. D., died January 9th, 1892.
1882—Trites, W. B., M. D., died January 19th, 1890.
1867—Walker, Mahlon M., M. D., died March 31st, 1896.
1870—Waters, George H., M. D., died ——, 1892.
1880—Way, J. H., M. D., died September 3d, 1887.
1866—Williams, Thomas C., M. D., died October 1st, 1899.
1866—Williamson, Walter M., M. D., died December 19th, 1870.
1888—Wood, James B., M. D., died April 14th, 1889.
1897—Yetter, A. F., M. D., died May 8th, 1898.
1874—Young, J. H., M. D., died June 21st, 1894.
1880—Zerns, Wm. M., M. D., died September 21st, 1887.
<table>
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<th>Members and Visitors Registered at the Meeting</th>
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<tr>
<td>Ashcraft, Leon T.</td>
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<td>Bailey, D. P.</td>
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<td>Baker, A. L.</td>
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<td>Baker, Wm. F.</td>
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<td>Bayley, Weston D.</td>
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<td>Berlinghof, G. J.</td>
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<td>Bierman, H.</td>
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<td>Bigler, B. E.</td>
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<td>Boyer, Francis W.</td>
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<td>Boileau, J. D.</td>
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<td>Brewster, F. D.</td>
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<td>Brickley, E. W.</td>
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<td>Bullard, J. Arthur</td>
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<td>Chase, Thornton L.</td>
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<td>Clark, F. R.</td>
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<td>Clarke, Anna C.</td>
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<td>Coe, Sarah J.</td>
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<td>Cole, Hills.</td>
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<td>Cole, H. P.</td>
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<td>Cooke, Mary A.</td>
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<td>Corwin, Elizabeth.</td>
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<td>Day, John D.</td>
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<td>Dehoff, J. W.</td>
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<td>Duff, P. S.</td>
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<td>Fleming, John R.</td>
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<td>Genung, B. W.</td>
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<td>Gilbert, Irwin B.</td>
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<td>Goff, Ella D.</td>
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<td>Golden, G. M.</td>
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<td>Gramm, Edward M.</td>
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<td>Gregg, E. R.</td>
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<td>Haines, O. S.</td>
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<td>Hamilton, W. S.</td>
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<td>Hassler, J. W.</td>
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<td>Heilner, H. F.</td>
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<td>Hill, E. H.</td>
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<td>Humphreys, E.</td>
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<td>Jackson, George G.</td>
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<td>James, D. B.</td>
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<td>Johnson, Theo. M.</td>
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<td>Kinney, C. Spencer.</td>
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<td>Klaer, C.</td>
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<td>Maddux, D. P.</td>
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<td>Markus, A. R.</td>
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<td>Minahan, Thos.</td>
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PAPERS

AND

DISCUSSIONS.
REPORT OF THE

SECTION OF OBSTETRICS.

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REPORT OF A CASE.

MARY A. COOKE, M. D., PHILADELPHIA.

Some months ago a young woman about twenty-five (25) years of age (a primipara), at that time six months advanced in pregnancy, applied to me to attend her in her approaching confinement. She complained of an irritation of labiaæ and said she had been having some soreness on urination. I made the usual examination, and found a varicose condition of labiaæ. The mucous membrane was slightly red and irritated. I prescribed Hamamelis for the condition, and the use of the same locally and a little Calendula cerate. The next time she came to the office she reported the condition much improved. The examination of the urine revealed nothing abnormal. I subsequently learned that in the earlier months of her pregnancy she had suffered from stomatitis, and some kind of an eruption on her hands and other parts of the body, but there was no trace of that when she came to me. I also learned that she had been a good deal depressed, but the information I had was not definite. She was out of the city for a time after seeing her the second time, and I did not see her again till about seven weeks before the time of her expected confinement, when I was summoned to her and found her suffering from labor pains, which had come on sometime the previous night and continued through the day, though they had been far apart and not very severe. I saw her just about 8 P. M., and the child
was born at midnight, the time of severe suffering having lasted about two hours. She bore the labor pains well, and did not seem unduly exhausted by her suffering. The membranes ruptured about an hour before the birth of the child. The amniotic fluid was of a pinkish brown color, profuse and of rather offensive odor. The foetus was dead and beginning to macerate. So far as I could judge death had taken place about three weeks before, as I think active motion had ceased about that time, but as the patient had felt movement on turning, etc., though most likely only of a passive nature, she did not seem to have suspected that anything was wrong. I could not get a history of a fall, unusual exertion of any kind, except perhaps an unusually severe attack of vomiting at one time. There had been no chill or any other untoward symptom. The foetus was well formed and appeared to have attained to the normal growth up to the time of its death. The lochial discharge was quite free for the first few hours. The placenta and membranes came away intact and without undue manipulation. The perineum was not lacerated. The patient's condition appeared very good for two weeks. The amount of lochia was normal and did not become noticeably offensive. A breast bandage was applied, and though the breasts became full after two or three days there was very little suffering and the condition soon yielded to medication and treatment. The temperature was slightly elevated for three or four days, but never reached a hundred. The pulse was good and the temperature soon sank to normal. The remedies given during this period were Arnica, Bella., Bryonia, Nux vomica and Secale cor. At the end of the second week I made a vaginal examination, and found the uterus well contracted, though, of course, still above normal size, and the condition appeared good. The patient was allowed to sit up on the twelfth day, and on the fifteenth walked about the room. She seemed cheerful and her appetite was good after the first few days. The bowels moved regularly without the use of any enema. During the night of the seventeenth day there was some aching in the left limb and a catching pain in anterior crural region. The next day a little swelling of the thigh, which later extended to the ankle, manifested itself. One spot near the groin was swollen and sensitive to pressure. The temperature rose to 99 1/2 the evening of the first day of the disturbance, and the next evening was 100 1/2, which was the highest it attained. There was elevation in the evening for several days, but it then dropped to normal. There was very little pain or sensitiveness, except on pressure. The patient perspired very freely,
but did not lose her appetite, and the bowels and kidneys appeared to act normally. She was kept in bed for several days, and afterwards was allowed to sit up in a chair with limbs elevated, and was impressed with the necessity of keeping the limb as quiet as possible.

The weather was very warm and she appeared to be more comfortable sitting. The services of the nurse were dispensed with after a few days and she was left to the care of a relative, who unfortunately had not much experience with sickness and was over-anxious over her condition. She continued to eat and sleep well, but after a time manifested some nervous symptoms and there seemed to be trouble from flatus, which I attributed to her appetite being very good and in her forced inaction, and rather more food had been taken than could be digested well, but the bowels continued to move regularly. About the end of the fifth week all heat and soreness on pressure having gone from limb the patient was encouraged to move about a little. There was still a good deal of swelling, especially below the knee, but it had lessened and continued to do so. At times there was considerable local perspiration. Rhus tox., Ars. alb., Sulphur and Apis were administered at different times. About the third week after the phlebitis set in she began to have nervous symptoms, trembling at times, palpitation of the heart, but as this almost invariably came on after eating I attributed it to indigestion, especially as I could find no evidences of any heart lesion. The menstrual period appeared about a month after the birth of the child, and was, so far as I could learn, normal. The swelling gradually decreased, and there seemed to be no bad effects from a little use of the limb, but the patient became very much depressed about her condition and soon began to complain of all kinds of imaginary symptoms. She insisted that her head was swelling and that she could feel water running in it. Then she would complain of abdominal discomfort. Another time she was sure something was the matter with her arms, and so on indefinitely. I became very anxious for her to get out into the fresh air, yet on the other hand felt we must still proceed with great caution on account of the leg. About eight weeks after the birth of the child I made a thorough vaginal examination, and found the organs apparently in a normal condition. In just two months the menses made their second appearance, and so far as I could judge the flow was normal. The night previous to their coming on I had been summoned in a great hurry, as she had what was thought to be a sinking attack, but by the time I reached her she said
she felt much better. She had not been sleeping well for several
ights previous to this time, though before that she had not had any
trouble of that sort. From this time on her nervous condition grew
rapidly worse, and according to the reports given me she did not
sleep at all. She became fearful and apprehensive of any noise and
had all kinds of fancies. The following evening I had a consulta-
tion with another physician, who considered her symptoms largely
hysterical, and advised removal from home as soon as possible; also,
prescribed Hyos. She had previously taken Igna. 3x, and at one time
Puls. 3x. After he left the house she had a hysterical attack, sing-
ing, striking out and talking at random. There was a good deal of
noise in the street, which seemed to disturb her. I administered
Hyos. 3x, and later Passiflora, and left her after midnight compara-
tively quiet, thinking if the room was darkened and the house quiet
she would sleep, which she did for a short time. About 3 o'clock
she got out of bed and screamed and appeared very wild. Her
family were very much alarmed, and summoned a doctor who lived
nearby. He gave her hypnotic medicine, leaving Hyoscyamus and
Bromide of potash, etc. I was called out and was unable to see her
before the afternoon, and as it was quite impossible for me to get to
her during the following night; this doctor, at my request, retained
charge of the case. He at first considered it severe hysteria. The
medicine seemed to have little effect, and after she did sleep, she
awakened more wild than ever. She began to refuse food and medici-
ne. A consultation was held over her, and a diagnosis was then
made of puerperal mania. Finally, resource was had to morphia
hypodermically. Removal to the country was advised, which was
accomplished that evening. She fell asleep during the trip, and slept
till about 4 A. M., when she awakened and was violent at first, but
later became more quiet, and for a time became quite rational,
recognized the place where she was and seemed better in every way,
but later on she became wild again. The following night she was
again put under the influence of morphia. On awakening, as far as
I can learn, she was at first wild, but became more quiet and quite
rational. She took a short nap and on awakening turned over on her
side and died, before her husband, who was with her, could summon
help. My opinion as to the cause of her death was that it was
embolism complicating puerperal mania.

DISCUSSION.

DR. E. H. VAN DEUSEN: The chief impression this extremely in-
teresting paper leaves upon my mind is the ease with which we can make a diagnosis after the patient has died, and the difficulty we have in establishing the process that is going on during life. I doubt if anybody would have suspected in the beginning of this case that the patient was going to have any phlebitis at all. There was no appearance of infection of any kind. The temperature remained extremely low all the time for infectious process. The subsequent progress of the case would lead me to believe that the diagnosis of the cause of death is the correct one. It is a very interesting case, indeed.

Dr. T. J. Gramm: From the fact that shortly after her delivery the woman had elevated temperature and evident inflammation in the ligaments, this was a case of puerperal infection. The woman was suffering from septic phlebitis from about the seventeenth day on, and I was rather pleased, therefore, to see the diagnosis that I had imagined was established by a post-mortem examination. The interesting part of the case to me is the nervous symptoms which preceded the death of this patient. I think it was a case of late puerperal infection.

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**PRE-NATAL INFLUENCES.**

**D. C. KLINE, M. D., READING.**

By pre-natal influences we mean anything and everything that may occur to affect the mental, moral or physical well-being of the child during the period of pregnancy, *i. e.*, from the moment of conception to the hour of birth; influences set in operation prior to conception would come under the term hereditary, and those after birth would be occurrences of childhood.

To attempt to instruct men and women how to live, what to do and what not to do in order to influence the next generation for good would seem quite superfluous, as according to present day ideas there is seemingly so little thought given by young people to the raising of a family, not even among those who contemplate marriage, as upon inquiry you will find that as a rule men and women marry with seemingly scarcely a thought beyond the wedding day, and if at all, only in so far as their own selfish desires and pleasures are concerned: but when the wedding day is over, and they once realize the fact that they have begun family life, and more particularly when
they appreciate that conception has taken place, it is possible that life may begin to assume a more serious phase to them, provided they do not promptly succeed in effecting an abortion and thus intercept pregnancy.

We now have nine months of close intimacy between mother and the future son or daughter, a time when much can be done for or against the little one's welfare, and, strange to say, so little effort is put forth by physicians to direct the coming parents, although clinicians talk, plan and study so-called preventive medicine along other lines.

No sooner is the infant living an independent life than we begin with vaccination to prevent small-pox; we study carefully the diet to avoid illness and help build up a strong, healthy body. In a few years we begin to train and develop the child mentally, etc., all of which are right and proper; but it does seem to me that a greater effort should be made during these nine months of foetal life to direct parents that they may bring forth and produce the very best possible.

Nevertheless, there is one singular fact, viz.: That a large proportion of children who are conceived, nurtured and born in lust are not only pretty boys and girls, but many times exceedingly bright and active mentally; although, perhaps, the more liable to go wrong morally. Now, how can we account for these facts? First, possibly, because they are oftentimes conceived in that first gush of youthful love and enthusiasm, when all the world is blended in the union of two souls, and then when conception is recognized to have taken place the serious aspect of life assumes control over the coming mother, and she dwells just sufficiently upon her unfortunate condition to make a lasting impression upon the future son or daughter; but, as Prof. Farrington would have said: "This probably comes under another rule."

When men wish to raise horses, cattle, dogs or almost any animal or living creature, they not only study more or less carefully the pedigree of each of the two sexes, but guard carefully the parent during the months of travail; they do not want the mare overworked nor under or overfed; they care especially for the proper stabling and feeding of the cow; they endeavor to be kind to the animal and thus bring to bear all good influences. But how many men manifest any special consideration for the faithful wife, to see that life is made agreeable to her during these nine months, but oftentimes they become the more irritable and cross with them, subject them to all
manner of sensual abuse, urge her to greater efforts of endurance, allow more hard and fatiguing work to be her lot.

A fellow physician once remarked that a certain nervous affection which he suffered all his life was, in his judgment, largely due to the unusual efforts his mother had put forth in working during his intra-uterine life to help pay for that *darn* little farm. "Oh," said he, "would that she had left the farm go and have saved my nerves."

Sexual intercourse should be nearly, if not quite, discontinued during these nine months, and thus save the foetus from this excitement. However, many good wives subject themselvess to all manner of sensual abuse during these periods to keep the husband at home. And yet it would appear that the *man brute*, who has no regard for his wife and future child, will scarcely be kept from transgressing by a submissive wife, but on the other hand would be liable to carry home to that poor wife disease which would be likely to prove detrimental to both her and babe. Only recently my attention was especially called to this danger, owing to the unfortunate experiences of a family. Talk of remorse! but it did no good except the husband concluded the law should make provision for and give protection to the man during these nine months.

It is true there are many conditions which influence for evil at these times over which we or the mother have no controlling influence, viz.: The sudden and unexpected loss of friends or family, loss of money and property, shock or fright of any kind. Again, accidents which may cause a pre-natal effect to offspring even to the extent of suspending physical or mental development, and child be born minus one or more limbs, or possibly become an imbecile.

What amount of harm is done to the foetus many times by the pernicious practice of the mother attempting to produce abortion is beyond our comprehension, but I fear even more than we anticipate; that abominable knitting needle or hooked crochet needle is possibly just as liable to make a physical or mental impression as shock from some other source.

Unquestionably we all agree that women in poor or ill health should not become pregnant, but an all-wise Creator has so constructed men and women that there is a propelling force governing the procreative tendencies of human nature which is stronger and of greater controlling power than reason and the mind, and it not being the purpose of this paper to object to the governing influences of the universe, we refrain from arguing this side of the question.

However, we do have the privilege, nay duty, to instruct women
to endeavor to maintain the very best possible condition of health. The tubercular woman should live in the open air, the frail or sickly one should not overtax but live an even, regular life, with just as congenial environments as possible. She should not be required to nurse a sick husband, child or friend during pregnancy, if at all avoidable; ungainly sights and objects should not be dwelt upon, and for this reason certain deformed and dwarfed creatures should not be allowed to roam our streets as at present; now, doubtless some may say I am uncharitable. Not so, "the greatest good to the greatest number" would be the idea, and thus save the community from future objects of pity and charity.

There should be no operative work done upon the mother's teeth, nor any teeth extracted, fearful lest it leave an impression upon the life within. Any abnormal heart action should receive prompt attention; there ought to be regular hours for rest, and while an idle life is decidedly objectionable, too laborious a one or even too active a social life is equally undesirable.

A cheerful, happy disposition should be cultivated, as much can be accomplished in this line. While the husband's influence here must be entirely indirect, it is however very marked for good or evil through association with the wife if they are in close sympathy one with the other; his conduct and bearing will be helpful, although the mother can exert the greater influence.

It would seem better that the child should never be born than to come into the world deformed, sickly, or with any mental or physical blight that might have been averted by the careful conduct of parents.

Every woman should be in close touch and sympathy with her physician during these nine months; if a backache or headache occur, if especially nervous or any pelvic pains, an irritable bladder or indigestion with constipation or diarrhoea or any other line of ills supervene, she should immediately apply for advice and help. The physician should in many instances counsel as to mode and manner of dress: the amount and character of exercise and recreation. She should avoid overcrowded assemblies; the theatres should be selected with due regard to her condition, that nothing shocking or demoralizing occur; her reading ought to be along an elevating line; she should remember that her associates at this time may influence her future offspring.

I would not have her become morbid or oversensitive, but just to exercise reasonable care.

When the general practitioner and parents awaken to their respon-
sibility in these matters and think and live accordingly, we will see better results.

I am not pessimistic regarding these questions, but in this age of extreme, strenuous life, with so much hustle and bustle, we are given to considering only the immediate conditions that interrupt us, hence the unborn child may not receive due consideration or attention.

Along the line of medicinal treatment the careful homeopathic prescriber can be very helpful in developing a strong and healthy foetus. If the mother is of frail and sickly constitution by the judicious use of the Calcareas, Silica, Ars., etc., we may have a healthier babe.

If of a tubercular diathesis, do not fail to remember Iod. of Ars., Iodoform and other remedies in conjunction with suitable dietetic and hygienic treatment, or if a scrofulous tendency keep in mind Sulph., Mercúry, the Iodides, Baryta, etc. Where constipation supervenes in an exaggerated form, endeavor by all means to overcome it with mild methods of treatment, and absolutely refuse severe cathartics, fearful of causing an abortion.

When the woman suffers from indigestion or morning sickness, Nux v., Cuprum ars., Merc. sol., etc., may be administered.

In other words, endeavor to keep the mother in the best possible health, free from troubles and care, and thus you may start a succession of waves for good in the life of that unborn babe (who comes into the world without any act of volition on his part) that may roll on through succeeding generations.

DISCUSSION.

DR. I. B. GILBERT: I want to relate a case. Both the mother and the father of a family I treated came from very fine families; they both were thoroughly honest. The first child born to them was a very fine child, and was brought up right; in due time they had a second, and that child developed the most striking thieving propensities. It would take everything it could get hold of, which mortified the parents very much. One day the mother spoke to me about it and complained bitterly. I questioned her, asking her, "What life did you lead during the nine months you were carrying this child?" She said, "I lived with my mother-in-law, and she was a perfect ——; you know what I mean." The two families occupied one house, and the mother-in-law stinted her in everything, particularly in food.
She was in the habit of sneaking out in the evening and bringing in fruit, or whatever she wanted, and hiding it upstairs. At night after the mother-in-law had retired she would sneak down the back stairway, without a light, crouching and listening, and if she heard the mother-in-law, back she would go again. Finally, she would reach the kitchen undiscovered and prepare this food. She did this for the nine months that she was carrying the child, and I attribute the perverted mental condition of the child to the actions of the mother as just stated.

I believe, as the writer says, that during the nine months a woman is carrying a child she ought to spend the time pleasantly. Everything around her should be agreeable, and yet, on the other hand, mothers whose surroundings are anything but pleasant often have offspring just as good as any others. How to account for this I cannot say, but I know that these are facts.

Dr. T. M. Johnson: I have a case in mind which occupies the opposite position. A patient of mine contracted syphilis while in a distant city. He came home and I treated him in the secondary stage. He seemed to be well after that, and not knowing that he should not marry so soon (I not having an idea that he contemplated such a thing), he suddenly married. His wife, who had never been a patient of mine, soon developed syphilis. After the disease had progressed a short time I was called to treat her, and discovered that she had a fully developed case of syphilis. I have attended that family now for some years, and through three pregnancies. During those pregnancies I have always kept her upon the Iodides. She now has three very nice children who have never shown any syphilitic taint. However, she was thoroughly informed concerning her condition, and has always willingly and continuously taken the Iodides through her pregnancy.

Dr. Julia Gould Waylan: May I ask how soon after this gentleman had fallen a victim to this infection did he marry?

Dr. Johnson: I do not remember accurately, but it must have been while passing through the secondary stage. It may possibly have been two months after he was infected.

Dr. E. H. Van Deusen: How soon after the wife became infected did she become pregnant for the first time.

Dr. Johnson: I did not expect to report this case this morning, and cannot be certain as to the time, but I think within two years.
UTERINE INERTIA.

W. F. MARKS, M. D., READING.

The difficulties of delivery depend upon the abnormal conformation of the child and its position in the womb. The delay in delivery is owing to the abnormalities of uterine action. That labor may be natural, the child must not only be living, must not only be of average size and weight and have a most favorable position in the uterus, but the labor pains must be normal. The uterine contractions must recur within twenty-four hours from the time pains begin. If not there is generally some abnormality, although it may be trifling, causing no particular alarm. Burns, in his "Principles of Midwifery," classifies lingering labor as follows: First, The pains may be from the beginning weak and few, and the labor may be long of becoming active. This is primary uterine inertia, or weak uterine action. Second, The pains during the first stage may be sharp and frequent, but not effective, in consequence of which the power of the uterus is exhausted before the head of the child has fully entered into the pelvis or come into a situation to be expelled. This is secondary uterine inertia, temporary passiveness or uterine exhaustion. Third, The pains during the whole course may be strong and active, but from some mechanical obstacle the delivery may be long prevented, and it may even be necessary to have recourse to artificial force. This we call obstructed labor. These principles present the very foundation of sound practice in midwifery. Since all differ from one another they need different treatment. It is true, however, that both kinds of uterine inertia are often associated with other complications of labor. By primary uterine inertia, or weak pains, we mean that the pains are from the beginning weak and few. It is in natural labor that the pains recur at comparatively long intervals, causing little suffering. This is especially true when the soft, bag of waters bulges into the os. The pains become more frequent and stronger if the hard head comes to press into and more powerfully dilates the os. As other parts of the genital tract, such as the vagina and the vulva, are pressed upon by the head descending and dilating, the pains follow one another more rapidly, and the driving force of each uterine contraction is assisted by the powerful expulsive efforts of the diaphragm and the abdominal muscles. During the pain the uterus hardens and becomes round in shape. The patient does not seem to assist the pain by bearing down.
In uterine exhaustion the labor goes on well at first, but the uterine
action does not continue long enough to expel the child. After a
long labor the pain may sleep an hour or two, and the pain returns with renewed vigor. We have
an instance on record where labor was suspended for sixty hours.
When uterine action returned the child was delivered safe, with no
harm to the mother.

In primary uterine inertia delivery may be assisted with advant-
age with the forceps if the head presents, by the fingers in breech
presentation, or by bringing down the leg, much pulling not to be
done between pains. Ergot will stimulate the uterus. In secondary
uterine inertia delivery by force is the worst possible practice, for it
is almost certain to be followed by post-partum hæmorrhage. Pass-
iveness of the uterus is of no consequence while the child is in utero
and the placenta still attached. But it is of deadly peril providing
the placental sinuses are laid open. Ergot has no effect in second-
ary uterine inertia, since the nervous power of the uterus is ex-
hausted. The best that can be done is to give the patient sleep.
Opium is the surest sedative. One grain may give the patient rest
in half an hour. If no sleep is produced the dose should be re-
peated. Weak pains may be caused by too much liquor amnii, ad-
hesion of membranes, fullness of the bladder and the rectum and
by too much emotion. Weak pains may be treated in the first stage
of labor by giving the patient hot liquid food in small quantities and
sedatives to enable her to sleep. Do not hasten the pain in an arti-
ficial way. In the second stage of labor the pains are liable to ex-
haust the patient more and give more suffering than in the first
stage. If labor is delayed because of obstruction, Ergot would put
the patient in imminent danger of rupture of the uterus. It will also
hinder the circulation through the utero-placental vessels, diminish-
ing the supply of oxygen to the child, delaying delivery and causing
death by asphyxia. Ergot should not be given early in the first stage
of labor, even if there be no obstruction, since the labor may be long
and cause death to the child. Listening to the fetal heart will tell
the peril of the child. Providing Ergot is given in the second stage,
and the child is not quickly born, it is a sign of obstruction. The
only instance where Ergot can be safely administered in the second
stage is when there is no obstruction. In premature labor Ergot
given in the second stage is good practice, providing the pelvis is not
too much contracted. Should Ergot under these circumstances not
do its work within half an hour forceps should be used. Other
stimulants that may be used during labor with good results are Borax, Quinine, Digitalis, warm bath, friction of the abdomen or electricity. In using Faradic electricity apply both electrodes externally over the abdominal parietes, or one electrode on the sacrum, and promenade the negative hand electrode slowly over the fundus of the uterus until regular contractions occur. After this the current of electricity should not be applied unless pain reoccurs. The current should be increased and decreased as pain appears and disappears. In exhaustion the first symptom is an anxious expression in the face, with a quick and small pulse. The breathing is hurried. The tongue becomes creamy, then yellow and finally brown. Her lips become parched and her body becomes restless. This is often followed by vomiting. Unless delivery comes to immediate relief death may follow. In tonic contraction of the uterus immediate delivery is the only treatment. Every hour of delay brings the patient nearer to the grave.

THE MANAGEMENT OF LABOR IN PRIVATE PRACTICE.

EDWIN H. VAN DEUSEN, M. D., PHILADELPHIA.

Not many years ago obstetrical statistics in hospitals compared very unfavorably with obstetrical statistics in private practice.

The improvement in hospital statistics in obstetrical cases has been immense and the improvement in private cases has been very slight.

The chief cause of the bad results in hospitals was septic infection and the chief cause of improvement is the nearly complete elimination of this element.

In obstetrical institutions, with septic infection reduced to a minimum, and with obstetricians more competent to decide upon and to perform the various operations than is the average general practitioner, results will be more and more favorable, and as soon as the general public becomes convinced that labor cases are better treated in institutions than in the homes of the patients there will be in cities proportionally as few labor cases treated at home as there are gynecological operations done at home.

This change is inevitable, but its consummation will be delayed just in proportion to the obstetrical capability of the general practitioner.
In districts remote from centres of population the general practitioner will of course continue in the practice of obstetrics.

The lack of competent assistants makes the management of labor in private practice different from the management of labor in hospitals.

Much has been written about the details of preparation for a labor in private practice. A review of the literature of the subject would occupy as much time as a Congressional discussion and be much more futile.

The principles involved are simple. No detail which is necessary to the patient's safety and comfort should be omitted, and no disturbance of the household arrangements not necessary to the patient's welfare should be required.

Normal labor is a physiological process, and any interference is likely to be meddlesome. By normal labor is meant here labor in which the presentation and progress and condition of both mother and child are satisfactory. If these elements can be confidently and certainly predicted without an examination per vaginam, such an examination is unwarranted because it is useless, and not only is it a possible cause of infection, but it is the chief source of infection.

Careful, systematic, intelligent palpation of the abdomen will in the large majority of cases enable the obstetrician to determine first the position of the back of the child, and then to decide whether the vertex or breech is toward the pelvic outlet. Having in this way discovered that the back of the child is anteriorly and that the vertex is presenting it is wise to wait as long as the progress seems satisfactory. If this condition continues to the time of delivery the obstetrician need not feel that he has been at all neglectful.

The custom of making a vaginal examination is often more honored in the breach than in the observance.

If, however, the progress is not satisfactory, or for any other reason a vaginal examination is required, the hands of the examiner should be prepared as thoroughly as for a laparotomy.

The patient also should be prepared by trimming the hair on the labia and thoroughly cleansing the surrounding parts with soap and water, followed by a rinse of sublimate solution 1 to 2000. The hair should not be shaved nor trimmed shorter than one-quarter of an inch on account of the discomfort occasioned by the stubby hairs of one labium sticking into the mucous surface of the other. The examination should be made immediately after the preparation, and nothing should be permitted to come into contact with the examin-
ing hand until it reaches the vulva. Frequently in private practice no competent assistance is at hand, and the physician has to add to his duties those of assistant and nurse. Under such circumstances it is impossible to keep the examining hand clean for any considerable time, and the more important that all possible information should be acquired at the first examination. It should be made deliberately and prolonged as much as necessary to avoid its early repetition. If competent assistants are present, so that the obstetrician can keep his hands clean, there is less objection to vaginal examinations and the physician may acquaint himself with every detail of variation of the presenting part if he so desires and if his patient is sufficiently tolerant.

The patient's clothing and bedding can be sufficiently sterilized by recent thorough ironing. This can be accomplished in the meanest household. Freshly ironed covers for newspaper pads and freshly ironed towels or even squares of unbleached muslin can always be procured. The clothing, bedding, etc., may be as elegant as the circumstances and tastes of the patient demand, but nothing should be permitted to come into contact with the patient below the waist that is not clean and at least approximately sterile, and nothing should be permitted to touch the vulva or its vicinity that has not been carefully sterilized.

The same principles apply to the management of the whole lying-in period. After a labor during which nothing has been introduced into the uterus, and nothing but a carefully prepared finger into the vagina, the use of a douche is not only unnecessary, but the introduction of imperfectly prepared nozzle is much more dangerous than the introduction of the imperfectly prepared finger in the early stage of labor, for then the mucous lining was of good tone and intact, and now it is relaxed from being stretched to the limit of its endurance and probably also has sustained numerous tears.

If for any reason douching is resorted to the nozzle and the contiguous yard of tubing should be thoroughly sterilized immediately before use. Douching should never be entrusted to a nurse, no matter how otherwise well trained, who is not absolutely conscientious and strongly impressed with the importance of antiseptic preparation.

Puerperal infection in the great majority of cases comes from without, and the most prolific sources of its introduction are the examining finger and the fountain syringe.

The indifference frequently displayed in the preparation for an examination and the carelessness in the preparation for a douche
make one suspect that parturient women belong in the class with children and drunken men, over whom a special providence is said to watch.

In institutional practice all obstetrical cases can have the same care.

In private practice the details of management must vary with the condition of poverty or wealth and cleanliness or filth.

There may be no opportunity for a tubbing, but a cleansing bath at least from the waist to the feet is always possible, and thorough cleansing of the vulvar vicinity is imperative. The rectum always can and always should be flushed, no matter how thorough recent purgation seems to have been.

Thorough antiseptic preparation of the hands before a vaginal examination is absolutely necessary.

Diagnosis of the position of the child by abdominal palpation is more important amid poor surroundings than otherwise, for by this means vaginal examination is often rendered unnecessary at a time when the surroundings are anything but aseptic and when the avoidance of exposure to sepsis is correspondingly difficult.

Likewise the douche should not be resorted to without good reason, and when its use is demanded the utmost care in antiseptic preparation should be practiced.

The general observance of these principles and practices might serve to prolong the career of the general practitioner as obstetrician. It certainly would improve the statistics of obstetrical cases in private practice.

DISCUSSION.

Dr. T. J. Gramm: I am very much pleased with this paper, and particularly so as it apparently consists of what should be obstetric axioms. The teachings which are laid down there are capable of considerable elaboration. Almost any portion of this paper might be dwelt upon with great advantage. It is gratifying to any one who has given particular attention to obstetrics to hear the author of this paper give such a splendid exposition of the latest methods of treating patients during the delivery. I am sure that the doctor has no intention of bringing this subject to our attention because of the motive that might be wrongly inferred from his last sentence; namely, that the general practitioner by pursuing methods he has outlined will still continue to treat obstetrical cases.
The management of an obstetrical case is largely the management of a series of mechanical evolutions, and one of the very first requisites is that we shall know some of the relationships which exist between the several factors in the mechanical problem involved in delivery. Consequently, in order to recognize any abnormalities which exist in a pregnant woman who is about to be delivered, we ought, I maintain, to make a preliminary obstetrical examination of every case. If this be done the physician is fortified in advance by his knowledge of the conditions which he will meet in his attendance upon the case, and being so fortified the physician is able with considerable quietness of mind to allow a number of circumstances to occur, or conditions to exist, which might otherwise disturb him. For example, if he knows that the case is a breech presentation he will know that it will take longer in its delivery than if the child is lying in the first obstetrical position; and if he has already found out that there are abnormalities existing he will not wait until those abnormalities endanger the life of the woman and necessitate a major operation in the last moments before her delivery. In other words, the obstetrical examination is of vast advantage to the patient and of considerable advantage to the physician. In the delivery of a case the doctor has emphasized the fact that in many instances it may be largely conducted without making the very frequent vaginal examinations that were customary a few years ago. This also is in strict line of recent European methods of delivering women. There they have facilities and opportunities for observation that are simply amazing to us, whose practice is not nearly so extensive and cannot be so extensive until we have the large maternities that exist abroad. There they treat cases of labor, and, after having determined the position, they leave them go for a long time without further vaginal examinations. I point this out as being in the line of the very latest methods of conducting a case of obstetrics.

With respect to antisepsis. This subject engaged my attention a number of years ago, and in fact made a profound impression upon me, so much so that I was led to very extensive examinations of the literature, particularly with reference to the man with whose name is associated the introduction of the antiseptic method. The result of that investigation I had the pleasure of presenting right here in this room in the form of the biographical review of Semmelweis. I cannot help thinking that an historical study of the subject of antisepsis or asepsis in obstetrics is the best means of obtaining
definite knowledge of the requirements of the antiseptic methods.

The doctor has emphasized the limitation of a vaginal examination and restricts it in frequency. He insists upon having the hands aseptic, which is also a very important condition, and then also that if a douche is used the nozzle of the syringe must be sterilized. I have recently treated some cases of puerperal infection which were traceable to douches given by nurses who used syringes that had been borrowed from friends. The doctor did not fail to mention the aseptic dressing. This is obtainable in any household, as he has insisted upon. In any place where there is an oven, or in any place where there is a fire, you can obtain sterile dressings, and they do not need to be put up in the splendid style in which surgical supplies are being made. A piece of linen or muslin, washed and ironed and unopened until used, is practically sterile. How has it been sterilized? If the piece has been properly ironed steam has been produced, and you have practically sterilized your piece of muslin with steam. If you prefer dry heat, as I sometimes do in some of my cases, sterilization may be accomplished by simply folding the cloths, napkins or other appliances that are to come in contact with the patient, wrapping them in paper, putting them in an oven and baking them until the paper is beginning to char.

Dr. F. D. Brewster: I heartily coincide with the main opinion which is expressed in the paper. We must have thorough asepsis secured in whatever manner we may secure it. I believe it can be done in accordance with the views of the last gentleman who discussed the question. It can be done in private families if especial care is taken and unnecessary handling of these dressings after they are once sterilized is avoided. It is important to consider the little things, but I believe it is practicable in private practice to use clean and sufficiently sterilized dressings to protect the mother in her ordeal.

Dr. G. J. Berlinghof: Perhaps I may be allowed to speak of a little incident that occurred several years ago in my practice to show the importance of medical examination. In this case I was called in, made an examination and found a large tumor, by reason of which the lives of both child and mother were lost. She had not consulted any one up to the time of labor. I believe it is our duty as soon as we are engaged to take charge of a case to insist upon an examination to determine whether any abnormal conditions exist.
DISEASES OF THE CERVIX COMPLICATING PREGNANCY AND LABOR.

ANNA D. VARNER, M. D., WILKINSBURG.

The cervix is that cone-shaped portion of the uterus which projects into the vagina. In virgins it is a little over an inch long, two-thirds of an inch wide, and is divided into two parts by the insertion of the vaginal walls. At the apex of this cone-shaped projection is an opening into the cervical canal, the os-uteri, which divides it into the anterior and posterior lips. The anterior lip is thicker than the posterior.

In structure the infra-vaginal portion of the cervix is composed of unstriped muscular fibres and mucous membrane.

Various changes take place in the cervix during pregnancy. The first change is softening, beginning at the internal portion of the lips and gradually extending until the whole cervix is softened at full term.

All writers do not agree as to the change in size in the cervix, but the consensus of opinion seems to be that the cervix increases in all directions during the later months of pregnancy, and during the two weeks previous to labor obliteration occurs.

The condition of the orifices and cavity of cervix is very different in primiparae and multiparae. In the former both the external and internal os remain closed until the approach of labor. In the latter the external os is open but the internal os is closed until term.

Sometimes, though, even the internal os is open during the last few weeks of pregnancy.

Robin states that the mucous membrane of the uterus retains the structure it had before pregnancy, but that there is a separation of its elements, the intervals being filled with transparent amorphous matter with a paucity of granulations.

All abnormal and diseased conditions of the cervix have an influence upon pregnancy or labor, or are changed by the pregnant state.

Sometimes in virgins the cervical canal is very narrow, with a very small external opening, or the neck of the uterus is crooked. Dysmenorrhoea is the result.
Impregnation will not always occur in such cases, but when it does, although it may cause persistent nausea and vomiting, the process of labor permanently overcomes the obstruction in the cervix, and hence cures the dysmenorrhoea.

A simple catarrhal disease of the mucous membrane lining the cervical canal may exist, producing locally no particieularly bad effects upon the pregnant uterus, but constituting a continual drain upon the vitality of the patient.

The vagina should be cleansed with warm boracic acid douches, and the indicated remedy prescribed.

Pregnancy aggravates chronic cervical endometritis by increasing the cervical catarrh, granular degeneration and secondary vaginitis.

The gentle use of the vaginal douche and the topical application of calendula with boro-glyceride soothes the patient, overcomes reflex conditions, such as nausea and vomiting, and makes an easier labor.

Gonorrhoeal infection during pregnancy may attack the cervical canal only, and from the absence of the usual vaginal and urinary symptoms be overlooked until a case of puerperal septicæmia or gonorrhœal ophthalmia develops. Hence, the occurrence of a thick, yellow cervical discharge in a pregnant woman should be looked upon with suspicion and treated antisepically.

Lacerations of the cervix have very little influence upon pregnancy except where the tear involves the internal os, and then abortion is the result. It is scarcely possible that a tear of such extent would be neglected and allowed to exist from one pregnancy to another.

Rare complications at the neck of the uterus during labor are atresia, or complete obliteration of the cervix and obliquity of the orifice. In such instances the pains continue for hours or even days without the termination of labor.

At the first exploration the finger seems to be separated from the foetal head by the membranes alone, but more thorough examination proves that there is no—or seems to be no—opening into the cervix. In some instances this is caused by agglutination of the lips, probably the result of some inflammation of the os uteri. An indentation or dimple is found by the sense of touch or sight at the location of the orifice. It may open spontaneously under pressure of contraction of the uterus, but sometimes this does not occur, and if the obstetrician fails to recognize the difficulty, rupture or paralysis of the uterus may result.
DISEASES OF THE CERVIX.

Pressure upon the indentation with a sound or finger tip will usually produce an artificial opening, after which dilatation proceeds rapidly.

It has been ascertained that on exceedingly rare occasions the neck of the uterus may be entirely obliterated at time of labor by adhesions too strong to be broken down by finger, and then crucial incisions must be made at site of external os to overcome it. Great care should be taken to differentiate atresia of the cervix from great obliquity, a condition where the anterior lip is covered and embraced by the posterior, so that the examining finger can only penetrate it in a very oblique direction.

Cicatricial contraction of the cervix is caused by laceration, operations, cauterization and diseases such as syphilis and cancer.

The first three of these rarely cause any obstruction that cannot be overcome by mechanical aid, but a cancerous or syphilitic disease of cervix is much more serious.

There is always more or less rigidity normally in every primipara, but a greater degree in elderly primiparae. Labor is very tedious in these cases, and the pains severe. Macrotin 3X is a well indicated remedy to be used for a week or two preceding labor in such cases. During labor hot vaginal douches directed against the anterior cervix, frequently repeated, and the use of chloroform are indicated. Belladonna, Caulophyllum, Gelsemium and Veratum vir. are good remedies.

One author in speaking of anatomical rigidity says that the fibres of the cervix seem endowed with an extraordinary power of resistance, which cannot be explained by any alteration of tissue. The tissue seems dense like a piece of leather soaked in grease, and labor continues without dilatation until the patient is exhausted with her fruitless efforts.

Such a case came under my observation two years ago. A young primipara had such constant and extreme nausea as to reduce her to a most debilitated condition. During the fourth month of her pregnancy there was no perceptible increase in size of uterus.

In consultation with several physicians it was decided to empty the uterus, which was attempted on the twenty-fourth of May, four months after her menstrual period. All attempts to dilate the cervix were futile, and resulted only in profuse flow of blood.

The vagina was then packed with sterile gauze with the hope of starting contractions. There were only a few scattered pains during the night. After twenty-four hours the packing was removed, the
vagina doused, and clean packing inserted. Two days later the patient had severe chills, temperature rose to 105 degrees, and she complained of headache, backache, pain on urinating; but no abdominal tenderness or distention. Chininum ars. was prescribed, and the temperature gradually dropped to normal. Pulse ranged from 100 to 120 beats per minute. There were irregular uterine pains and a foul, watery, sometimes bloody discharge. On the night of the twenty-eighth of May labor pains came on strong and regularly. After the pains had continued for twelve house a conglomerate mass of small bones and membrane was found protruding from the external os, which was dilated only enough to admit the passage of tip of forefinger. Pains continued irregularly for the next twenty-four hours, when they became very violent. Upon examination the os was found to still be undilated, but one inch to the left and extending up the side of the cervix was a slit-like opening an inch in length. The patient was hastily anaesthetized, the two openings were united, the placenta removed, and the uterus thoroughly cleansed. The patient recovered rapidly, and later the extensive laceration was repaired.

In the course of a tedious labor and slow dilatation, the anterior lip of the cervix is caught between the head and pelvic walls, or as a result of long-continued pressure the cervical tissues become so swollen and oedematous as to produce a mechanical obstruction. As a rule, the cervix can be slipped above the symphysis pubis and over the head between pains. But in case there is hypertrophy of the anterior lip as a result of laceration, eversion, or a complete hypertrophy of the cervix, it may be necessary to apply the forceps or make crucial incisions through the hypertrophied tissue.

Muller, Breisky and others have reported cases where transverse septa have been found in the cervical canal, and it was necessary to cut these before the child could pass into the vagina.

Even genuine abscesses occasionally develop in the cervix, which are not only serious on account of pus formation in the genital tract, but cause slow and painful dilatation, or on account of their size retard labor altogether.

Bonet records the history of a woman who died during labor, and the post-partem revealed a large abscess filled with putrid pus occupying the neck of the womb. Should fluctuation determine the diagnosis, incision would be the proper procedure.

Polypi and fibrous tumors may have their origin in tissues of neck,
and unless discovered before the advent of labor may prove a very serious obstruction.

Polypi should be punctured, when labor will proceed normally; but when solid growths fill in the vagina it appears that Cæsarian section would be the only means of saving mother and child.

Sarwey claims that one in every 2,000 cases of pregnancy is complicated with carcinoma. It is commonly found between the 30th and 40th year. Abortion occurs in from 30 to 40 per cent. of the cases. It also predisposes to occurrences of placenta prævia and increases risk of infection or spontaneous rupture of uterus.

A bloody, foul-smelling vaginal discharge during pregnancy is suggestive of malignant disease. When carcinoma of the cervix preceeds the pregnant state, early and complete extirpation is indicated, but when pregnancy exists first and is well advanced before carcinoma is discovered, it is possible, by removing only the diseased tissue, to hold the disease in check until pregnancy has terminated.

Cancer grows rapidly during the pregnant state, and much more rapidly during the puerperium. Cases are on record where there was no interference until time of birth, when the child was removed by Cæsarian section, and the entire uterus and appendages extirpated, with the result of saving the child's life and prolonging the mother's, but these cases are rare.

Under all circumstances the prognosis is exceedingly grave. While some of the conditions reviewed in this paper are rarely met with in the course of a general practitioner's career, we have thought best to consider them also. The physician who knows how to diagnose, prognose and treat an unusual case doth prove his skill indeed.
REPORT OF THE

SECTION OF GYNAECOLOGY.

Uterine Fibromyomata, by Theodore L. Chase, M. D.
Pruritus Vulvae, by Theodore J. Gramm, M. D.
The Treatment of Collections of Pus in the Pelvis by Vaginal Incision, by N. F. Lane, M. D.

UTERINE FIBROMYOMATA.

THEODORE L. CHASE, M. D., PHILADELPHIA.

We are cognizant of the growing importance of early surgical measures in the treatment of many diseases. It is well known that the best results are obtained by early operation in appendicitis, intestinal obstruction and perforation due to typhoid, cholecystitis, ectopic pregnancy, hernia and I will include fibromyomata of the uterus. In the latter serious symptoms do not arise as promptly as in the former mentioned, but their development is as inevitable, only requiring more time to reach grave conditions.

Uterine fibroids occur in women between thirty and forty years of age. They grow in the muscular walls of the uterus, are benign, and consist of muscular and fibrous tissue in varying proportions. When the growth involves the endometrium hæmorrhage is a prominent symptom. Next to hæmorrhage pain is characteristic of certain forms of fibromyomata, and the presence of an abdominal tumor is another distinctive sign.

When the tumors are numerous and embedded in the uterine walls (interstitial growth), the enlargement takes in the whole organ. In rare cases a diffuse fibrosis takes place, involving the peripheral surface and the myometrium, as well as the lining membrane of the uterus. On the other hand, if the growth, extend towards the peritoneum the uterus does not enlarge in proportion to the growth, but remains nearer its normal size. The tumor extends upward, gradually rising out of the pelvic cavity, and in many instances attaches itself to contiguous structures, thereby gaining an additional blood
supply. We know how frequently such a tumor is found having a firm attachment to the pelvic wall and bladder.

The etiology of the fibrous tumor is still obscure. At the present time we do not know why these growths are peculiar to some individuals and not to others. It has been estimated by observers of large experience that among white women twenty per cent. have fibroids, and among the colored race the statistics vary from forty to sixty per cent. It is remarkable to note the degree of enlargement that can develop in the abdomen of a woman before her attention becomes attracted to the presence of a tumor.

Menorrhagia is usually the first symptom of the existence of fibroid tumors; frequency of urination may be a co-existent feature, and, finally, an enlargement is noticed in the lower abdomen. When the bleedings once appear, they are prone to increase steadily. As time goes on the loss of blood becomes irregular and the patient never knows at what time the hemorrhage may arise. Eventually, more blood is lost than can be made up by the system, and the patient develops anaemia, with its consequent train of symptoms, i.e., dyspnœa upon exertion, emaciation, syncope, etc. Women who are allowed to continue in this state become confirmed invalids. The occurrence of pregnancy in a fibroid uterus usually stimulates the tumor to rapid growth; it also becomes softer with the general softening of the uterine body. If the tumor is of small size and of the sub-peritoneal variety, located sufficiently high to rise out of the pelvic cavity with the developing uterus, the pregnancy will proceed to term, and in all probability the labor will not be unfavorably influenced by its presence. In many cases, however, a fibroid tumor is a serious complication to labor. Susserott cites one hundred and forty-seven cases, of which twenty were delivered by forceps, resulting in eight maternal deaths and a loss of thirteen children. In twenty-one of the cases manual delivery of the placenta was necessary, following which thirteen of the number died.

The elective time for conservative treatment is prior to conception. We should regard all fibroid uteri as inimical to health and life. To be sure, some of the tumors are of slow growth, and if the patient reaches the menopause without complications arising, the tumor may atrophy and disappear (according to some of the old writers); but I note that the cases cited wherein such was the result are few and far between. Much more evidence can be adduced to an opposite plan of reasoning.

Among the histories of such cases we find the growth remaining
quiescent up to the time of the menopause, and then taking on more rapid growth, eventually requiring surgical interference. In numerous other cases we find fibroids protracting the menopause from five to ten years, subjecting the woman to confined invalidism throughout this period, the preservation of her life demanding their ultimate removal. How much better it would be to remove her fibroids when they are small, thereby reducing the operative dangers to a minimum.

In patients having uterine fibroids the complication which is most likely to arise is inflammation of the fallopian tubes and ovaries, which may develop into pyosalpinx and ovarian abscess. Inflammatory adhesions often form between the tumor and the neighboring organs, as is shown among the accompanying drawings. The tumor may be adherent to the bladder, fallopian tubes, intestines, omentum or pelvic wall. Suppuration may take place in the growth and lead to general septic infection. Phlebitis may occur in the course of fibroid tumors, especially following curettage for relief of hæmorrhage. Intestinal obstruction is a rare complication (see plate 1), but when present requires immediate surgical interference, with a consequent high mortality rate. The most favorable variety of fibroids is the hard, sub-peritoneal type. Tumors of this class are seldom a cause of hæmorrhage, and a few authentic cases are on record wherein they have undergone atrophy and disappeared as far as a bi-manual examination could discover their presence.

As a rule, fibroids undergoing degenerative changes continue to grow. Included in this class are the fibro-cystic, oedematous and the malignant varieties. Calcareous degeneration in a fibroid causes it to remain stationary in its growth. The diagnosis of the uterine fibroid is generally not difficult; they usually grow concentrically, hence are rounded in form, except when forced into various shapes from pressure. As a rule, they are movable and of a consistency varying from stony hardness to a softness almost fluctuating. In some instances, wherein the tumor is soft, extreme care should be exercised in making a diagnosis, in order to differentiate from the pregnant uterus.

The symptoms which a patient may complain of are only suggestive, the diagnosis depending upon the pelvic examination. There are two groups of symptoms to be considered, hæmorrhage in the form of a free menstrual flow, which gradually becomes prolonged, with subsequent development of a metrostaxis as a more or less constant feature. These patients eventually become anemic, with consequent undermining of the general health. In some cases the
haemorrhage appears abruptly as a profuse flow. The bleeding in these cases comes from the endometrium and not from the fibroid. Pressure symptoms develop, when the tumor reaches sufficient size to impinge upon surrounding structures. A fibroid incarcerated in the true pelvis causes unbearable pain and serious interference with the function of the bladder and bowel.

In the sub-mucous variety of growths pain of an intermittent, colicky character is complained of, being due to uterine contractions. As fibroids commonly occur at the period of sexual maturity, a correct diagnosis is most important, since other conditions, such as inflammatory lesions, uterine displacements and pregnancy, must be differentiated. With the possibility of these complications in view, we must look for the following conditions favoring the presence of a fibroid tumor: Irregular enlargement of the uterus, cervix hard and not patulous. Consistency of the tumor variable with slow growth, absence of tenderness upon pressure in most cases. Uterus movable, uterine cavity lengthened, except in the pedunculated variety. Absence of the signs of pregnancy.

Concisely, then, the diagnosis rests upon the facts that an enlargement is present in the lower abdomen, imparting dullness upon percussion, and the discovery of a painless tumor, firm in consistency and which moves with the uterus, and the fact that there is lengthening of the uterine canal (excluding sub-involution, chronic metritis and malignancy).

TREATMENT.

This consists of internal medicines, local, medicated solutions applied to the uterine cavity, the electric current, especially galvanism and surgical measures, for the removal of the growth. Of internal medicines, the use of Ergot has superseded that of any other remedy. It is administered for the purpose of contracting the blood vessels which supply the fibroid, thereby controlling the haemorrhage. It is expected to check further growth of the tumor.

Some writers consider that the contraction of the muscle fibres will bring interstitial growths to the surface of the endometrium and cause their expulsion. The beneficial results from the administration of Ergot (if any) are only gained by its long-continued use, and under such circumstances its baneful effects upon the circulatory and digestive systems are such that it has to be discontinued. Potassium iodide has been used to absorb fibroids, but all reliable reports
upon the use of this remedy have been negative as far as any lasting effect is concerned. Arsenic has a beneficial effect upon many patients suffering from fibroid tumors. Its favorable action is more general than local. I have found Bryonia and Cimicifuga useful in alleviating the pains which are present in some cases. Thuya is another remedy which is helpful, according to its indications. When hæmorrhage is produced in a sub-mucous fibroid there are a number of remedies which will hold the bleeding in check until a favorable time for operation arrives.

Belladonna, Caulophyllum, Cinchona, Ipecac, Ferrum, Ergot and Hydrastis are all useful within their special indications. The extract of supra renal given in three grain doses every three or four hourse is very efficacious in controlling persistent hæmorrhage. In cases where this fails the uterine cavity should be packed with antiseptic gauze. Electricity has been used by many physicians, and after a more or less extensive trial has been abandoned by most of them. At the present time a few observers are claiming cures by the use of the galvanic current; in a considerable proportion of cases so treated untoward effects have followed, such as septic processes and numerous inflammatory adhesions. The electric current is decidedly harmful in fibro-cystic tumors, in all sub-peritoneal growths and in polypi; it is also dangerous in cases having associated inflammatory adnexal disease.

It is generally recognized by competent authorities that thirty per cent. of women having fibroid tumors of the uterus will eventually die if allowed to go without operation. At some time in their history ninety per cent. of all cases will develop symptoms calling for operation, hence the greatest conservatism lies in early surgical interference. If a patient has small fibroids, which can be safely removed without mutilation of the reproductive organs, namely, by myomectomy, such advice should be given. In favorable cases the mortality of myomectomy, or even hysterectomy, should not exceed an average of from two to three per cent. In these cases early operation will save twenty-five per cent. of lives. The only type of tumor which should be permitted to remain in situ is the sub-peritoneal growth, which remains stationary, or is diminishing in size (under observation) in patients who are approaching the menopause.

The following plates will show the peculiar characteristics found among a number of interesting cases selected from private and hospital practice: Mrs. D——, aged thirty-three, was referred to the West Park Hospital for Women on November 7th, 1902. As the
drawing illustrates, the tumors were of the sub-peritoneal type; the symptoms produced were those of pressure, especially from the fibroid occupying the fundus of the uterus. The pain was paroxysmal in character, and most severe at the menstrual period. Abdominal section was performed and the tumors removed by myomectomy, followed by uninterrupted recovery. This case illustrates the benefit of early operation, as these tumors were of rapid growth, and within a few years would have necessitated an operation accompanied by ablation and a high mortality rate.

Mrs. C——, aged seventy-eight, was sent to me two years ago suffering from discomfort in the lower abdomen, due to the presence of a fibroid tumor in the pelvis. Examination revealed a hard tumor, quite filling the cavity of the true pelvis; it was found to be attached to, and movable with the uterus. At this time she was advised to abjure surgical interference; local treatment, which was also declined, having been advised by several physicians in her town. A second and third examination were made at intervals of several months, and, as no further development was noticed, the advice given on the occasion of her first examination was reiterated. About two months after the last examination I received a letter stating that the patient had an attack of bowel obstruction, followed by peritonitis, which confined her to her bed for three weeks. Following this illness bowel movements were only secured by laxatives, sufficient to produce watery movements, and even these were accompanied by severe pain. As soon as the patient was able to travel, which was several weeks later, she presented herself for another examination, with the following result: The tumor had increased in size and was tightly wedged in the pelvis. As the finger was moved around the pelvic walls, sufficient space to admit the finger tips could be found only in the posterior vaginal fornix, slightly to the left of the median line, where the rectum could be felt impinged between the tumor and the posterior pelvic wall. Operation was advised and consented to.

The celiotomy incision extended from the symphysis pubis nearly to the umbilicus. Some adhesions of omentum and bowel were found attached to the superior surface of the tumor. These were ligated and separated. A firm attachment between the fundus of the bladder and the anterior surface of the tumor was found. After this was divided, a larger attachment was found occupying an area one by three centimeters between the small end of the tumor and the right pelvic wall, just below the ilio-pectineal line. The inferior surface of the tumor was attached to the uterine fundus, the fixed area
being about two by three centimeters. After the tumor was sepa-
rated from all of its attachments considerable traction was required
to start it from its impacted position within the pelvic cavity.

The post-operative period was one of rapid convalescence; the pa-
tient sat up on the sixteenth day, and at the end of the third week re-
turned to her home. This case is interesting from the fact that the
patient had reached an age wherein operations for fibroid tumors are
seldom undertaken. It teaches, however, that in extreme cases
operative treatment is often successful.

Three years ago Mrs. H—— was advised by her attending physi-
cian to have a large fibroid tumor removed, which she refused to do
at the time. At a recent examination the tumor was found to con-
sist of one large mass rising out of the pelvis and extending three
inches above the umbilicus. Another tumor, attached to this by a
pedicle, occupied a position in the upper right quadrant of the abdo-
men, and was found to be adherent to both sides of the pelvis. The
patient had been an invalid for the past six years; menstruation was
regular, and occasionally took the form of hæmorrhage. She suffered
from occipital headache, and frequent urination. The operation
revealed dense adhesions to the intestines and omentum, also to the
lateral walls of the pelvis. The bladder was drawn high up over the
anterior surface of the tumor and covered by many enlarged veins.
At the time of operation the patient's condition was fair. The omen-
tum and intestines were separated at adherent points, and the veins
covering the anterior surface of the tumor were clamped off. The
hæmorrhage was very severe, each vessel as it was touched welling
up venous blood. It was considered inadvisable to continue the anæsthesia owing to the rapid weakening of the patient. The uterine
arteries were ligated and the fibroid above removed. The patient
died the third day. Three years previous, when the tumor was only
half its present size and adhesions less numerous, this case might
have been operated successfully.

Mrs. F——, aged twenty-six, reported to the hospital, complain-
ing of severe paroxysmal pains in the lower right quadrant. These
had been present for a year, and were growing worse. Examination
revealed the uterus slightly increased in size and tilted to the left;
both ovaries and tubes were normal. A fibroid tumor about four by
six centimeters was found upon the anterior lateral uterine wall.
Pressure upon the tumor elicited the characteristic pain which she
complained of. At operation the tumor was found occupying a posi-
tion underneath the blood vessels, at the right side of the lower
In the dissection, the uterus was firmly attached to the bladder, as shown in the diagram.
Subperitoneal type of fibromyomata, showing three tumors, not firmly adherent to the musculature of the uterus, and easily removed by myomectomy.
uterine segment. There was considerable haemorrhage, which was controlled by continuous tier sutures; the patient ceased to have pain from the time of operation. This case is interesting from the fact that the location of the tumor was such as to develop into an intra-ligamentary position, with all its concomitant complications during efforts at removal. Here, also, we have illustrated the importance of early operation.

PRURITUS VULVAE.

THEODORE J. GRAMM, M. D., PHILADELPHIA.

Now and then articles appear in the journals which seem to exaggerate the difficulties encountered in the treatment of pruritus vulvae, and, as a recent writer has done, refer to it as the bug-bear of gynaecologists, and point to the long list of remedies suggested for its relief as indicating that we do not understand its pathology nor have any one remedy adequate to its cure. They bewail the failure of some of the newer remedies vaunted as the hoped-for specific for this disease, which, of course, follow their predecessors into the limbo of useless and abandoned remedies. It appears that at least some of the ill success in treating pruritus vulvae is ascribable to a search for one agent adequate to its cure, and because the judgment of practitioners is permitted to be led astray by the seductive claims of manufacturing pharmacists whose formidable array of publications flood the doctor's desk every morning. It seems to be not yet universally appreciated that the search for a specific for any disease is utterly vain, neither is it possible to evolve a curative remedy from the inner consciousness of even an expert chemist. The use of new remedies, until their efficacy is well assured by repeated trial, must ever be regarded as in the experimental stage, and experiments are notoriously not always successful. If, on the contrary, the treatment of this troublesome affection be viewed from the standpoint suggested by the antiseptic method, and if the latter be applied specifically modified and in accord with the discoveries relating to the bacterial condition of the affected parts, it seems as though there would be cause for a more hopeful view of the treatment of this disease, for it has not been my experience heretofore that pruritus vulvae presents insurmountable obstacles to its cure.

Rightly considered, pruritus vulvae is not a disease; it is only a
condition, or rather only a symptom of several conditions or diseases; but, as has often been pointed out, it is still treated in the literature as a special subject because of its prepondering effect in overshadowing the underlying disease, resembling in that respect diarrhoea and metrorrhagia. Pruritus vulvae is sufficiently well known not to require a more lengthy description than to say that it consists in an itching, associated with burning of the female genitalia, necessitating rubbing and even violent scratching, and is at times so intense as to make life unendurable, mainly also because of nightly exacerbations, interfering materially with sleep, and the general health suffers both in consequence thereof and because of the deleterious effects upon the nervous system. Most cases coming to the specialist are already chronic, both because of hesitancy on the part of the patient to mention the ailment, induced possibly by the unfounded fear that the physician will confuse pruritus with excitement of the sexual passion, and also because most patients have already submitted to a protracted course of treatment, consisting mainly in the application of a long list of lotions and ointments which have been "highly recommended." Consequently it is not unusual to find that the vulva, particularly the labia majora, have undergone inflammatory changes chronic in character. The skin, as pointed out by Veit (Handbuch, Vol. III, 1-131), is more opaque, whiter, swollen or thickened and deficient in elasticity and contractility. Scratch marks of greater or less depth, or even ulcerations, are visible. The pudendal hairs are often broken. Microscopically there is an inflammatory parakeratosis presenting the picture of subepithelial small-celled infiltration; the keratin formation is deranged and an irregular desquamation of the horny layer takes place. The conditions differ from vaginitis, in that the epidermis is thickened, and especially so in its outer layers, as opposed to the thinning in vaginitis, and that now under the deepest layers of the rete Malpighii there are larger, discrete collections of small, often polymuclear, round cells; now and then there are small cysts formed from dilated lymph vessels.

Webster (Centralblatt fur Gynæcologie, 1894, No. 7, 154) is said to have found a subacute inflammation of the connective tissue papillary bodies and a progressive fibrosis of the nerves and nerve terminals.

Because of the inflammatory changes in the affected parts, Sanger (Centralblatt fur Gynæcologie, 1894, 154) has proposed to set aside the old term of pruritus vulvae and proposes to call it vulvitis pruri-
ginosa. This term, admirable as it is, has not been generally adopted, because cases appear in which there is no evidence of vulvitis, and yet the pruritus exists. These cases are still looked upon as pure neuroses, and have been the cause for much discussion among observers, largely because their place in an etiological classification is not readily determinable. Such cases, however, are constantly diminishing in number, and promise ultimately to disappear as we learn more fully to look for their cause. In fact, Sanger is already on record as saying that he has never seen a case of persistent pruritus without disease of the skin; even where the naked eye is scarcely able to discover anything abnormal, the corium may yet be and is affected. Schultz (Centralblatt fur Gynecologie, 1894, No. 12), on the other hand, maintains that there are cases in which there is no vulvitis, and in which the cause, reflex in character, is elsewhere demonstrable, or cannot be found. The cases he has reported are, however, not conclusive. The first is one where there were labial adhesions interfering with free urination. The second occurred in a case of endometritis, which he cured with intrauterine irrigation. In the third case he mentions, touching the endometrium with the sound excited pruritus in the vulva, and this case was likewise cured by means of intrauterine irrigations.

Sanger has defined pruritus vulvae as a localized disease of the vulva in consequence of certain internal, but especially external, injurious influences. Among the causes of pruritus he has mentioned icterus, nephritis, diabetes, the abuse of morphine and alcohol, impaired circulation in the pudendal veins, retroflexion, tumors, diseases of the skin, as urticaria, herpes, eczema, hyperidrosis, seborrhoea, incontinence of urine, secretions from the vulva, vagina and uterus, as also from the bowel, parasites, masturbation and thermic causes. To these many other causes have been added, but I wish to refer to one more mentioned by Veit, namely, wearing a pessary too long.

Of these causes those depending upon well-recognized dermatoses need not further detain us, for their explanation and treatment are the same as those of the skin disease of which the vulvar pruritus is but a part. The same is true of jaundice. In diabetes pruritus vulvae is a common and indeed an early symptom. It is most likely induced by the frequent and excessive urination characteristic of the disease, in consequence of which the parts are so frequently bathed by the urine and the underclothing soiled far more than ordinarily. The changed character of the urine also so readily affect-
ed by fermentative changes is an important factor. The urinary alterations in nephritis explain the symptom in that disease. The compulsory uncleanliness in incontinence of urine is to be included here. Certain animal parasites are a well-known cause of itching. The changed secretion of the sweat glands from general systemic conditions, under which also the action of morphia and alcohol are probably to be included, and the action of heat should be classed along with the diseases of the skin.

Pruritus vulvae is often associated with discharges from the vulva, vagina and uterus, and to this I desire to call special attention. Where the discharge is corrosive in character, as in carcinoma and in consequence of the acute venereal infections, the symptom is clearly dependent upon the localized and general vulvitis commonly associated with these diseases, and the case would hardly be classed under pruritus vulvae. But there is a large class of cases in which the cause is not so manifest, and while in some of them as, for instance, in endometritis, in cervical catarrh and vaginitis from many causes, there is more or less leucorrhoeal discharge, there are many cases having these internal pathological lesions who tell us that they do not have leucorrhoea, and a vaginal examination will show that the secretions are not excessive and indeed may be diminished. It is these latter which may tempt to classify them under the second group suggested by Olhousen, who has spoken of pruritus vulvae as symptomatic, as in diabetes, leucorrhoea, etc., and as essential, depending upon a true neurosis.

Now what shall we do when a case of pruritus presents and the patient says that there is no leucorrhoea? I believe that in no case should we accept this statement as indicating that no distinctly recognizable departures from normal conditions exist, but we should institute a systematic examination. This should comprise an exact determination of conditions of the skin surface, of the vulvo-vaginal glands, of the meatus urinarius and urethra and of the urethral glands. These are the localities which long retain evidences of previous inflammation and treatment specially directed to the conditions found is indicated. The vagina and cervix are to be examined by the aid of a speculum, and then the bimanual examination is to be made. I want to emphasize that the lesions found in these cases are not gross, are not pronounced, and do not at once attract attention. They are of such a character that one might be tempted to underrate their importance because of their frequent occurrence in women, and particularly in patients who do not suffer
from pruritus, but I am convinced that appropriate treatment is followed by satisfactory results.

Personally, I always make a microscopic examination of the vaginal secretion taken from some part of the vulva, from the upper part of the vagina, and sometimes from the cervical canal. This secretion is removed in such a manner as not to become contaminated by secretion found in any other part of the tract. Unfortunately other professional duties have not permitted culture examinations to be made in all of these cases, but of the cover-glass preparations I can say that invariably they have shown the bacteria present to be cocci and not bacilli. I have also used every opportunity to make cover-glass preparations from normal cases, and these examinations have shown that in all normal cases, both virginal and others, the micro-organisms present are bacilli; no case has shown cocci. The preparations made from secretion taken from about the fourchette or vulva may contain several forms of bacteria, both bacilli and cocci, in both normal and abnormal cases, but that taken from high up in the vagina has shown the distinct results as just stated. As the case has improved from treatment the cocci have gradually disappeared and have been replaced by the large bacilli. It is very interesting to observe this change in a given case. I am well aware that these results are far removed from scientific completeness by reason of insufficient culture examinations; but then the cases were not examined for this purpose, nor even with a view to their publication, but only in order to obtain working clinical evidence. These results are in accord with the experiments of Doederlein (Das Scheidensekret), as also are my observations of the reaction of the vaginal secretion.

This entire subject of the vaginal flora has received considerable attention, but satisfactory, oft-confirmed results are not yet at hand. Still Doederlein's results, apparently made with reliable accuracy, and being attractively consistent, seem to merit acceptance as a working basis, to be modified by other results subsequently to be obtained. They should surely not be cast aside in toto by another investigator, who has failed to confirm even his elementary observations. Doederlein has shown that the vaginal secretion of healthy puerpera is acid in reaction, and the same is true of that of the non-pregnant and virgins. This acidity is due to lactic acid, and is produced by a large bacillus, which has received the name of the vaginal bacillus of Doederlein. This acidity, produced by the life-activity of this bacillus, in addition to certain other qualities of the vaginal
secretion, exerts a certain inhibitory action upon the growth and infective properties of other, especially pathogenic micro-organisms. This has been proven by the inoculation experiments in which pure cultures of pathogenic micro-organisms introduced into the vagina have not been able to develop there, but on the contrary that canal cleanses itself of such infective bacteria in from two to eight days at longest. It has also been found that in the culture tube it is difficult to obtain a growth of pathogenic germs when once the vaginal bacilli have been permitted to get a start; and also on agar plate cultures he found that a streak of the vaginal bacilli will inhibit the growth of staphylococcus pyogenes aureus at the intersection of cross-streaks of this micro-organism, whereas at some slight distance removed the latter grow abundantly. From this and other experiments it seems that the vaginal secretion has a certain destructive or inhibitory action upon pathogenic germs, especially as these mostly require an alkaline reaction for their development. When such are not actually destroyed there is at least brought about a condition of diminished virulence. When, however, the conditions of the normal vaginal secretion are altered, as for example by the profuse alkaline lochia, by the menstrual fluid, and by increased discharge from the racemose cervical glands whose secretion is alkaline, the normal inhibitory conditions in the vagina are diminished, and infection occurs more easily. The same is true when a similar state of affairs is brought about by disturbed circulation, especially venous, as induced for example by tumors, displacements of the uterus, foreign bodies in the cervical canal, like polypi, and foreign bodies in the vagina, as pessaries, for instance. The protective qualities existing in the vagina are also disturbed, probably in the same manner, by frequently repeated irritations, as in excesses in venery or self-abuse. The inflammatory reactions thus induced are notoriously almost self-limiting, if only the cause be withheld for a short time.

Now in recounting these several means of changing the vaginal secretion, and thereby permitting or actually causing infection, we have not mentioned gonorrhœal infection; but this subject is so extensive, especially with reference to the question of latent gonorrhœa, that it cannot at present be further touched upon than to say that the diplococci of this disease are remarkably persistent in any mucous tract once infected by them, that they are demonstrable in various places in the genital tract, as for instance in the endometrium, in the cervical glands, in the urethral and vulvo-vaginal
glands, even when an active gonorrhoea is no longer present; and in fact they have been found, probably in diminished virulence, within the vagina of prostitutes, who show otherwise normal vaginal secretion. It has been observed clinically that these pathogenic bacteria, in a condition of latent virulence, may be aroused by irritative conditions of various sorts, traumatism and various other circumstances diminishing the normal resistance of the tissues, and thereby re-establish their original picture of recent infection.

It must be apparent from the statement of these facts that the conclusion which I desire to draw is that in many cases of pruritus there is an altered bacterial condition in the genital tract, and in the vagina especially, in consequence of which a condition of infection really obtains, as we understand that term, although this infection may be so slight as regards virulence or activity that there exists no pronounced inflammatory reaction, but only sufficient to change the secretions enough to induce pruritus vulvae. This change in the secretions is probably not alone dependent upon the mere presence of foreign bacteria, but is also augmented by different ptomaines, in addition to certain as yet obscure chemical alterations of the secretion induced by them.

The fact that the vagina is a portion of a living body, whose bacterial flora is evidently subject to fixed laws, should not be lost sight of in our treatment. It is possible in the use of the vaginal douche and other antiseptic means to overstep the mark, and by inordinate repetition to so interfere with the normal reparative processes above suggested that the genitals, in spite of persistent antiseptic treatment and other therapeutic means, will be found to continue in a sad condition of inflammatory irritation. I have seen a number of cases wherein frequently repeated antiseptic vaginal douches have failed to relieve the infected condition for which they were prescribed, and the cases recovered from treatment only after tapering off in the use of the douche, thereby permitting the vaginal secretion to re-establish its normal condition.

A case of pruritus vulvae in a married lady recently presented such an exquisite verification of some of the opinions expressed in this article, based upon bacterial observations, some of which have been referred to above, that it shall be briefly related. The patient, pregnant at the fifth month for the third time after eleven years' interval since the last gestation, consulted me for unendurable itching of the pudendum. The skin of the labia was thickened and somewhat edematous, and abraded from scratching. There was some lacera-
tion of the cervix and of the perineum. The vagina and cervix presented the venous congestion usual at her period of pregnancy, and were red and irritated. The vaginal discharge was not at all profuse, but was rather scanty, milky and somewhat thinner than is seen in absolutely normal cases. The urine was profuse and frequently discharged. It contained no albumin nor sugar. The treatment consisted in applying a mild antiseptic wash to the cervix and vaginal walls, a bland ointment to the vulva and occasional permanganate of potash vaginal douches. She responded nicely to treatment, but soon had a relapse, from which she recovered after using

POLYP FROM CERVICAL CANAL.

the same treatment. In another three weeks the troublesome condition returned after a long walk, during which she was compelled to retain the urine for a long time. Being somewhat discouraged on account of the relapses occurring in the case, I examined the internal parts with care, and now discovered two polypi, about a half inch long, hanging within the os uteri, which had escaped discovery at previous examinations, or else only at this time presented to view within the cervix. These were at once removed by torsion. The same treatment above mentioned was administered at this one visit to the office, and within a few days the patient was well.
Sections of one of the polypi show it to present the usual appearances of such growths; that is a loose fibro-connective tissue, containing many vessels and vascular sinuses and a few uterine glands. The external surface is bare of epithelium in some places, and in others there is a covering of cylindrical epithelium.

Microscopic examinations of the vaginal secretion made at the time of greatest intensity of her ailment show almost a pure culture of cocci. There were no gonococci present.

The patient has not been able to determine the cause of her ailment. The last relapse was ascribed to a long walk and compulsory retained urine. It is certain that the case was not gonorrhoea, neither was the puerperium influenced by the infection, for the latter was afebrile. On the other hand, it appears probable that the constant irritation induced by the cervical polyp so changed the normal resistance of the tissues as to permit the growth of micro-organisms which gained access to the vagina in the usual ways. The same simple treatment before applied with transient effect was promptly curative when the irritation occasioned by the foreign bodies was removed.

It is unnecessary to recount in detail other cases which have responded to treatment. In some cases this has consisted in curettage when suspected to be occasioned by endometritis. When the cervical glands were inflamed applications of one of the silver salts, usually the nitrate, were made to its canal and to the portio vaginalis. The vagina was cleansed by applications of boracic acid solution or some other mild antiseptic solution, or calendula or formalin solution.

Externally a bland ointment was used containing Aristol or Nosophen or Markasol. In some cases an ointment containing Cocaine was soothing and gave the case a start by palliating the itching. A vaginal douche, once daily, and gradually diminishing in frequency, was prescribed, containing either Borax, Bichloride of Mercury or Potassium permanganate, or actuated solely by physiological reasons a douche acidulated with acetic or lactic acid.

DISCUSSION.

Dr. H. P. Cole: I would be sorry to pass this paper without some remarks. I think it is an extremely interesting one, and one which demands more attention than we seem disposed to give it. I have no doubt everybody here has had much trouble from just this con-
dition. The doctor has handled the subject very thoroughly. One point in it should be elaborated, that is, we do not search thoroughly enough for the cause of these different conditions. The vulva is at the lower end of the vagina. It is a point where discharges from the vagina and from the uterus are arrested because of the patient being in a vertical position. Consequently we must go above this point to find the cause for the difficulty. Many patients will say that they have no leucorrhrea, but we will find at the upper end of the vagina, or in the cervix, or in the endometrium, or in the tube, or somewhere beyond, an inflammatory point from which there is a discharge, which gradually accumulates in the neighborhood of the hymen at the point where the lower end of the vagina is constricted. This accounts for a great many of these cases. Furthermore we will find that an inflammation of the uterus or the tube will often produce an irritation at the anus, simply through nervous irritation, a point we must not overlook and one which will be of great value to us in our treatment.

Dr. G. J. Berlinghof: I am not a gynaecologist, but I am much interested in the bacterial portion of the paper. The influence of bacteria in the production of disease is a point I think many of us overlook. Frequently we have patients come to us with some irritation about the genital organs, and especially of the outer part, and we treat it in an off-hand way, whereas if we had a slide near by and would make a microscopical examination of the vaginal discharges while the patient is in the chair we could make a correct diagnosis. All these cases are accompanied with more or less bacteria all along the genital tract, and they exist in greatest numbers in the neighborhood of the meatus.

THE TREATMENT OF COLLECTIONS OF PUS IN THE PELVIS BY VAGINAL INCISION.

N. F. LANE, M. D., PHILADELPHIA.

It is not my purpose in this paper to bring together a lot of statistics relative to the advisability of this operation; but my purpose is to enter a plea for the vaginal route in preference to the abdominal in certain cases as hereinafter described.

There can really be no comparison between these two methods, because if the case is suitable for vaginal incision it is certainly not,
in my opinion, for abdominal work. But if such cases as are suitable for vaginal work are operated by the abdominal route, the comparison is decidedly in favor of the vaginal incision.

If you will take the trouble to follow the work done by some surgeons you will almost never find a tubal abscess evacuated by vaginal puncture. I was educated in my early work to operate all these cases by opening the abdomen, and seldom gave a thought to the vaginal method, as I looked upon it as only postponing the evil day when the abdominal operation would be needed to complete the cure.

I was first led to the vaginal puncture through a patient who had a double tubal abscess and refused to go to the wards of a hospital, and insisted that I do whatever was necessary at her own home.

She could not command the services of a trained nurse, and as the surroundings were not such as to invite abdominal work I fell back on vaginal puncture. The result was so satisfactory that I began to separate my cases carefully and continue to operate all suitable cases by this route.

Collections of pus in the pelvis are almost invariably tubal; occasionally we find them to be of other origin.

In speaking of cases suitable for vaginal puncture, I mean those cases where the abscess is lying wholly or partially in the cul-de-sac, and in contact, to a certain extent, with the vaginal vault. The greater the extent of the contact the easier will be the operation.

I do not refer to the enucleation of the abscess sac through a vaginal incision, as that requires considerable skill in vaginal work, and is a much more serious operation.

From the standpoint of the surgeon the abdominal incision is the more enticing of the two methods. It enables us to see as well as feel, and allows of a complete operation by removing all diseased structures as well as evacuating the abscess.

But strange to say the cases suited to a vaginal puncture and so operated often make a complete symptomatic recovery, being in perfect health and menstruating normally, while even the complete operation of celiotomy does not by any means always effect a cure.

It is a great advantage to a woman, especially if she be young, to preserve the menstrual function, and this is a point that I sometimes think is overlooked by some of us.

In doing the abdominal operation it is often difficult to save even one ovary, and usually there is not much effort expended in this direction, as the operator is likely to think that the ovary if allowed
to remain will give further trouble and necessitate another operation later.

But as I said before, if the patient be a young woman, it is a decided advantage to preserve the menstrual function and avoid the artificial menopause with its train of nervous symptoms and sometimes attacks of mental depression following upon the knowledge that she is no longer like other women of her age.

The more of this kind of surgery I do, and the longer I watch these patients after the operation, the more I am inclined to think that it is not poor surgery nor a false conservatism to save one or both ovaries in a young woman whenever possible, even though it require a little more dissection and consequently a little more time, and even though we subject the patient to a remote possibility of a secondary operation to complete the cure.

The advantage to the patient of retaining her menstrual function is so great that I feel we are justified in taking some risk of this nature, providing the patient herself does not insist upon removal of both ovaries.

Often young women recover from a double salpingo-oophorectomy, and are in perfect health. Sometimes they do not recover their health, but remain nervous wrecks for years because of the pain they suffer and the violent and prolonged menopause.

Such prompt relief have I obtained from the vaginal puncture that when treating obstinate cases of old inflammatory tubes whose possessor refused radical operation I sometimes almost wish the old infection would be relighted and an abscess develop so that I could open and drain the tubes into the vagina.

I have not had the experience with this method of dealing with tubal abscesses that I have with the abdominal incision, but have seen enough to convince me that in properly selected cases it is the operation we should choose.

I recall one patient who came to me several years ago suffering from a subacute attack of pelvic peritonitis, and had refused operation at a hospital, where she had been going for treatment.

After some months of treatment she became symptomatically well; there were, however, small inflammatory masses which could be felt in both sides of the pelvis.

Last summer she made a visit to the seashore, and in some manner managed to relight the old inflammation or become reinfected (although there was no evidence of this fact), and this resulted in the development of a double tubal abscess, one side being as large as an
ordinary teacup. These abscesses were opened and drained by vaginal puncture.

After the pus was liberated the pulse and temperature fell gradually to normal, the pain ceased, and it was only a matter of gaining strength to restore her usual health.

Pus discharged from the openings for some weeks in small quantities, the larger abscess giving the least trouble.

Later, the drainage and absorption were assisted by gentle massage of the tubes and inflammatory tissues.

For some months there has been no evidence of anything abnormal in the pelvis, with the exception of the scars and induration still remaining at the site of puncture.

I do not think anyone would by casual examination of this patient discover anything abnormal in the pelvis, unless he were an expert gynaecologist.

All patients will not, of course, make as complete and rapid a recovery; but as far as my experience goes they usually make satisfactory symptomatic recoveries.

There is little technical difficulty in the operation, as a rule, if suitable cases are chosen.

If a case be selected for vaginal puncture where the abscess is situated high in the pelvis, and only slightly in contact with the vaginal wall, there may be some difficulty experienced in evacuating it without injuring important structures in the broad ligament or entering the peritoneal cavity. These cases should not be attempted by anyone not experienced in pelvic and abdominal surgery.

For this operation I use a pair of sharp pointed scissors, curved on the flat; a pair of large uterine dilators, a uterine irrigator and a pair of dressing forceps.

After the usual preparation of the vagina the mass is carefully examined and its most prominent point of contact with the vagina located. Then with one hand on the abdomen to steady the mass, with the other hand introduce the scissors, closed, into the vagina, and push them firmly into the abscess, open them and withdraw so as to enlarge the opening. If pus follow the withdrawal of the scissors we know that the fallopian tube has been entered, and the irrigator should be introduced and the cavity irrigated, after which the puncture should be enlarged with the dilators. The finger can now be introduced and the cavity explored to determine if it has been thoroughly emptied. A final irrigation and packing of the tube
lightly with gauze completes the operation. Both sides, if necessary, are treated at the same sitting.

A little of the gauze is removed each day until in three days it is all out, and then should follow an irrigation of the cavity, and, if necessary, a repacking with gauze.

Usually this repacking is unnecessary, the only treatment needed being a daily irrigation until the cavity is too small to admit the irrigator, when the vaginal douches can be substituted as long as there is any discharge of pus.

The dangers to be guarded against in making the puncture are opening into the peritoneal cavity and puncture of the uterine artery or ureter.

Being careful to make the puncture back of the cervix will avoid the artery and ureter, and being careful to locate and puncture the most prominent point of the abscess will guard against opening the peritoneal cavity.

"Progressive Medicine," for June, 1903, says: "Jung reports 122 cases of pelvic suppuration in the Greifswald clinic in which the mortality was 18 per cent.

"The deaths occurred chiefly after laparotomy, which was the operation of choice in the severest cases.

"The unfavorable results were to be attributed to the high grade of virulence of the pus.

"In seventy-eight observations only fourteen times was the pus sterile, twenty-six times streptococci, twelve times gonococci, six times colon bacilli, thirteen times tubercle bacilli, and once ray fungus were found.

"In the Greifswald clinic vaginal drainage is used for those cases of pelvic abscess which point into the vagina.

"When the diseased adnexa are easily accessible from the vagina, and somewhat movable, if a radical operation is to be performed, colpotomy is chosen. All other cases are subject to celiotomy."

The report does not so state, but I should suppose from the high mortality and the virulence of the pus that these were acute cases operated at the acme of the inflammatory period.

Better results will be attained if the acute stage is allowed to subside, the pulse and temperature being permitted to reach the normal before operating by laparotomy. This is not always practicable on account of intense pain or prolonged septic condition.

These cases can, however, be operated by vaginal puncture (if
suitable for this procedure) during the acute stage with practically no danger to life.

To recapitulate the points I wish to emphasize:

1st. Only *suitable cases* should be selected for vaginal puncture.

2d. Very many cases now operated by the abdominal route are suitable for the vaginal puncture.

3d. Usually immediate relief from pain and a rapid convalescence follow this operation.

4th. By selecting this method, when possible, the woman is usually saved the risk and suffering of an abdominal operation, and her sexual organs and functions are left undisturbed, even though she remain sterile.
REPORT OF THE
SECTION OF PATHOLOGY AND PATHOLOGICAL ANATOMY.

The Present Status of Roentgen Ray Therapy in the Treatment of Malignant Growths, by Bernard E. Bigler, M. D.
Chronic Endometritis, by Theo. J. Gramm, M. D.
Carcinoma Uteri, by D. B. James, M. D.
The Preservation of Gross Pathological Specimens in Their Normal Colors, by S. W. Sappington, M. D.

THE PRESENT STATUS OF ROENTGEN RAY THERAPY IN THE TREATMENT OF MALIGNANT GROWTHS.

BERNARD E. BIGLER, M. D., PHILADELPHIA.

It was but a few months after the announcement, in 1895, by Dr. Roentgen of his observations on the properties of the X-Rays that a number of the investigators recognized valuable therapeutic effects from them when directed upon living tissues affected with tubercular or malignant disease. Enthusiastic experiments were at once undertaken and the most optimistic views were entertained as to their universal applicability in malignant disease. These hopes, however, have gradually been compelled to yield to more rational and sober recognition of the necessary limitations of this valuable therapeutic agent.

The efficacy of the X-Ray in the treatment of superficial malignancy is beyond a doubt, but we are not as yet in a position specifically to determine the depth to which their influence may extend. The first case of malignant disease treated by the X-Ray was a cutaneous carcinoma, which was reported by Stenbeck (Stockholm) in 1900. Since that time the use of this method in the treatment of malignant disease has increased by rapid strides until now it is given a trial in the most varied conditions. The cutaneous carcinoma, or the so-called epithelioma, are the ones in the treatment of which the greatest success has been obtained.

I will not enter into the therapeutic use of the X-Rays upon tuber-
cular lesions, but merely mention that as yet no limitation has been reached regarding its usefulness in this class of disease. Its practically specific action upon lupus vulgaris has led to its use in almost all tubercular affections with many gratifying results.

The gross effects upon normal tissue by the X-Ray have been so far studied almost exclusively as they manifest themselves in the skin, for the simple reason that the skin shows the most marked changes, and also has to withstand the full strength of the exposures. Certain definite phenomena occur. The first to appear is a pigmentation, or a slight erythema, or perhaps a loosening of the hairs. This pigmentation resembles precisely the ordinary sunburn. The next effect may be classed as inflammatory, and can be subdivided into the three degrees of burns familiar to all. The depth to which the tissues are involved depends upon the intensity of the X-Ray effects.

Great care should always be exercised in giving repeated exposures, as the cumulative action of repeated X-Ray treatment is a universally accepted fact. It seems both rational and logical to me that any agent having such marked effects upon normal tissue should have an equal, if not a greater, effect upon diseased areas.

As to the histological changes in the skin. I do not think I can better than quote the observations of Pusey. His conclusions are as follows:

1. X-Rays influence especially or exclusively the cellular elements of the skin. These are influenced primarily and undergo a slow degeneration, in which the connective tissue, the elastic tissue, musculature and cartilage are changed only in a slight degree, and suffer only secondarily as a result from the cellular degeneration and inflammatory reaction consequent to it.

2. The degeneration affects the epithelial cells in the highest degree, and to a less extent the cells of the glands, the vessels, the muscular tissue and the connective tissue.

3. The degenerative apparances are of various kinds and affect both the protoplasm and the nuclei.

4. As soon as the degeneration of the cells has reached a certain point and inflammatory reaction appears, which manifests itself in a marked dilatation of the vessels with the gathering leucocytes and marked emigration of the blood corpuscles. When greater degeneration of cells occurs as a result of stronger exposure collections of leucocytes press into a mass of degenerative cells and accomplish their further destruction.
5. The changes in the large and small vessels are apparently of greater importance as effects of further development and slow healing of ulceration.

The most plausible theory laid down at present as to why certain diseased tissues, for example, tuberculosis, sarcoma and carcinoma, show greater susceptibility to the influence of the X-Ray than normal tissue is that on account of the relatively unstable character of the cells of pathological tissue they are more readily destroyed by any disturbance of nutrition. Therefore in many instances diseased tissues may be made to undergo degeneration, absorption and even replacement by healthy connective tissue without any interference with the nutrition of the healthy tissue. The possibilities of the therapeutic action of the X-Ray might be classified as follows:

1st. Their anodyne affect.
2d. Their effect causing atrophy of the appendages of the skin.
3d. Their destructive action upon certain organisms contained in the tissues.
4th. Their regenerative and stimulative action upon metabolism of tissues.
5th. Their power of destroying certain pathological conditions in the tissues.

One constantly hears that the use of X-Ray as a therapeutic agent is as yet altogether empirical. Nevertheless they have been found to exert certain influences upon tissues, both normal and pathological, which give us a good starting point for recognizing definite and positive indications for their use. The use of X-radiation is still in its infancy, so as yet we can place no limitations upon its usefulness.

I believe that the time will come when the physics of the radiation from a vacuum tube will be thoroughly understood, and then we will be able to separate the harmful effects from the beneficial. By so doing we may then treat deep-seated growths without the present danger of severe burning.

In ulcerating growths, if the treatment is employed too vigorously, I mean by that, an irritation set up, the cancerous infection will invariably extend to the areas of the X-Ray burn, doing harm instead of good. There is one class of cases which seems to resist most stubbornly any beneficial action of the X-Ray, and I might even say are practically incurable; this is the class of cases which have progressed so far that no surgical measure even is of any avail. I can modify this to a certain extent; as shown by statistics, some of these
inoperable cases have been "cured" by X-Ray, but they are very few and far between. On the other hand, cancerous disease in its early stages, when not deeply situated, is arrested in its growth and made to disappear in the majority of cases.

Dr. Codeman, of the Massachusetts General Hospital, reports a hundred cases of epithelioma healed or healing; he mentions no recurrences as yet. He also reports having treated a round cell sarcoma of the sterno-clavicular region, causing it to entirely disappear.—Medical News, April 25, 1903.

Childs cites six cases of epithelioma, which all disappeared entirely under X-Ray treatment: one case of secondary carcinoma of the spine, with recurrent nodules in the right breast, in which all the intense suffering was relieved, that so generally accompanies spinal carcinoma.—Medical News, January 24, 1903.

Mosely reports twelve cases of malignant disease treated by X-Ray classified as follows:

Epithelioma of lip..................Cured.
Epithelioma of lip..................Cured.
Sarcoma of temporal region (recurrent) . Cured.
Carcinoma of inguinal region (recurrent) . Cured.
Epithelioma of face..................Much improved.
Carcinoma of breast..................Much relieved.
Carcinoma of breast..................Much improved.
Carcinoma of breast..................Not improved.
Sarcoma of pharynx..................Died.
Sarcoma of buttock..................Died.
Carcinoma of breast..................Died.
Carcinoma of inguinal region........Died.
Carcinoma of jaw...................Died.

The five cases having a fatal termination all were severe and in the last stage of the disease.—American Medicine, January 31, 1903.

Newcomet gives favorable reports of three secondary carcinoma of the breast and four cases of epithelioma.—Philadelphia Medical Journal, January 10, 1903.

Turnure, on observations extending over a period of two years at the New York and Roosevelt Hospitals, reports five cases of epithelioma of the nose, all of which disappeared; three cases of epithelioma of the lip, two disappearing; two of the penis, one of which disappeared; seven cases of recurrent carcinomata of the breast, only one satisfactorily disappeared. All the seven cases were temporarily relieved.—Medical Record, February 7, 1903.
Leanard reports a case of atrophic scirrhus of the breast in which the malignant disease has been replaced by healthy tissue. He also reports cases of inoperable and recurrent carcinoma of the breast at present under treatment, which present a clinical aspect, showing a beneficial result from the X-radiation.—Philadelphian Medical Journal, February 14, 1903.

A supposed sarcoma of the kidney was cured by McDowell with Roentgen ray.—New York Medical Journal, May 30, 1902.

Skinner shows by statistics that so far only 5 per cent. of superficial malignant growths “cured” by Roentgen rays have recurred, 80 per cent. of all the cases subjected to treatment are cured or arrested. In September, 1902, he reported thirty-three cases of deep-seated malignant growths which he had under treatment for nine months; he gives a further report of thirty-three cases, of which at present they are three cures, thirteen permanently benefited and are still improving with good prospects of ultimate cure, twelve temporarily benefited, two that experience no benefit, and in three the treatment was discontinued by the patients before sufficient time having elapsed to indicate if any good results would have been produced.—Medical Record, December 27, 1902.

Scully reports very gratifying results in the treatment of three cases suffering from malignant disease of the cervix uteri.—American Medicine, February 14, 1903.

A case of fibro-sarcoma was reported by Lowry, which is of interest as a pathological examination of the site of the growth, showed no sarcomatous cells present. Patient died of typhoid fever.—American Medicine, March 4, 1903.

Turner reports eighteen cases embracing carcinoma, sarcoma and epithelioma, nearly all inoperable, and, therefore, more difficult to treat successfully, and yet all but three showed improvement, and some of them remarkable improvement, the breast cases the most successful and the tongue the least.—Edinburgh Medical Journal, December, 1903.

Morton, W. J., gives full record of twelve cases of carcinoma of the breast treated by him by X-radiation. Nine of these were primary, six of the nine entirely disappearing, one being an ulcerating carcinoma with marked oedema of the arm, the three showing much improvement with a good chance of an ultimate disappearance. The three remaining of the twelve were recurrent carcinoma, two entirely disappearing, and the third, which was accompanied by oedema of the arm, showed much improvement. In both cases in which the
œdema was so marked there was at the commencement of treatment entire loss of motion of the affected arm, but in both instances the œdema, pain and loss of function all disappeared. In all the cases, with the exception of the ulcerating carcinoma, a dermatitis intentionally carried to a red, purplish stage, followed by excoriation of the epidermis and effusion of serum, in some instances to a purulent discharge, was made to appear, but in all but one case, complete restoration of the epidermis to its normal type followed in from one to four weeks. In many instances no shield was even made use of. A very good idea in my opinion is the one used by Morton, that of X-raying at frequent intervals from behind the scapula, the fluoroscope showing that the thoracic cavity offers but small obstruction to the radiation. This view corresponds to the researches of Volkmann and Heidenhein, who have pointed out that even in a case of a very small carcinomatous nodule the deep fascia of the muscles of the chest may be infected. The anterior aspect of the ribs and the clavicle may entirely shield an infected area behind these bones. Morton says: "I do not hope for good results in these cases except by the production of a severe and extensive dermatitis."—Medical Record, May 30, 1903.

Pusey reports fully twenty-seven cases of epithelioma; twenty cases, 77.7 per cent., are as far as can be told by their present condition cured. In six cases of carcinoma of the pelvis, he reports two in which a positive effect was produced, the tumor masses in both cases decidedly diminished in size and pain ceased, and in one where there were carcinomatous ulcerations in the vagina in conjunction with carcinoma of the uterus, the ulcerations entirely disappeared. Out of eighteen cases of recurrent carcinoma of the breast, eight cases, or 44.4 per cent., practically showed no result except marked relief of pain; the remaining ten cases showed results regarded as very satisfactory. All of the eighteen cases were practically beyond relief by any other method, and this shows one point conclusively, and that is the great importance of getting patients at treatment at the first evidence of a recurrence.

In seven cases of primary carcinoma of the breast Pusey reports one absolute cure. Two patients died from other diseases after the tumor masses had decidedly softened; in three of the cases the disease has been checked, and in only one case there is no appreciable result. Five of these seven cases were referred by surgeons who gave highly unfavorable prospects of the successful surgical removal.
One case of adeno-carcinoma of the oesophagus was reported by Pusey. There was prompt disappearance of discomfort and pain and gradual improvement in swallowing. Six weeks from the commencement of the treatment the patient had gained nine pounds, the pain had disappeared entirely, and he had no difficulty in swallowing. The seventh month, subsequent to the beginning of treatment, he was almost normal weight, had no pain and was as vigorous as he ever was. It is well to state here that a piece of the growth had been removed from the oesophagus by Dr. Halstead, and a microscopic diagnosis of adeno-carcinoma was made. Six cases of carcinomata in the pelvis are reported by Pusey, but little effect was produced in any of them except relief of pain.—Pusey and Caldwell, "Roentgen Rays in Therapeutics and Diagnosis."

Coley reports fourteen cases of sarcoma, five of which entirely disappeared; in three the tumor decreased in size, but metastases formed elsewhere. In the remaining six there was improvement at first, then a gradual increase in size, but in all there was loss of pain.

—American Medicine, 1902, page 251.

Williams (Boston) in his excellent work on "Roentgen Rays in Medicine and Surgery," gives report of one hundred and one cases of small and new growths treated by radiation; fifty-nine of these have entirely healed. This group is made up as follows: Four carcinoma, forty-four epithelioma, eight rodent ulcer, one spindle cell sarcoma, one ulceration and necrosis. Eighteen cases still under treatment, seventeen discontinued treatment, and seven not healed. He also reports thirty-one cases of breast cancer, seven of them entirely healed (comprising six carcinoma and one sarcoma); thirteen cases are still under treatment, four discontinued treatment, seven not healed.

I have seventeen cases to report on embracing epithelioma, four carcinoma, four primary growths, two recurrent, two cases treated after operation (the entire growth having been removed), four sarcomata, three recurrent and one primary, and a nondescript tumor of the right breast in a highly nervous patient.

Mr. J. D., 65 years, epithelioma of upper lip. Has had one growth removed four or five years prior to my seeing him. The recurrence involved the left wing of the nose and the margin of that nostril. Commenced treatment May 13th. After four treatments the soreness was entirely gone from which he had been greatly annoyed, and the angry red look disappeared. He had eleven treatments, and the growth has practically disappeared. He left the city for over a
month, and on his return he had some little soreness, but two treat-
ments removed this, and there is no sign of the growth at the pres-
et time. In this case I established no erythema whatever.

Mr. B. T., 32 years. In December, 1900, Dr. Van Lennep removed
his coccyx and resected a portion of the rectum with a large epithe-
lionomatous mass. In November, 1901, Dr. Van Lennep again oper-
ated him, this time performing a typical colostomy and removing as
much of the growth as possible from the rectum. It having recur-
red again in January, 1902, Dr. Hall commenced the Alexander
treatment, and by May all signs of the growth had left. April 10,
1903, he was referred to me by Dr. Hall for X-ray treatment. At
this time there were fungating masses on the buttock about the anus,
or what would have been the anus, and extensive induration.

I have given him forty-one treatments (July 24) twice starting a
slight erythema. Some of the fungating masses have broken down
and seemed to have left pits; there is no induration. This is an ex-
tremely obstinate case, and I doubt if very much can be done in the
curative line, but I think the growth can be retarded, as it has not
grown since the commencement of treatment. Pain, as in most cases,
disappeared in a short time. Treatments were given two to three
times weekly, each treatment never exceeding five minutes.

Mrs. L. K., age 38, was sent to me by Dr. Grimshaw with the
diagnosis of epithelioma of the angle of the mouth on the right side.
This diagnosis was corroborated by Dr. McNeil, who made the
microscopic examination. It was no larger than a good sized gum-
boil. I gave her seven treatments between May 28th and July 17th,
and at the last mentioned date there was no sign of the growth; I
produced no erythema. She drops in to see me once every three to
two weeks to be sure we have it under control.

Of these four cases three have entirely healed and are on the high
road to a permanent cure, the other is greatly benefited.

Mrs. B., 35 years, colored, epithelioma of lower inner margin of the
left labium majus. Microscopical diagnosis twice made by Dr. D. B.
James. I commenced treatment in April; in three treatments her
pain had entirely disappeared, which she described as sharp and burn-
ing. The growth, which was about the size of an ordinary marble,
gradually diminished in size. She received very irregular treatments;
nevertheless, by the end of June the growth could be scarcely made
out, and by the end of July it had practically disappeared. She is
still undergoing treatment once a week.

Mr. H. K., 55 years, carcinoma of the bladder. Was operated by
Dr. Van Lennep, on March 26th, performing a suprapubic operation and thoroughly washing out the bladder, and exposing the growth in the wound. I began X-ray treatment on March 28th, focusing the rays directly into the wound. His pain almost ceased entirely, and he rested comfortably; he received twenty-eight treatments in two months; he died May 25th. This patient was at least made comfortable, he suffered none whatever. His death was due to liver metastases. The growth in the bladder did not increase in size. A slight reaction was produced, not intentionally.

Mr. E. S., 47 years, scirrhus of left breast, involving the muscles of that side. This diagnosis was arrived at by his former physician, who made a microscopic examination. When referred to me he had been to a paste doctor for some months; the application had removed the outer portion of the growth, but left an ulcerating pit an inch wide by 2½ inches long; surrounding this, induration was very marked, especially of the biceps muscle. With treatments given two to three times weekly the induration entirely disappeared, and the open wound is healing nicely. He is still under treatment.

Mrs. C., 42 years, adeno-carcinoma of right inguinal region, the induration and growth extending along Poupart's ligament of that side. There is also present marked deep induration. Referred to me by Dr. Hall, who had been and is still giving the Alexander treatment. The two broken down masses measured each about one inch in diameter, situated near the center of the growth. Very little benefit has been so far derived from the X-ray treatment. She has received from two to three treatments a week for the past three months. There has been no increase in the size of the growth, and the induration is much improved.

Mrs. S., 57 years, recurrent scirrhotic nodule near axillary line of right mamma. In March, 1894, Dr. Van Lennep removed the right breast and pectoral fascia. There was no sign of recurrence until April, 1900. She was again operated in October of that year. Since November, 1901, another nodule has recurred. On April 9, 1903, she was advised to try X-ray treatment, by Dr. Van Lennep, as another nodule had appeared. She received two treatments a week; in three weeks there was no sign of the nodule. I referred her back to Dr. Van Lennep, he giving the same report. She went West for a month; on her return there were still no signs of the growth. I now see her every week or so and give an exposure these times to still further lessen any chance of recurrence.

Mrs. R., 65 years, carcinoma of upper outer quadrant of right
breast. An enormous sloughing carcinoma was removed by Dr. Van Lennep, February 10, 1903, but on account of the extreme weakness of the patient a large hard nodule the size of an English walnut was left in the axilla. Eight days after operation I commenced treatment, every day at first; all pain ceased after the second treatment, and by the fourth day there was distinct softening in the nodule, and the skin became more pliable. In a week and a half no nodule was present or could be felt. The large wound, left to granulate, began to heal very quickly, and at the present time there is no sign of a recurrence, and there is a good pliable scar.

Mrs. S. W., colored, 65 years, ulcerated carcinoma involving the whole outer side of right breast, with enormous oedema of that arm. Has been coming at irregular intervals for treatment. The only benefit as yet by the treatments is the disappearance of the shooting pains.

I will not cite the two cases treated after operation as a prophylaxis, but merely say that in one the scar had assumed a keloid scar, but soon softened up and is now nearly normal.

A summing of these six cases brings us to the following conclusion:

Of the four primary growths, one was beyond any hope of cure, but all pain was at least stopped. One has not been long enough under treatment for any deductions; another has been very little benefited, and one is on a high road to a permanent cure. The two recurrences disappeared entirely, and as yet no sign of their return.

I have treated one case of nondescript tumor in a highly nervous woman, 41 years old, the growth or lump was as large as an egg, situated in the outer half of the left breast, was not movable at first, but soon became so. She was given treatments three times a week for two months; a slight reaction was obtained twice; at the present time there is no lump present.

Of the four cases of sarcoma there has been only a marked result in one case; the other three all had relief of pain, but in only one of the three did the growth diminish in size. This patient left the city and failed to continue treatment. In another of the three there was no increase in the size of the growth.

Mrs. R., 49 years, recurrent sarcoma of the right parotid region, very rapid growth; had been removed only three months prior to the commencement of treatment. Patient was operated by Dr. Van Lennep, March 10, 1903, performing a complete circular excision by a generous circular incision. Three days subsequent to operation I
began treatment on what seemed to be a hopeless case. There was a hole in the right side of her face four inches long by three inches wide. She received treatments daily until she left the hospital, then she came to my office three times weekly. There was entire healing of the wound by the latter part of June, but it was materially helped by an attack of erysipelas, from which she suffered during the two first weeks of June. There is no sign of recurrence up to date, or any signs of induration.

Miss C., 18 years, recurrent sarcoma of left groin. First operation was performed July 31, 1902. I saw her first April 18, 1903, and immediately began X-radiation, for she had been classed among the inoperable cases by the surgeons. In a week erythema appeared; in two weeks I stopped treatment for a week. After this time she came at very irregular intervals, until she stopped coming altogether. The result in her case was not discouraging by any means; pain ceased, and there was no increase in the growth, but even a diminution and softening during the period of treatment extending over eight weeks, whereas it had been growing rapidly before.

Mrs. O., 31 years, sarcoma of omentum. This was a hopeless case throughout. She was operated in clinic by Dr. Van Lennep; merely an abdominal incision was made, exposing the growth. From March 25th to April 17th, when she went home, she received four treatments a week. Her pain almost ceased, there was no appreciable increase of the size of the growth, but she was losing flesh rapidly, and showed signs of rapid metastatic formation. On that account she was taken home by her family.

Mrs. E., 75 years, recurrent sarcoma of groin and inner side of thigh in the region of the Sartorius muscle. Dr. J. E. James operated this case twice, each time performing a thorough excision, but each time the growth recurring. She was referred to me after the growth had attained the size of a small orange. The Alexander treatment had been resorted to with no result. The X-ray in this case seemed to do little or no good, and she was advised to have it discontinued. The growth was increasing slowly in size. I think if she had continued it a little longer, and I could have set up a severe dermatitis, there might have been a probability of checking the growth.
### CARCINOMA.

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**Authorities:**
- Williams, 4

|        | 39 | 31  | 22 | 6 | 94 |

### EPITHELIOMA.

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**Authorities:**
- Codeman, 100
- Newcomet, 3
- Childs, 6
- Pusey, 21
- Williams, 52

|        | 195 | 2    | 0  | 0 | 197 |

### SARCOMA.

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**Authorities:**
- Coley, 5

|        | 13  | 10  | 6  | 8 | 37 |

**Total:** 247, 43, 28, 14, 328
The following cases are not tabulated, the varieties not having been mentioned.

Of Skinner's thirty-three cases of deep-seated cancer, only two derived no benefit.

Scully's three cases of growth of the cervix all were helped.

Turner's eighteen cases of sarcoma, epithelioma and carcinoma, all but three showed improvement.

I think if one examines this table, especially the doubting ones, we all can safely say that so far there is no reason why the use of X-radiation should in any way be belittled, for the results in the three hundred and eighty-five cases are anything but discouraging.

As regards the production of a dermatitis to affect a cure, it is difficult to lay down any hard and fast rules. Some authors claim no burning is necessary, others say a slight amount, and, again, some say it is absolutely essential in obtaining good results. I believe that in growths covered by skin and not broken down a dermatitis should be excited setting up a leucocytosis, which is such an essential factor in tissue repARATION. We are looking for deep-seated repair, and in my mind this cannot be accomplished without a dermatitis, the skin, to a certain extent, offering a resistance to the rays. In the ulcerating carcinomata and sarcomata care should be taken not to produce any irritation, for if produced, cancerous infection invariably spreads to the areas of the burn. Looking from another standpoint, errors may be committed, which, in my mind, will aid the growth of the cancer by not having sufficient strength to cause degeneration, but rather a stimulative action. Here, though as everywhere else, each case must be individualized.

Malignant tissue may be caused to disappear in two ways. The slow process, which is the safest, of replacement or a metamorphosis by fibrous or adipose tissue. The rapid or dangerous by sloughing and necrosis of the diseased tissue.

As to the dosage and time of treatment, each operator has his own measurements. The range of current is from 16 to 220 volts, and one-half to ten amperes, and the time from three minutes to half an hour. I make use of storage batteries, having a capacity of 16 volts and a normal discharge rate of about ten amperes; as the amperage is very high my exposures are proportionately short, seldom exceeding five minutes.

Operators using one-half ampere discharge rate give as high as twenty to thirty minutes at a sitting.

I usually give treatments every other day at first until the com-
mence of an erythema, then every third or fourth day. If the dermatitis becomes severe, treatments are stopped until the irritation subsides, but no set rule can be laid down, as some cases show a decided susceptibility to the reaction of the rays. The part to be treated should never be nearer the bulb of the tube than six inches. Relatively speaking, a tube of low vacuum should be used for superficial, and tube of high vacuum for deep-seated growths.

In conclusion I would say, in deciding whether operation or X-ray should be resorted to, that under X-radiation carried out properly and with care any improvement will show itself within two to four weeks in the majority of cases; therefore, a trial does not occasion much delay. In my own limited experience I think this especially holds good in carcinomatous recurrences, for these have yielded more rapidly than the primary growths. The primary tumor should be given a little longer time before having recourse to surgical means. In some instances, even if no appreciable results can be made out, I believe that often deep scattered nodules are made to disappear, and it also aids as a prophylaxis after operation. For the past ten months in every case of malignant disease surgically treated by Dr. Van Lennep, he has had me apply X-radiation in forty-eight to seventy-two hours after operation, given at intervals of from two to three days, and from one to three months, according to the case. This, I believe, should be done in all malignancies; it hastens healing, lessens the liability to infection, decreases any discharge or odor if present, relieves pain and materially decreases the chance of recurrence.

Lastly, all cases of carcinoma, sarcoma, etc., should be treated with the X-ray before abandoning them as hopeless.

DISCUSSION.

DR. E. M. GRAMM: I think the Society is to be congratulated on the very excellent paper that Dr. Bigler has written. He has covered the ground very thoroughly, and nothing can be added on the points that he has brought out. I want, however, to add something that is more for the general practitioner than a consideration of results, and that is this: The laity at large is, at the present time, being thoroughly scared by newspaper reports of the intense virulence of the action of the X-ray. Clippings are made, whenever it is possible to find them, of terrible results that have been produced, both on operators and on patients, and the statement made that the X-ray is losing ground; that it should never be employed if the patient values
his life. It is too well known for me to emphasize the fact that cancer has killed its thousands. Dr. Bigler has proven to you very thoroughly what is the fact, that X-ray operators have found that they have cured cases that were absolutely hopeless under any other method of treatment. It is a fact that the X-ray is a powerful force; that it is a dangerous one; that it can produce all of the results that have been reported as having occurred on operators and on patients, including even death; but the fact that arsenic is a poison does not compel us to give that quantity of arsenic that will kill the patient when arsenic is indicated, and the same with morphia and all the other poisonous substances, and so with the X-ray. The quantity, the dosage of the X-ray, must be given precisely in the amount that will benefit the case. Of course, owing to the glowing accounts of the excellent results that had been produced by the X-ray that were published in the newspapers, numerous physicians jumped at the thought of a cure for cancer, and for all diseases, in fact, as was stated at first, and, therefore, bought X-ray outfits, and used those X-ray outfits without any intelligent idea of what was to be accomplished or how results were to be obtained. The consequence was failure; the consequence was injury in a good many cases, and it is those consequences that are now cropping out and are being used to scare the laity, and also the profession who have not investigated the action of the X-ray. I have had accidents. I have produced X-ray dermatitis. I have had accidents that I was sorry to see occur. I have produced X-ray dermatitis intentionally in cases that seemed absolutely hopeless, unless something could be done to stay the progress of the disease, and particularly in one case where a man's nose has been completely eaten away on one side, and the antrum of Highmore had been markedly invaded by what seemed to be an epithelioma. It was not examined under the microscope, because the man refused to allow a piece to be excised. He was going down hill as fast as anyone could possibly go. I said to him: "It is life or death. I am going to give you the most powerful form of the X-ray that can be given if you are willing to stand the consequences." He said: "Go ahead, doctor." I went ahead. I certainly produced a most intense dermatitis of the upper portion of the chest—not of the locality affected, curiously enough,—which lasted some three or four months. He was satisfied to put up with it. He became very decidedly better. He is not cured, however, and that will bring up another subject I wish to speak of later. But the X-ray in the hands of competent operators is a force that should be recognized by physi-
cians as a necessity in the average case of malignant disease, either before operation and surely afterwards. I think the X-ray cannot stand alone when the mass of the tumor is so great that the destructive action of the X-ray cannot take effect upon the cells of the center of the mass, or where the mass is exceedingly large, as it is impossible for the system to carry off the broken down cells resulting from X-ray action, and, therefore, toxæmia results. In these cases it is necessary that the mass should first be removed and then the X-ray finish the cure, as it will in the majority of cases.

All of us who work with the X-ray are apt to get discouraged. We feel that our cases drag and drag and drag. Yet when you take into consideration the fact that the development of a cancerous process is not of recent date, that there is hardly a cancerous degeneration that does not have a pre-cancerous stage of long duration, we see the reason why it is necessary that these cases should be treated a long while. Even a comparatively small cancerous growth may require a very long time to cure, simply for the reason that I have just stated, that the development of the cancer into its manifestation as we see it is so slow that its retrogression will be equally or more slow than its development.

Dr. Bigler has well said that we cannot yet define the place in medicine of X-ray therapy; that we cannot know its limitations; that we cannot know its complete possibilities, because the use of it is entirely too recent. There is hardly a medicine that we use (except of course, such as are proven as we prove them by homœopathic means), I mean such as has been found necessary in curing disease, but that it has been used empirically, sometimes for generations, before its limitations and its possibilities were entirely understood. So with the X-ray. We are not yet in a position to say that it must be used in a certain case and cannot be used in another. The cases in which its most striking results have been demonstrated, so far as the saving of life is concerned, are those that were past operation, those that had been given up by surgeons as not not being able to stand another operation. Numbers of those have been cured, and there the laurels of the X-ray are greatest. If we can say to a patient: "The surgeon has given you up, and there is a possibility of your being cured by the X-ray," surely it should be tried, and I think the profession at large should be made to recognize that fact, and that when there is absolutely no hope so far as previous methods are concerned, the X-ray offers some chance of success. I think Dr. Bigler has covered the ground so well that nothing can be added to
his paper, except to deny the fear of this powerful force. Its effect upon the minds of the laity and the profession is to prevent patients from coming to X-ray specialists for treatment, and to keep physicians who have not investigated the matter from recommending patients to undergo that treatment.

Dr. H. P. Cole: I would like to inquire if the writer has ever treated psoriasis or nevi with the X-ray. I had a servant who had psoriasis on each arm, a spot as large as a silver dollar. I had treated it, and she had gone to somebody else at the instigation of her friends. It existed to my knowledge for more than a year. Two X-ray treatments nearly disposed of each one. I am now treating a child with a small nævus, thinking possibly I can destroy the circulation in it. I would like to know if other surgeons have had any experience in this line of work. In an experience of about twenty-two years I can corroborate the statements of the writer of the paper. I have now one case which is taxing me a good deal. The man had the alveolus of the right upper jaw removed for a cancerous growth. The whole roof of the mouth, including the soft palate, is involved in what looks similar to a tuberculous growth, but it is thicker and deeper than that would be. All the teeth have fallen out, and the growth has extended up the side of the alveolus and through the cheek. It seems to resist all treatment, and yesterday the man was in my office and said it seemed to fatten on the X-ray. If you can give me any advice I shall be pleased.

Dr. B. E. Bigler: I am very sorry to say I cannot. I have only treated malignant growths. I think Dr. Gramm can give you a few points on psoriasis and nevi, but my experience is limited to carcinoma, epithelioma and sarcoma. I treated one case of psoriasis—it happened to be a servant in the house—and after a few exposures it entirely disappeared. It had been very persistent and resisted all treatment.

Dr. H. P. Cole: How about the last one?

Dr. Bigler: I cannot cite any case similar to that, or having the same peculiarities. I have treated no lesion that I considered tubercular, but have only had experience from a surgical standpoint with three varieties of malignant growths.

Dr. Cole: The growth in the mouth seems to be almost granular. It is pink in color, does not ulcerate at all and has little white spots all over it.

Some years ago the whole right alveolar process was removed, and the growth was pronounced cancerous. The left side is also in-
volved. The whole of the palate clear back to the uvula is involved, and all the teeth have come out, and it has progressed so that it has affected the cheek just below the malar bone. The X-ray treatment produced quite a little inflammation. I have administered both mild and severe treatment, and repeated the exposures until there was quite a good deal of swelling and inflammation and some dermatitis. The inflammation seemed to be below the surface, and not of the skin itself. I treated it through the mouth mostly, and occasionally from the outside.

Dr. E. M. Gramm: So far as skin diseases are concerned, I have been so completely swamped by the number of cases of malignant disease that have come to me that I have paid very little attention to the treatment of skin diseases with the X-ray. I had so many cases of cancer waiting for some treatment such as the X-ray has proven to be that when I got my X-ray outfit I was completely overwhelmed by them. However, from the reports published in the medical journals, almost all of the chronic hyperplastic skin diseases are cured by the X-ray. The majority of patients, however, are not willing to stand the expense of X-ray treatment of skin diseases. So far as the doctor's case is concerned, its recital brings up a thought that I have had in regard to malignant diseases, particularly in regard to several cases I have had where, as the doctor has said, the disease seemed to feed and fatten on the X-ray. What did that mean? It simply meant that that patient's constitution was not in a condition that he could get well with any treatment. I had a case of epithelioma of the cheek that was examined by Dr. Hall. I knew the patient very well, and knew that for years he had been a most inveterate drinker. That man's vitality was so undermined that there was no hope for him to respond to the action of any force that we now have or that can possibly be discovered in the future. The trouble is you cannot cure a system of any disease where that system is in no condition to respond to a curative stimulus, no matter what that curative stimulus may be. If you investigate the history of your patient's case the chances are that there you will find the reason and not in the X-ray.

Dr. Hills Cole: A good deal has been said in this discussion in regard to the cure of cancer by the X-ray. It seems to me we can afford to be a little more conservative and make less use of the word "cure." It seems to me that the status of X-ray therapy as it is at present is such, and this method of treatment has been used for so short a time, that it seems as if we should not say that these various
growths have been cured. We can afford to wait and be a little more conservative in our diagnosis or prognosis or statement of results. This summer I had the fortune to be in Europe for two or three months, and devoted nearly all my time to the study of X-ray work. While I was in the Middlesex Hospital I saw the work being done there by Mr. Liston, and he gave us a beautiful example of a conservative man. He will not admit the word "cure" in his vocabulary. He tells me he has had some very nice results so far, and every case he has disposed of for the time being he sends away on probation. He will not admit he has cured a single case. I presume there is no operator in the world who has had more experience and has treated more cases than has Mr. Liston.

CHRONIC ENDOMETRITIS.

THEODORE J. GRAMM, M. D., PHILADELPHIA.

A satisfactory classification of the forms of endometritis has not yet been effected. They have been classified according to the etiology, the anatomy, the pathological lesions found, according to single symptoms, and according to the bacteria present. The student is therefore confronted by an array of names which is confusing, and to obtain an orderly conception of the clinical forms of endometritis it is necessary to study the subject completely as portrayed by several authors. The loose application of the term, apparently without accurate information of the pathological lesions present, is doubtless responsible for the diverse and at times rash treatment suggested and applied for these diseased conditions.

Of all the forms of inflammatory changes in the endometrium the one best understood, and, indeed, the one which is the most typical, is the septic endometritis arising from pathogenic bacterial infection during the puerperium. In this variety of endometritis the circumstances are such as we can readily appreciate as furnishing exquisitely typical predisposing circumstances for wound infection. These comprise the attending traumatism and reduced local and general resistance of the body, the haemorrhage, the lochial discharge carrying off the mass of dead tissue from the decidua and the increased lymphatic activity which also aids in disposing of the tissue no longer useful in the decidua and uterine walls whereby uterine involution is to be brought about. If to these favorable predispos-
CHRONIC ENDOMETRITIS.

ing conditions there be added an infection with pathogenic bacteria the etiology is comprehensible. The processes which then come into play, the action of bacteria, the part taken by venous thrombosis, the formation of the protecting wall of granulation tissue, the reparative processes, have all been admirably portrayed by Bumm (Arch. f. Gyn. Bd., 40) and others.

We know also somewhat of the bacterial infections, pyogenic in character, which take place subsequent to and demanding for their occurrence some traumatism of the endometrium; and then there is that series of real endometrial inflammations whose specific bacteria do not demand an abrasion of the endometrium, but which appear to possess the power of affecting and invading the healthy mucous membrane, namely, those of gonorrhoea, tuberculosis, syphilis and diphtheria. These produce their well-known characteristic changes.

But there is another group of diseases of the endometrium whose etiology is not so apparent; and to these belong the series spoken of as chronic endometritis. The term chronic as here used has been criticised as misleading, since while some of these inflammations may be a continuance or a remains of an acute inflammation, yet others are chronic from the beginning, as Dudley has said.—(Amer. Gyn. and Obs. Jr., Vol. X.) In accordance with the present views of the origin of inflammation, that is, as the result of bacterial infection, these cases have been subjected to extensive bacteriological investigation, and the results have not always been confirmatory of each other. Thus Brandt (Cent. f. Gyn., 1891, 528) examined twenty-five cases of endometritis, eleven of which he refers to as endometritis hæmorrhagica, and in almost all of them he found bacteria, while in some he identified streptococci and staphylococci. These results have not been confirmed by Doerderlein, Pfannenstiel, Bumm and Menge, nor by the more recent examinations of Warbasse (Cent. f. Gyn., 1898, 958) and Boije (Cent. f. Gyn., 1898, 653). Since these experiments were made in some instances with extirpated uteri, and all specimens carefully protected from infection and were carried out with especial care, we may conclude that the group of so-called chronic glandular endometritis is not dependent upon bacterial infection, and we must look for their cause in other agencies.

Now, in view of the very changeable character of the uterine mucous membrane during the several periods of life, especially with reference to its normal functional activity as exemplified during menstruation, pregnancy and the puerperium, it is not difficult to comprehend that many local and systemic deleterious influences act-
ing at just the right moment must produce material interferences with the complex processes taking place at these times. That even remote influences may reflexly affect the uterus through the nervous system is suggested by its abundant nerve supply; and how impressionable this organ really is, and how it responds to external influences, is beautifully exemplified in the formation of a decidua during the occurrence of ectopic gestation.

The pathological lesions found in chronic endometritis are such as would be produced by a persistently acting irritation, and are quite different from those found in the acute infections. They consist in hypertrophic and hyperplastic changes, although it is true that there is some small celled infiltration. The irritations, acting persistently and not sufficient to induce more acute inflammatory reactions, are believed to be found in long continued displacements of the uterus, which impair the circulation and therefore interfere with complete intermenstrual quiescence. Tumors of the uterine walls, especially such as approach the endometrium or are located within the uterine cavity, are commonly attended by chronic changes in the endometrium which cause the hæmorrhage characteristic of their presence.

Brennecke (Arch. f. Gyn., XX., 455) has studied the influence of the ovaries in the etiology of endometritis and comes to the conclusion that certain conditions of disturbed ovulation may injuriously affect the uterine mucous membrane, as, for instance, when a thickened tunica albuginea prevents or retards the rupture of the Graaffian follicle. In the beginning of some of his cases in which the period intermittently the ovarian influence tending to menstruation was thought to be sufficient to induce congestion, but which, however, did not eventuate in normal depletion. The same phase of the question has more recently been touched upon by Franz (Arch. f. Gyn., 56, 363). After reviewing the work of several investigators, whose observations show the existence of ovarian changes during chronic endometritis, he cites a case long under observation, and describes the chronic ovarian changes present. From all of this we may conclude that ovarian irritations analogous to the influences, inducing or attending menstruation when existing in modified degree, but persistent, induce endometrial changes.

In the same manner other adnexal diseases and abnormal parametrial conditions, like salpingitis, exudative parametritis and localized peritonitis, have been considered by Czempin (Zeitschr. f. Geb. u. Gyn., XIII, 339), and Dudley (Amer. Jr. Gyn. and Obs., Vol. X).
The latter refers also to the effects of the various diatheses. There must be further added the various disturbed conditions of the nervous system, chronic constipation, that very common cause of ill health in women, and improper sexual relations. There is no doubt that the widespread efforts to prevent conception are deleterious, and their effects are similar to those which have been demonstrated to cause chronic endometritis.

The uterus affected by so-called chronic inflammation is often enlarged. It may be softer than normal from impaired circulatory conditions or from changes in the myometrium. In the late stages of one of the forms, after atrophic or fibroid changes have set in, the uterus is harder and more rigid, so that the normal mobility between the corpus and the cervix is impaired or lost. The endometrium is considerably thickened, a condition readily recognizable by the unaided eye. The enlarged uterus is usually painful to touch and more sensitive to the conditions of the bladder and rectum. There is much distress, in the nature of so-called pelvic tenesmus, or even pain in the lower abdomen and back, especially when there are associated peritoneal irritations. This is particularly true when the chronic inflammation has followed an acute stage. The well-known systemic effects, as nervousness, constipation, emaciation, loss of appetite, are then also seen. When the development of the endometritis has taken place in the more gradual manner above emphasized, the symptoms may be less pronounced, but there will always be present disturbances of menstruation, menorrhagia and later metrorrhagia. The period is prolonged and recurs too often, and soon there is but a brief interval during which the patient is free from haemorrhage. The latter is likewise readily excited by such seemingly slight causes as a walk longer than usual or other physical exertion like lifting, and by any unusual excitement. The most intense anaemia may thus be produced, leading in some instances, which I recall, to a justifiable suspicion of malignant disease. When the haemorrhage ceases there may be but little other discharge, or there may exist a mucous leucorrhoea arising in part from the endometrium, but especially from the cervical glands.

The classification of Ruge into interstitial, glandular and mixed varieties of chronic endometritis has been almost universally adopted.

In the interstitial varieties, as suggested by the name, it is the interstitial tissue which is mostly affected, mainly by hyperplastic changes, or round cell infiltration, diffused or localized. The epithelial covering of the endometrium is usually retained, but may be
partly lost if the case has once been acute. The uterine glands are compressed and more widely separated from each other. The vessels are dilated and multiplied. The round celled infiltration may ultimately be transformed into connective tissue, and from a contraction and atrophy of this tissue the glands may be destroyed, constituting the atrophic stage seen in late cases. In another form the stroma cells are peculiarly enlarged, are rich in protoplasm with small centrally placed nucleus, and in some respects resemble decidual cells. This condition is not diffuse, but usually confined only to certain areas.

In the hyperplastic and hypertrophic glandular varieties, while all the tissues are increased in quantity, the glands appear mainly to be affected. In the glandular hyperplastic form the glands are increased in number by a new formation of them starting from the endometrial surface, and also by a division of those already existing, and they may even penetrate the muscular tissue. They are not much dilated but are quite tortuous. An appearance somewhat resembling adenoma is produced, though the epithelium remains unchanged.

In the hypertrophic glandular form, while the number of glands remains unchanged, there is an alteration in their form, because of increased epithelial proliferation, and on longitudinal section the gland margins are deeply dentated, and in some specimens are invaginated. The glands may be irregularly dilated, and the spaces are filled by retained secretion. While the epithelium is proliferated there is no increase in the number of layer of cells, as in adenoma. Evidences of hemorrhage, from which the patients suffered, are found in the form of diffused remains of red blood cells, and also localized collections of the same.

In the mixed variety both the glands and the interstitial tissue partake of the changes just described. It must be apparent that absolutely pure examples of these several varieties of endometritis do not commonly occur, and from the same uterus may be obtained some microscopic fields which resemble varieties other than that under which the case should be classed from the prevailing pathological changes.

Some pathological specimens lately examined furnished the opportunity for illustrating this subject. The photomicrographs portray the several changes to which reference has been made. All the specimens came from cases in whom menorrhagia or metrorrhagia was a pronounced symptom.
Chronic Endometritis. Interstitial Hyperplasia. x 100.

Chronic Endometritis. Glandular Hyperplasia. x 100.
Fig. III.

Hypertrophic Glandular Endometritis. x 50.

Fig. IV.

Chronic Endometritis. Glandular Hypertrophy.
Invagination of the Glandular Epithelium. x 100.
Fig. V.


Fig. VI.

Chronic Endometritis. General Hypertrophy of all Tissues. x 100.
Chronic Endometritis. Beginning Destruction of the Glands. x 250.
Photomicrograph No. 1 is made from a slide prepared from uterine scrapings obtained during an intruterine examination which I made on account of persistent metrorrhagia. The examination revealed a polyp adherent just above the internal os uteri. The specimen shows interstitial hyperplasia. There are many lymphocytes present. Mitoses are to be found. The glands are not enlarged. The surface epithelium is retained, and the surface is wavy and irregular from increased tissue formation. Just below the end of the uterine gland starting from the surface epithelium is a collection of free blood in the tissues. The nuclei of the numerous leucocytes contained in the clot have taken the stain well. If this specimen be not critically examined with high power lenses, it may serve to obtain a fairly good idea of the normal endometrium. Regarding the cause of the endometrial changes the intrauterine fibroid polyp is to be considered, and I might also mention that the patient had a typical hydrosalpinx on each side.

Photomicrograph No. 2 is from a specimen submitted to me for microscopic diagnosis. Unfortunately the uterus, before its removal by vaginal hysterectomy on account of suspected malignant disease, had been curetted, so that the slides from this case are less perfect than if the endometrial epithelium had been left intact. However, it is possible on account of some remaining fragments of surface epithelium, to say that the mucous membrane in this case is thickened, but there is not the pronounced increase of tissue shown in some of the other cases. The specimen shows glandular hyperplasia. The increase of tissue is caused mainly by multiplication of the glands. Such a condition is frequently referred to as adenoma. As yet there is no multiplication of the layers of the intraglandular epithelium, and I leave the question open whether this is a preliminary stage of malignant adenoma. The patient was pronouncedly anaemic from excessive loss of blood.

The third photomicrograph exhibits a beautiful illustration of glandular hypertrophic endometritis. Like the preceding, the specimen was submitted to me for microscopic examination. This patient had been for a long time under expert care and observation. She also had profuse metrostaxis. The uterus was enlarged and hard, and the endometrium much hypertrophied, being about seven or eight millimeters thick. The glands are so hypertrophied, enlarged and dilated that it is difficult to estimate whether they are not also multiplied. Their lining epithelium is decidedly proliferated, so that a curious dentated appearance is presented when a gland is sected
longitudinally. There is, however, no increase in the number of layers of cells, as in malignant adenoma. In the interstitial tissue there is considerable small celled infiltration, particularly about the glands. There are many leucocytes present. The stratum proprium cells are not condensed or crowded together, but are rather separated from each other by a dissemination among them of red blood cells whose remains are readily recognizable in properly stained sections.

Photomicrograph No. 4 is from another case of chronic endometritis, and is only exhibited to illustrate the curious figures presented by uterine glands when the proliferation of the glandular epithelium is so great as to cause invagination of the gland. Several authors have called attention to the necessity of exercising care not to confuse these appearances with malignant proliferations, for close inspection will reveal the fact that the layers of granular epithelium are not multiplied.

Photomicrograph No. 5 is from a case of severe, long lasting menorrhagia, which had reduced the patient to a state of chronic invalidism. There was considerable perineal laceration and relaxation, posterior displacement and descensus of the much enlarged, hard uterus, with so much glandular inflammation of the cervix as to suggest carcinoma. The hæmorrhage has been extreme; it was so easily excited that but a short walk in the open air was dearly paid for by a flow of blood. I made a test excision of a fragment from the cervix and curetted the uterus. The latter was followed by pronounced improvement. The tissue from the cervix showed only glandular inflammation. In the fragments of endometrium removed by the curette there is presented a mixed form, hyperplasia and hypertrophy. The glands are often dilated and have evidently formed retention cysts. This specimen is particularly interesting in exhibiting all forms of blood infiltration, both diffused and in masses. The patient had been ill for many years, and it is no longer possible accurately to trace the cause of the endometritis, or rather to assign a single cause, but enough reasons can be found in the lacerations, displacement and evidences of long lasting metritis.

Photomicrograph No. 6 is from an interesting case. The patient has suffered for many months from menorrhagia and metrorrhagia, when about a year ago I removed an oblong polyp, adherent within the uterine cavity but protruding from the external os. At that time she was deplorably reduced in health; in fact, so much so that I feared to have her take an anaesthetic, and consequently the operation of removing the intrateretine polyp was completed as hastily as possible
and without undertaking any other operative work required. Improvement set in rapidly, as was to be expected, both in consequence of the operation and from other treatment which was subsequently administered. Lately, however, it became apparent that the uterus had ceased to diminish in size, and the menstrual period, while appearing every twenty-seven or twenty-eight days, was still rather profuse. An examination of the leucorrhceal discharge showed that it contained numerous blood corpuscles. Only occasionally was there a slight intermenstrual show. The uterus was, therefore, carefully curetted and the cervix repaired.

The microscopic slides from this case are beautiful and highly interesting. The endometrium is about five millimeters thick. The histological elements have been well fixed in the preserving fluids, and both on this account and because there is no cellular degeneration they have taken the stain admirably. In examining the slides the first appearance to attract attention is the quite general saturation of the tissues with blood. Free blood is not included in large areas, so that it seems unlikely that this condition was brought about at the time of the curettement. I am rather inclined to believe that it prevailed long before that time, and, in fact, explains the character of the blood-containing leucorrhoea, which closely resembled the lochia alba of the puerperium. The cells of the interstitial tissue are not crowded together, so that both on this account and because of its ability to receive the eosin stain, the fibrillated intercellular network is well shown. The stratum proprium cells are large, and among them are abundant evidences of cell proliferation. Lymphocites are numerous. The glands also are hypertrophied, but not much dilated.

The cause of the chronic hypertrophic endometritis in this case is in all probability to be found in the irritation from the cervical polyp, the increased mobility of the uterus, frequently lying in retropositions due to relaxed ligaments, and also in the fact that on the anterior wall of the uterus a sub-peritoneal fibroid nodule was found by bimanual examination during anaesthesia.

Photomicrograph No. 7 is prepared from specimens submitted to me for microscopic diagnosis. The patient was a young girl suffering from persistent metrostaxis. In addition to the usual changes of chronic endometritis, the specimen is interesting because of the lesions which have taken place in the gland epithelium. The glands themselves are dilated, and are about to be destroyed by the epithelium in nearly all of them being loosened, and in many of them the epithelial cells lie a confused mass in the tissue spaces originally occupied by the
glands. The photomicrograph shows a single gland, a portion of whose epithelium is only loosened, and in another part of the gland the epithelial walls lie in a confused mass.

In conclusion, I would say that repeated attempts with appropriate methods of staining have not been successful in demonstrating bacteria in the tissues from any of these cases.

CARCINOMA UTERI.

D. Bushrod James, M. D., Philadelphia.

(Read as the annual paper of the Wm. B. Van Lennep Club.)

The diagnosis of carcinoma of the uterus is the most responsible the physician is called upon to make. The price for every failure of diagnosis, or for a diagnosis made so late that the cancer has already become unsuited for operation, is a human life.

Under all circumstances, and with all means at our disposal, we must strive to diagnose cancer at the very first examination. To wait in a suspicious case until destructive properties become manifest, as was so frequently done formerly, is to-day a most serious mistake. (Winter, Lehrbuch der Gynakologischen Diagnostik.)

I am forced to make an apology for presenting a subject that has so often been discussed through journals and before this and other medical societies. My last three months' experience in private work, and in Hahnemann Hospital, however, shows to my mind conclusively that the subject needs further discussing and must be kept constantly before us.

During these three months I have operated upon ten such cases, and but one was diagnosed early enough. It is probably an easy matter in the majority of cases to form a proper diagnosis when the case presents itself to the specialist in gynaecology. These cases, as a rule, have been allowed to drag on with improper diagnoses and treatment, under the very eyes of the physician, and at last, his skill being exhausted, they are referred to us, but too late, and the case has progressed beyond the stage where radical measures are no more than tentative, relieving the distressing symptoms of pain, and prolonging a miserable existence for a few months. Such cases should be treated with extreme measures early, and so long as physicians ignore these cases of irregular bleeding, which is the keynote for examination, so long will the high mortality exist. It has been pub-
lished in a recent medical journal, the statement, that no matter how early these cases are diagnosed, there will be a recurrence. this by a high and eminent authority, but I must differ unless the time for recurrence be extended indefinitely. I have personal experience in two cases, one I operated upon five and the other four years ago, that have recently been examined and there remains absolutely no signs of any involvement of the adjacent tissue. A slight scar of the vaginal vault is the only detectable feature. That they were undoubted cases of carcinoma cannot be denied unless the microscope has proved false.

Until recently it was taught that the site of predilection of carcinoma was the stomach, and second the uterus. This, however, was gradually disproved, and with more thorough examinations it will soon be found the uterus will lead by a large proportion.

Between the years of 1847 and 1861, twenty-five thousand out of sixty-six thousand seven hundred fifteen females dying from carcinoma were found to have the primary involvement in the uterus. Welsh recently reported thirty-one thousand four hundred eighty-two cases of carcinoma in females, and twenty-nine and one-half per cent. were of the uterus. With modern methods of examination the percentage of cases is gradually increasing, and as more thorough investigations progress the higher will the percentage advance, though the deaths will decrease.

It is a simple matter to remove a section from the portio vaginalis sufficient for examination, and can be done as an ambulatory case. It is better, however, to do the work thoroughly and surgically. Those cases involving the cervix and uterus can be curetted and sufficient material obtained for diagnosis in a few minutes.

The only fault with the microscope examination in these cases lies in the fact that the curette may slip over the small area that may be involved. The percentage of such cases, if the work is thoroughly done, however, must be very small. The use of the microscope is of paramount importance in all growths of any nature attacking this organ, and its frequent usage is the foundation for better results and lessened mortality in the future. It is a good axiom to look upon everything as malignant until it is proved beyond a doubt that the growth is benign, and until then we are morally and professionally responsible for the progress of the disease. Exclude malignancy, and if necessary take your time for treatment of the safer conditions.

It is a disease, as a rule, of multipara, and usually the robust
mother of several children, and occurs most frequently in the decades of thirty to forty and fifty to sixty, and especially the first five years following the menopause. Extreme cases have been reported at eighty and ninety-three years of age.

It is rarely found in multipara unless the organ has been subjected to the influence of traumatism, and a scar remains as a seat of lessened resistency. It is found rather in the poorer and less cleanly classes of society, where want and worry seem to favor malignancy. Until comparative recent date it was considered to attack the white in preference to the colored race, but now it is found of almost equal frequency in both.

Heredity seems to play but a minor role in its development, and is useful only as a warning to the patients and physicians that examination is necessary.

Inflammatory lesions of the uterus—endometritis in its various forms or cervicitis and endocervicitis and erosions—seem to offer a field for development of these growths, as do repeated miscarriages and abortions and unrepaid laceration of the cervix.

The early manifestations of the disease, and the direction of the growth, as well as its clinical course, will depend upon the site of origin, which may be: 1st, in the squamous epithelium covering the portio vaginalis; 2d, in the high cylindrical epithelium lining the cervical canal or in the glands themselves; 3d, in the cubical epithelium of the fundus or its glands. According to the difference in structure we may have the flat or squamous cell carcinoma or epithelioma, the adeno carcinoma, the scirrhouis or fibrous carcinoma.

Dividing the uterus into three sections, according to its histological anatomy, we have the portio vaginalis, the cervix and the fundus, each having separate and distinct epithelium.

When originating in the squamous epithelium covering the vaginal portion of the cervix we think immediately of an old laceration, a laceration that has been unrepaid either because of failure of diagnosis or lack of examination after childbirth or miscarriage, or the patient suffering very little from the pathological condition will not consent to examination or operation. Associated with the laceration will be ectopia of the lips, a normal tissue in an abnormal situation, subject to more or less constant irritation from locomotion or coition. It is here we frequently find the benign erosion, the early stage of transition from which to malignancy can hardly be recognized except by the microscope. From this benign condition we have the superficial ulcer forming the polypoid vegetating or cauli-
flower excrescence. These may remain dormant for a long time or develop rapidly and invade the vagina. It is rare that the disease when originating here will extend to the cervix or body of the organ. The bladder is often attacked late, but rarely the rectum. The lymphatic involvement seems to be in the direction of the iliac vessels.

To the examining finger the polypoid excrescences or vegetation gives the sensation of an irregular enlargement, soft and uneven, containing crevices. The whole is at first covered with the characteristic leucorrhœa, a thick, stringy and tenacious mucus. Later it becomes thin and watery, more or less purulent, of a bloody, yellow or greenish tint, and very offensive. By examination with the speculum it will be seen to cover the whole growth, and completely destroying the minute characteristics. In the last stages, or where considerable sloughing is taking place, the odor is peculiar and characteristic, but indescribable, except by experience.

In the ulcerative type we find the tissues firm and hard, covered by small crease-like depressions or ulcers. More frequently, however, there are small teat-like elevations. The discharge, while of the same character, does not run through its stages so rapidly and the growth is slower in development. Following manipulation about these parts will usually be found bleeding, varying in degree from a slight stain to a marked haemorrhage. Microscopically a section of the vegetating type shows the rounded finger-like projections usually single, containing a central blood vessel surrounded by many layers of squamous epithelium contained in the connective tissue framework or stroma and surrounded by small, round cell infiltrations. The outer covering is of numerous layers of squamous epithelium containing variable size nuclei, which accept the stain freely.

The ulcerative type shows many layers of epithelium, the nuclei are large and deeply stained and surrounded by a small layer of protoplasm. The cells penetrate the underlying tissue in all directions. Occasionally we are able to demonstrate cancer nests and epithelial pearls.

When the growth originates in the cervix proper, the canal or glands, we find upon examination a round nodule or nodules, which may involve the whole cervix, which gradually disintegrates and causes sloughings, extending into the canal or through the portio. It may cause extensive destruction before there is any external manifestations, leaving only a wall or shell covering the growth, or it
may by its extension cause a destruction in the canal, gradually producing crater-like depressions in a patulous os.

The lips may seem thickened and infiltrated.

The protruding mass forms small papilla-like projections from the canal. Attacking this portion in the incipient stage there is no bleeding following examination or manipulation. The adeno-carcinoma attacking the cervix is found microscopically of the same general appearance of adeno-carcinoma elsewhere. Glands are usually lined by layers of epithelium, projecting as teat-like masses into the lumen, sometimes completely obliterating it. They are greatly increased numerically and show marked ramifications. Occasionally the lumen is empty and distended. The cells and nuclei are of varying shape, and the latter accept the stain with different intensity. The stroma is composed of cervical tissue, containing small, round cell infiltration.

Carcinoma of the body reveals in the beginning very little to examining finger. Later, as the growth extends, the organ becomes uniformly enlarged and soft. With further extension the body becomes fixed and immovable and attaches itself to the intestines and surrounding tissues. It is looked upon as of comparative rare occurrence, but Schaute estimates that 15 per cent. of carcinoma attacking the uterus is found in the body of the organ. The growth is so insidious in its development and the symptoms so indefinite that there remains but the microscope to make a positive diagnosis. Fortunately the growth is slow and offers the best field for satisfactory operation. The growth attacks any part of the mucosa, and begins in a circumscribed area, as finger-like projections, having a shaggy appearance. The carcinoma gradually increases in size, becomes thicker, and is found to have several stem-like offshoots. The growth is soft and friable. Occasionally it will take on the form of a polyp.

Histologically we find the adeno-carcinoma is the predominate type of growth and develops from the uterine mucosa or the uterine glands. The surface epithelium shows a progressively increasing proliferation at first of a few cells or layers without any stroma. Later there appears a stroma and new glandular formation. Those cases springing from the glandular element show various forms of involvement. The picture is usually of numerically increased glands irregularly situated. The lining membrane is of several layers in place of a normal single layer of epithelium with individual nucleci. The cells and nuclei seemed piled one upon another, the lining mem-
brane is usually broken in spots or as a whole, and the epithelial cells are distributed through the stroma. As a rule, there is little or no increase in the stroma. The nuclei are large and deeply stained. There are few authentic cases of squamous cell carcinoma attacking the fundus.

As there is no characteristic symptom there is added considerable danger to the malignancy. There is no one symptom present in all cases, and all the common ones may be absent until the last stages, hence look for any suspicious ones. The most common symptoms are haemorrhage, leucorrhœa and pain.

The haemorrhage may show itself as a slight bleeding after coition or exertion, or as a streak of blood in a long-standing leucorrhœa, or as a menorrhagia, or as a metrorrhagia. In women past the climacteric it occurs as a return of the menstrual flow and is looked upon as a return to sexual activity. The flow in such cases takes the characteristic of a regular menstruation, appearing regularly every month for three to four times, lasting three to five days, and then disappears. It then increases in amount and takes on the form of menorrhagia, then a metrorrhagia, then almost constant haemorrhage, producing the most extreme degree of anemia.

Accompanying the bleeding will be the leucorrhœa. At first it is the glairy tenacious cervical discharge, due to engorgement and congested about the nabothian follicles, then it becomes laden with debris and necrotic fragments, usually becomes thinner and gray, green, brown or black in color. Exceptionally it is thin from the beginning.

The pain in the beginning is not at all characteristic and not severe, but with progression however and extension into the pelvic structure it becomes excruciating and scarcely controllable by drugs. If there is a case wherein a physician is justified in producing the drug habit it is the late stage of carcinoma of the uterus. Many women do not show the results of the disease until late. They appear in perfect health until the very last stage. An equal proportion, however, show the effect early and become, from the absorption of the septic material in the leucorrhœa along with the haemorrhage, cachetic. Muscles lose their firm resistency and become flabby, and loss of weight soon becomes manifest; the skin takes on a sallow yellow color, the eyeballs are depressed, appetite poor and the patient becomes weak and exhausted. From pressure upon the ureters and a septic intoxication urinary secretion is diminished, and if an in-
tercurrent disease does not cause death symptoms of uræmic poison develop and the patient dies of uræmia. It may, however, end as a purulent peritonitis and more rarely from haemorrhage or from sepsis.

Suitable cases for operation are only those where there is no involvement in the broad ligaments, shown by whipcords or strings of beads, upon rectal examination, where the organ still remains movable; where there is no vesico-uterine, or uterosacral, or lymphatic involvement; where there are no vesical or rectal symptoms and the cervical involvement is not too extensive into the vagina.

Recurrence after operation is usually in the scar of the vaginal vault, in the lymphatics, by metastasis in different organs or by implantation metastasis in the neighborhood of the field of operation. Recurrence usually occurs in the first three years following the operation, and especially during the first year.

Case 1.—Mrs. M. S., age forty-nine; no children, no miscarriages. Examination cervix normal, body enlarged, irregular mass attached to the body and involving the right broad ligament. Began with a chill four months previous to operation, accompanied with pain in the right ovarian region; menses ceased two years previous, recurred sixteen months later; at first scanty, then freely for three weeks, then ceased; loss of weight twenty-five pounds. Operation abdominal hysterectomy; death third day from peritonitis.

Case 2.—Mrs. J. M., age fifty-six; five children, one miscarriage. Examination perineum lacerated, cystocele, rectocele, procidentia, Cervix, carcinomatous area size of ten cent piece, involving the portio vaginalis about the external os. Began three months previous with bleeding, scanty, lasting until two weeks before operation; no loss of weight, pain or leucorrhœa. Operation vaginal hysterectomy; recovery.

Case 3.—Mrs. A. H., age forty-nine; three children, two miscarriages. Examination cauliflower excrescences of portio vaginalis extending laterally into the broad ligaments and vagina anterior to the bladder posterior to the rectum. Began with pain in the pelvic region three months previous, which ceased seven months before the operation; noticed slight bleeding accompanying a long standing leucorrhœa. Operation curettage and removal of fungating growth and cautery; discharged from hospital with no recurrence.

Case 4.—Mrs K. B., age forty-eight; six children, no miscarriages. Examination cervix involved with nodular growths distinguishable under the portio vaginalis, portio vaginalis not involved,
os slightly dilated, cervical canal containing soft friable material, body movable. Began four months ago with leucorrhoea and slight bleeding as return of menstruation appearing regularly for three months, gradually increasing in amount until the last month, then continuous; no less of weight, pain severe. Operation abdominal hysterectomy. Died.

Case 5.—Mrs. M. M., age forty; two children, no miscarriages. Examination vagina atrophied, cervix and body absent, mass in the right broad ligament, slight loss of weight. Was operated upon three years ago for an ovarian cyst; one year later was operated upon for another tumor; after that time during her menstrual period suffered severely; more marked in the ovarian regions; pain gradually increasing in severity until the last six weeks pain has been continuous and unbearable. Operation abdominal section, removal of carcinomatous area in the right broad ligament. Recovery.

Case 6.—Mrs. M. F., age forty-two; seven children, no miscarriages. Examination fungating mass involving the whole cervix and extending laterally, anterior and posterior; lymphatic involvement, broad ligaments filled with strings of beads, uterus immovable. One year ago began with pains, worse at the menstrual period, increased menstrual flow with continued severe haemorrhage until date of operation. Operation excision of carcinomatous mass about the cervix, cauterization. Discharged from the hospital with no recurrence.

Case 7.—Mrs. A. W., aged sixty-eight; one child, one miscarriage. Portio vaginalis completely destroyed by fungating carcinomatous growth, body large fixed, vagina showed secondary involvement size of ten cent piece in the anterior wall one inch from the meatus, both broad ligaments involved. Refused to operate; unsuitable.

Case 8.—Mrs. C. W., age sixty; children, 11; miscarriages, 0. Examination, vulva normal. Perineum lacerated, contains several scars, atrophied. Portio vaginalis, atrophied, on level with vagina, crater like opening leading into cervix. Body retroverted, slightly movable. Lateral regions negative. Diagnosis carcinoma cervix. Menstruation ceased eight years previous. Two years ago had severe haemorrhage, lasting one month. No bleeding from then until four months before operation; then another haemorrhage, followed by leucorrhoea containing blood streaks and exceedingly offensive. Operation abdominal hysterectomy; death from shock.

Case 9.—Mrs. W. B., age 51; children, 1; miscarriages, 2. Examination, vulva normal. Perineum lacerated. Portio vaginal:
Ulcerative area on anterior lip size of quarter dollar; bleeds freely following examination. Lacerated body. Retroverted; movable. Lateral regions, negative. Diagnosis, carcinoma of portio vaginalis; ulcerative type. Operation, vaginal hysterectomy; recovery. Menstruation had been regular until five months previous; then increased in amount; then constant for last three months. Leucorrhcea, thin, watery, offensive. Pain at times severe.

Case 10.—Mrs. M. H., age 49; children, 3; miscarriages, 3. Examination, vulva normal. Perinaeum, lacerated. Portio vaginalis: Fungating mass involving whole portio; no lateral extension. Body, anterior atrophied. Lateral regions, negative. Blenorrhagia following examination. Menstruation ceased one year previous to present condition, which began as return of menstruation; regular for three months, then continuous for last six weeks. Considerable thin, watery leucorrhcea; slightly offensive; no pain. Operation, vaginal hysterectomy; recovery.

DISCUSSION.

Dr. Theo. L. Chase: The doctor apologized for bringing this subject to the attention of the Society. I think, however, we should be glad that it has been brought up for discussion, and it should be talked over until the indications for operative procedure in malignant diseases of the uterus are well fixed in our minds. The doctor has mentioned that the symptoms of this condition are haemorrhage, pain and leucorrhcea. Now, the fact is that when cases of cancer of the uterus have developed those symptoms, a large proportion of them are already inoperable, or rather it is too late for a successful operation, as the disease will usually recur. Dr. Bartlett, whom you all know, remarked to me, speaking of a patient that he had, "I am more and more convinced as time goes on that every woman when she reaches forty years of age should have a vaginal examination made in order to be sure that she has not carcinoma." I think that is a very wise remark, coming from a practitioner who sees a large number of cases, and, as we all do, such a large percentage of unsuccessful cases. Why is it such a large percentage are unsuccessful? The doctor has said to you that during his hospital experience the records show an appalling mortality, and it is truly appalling. Cases come in with a note from the family physician stating, "I send Mrs. So-and-So to you for operation; she has cancer." The doctor then sends another case and another (and we have some men who
send four or five to the hospital within a short time), and these cases are operated because an operation is the last resort, and they either die shortly after the operation or within a few months from secondary involvement. I think instead of considering haemorrhage, pain and leucorrhæa as the cardinal symptoms of cancer we should investigate every menstrual irregularity that occurs after or during the menopause, particularly if it is a metrostaxis. Every practitioner knows that when he meets cases involving the body of the uterus the symptoms are at first obscure. They cannot be well recognized by bimanual examination until the disease has made considerable progress, and then an operation is not likely to be successful. If there is a discharge from the uterus, not necessarily an offensive discharge, but any discharge (it may be simply an exaggeration of a leucorrhœal discharge that the patient considers normal in herself), and if in such cases the practitioner will curette the uterus and send the curetted material to a pathologist for examination, he will feel certain whether he can go on treating that case as a gynaecological one requiring local treatment, or whether he shall say, "This is a case where the uterus should be removed." How often we have cases sent to us where the patient will say, "I have been entirely cured." There was one sent to me a short time ago, and the only symptom the woman had was metrostaxis without pain and without leucorrhœa. She said she was perfectly well, had never been better than she was in the last two years. I curetted the uterus, as I always do in cases of that kind, and sent some of the scrapings to Dr. Hall. His report was, "That is a malignant uterus, and should come out." The uterus was removed. It was a very interesting case, and I was in hopes that Dr. Sappington would have it prepared in the gelatin preparation they are now employing at the Hahnemann College, but it is quite a large specimen and could not be carried in the case he has brought along with him. After the uterus was opened there was found a narrow streak of carcinomatous infiltration extending from the cervix, just inside of the os uteri, then going within the tissue of the cervix into the muscular tissue of the uterine wall for a distance of about an inch and three-quarters. That is one of the cases in which I feel the operation will be a success; but as the doctor has just stated, we have nine practically hopeless cases sent into the hospital to one in which there is prospect of a successful operation. This is due to the fact that patients are treated symptomatically by the doctor. He prescribed for offensive leucorrhœa, for metrostaxis during the menopause, and everything else, without making an examination.
Another interesting case that comes to my mind in which the patient had two small nodules upon the cervix; these were bluish-looking, smooth, almost like the cysts that we see there, but they were hard. A small V-shaped piece was excised and sent to a pathologist. He stated that it was cancer, and that the uterus should be removed. The uterus was removed and nothing further could be seen except those two small spots upon the surface. On account of the fear that the disease might have invaded other pelvic organs, a large part of the broad ligaments and also the ovaries and tubes were removed. The doctor said to me, some time after that, "That specimen you sent me was a very interesting one, because I found within a vein between the layers of the broad ligament, well away from the uterus, a carcinomatous alveolus." Cases of that kind prove that when a diagnosis of carcinoma is made it is never too early to operate.

Dr. G. W. Roberts: I would like to say just a word about this subject, as it is such an interesting one. The doctor who read the paper said, by way of apology for again bringing up something concerning the diagnosis of cancer of the uterus, that of the ten cases which he reported, nine were seen too late for a successful operation. When Dr. Chase referred to these nine cases as being unsuccessful, I think he did not mean just that, even of those nine cases some will recover. He intended, I think, to say that those nine cases were diagnosed very much later than they should have been. Only one of the cases can be classed as an early diagnosis. For the last fifteen or twenty years it has been recognized by the medical profession and, scattered all through our literature, corroboration of the fact is found that in order to make a diagnosis for operation it is important not to wait for the three cardinal symptoms to appear.

As Dr. Chase has said, a case of cancer which is characterized by hæmorrhage, pain and foul discharge is, in a large proportion of cases, hopeless from a surgical point of view. Our diagnosis must be made before those symptoms appear. It is my belief that early in the dawn of the present pathological era a black eye, so to speak, was given to the pathologist by many of our surgeons. Undoubtedly many errors were made in pathological diagnosis. It came to be rather a trite saying that the microscope was unreliable as a means of diagnosing malignant growths. That may have been true at one time, but it certainly is not true now, and the doctor who has a case of uterine disease which is at all questionable, and neglects to avail himself or herself of the microscopic diagnosis, is certainly doing the patient a very great injustice. It seems strange that after fifteen
or twenty years of reiterating this subject we should still see ninety per cent. of these cases come into the hospital, as the doctor has said, with a late diagnosis. It is absolutely inexcusable. There is no other profession which would tolerate any such state of affairs; no other profession in which such a state of affairs could exist. I believe that the doctor has done the right thing in emphasizing once more the importance of an early diagnosis.

One or two words about the treatment. If it were not for our constant experience in seeing cases brought by the practitioner with a question mark as to whether they should be operated or not, we would say the subject was settled as to what should be done with cases of cancer. Medicine, even the newer X-ray methods, has nothing upon which we can as yet rely. It is possible that the X-ray will become available for their cure, but we have no evidence to that effect at present, and the thing to do is to operate immediately and widely. I am sorry to take a stand against the numerous vaginal hysterectomies that are done. I believe vaginal hysterectomy has seen its best days as a means for the cure of uterine cancer. Most of the cases should be operated through the abdomen. Not only should the uterus be removed by an abdominal operation, which is more easily performed than through the vagina, but the opposing surfaces of the peritoneum should be brought together and the glands lying over the bifurcation of the great arteries, the common iliacs, should be removed as thoroughly as possible. The case which Dr. Chase cites, where an island of cancer was found a number of inches from the uterus, is only a duplication of many similar cases. We must expect to find that condition of affairs, and it is unsafe to make it a rule to remove the uterus and an inch of margin. We must remove these cancerous organs as widely as we can without interfering with the vital organs.

Not very long ago I had occasion to carefully study a case of rectal cancer, where the cancer occupied only a small surface on the rectum, and in that case we found six inches beyond where we could microscopically recognize cancerous growth islands of infiltration in the mucous membrane. Not only that, but eight inches from the growth we found glands at the bifurcation of the two iliacs which were cancerous. If that is the case in rectal cancer it is even more the case in uterine cancer, as brought out by Cullen in his valuable work. For that reason I believe most of these cases should be removed by the abdominal route.
The great importance of early diagnosis cannot be too often mentioned in societies, and I hope the day will come when no man will get up and report that nine out of ten cases which have come to him have been cases of late diagnosis.

Dr. D. B. James: If I left the impression that I think it proper to wait for late symptoms such as pain. I was misunderstood. I have reiterated to students that they should not wait until suspicious symptoms present themselves. I say to them, always make a thorough examination if you have the least ground for supposing that cancer exists.

Dr. T. J. Gramm: This is a favorite subject of mine, and has been for a number of years. I am delighted to note the change that has come over the spirit of the scene in the latter years that I have been giving attention to the subject of gynaecology. I remember the time when in certain circles I was not sustained in advocating what apparently is now the universal expression of opinion, at least it has not been controverted thus far this evening. It is very true that the so-called classical symptoms of cancer are only present when a case is in an inoperable condition. Of course, for the men who first see the cases we should unquestionably emphasize the importance of recognizing them early.

It seems to me that the subject of operation is by no means a closed one. The statistics of post-operative cases of carcinoma vary so widely that I do not think we can form a very clear estimate of how far an operation may benefit a case. In one of the old school societies I was recently very greatly struck by the difference that existed in the statistics of several operators. I think, therefore, that the operator should not be too sanguine relative to his results, and I also think it should be impressed upon the patient and attending physician that the results are by no means to be settled at the time of the operation. I say this because it reflects again upon other cases that are to come to the surgeon. The patient will say to you as I have many times had them say to me: "But Mrs. So-and-So," somebody they knew, "was operated on for cancer, and yet died in a very short time." In other words, our operations cannot always, in the nature of things, be expected to be curative; some must only be palliative. I think it is wrong for us to leave the impression with a patient that we can accomplish a great deal in a given case of carcinoma. I want to call attention again to the fact that in the case referred to by Dr. James, a cancerous nodule was found in the
broad ligament, while upon the cervix there were only two small nodules. That is in direct accord with the experience of a number of operators, and especially those who have most closely followed the method referred to by Dr. Roberts, originated by Dr. Clark, of the Johns Hopkins University, that of dissecting out all of the glands around the iliac bifurcation. That is a splendid theoretical operation. However, it has not proved as successful as its originator, or any of us, would desire.

I think that the entire subject of carcinoma is one that emphasizes most particularly the subject of pathology, and fits in most admirably with it. I think we ought to emphasize, and I think these cases have emphasized the fact, that we should make a thorough study of the microscopic appearances presented by our gynæcological cases, because it is only by a microscopical examination we find out something about their cause.

THE PRESERVATION OF GROSS PATHOLOGICAL SPECIMENS IN THEIR NORMAL COLORS.

S. W. SAPPINGTON, M. D., PHILADELPHIA.

Before the introduction of formalin, alcohol was almost the sole agent for the permanent preservation of anatomical and pathological "wet" specimens. Alcohol is a good preservative and pleasant to work in. The disadvantages of over-hardening, shrinking and distortion of the specimen are to some extent done away with by beginning the process with weak alcohols and progressively increasing the strength in successive solutions. As far as the preservation of color is concerned, however, alcohol is useless, the familiar bleached specimen, save for a certain amount of unaffected pigment, being the end result in all cases.

Formalin, the 40 per cent. commercial preparation of formaldehyde, was introduced as an ideal preservative, and has in many respects made good what was claimed for it. As a general fixative and hardening fluid causing a minimum amount of shrinkage, formalin, when used in weak solution over long periods, is without a superior. No better attestation of this fact can be offered than the beautiful museum specimens prepared by Dr. Weaver for the Hahnemann Medical College. But formalin is unpleasant to work in, to
say the least, and as a color preservative is of no more value than alcohol.

Inasmuch as formalin possesses so many good qualities but lacks the important qualification of holding the natural colors, many methods have been suggested recommending formalin-containing solutions with yet other substances in the solution to aid in the retention of the color, while not interfering with the good effects of the formalin. Of these the best is generally conceded to be that of Kaiserling. In fact, most of the preservative methods of any value are but modifications of this standard method.

The formule of the principal solutions and the methods for their use are as follows:

*Kaiserling’s Method.*

1. Fix for one to five days in—

<table>
<thead>
<tr>
<th>Substance</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formalin</td>
<td>200 cc.</td>
</tr>
<tr>
<td>Water</td>
<td>1000 cc.</td>
</tr>
<tr>
<td>Potassium nitrate</td>
<td>15 g.</td>
</tr>
<tr>
<td>Potassium acetate</td>
<td>30 g.</td>
</tr>
</tbody>
</table>

   Pad the bottom and sides of the jar with absorbent cotton. Change the position of the specimen frequently, protecting the hands from the 20 per cent. formalin solution with rubber gloves.

2. Drain and place in 80 per cent. alcohol for one to six hours, then place in 95 per cent. alcohol for one to two hours. This restores the color which is slightly affected in the first solution.

3. Place for permanent preservation in—

<table>
<thead>
<tr>
<th>Substance</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerine</td>
<td>200 cc.</td>
</tr>
<tr>
<td>Water</td>
<td>1000 cc.</td>
</tr>
<tr>
<td>Potassium acetate</td>
<td>100 g.</td>
</tr>
</tbody>
</table>

The whole process is to be carried out as much as possible in the dark. And the specimens in the final solution are to be stored away from the light except when on exhibition, since the colors gradually fade on prolonged exposure.

*Pick’s Method.*

1. Place specimens one to two days in—

<table>
<thead>
<tr>
<th>Substance</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formalin</td>
<td>50 parts.</td>
</tr>
<tr>
<td>Water</td>
<td>1000 parts.</td>
</tr>
<tr>
<td>Sal carolin factit</td>
<td>50 parts.</td>
</tr>
</tbody>
</table>

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1Kaiserling, Virchow’s Archiv., Bd. 147, Heft 3, p. 389, 1897.
2From Stengel’s Pathology, 4th edition.
Sal carolin factit is composed of—

Potassium sulphate ........................................ 2 parts.
Sodium chloride ........................................... 18 parts.
Sodium bicarbonate ....................................... 36 parts.
Sodium sulphate .......................................... 44 parts.

2. Place specimens in 80 to 90 per cent. alcohol for twenty-four hours.
3. Place for permanent preservation in—

Glycerine ......................................................... 100 parts.
Water .......................................................... 1000 parts.
Potassium acetate .......................................... 50 parts.

The last solution may be varied in strength.

*Melnikow-Raswedenkow's Method.*

1. Place specimens one to five days in—

Formalin ...................................................... 100 cc.
Water ........................................................ 1000 cc.
Sodium acetate ........................................... 30 g.
Potassium chlorate ...................................... 5 g.

2. Place specimens in 80 to 95 per cent. alcohol for twelve to twenty-four hours.
3. Place for permanent preservation in—

Glycerine ......................................................... 600 cc.
Water .......................................................... 1000 cc.
Potassium acetate .......................................... 300 g.

*Galt's Method.*

1. Wash specimen in water and place in 80 per cent. alcohol for one to four days.
2. Place for permanent preservation in—

Water .......................................................... 1000 cc.
Sodium chloride ........................................... 50 g.
Potassium nitrate ......................................... 10 g.
Chloral hydrate ........................................... 10 g.

*From Cattell's Post-Mortem Pathology, 1903.*

*Galt, Lancet, Nov. 16, 1901, p. 1334.*
For each of these methods is claimed practically the same thing, i.e., the more or less perfect preservation of color with a maximum retention of the other normal or abnormal characteristics of the specimen. Most of the formulæ contain formalin in the first solution, Kaiserling’s containing 20 per cent., and Pick’s but 5 per cent. We have to withstand the unpleasantness of working in this fixative for the sake of its good qualities. The ingredients in the final solution are the same in Kaiserling’s, Pick’s and Melnikow-Rasweden-kow’s methods, variations simply occurring in the strength. Galt first uses alcohol to fix and harden, but formalin may be substituted.

We have only had personal experience with Kaiserling’s method. We prefer to leave specimens a long while in the first Kaiserling solution, being sure they are thoroughly hardened before removing them; this may take from four to eight days. We then place them for twenty-four hours in 80 per cent. alcohol, and twenty-four hours or more in 95 per cent. alcohol. In this longer exposure to alcohol we have followed the recommendation of Rosenberger, and have secured results much superior to that obtained by the customary short exposures. Organs like the liver, kidney or lung, breast tumors, or any organ or tissue that can be sectioned at will to expose the proper surface, we do not cut until after they have remained for the proper period in the 95 per cent. alcohol. They may then be placed again in the strong alcohol for five to twenty minutes, and, finally, in the last Kaiserling solution. This point of not sectioning until after the last alcohol we think very important for obtaining the best color effect. Organs like the kidney, spleen, pancreas, breast, and even as large an organ as a lung; on account of its porosity, may be placed whole in the first Kaiserling fluid and suitably sectioned after the alcohols. Organs like the liver and large tumors are best cut in smaller pieces to allow the better penetration of the first Kaiserling and the alcohols, and as usual can be cut for the exposure of the desired surface after the latter fluids. In brain specimens, if possible, we first cut a horizontal section from the top or parts that are not to be used. In specimens in which the desired surface is already naturally exposed and sectioning is impossible, as for instance the heart or gastro-intestinal tract, it is important that contact with the solutions, except the last, be as brief as possible, else the color will be largely lost. Thus typhoid or gastric ulcer may only require a few

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hours in Kaiserling No. 1 for proper hardening, while the exposure to the alcohols must be judged by the return of color and not by time. Perfectly satisfactory microscope specimens may be made after any stage in the Kaiserling method.

The method of Kaiserling seems to afford us the best means for the general preservation of museum "wet" specimens, but Watters has suggested a modification or rather a supplement to this method which retains all the virtues of the Kaiserling process and adds the extremely valuable benefits of solid portable mounts, which can be used not only for museum exhibition, but also with greatest advantage for class demonstration. For the latter work we consider this method unsurpassed. Obviously, such preparations could also be most conveniently used in medical society meetings.

The method is quite simple. One part of gelatin is added to fifteen parts of the last Kaiserling fluid. This is liquefied over a water bath, the white of an egg added to clear it, and the solution filtered. This is the mounting medium. Specimens prepared according to the ordinary Kaiserling method are sectioned at about 1 mm., and so as to present a flat surface for mounting. A thin layer of the gelatin solution at from 30 to 35°C is poured into an upturned Petri dish and the section is placed in this face downward. As soon as the gelatin solidifies it holds the specimen firmly against the glass surface and the dish is now filled with gelatin solution until a convexity is formed above the edge. A square ground glass plate, which has been lying in a basin of water, is then placed, while still wet, with its rough surface down over the dish filled with gelatin. To do this properly requires a little skill. First touch one edge of the dish with the plate and then let it slowly drop, thus forming a wave of gelatin that will force out any air bubbles present. The preparation is left in this position until the gelatin hardens; this is said to occur in a half to two hours. The mount is now reversed and the ground glass forms the base and the Petri dish with the contained specimen the top. The superfluous gelatin is removed with a coarse brush or a cloth wet in water, and the Petri dish sealed to the glass plate with Canada balsam. The name and description of the specimen may then be written on the ground glass in ink.

We have been working with this method of Watters for almost a year with most satisfactory results. The few disadvantages encoun-

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tered in its use, we think, or at least hope, we have eradicated. The greatest difficulty we have had to contend with has been the melting of the gelatin in warm weather. This is a very serious objection, because if one's winter work is to be spoiled each summer the method will soon drop out of use except for temporary exhibition mounts. We have repeatedly remounted specimens without difficulty or apparent harmful effect, but if the method requires this it becomes too tedious for practical work. The majority of our mounts melted early in the summer. Why the same lot of gelatin under one Petri dish liquefied and under another did not we do not know, unless the specimen itself has some influence. And this may be so, as we noted that our mounts of tubercular lung melted first and most easily of all, while a normal brain withstood all the summer's heat. But we wished the mounting medium to be good for all kinds of specimens and all kinds of weather, and for this reason have experimented a little on the addition of small amounts of formalin to the gelatin solutions, as originally suggested by Watters. Taking a half a dozen test tubes we placed small pieces of nutmeg liver in each. Two of the tubes we filled with gelatin solution containing 2 per cent. formalin; two more were filled with the solution containing 5 per cent. formalin, and the last two tubes contained 25 per cent. formalin in the mounting medium. We then exposed three of the tubes containing the various strengths of formalin to the light and ordinary summer heat for three months; the other three tubes were exposed to the same conditions, except that they were kept in the dark. At the end of this time the tubes containing formalin in the strength of 25 per cent. showed liquefaction of the gelatin. The other tubes were practically unchanged. Careful examination showed absolutely no change in the coloring that might have been expected from the addition of the formalin. Neither did the three months' exposure to light seem to have the slightest effect on the color of the specimens. The tubes were further tested by being ulcerated in an incubator at a temperature of 40° C., but this produced no effect beside what had already taken place at room temperature. Finally we took a fresh gelatin solution, added 5 per cent. formalin to it, and allowed the medium to solidify. We then heated it over a water bath and up to 90° C.; the gelatin was still solid, and not until the temperature reached 95° C. did the medium begin to soften. We therefore use in the mounting of our specimens 5 per cent. formalin in the gelatin solution in the manner indicated below.
Another difficulty encountered was the length of time required for the thin layer of gelatin first poured in the Petri dish to solidify sufficiently to hold the specimen firmly against the glass surface. Often on the addition of the warm gelatin, after we thought the first layer was quite solid, the specimen, especially if a lung, would float up and make a failure of the operation. Moreover, in summer weather it was absolutely not practical to wait for the solidification of the gelatin. This difficulty we entirely removed. As soon as the first layer of gelatin was poured in the dish and the specimen placed in position we placed the dish on ice. This, of course, quickly solidifies the gelatin, and in five or ten minutes the whole dish and its contents are so cold that the remaining gelatin required can be poured in at a comparatively high temperature without any deleterious effects. The value of this can be seen when we state that we have found that when formalin is added to the solution it is necessary to work with the fluid gelatin at a higher temperature because the formalized solution has a higher solidifying point, and if the medium containing the formalin once begins to grow firm the solution might as well be thrown away, the difficulties of remelting it being so great. The use of ice then becomes a necessity as well as a convenience.

The thickness of the sections recommended in Watters' article is 1 millimetre. We have never been able to satisfactorily cut them this thin, and many specimens will be spoiled by such thin sectioning. Our sections vary from 3 to 10 millimetres. This makes a section of considerable weight, and the constant pressure of this weight on the surface of the gelatin may have had a great deal to do with their breaking down and melting. We have, however, only made the sections as thick as we found necessary, and we trust the formalin will prevent softening in our present mounts.

Simply as a matter of convenience we use oblong pieces of ground glass instead of the squares first recommended. Our Petri dishes are 10 to 15 cm., respectively, in diameter, and the glass used for these measures 20x12.5 cm. for the first and 20x17.5 cm. for the second sized dish. The specimen is mounted at one end. The advantage of this is that the free end of ground glass serves as a handle and leaves a larger space to label and describe the specimen.

Our procedure, then, is as follows: Specimens passed through the first Kaiserling solution and through the alcohols are suitably sectioned for mounts after coming out of the 95 per cent. spirit. They are then replaced in the strong alcohol for five to twenty minutes,
and are ready for mounting any time after they have been an hour in the last Kaiserling solution. The gelatin medium is rendered fluid and the dishes and glass bases are made ready for use. When the fluid gelatin is at a temperature of about $50^\circ$ C., 5 per cent. formalin is added and thoroughly mixed with the solution. The liquid medium is then at once poured into the dishes (it is better to make a number of mounts at the same time), the specimens placed in position and the mounts are one after another placed on ice and quickly solidified. The remaining gelatin, which has by this time reached a temperature of about $40^\circ$ C., is poured into the dishes, the ground glass bases are dropped on and the specimens are left over night to firmly fix. They are then reversed, cleaned and sealed with Canada balsam. The specimens are kept in cases which correspond on a large scale to microscopic slide boxes.
REPORT OF THE

SECTION ON PÆDOLOGY.

The Treatment of Mental Deficiencies, by W. H. Bigler, M. D.
Epilepsy in Childhood, by A. J. Bittner, M. D.
Observations and Signals of Baby Life, by A. L. Kistler, M. D.
The Clinical Examination of the Intestinal Contents of Infants, by C. S. Raue, M. D.
Forty Cases of Capillary Bronchitis Treated with One Remedy, by J. L. Redman, M. D.
A Plea for the Baby Girls, by M. Hassler Schantz, M. D.
Some Observations Concerning the Diagnosis of Heart Disease in Infancy and Childhood, by Edward R. Snader, M. D.

THE TREATMENT OF MENTAL DEFICIENCIES.

W. H. BIGLER, A. M., M. D., PHILADELPHIA.

Although it is natural that in the eyes of the mother and the family physician the bodily nourishment of the infant and child should be of the first importance, this fact hardly justifies the deluge of papers on Infant Feeding in all its ramifications which has inundated the medical journals during the past few years. The whole body of pædologists seems bent on bringing the problem of infant food to the accuracy of a mathematical formula of minute percentages and insignificant variations, disregarding almost entirely the adaptability, especially in childhood, of the human organism to its environments. On a comparison of the numerous articles upon this subject we will find but little that is new or original, the only variety to enliven the feast presented to us being some new process for readily calculating formulæ perhaps, or only some slight difference in the presentation of the subject. This is, of course, more or less true in the treatment of any subject at the present time, for there is nothing new under the sun, and yet there are some things more nearly new than others, and in this case it would seem that a little more attention might be devoted to the mental growth of children than is accorded the subject in current medical literature and in the stand-
ard text-books. We are apt to think that a sound body necessarily implies a sound mind, and are content to judge the latter, as we do the former, by the scales. Unfortunately the unsoundness of the physical which lies at the basis of mental deficiencies is not discoverable by weighing, and may exist even with all the outward appearances of bodily soundness.

The attitude of hopelessness which is so generally held towards cases of mental defects could, we think, in many instances be changed were the same care and exactness taken here by the physician in prescribing his curative measures as he exhibits in finding the exact percentages in his modified milk in cases of defective bodily growth.

It is the modest purpose of this paper to present some of the facts of physiology bearing upon this subject and to deduce from them certain general principles of treatment, the application of which can in many cases be left to intelligent parents under the guidance of an intelligent physician.

In this paper we limit ourselves to mental deficiencies of a primary character, and exclude those the result of traumatism or antecedent disease—after birth. We include, however, those cases of arrested or perverted mental development, the result of the act of being born, dependent upon long, difficult or instrumental delivery. Fortunately the injuries thus occurring are usually superficial in character and speedily rectified, but in other cases results show that there has been a more deeply seated traumatism, perhaps only microscopic in extent, but yet sufficient to disarrange some elements of that delicate nervous organ, the brain, whereby its normal development has been retarded or perverted. Further, we wish to include those cases of markedly retarded development, even if normal, since the same general principles can apply, and should be applied, to them as to those in which the development is faulty. The longer the normal development is delayed the greater the danger of this becoming abnormal, especially in its moral or emotional aspects by the environment. Of course, it will be understood that the delay of a few months in learning to walk, or to talk, etc., is not sufficient ground for classing those showing this delay among the mentally defective; it is only when the retardation lasts for years that we are justified in making such classification.

Cases of mental deficiency, idiocy or imbecility in its simplest form may be, but are not of necessity, connected with outward phy-
sical signs—stigmata of degeneracy—which we will not enumerate since we wish to confine ourselves to the mental condition and only such acts as are indications of this.

The normal child will begin to handle and examine with interest toys given to it at about the age of five or six months. It will at about the same time recognize the bottle, its mother, or its nurse, and by the end of the first year will be able to pronounce single words distinctly, and by the second year to frame short sentences.

There often occur instances of precocity, which, if too marked, need careful watching, but where these acts are delayed much beyond the periods given we may regard it as abnormal and calling for treatment. Instead of simply delayed we may have perverted development, shown chiefly in the want of proper co-ordination of movements, or in emotional explosions without discoverable cause, such as inane laughter, spells of crying, or exhibitions of rage. We will find also difficulty in arresting and in fixing the attention by the usual means adequate in the case of the normal child. The expression of countenance will change suddenly from fixity of attentive gaze to absolute vacuity, accompanied often by purposeless unusual inco-ordinated movements of the extremities.

These symptoms are often overlooked or misinterpreted by parents, and the child is brought to the physician only after they have existed for a considerable time, a fact which renders a correct diagnosis somewhat difficult. The effects of continued habits and associations must first be eliminated before we can arrive at a knowledge of the pure symptoms of the case. For example, an only child, compelled by the force of circumstances to forego association with other children, may be slower in developing than one who has the advantage of the example of others about him; or the association may be only with older companions whose objectionable habits are too readily imitated. Having eliminated these sources of confusion, and having determined that the symptoms presented are inherent in the mental condition of the child, our next step is fully to realize that this is dependent upon a physical condition of the brain as the instrument of the mind, and that all our efforts at treatment must be directed to altering this condition. This is the focal point of this paper. We do not mean that we can, even approximately, determine the exact portion of the brain at fault, nor even the actual histological alteration in its cells, but only that we can, in a general way, conceive of the condition underlying the symptoms, and by
making this conception our guide may be led to prescribe with exactness a line of successful treatment.

Certain facts of anatomy and physiology will assist us in directing our efforts intelligently. We know that the brain is made up of a mass of cells, provided with their dendrites through which impressions from the outer world, or from the periphery, are conveyed to the cell body, and with their neuraxons, or axis cylinders, through which impulses are sent out centrifugally to produce movements of various kinds in response to these impressions.

We know, too, that these cells are not continuous, but only contiguous, and that their prolongations may, and do, come in contact with each other in wide areas, so that they may individually receive impressions from various sources and send out impulses in various directions.

We know, too, that the contact of these prolongations has become fixed by heredity and habit, and that, therefore, there is a normal path for the reception of impressions and a normal response to them (sanity and morality), but that either by some unknown prenatal influence, or by disease, or by shock, or even by fatigue, such normal connections may be altered, temporarily or permanently, with a corresponding abnormal response (insanity, immorality). When, therefore, a child shows the symptoms enumerated above we must look for their cause in the arrangement of the neurons of the brain, and we can say that there is either an entire absence or imperfect development of certain cells necessary to make the normal connections or a faulty arrangement of normal cells actually existing.

By this knowledge we are led to the following principles upon which to base our treatment:

1.—We must strive to promote the retarded growth and development by promoting the general nutrition.

2.—We must endeavor to establish new and as nearly as possible normal paths for impressions and impulses. As regards the first point, the nervous system, being a part of the general organism, it will be benefited by everything which will benefit the latter, and the raising of the general condition of nutrition will result in better nutrition of the nervous system. But just as by use, and not by abuse or want of use, we can divert to some special part of the system an extra supply of nutrition, so here by carefully regulated exercises of the brain we can specially promote its nutrition and by exercising it in the direction in which it seems outwardly most de-
ficient we can affect particularly those parts which are at fault. It is evident how necessary is a recognition of what we wish to effect to an intelligent application of mental exercises.

In the second part of our treatment, the endeavor to form new and as nearly as possible normal paths for nervous action we must build on the facts that an incoming impulse has many possible pathways of response, and that motion is in the direction of least resistance. Observation on the effects of the repetition of movements of the body, of activities of the mind, has shown that they are both governed by this same law, and that repetition is the means of reducing to a minimum the resistance in any pathway between the centre and the periphery, even where normally established by heredity. Witness the wonderful abnormal feats of gymnasts and acrobats, or the performances of a skilled piano player, or trained singer, etc. We recognize that by repetition we can establish in some a pathway of automatic action, scarcely to be distinguished from the instinctive activities found normally in all. Hence in applying this part of our treatment we must, on account of the general condition of the nervous system, limit its activity to certain well-marked and closely defined paths by presenting simple normal stimuli and requiring a response which shall be as nearly normal as possible, and then by constant repetition of exactly the same process we will be able to establish a pathway of least resistance, according to the requirements of each case.

The important points, and the ones that are too frequently neglected in this method of training, are that the stimuli must at first be limited in number, and that in all cases both stimulus and response should be kept exactly the same in their repetition. If these points are not strictly observed the results of the stimuli will, by reason of the structure of the brain above noted, be subject to the same abnormal diffusion and inco-ordinated response which it is our endeavor to alter, and the establishing of one pathway of least resistance becomes impossible.

We see, therefore, that in the treatment of mental deficiencies hygiene and training occupy the first place, but that need not prevent us from simultaneously using medicinal means as adjuvants. Here, in the first rank, stands Phosphorus, and its various combinations, either as a drug or as a component part of the diet. Our Materia Medica will also furnish us with hints for the application of other drugs, according to the symptoms presented by each case. The
mental symptoms do not here give the most important indications, but rather those symptoms which indicate peripheral responses, since the other, the central end of the path, so to speak, is the part we wish to reach, and is the one which is apparently from the “proving” the special seat of the drug action, while mental symptoms are more the diffused results.

While this treatment, in the cases where we have intelligent parents or attendants, can be carried out under the control of the family physician at home, in many cases, perhaps the majority, the removal of the subject to an institution specially intended for the training of the feeble-minded is called for. The objection to such a course is the danger of finding only a systematized institutional training of all cases, without that individualization which is indispensable to satisfactory results.

DISCUSSION.

C. SPENCER KINNEY, M. D.: Dr. Bigler’s paper is suggestive, and it is a matter which concerns every one of us as to how and in what way children who possess weaknesses through unfortunate inheritance can be helped.

I recall three cases which may be of interest to this society: The first was a little fellow, barely three years old, whose parents were unable to break him of the habit of swallowing coarse gravel and pebbles. Stern measures had been taken after every ordinary punishment had failed, but all without success. Finally the father consulted me and I put the child on Calc. carb. 30th, three times a day, when there was no further trouble from the gravel eating, and I understand that the child developed well physically and mentally.

My second case was a boy eleven years of age, who had epilepsy and indulged in perverted sexual habits, a combination that was startling in one so young. I tried to find out in what way he had acquired the habit, but was stopped by learning that he had been the special charge of his mother. He was unusually strong physically, but had no idea of right or wrong, although possessed of a remarkable memory. I found that circumcision was necessary, and this was performed, after which the epilepsy ceased and his habits improved, and he became trustworthy and reliable in every way.

The third patient was about fifteen years old when he came under my observation, and had spent the greater part of this time in in-
Epilepsy in Childhood.

A. J. BITTNER, M. D., ALLENTOWN.

It is only about ten years since the claims of the epileptic to be treated in State institutions has been heard. Although there are only a few, our knowledge of the disease and its treatment has received the greatest impetus in its history through this movement.

Cause.—Age plays an important role as to its onset. In 1,450 cases of Gower's, about 30 per cent. began before the tenth year. Of 460 cases analyzed by Osler, 72 per cent. began before the tenth year. His percentage was probably raised by the 126 cases included from the records of the Elwyn Institution for Feeble Minded Children. In 219 cases not previously tabulated, I found 40 per cent. began before the tenth year.
Heredity was a probable cause in 25 per cent. in my collection of cases where there was a history on that point. Alcoholism, tuberculosis, insanity and epilepsy in the direct antecedents was taken as evidence of such heredity.

In the Craig colony cases cerebral paralysis is credited as a cause in 16 per cent. of the cases in childhood. Dr. George Gould lays stress on eye-strain as a cause, and has under observation a large series of cases which he has fitted with glasses. If proved, the credit belongs to him, as he is the only authority crediting it as a frequent cause.

Symptoms.—The symptoms, in brief, are abrupt unconsciousness without (petit mal) or with convulsions (grand mal).

Diagnosis.—The concomitant features of these elementary symptoms make a peculiar picture not likely to be confounded with any affection of childhood.

Pathology.—The pathology of this disease was sought for on the dissecting table in the past. The pathology of the present is based on the study of the living patient. Sutton graphically described a similarity between the epileptic and urämic convulsion twenty years ago, and of all theories, toxins in the blood best explain both. Various observers claim to have discovered toxins in the blood causing the attack by their accumulation. Dr. Julius Donath, of Budapest, Hungary, won the Peterson prize in 1902 by his paper, "The Presence of Cholin in Epilepsy and Its Significance in the Production of the Convulsive Attack."

Prognosis.—The prognosis as to life is good in childhood, although later severe attacks, heart lesions, phthisis, etc., tend to materially shorten life.

If the numerous articles in medical journals are to be believed, the prognosis as to cure is excellent. Unfortunately I have never had such happy results. In a large institution I was told they have no record of a cure in their history. The mind is inevitably affected in proportion to the number and severity of the attacks, the early age of onset and the duration of the disease.

Treatment.—There are a few well authenticated cures recorded in epileptic institutions. In private practice it is not unusual to greatly diminish the number of attacks by regulating the life of the patient. Where an aura precedes the attack the inhalation of Amyl nitrite is very satisfactory in arresting the paroxysm. Bromides do not inhibit the attack unless pushed to idiocy. The homœopath secures
better results and does less harm by sticking to his drugs than to
try every one of the widely heralded specifics of the old school.

Diet is of utmost importance. Meats, especially pork, must be
limited, and preferably replaced by milk. Gluten bread has a good
effect on the gastro-intestinal troubles. The epileptic is often a
glutton. He should chew his food well, and eat amounts regulated
to his needs.

The experience of epileptic institutions is favorable to manual
training, as sloyd work and outdoor occupations, the separation of pa-
tients in small parties in different cottages and the living of a quiet
life.

In the majority of cases our efforts are limited to making as
much as we can out of patients unfitted by strength or mind to take
their place as self-supporting members of society.

As long as the causes of heredity remain and children are raised
by methods calculated to make them physical and nervous wrecks, so
long will we have our full quota of epileptics.

OBSERVATIONS AND SIGNALS OF BABY LIFE.

A. L. KISTLER, M. D., ALLENTOWN.

In all departments of life, whether material, moral or physical, the
factor of greatest vital importance as conceded by all true philoso-
phers is to lay a good solid foundation wide and deep to the end that
the superstructure may not be buffeted by every wind and wave.
The object of this paper is not to weary your patience nor presume
upon your intelligence by going into detail with respect to every or
any disease of childhood, but rather to simply call attention to the
piloting of the babe from the moment of its birth through possibly
the first twelve months of its existence. We cannot hope to offer
you any startling revelations: our principal aim is to emphasize the
importance of exercising common sense in the matter of so delicate
an organism, rather than the too free administration of physic, even
of the true Hahnemannian order. However, lest the impression
prevail that I minimize or deprecate the potency of the true simili-
mum, I would enter a most emphatic protest right here, and declare
not only my belief and faith, but absolute conviction in the virtue and
efficacy of potentized medicines, and especially for babies, for I had
almost forgotten that "babies" is my theme for to-day.
Since the proper way is to begin in the beginning, don't forget that when you are called upon to usher into this world a new life it becomes your first duty to exercise all the skill and patience of which you are capable to present that little angel to its anxious mother with the breath of life in its body. If by any chance, either through a freak of nature, or because of your own ignorance or bungling, that babe has been brought into the world limp and livid without breath or heart-beat, do not for the love of heaven give it over to be labeled "still-born" after one or two faint attempts at resuscitation, lest your conscience accuse you in after years of having been faithless to your charge. I recall four or five instances where the case seemed utterly hopeless for the first half hour, yet at the end of an hour of hard work, such as you all know, I had the proud satisfaction of having saved a life where life seemed utterly extinct.

Granted, however, that we have a normal delivery and a screaming infant, our first attention should be directed to a thorough cleansing of the eyes with a weak solution of either Boric acid or Argyrol, and thus reduce the danger of ophthalmia neonatorum to a minimum.

In the next place, examine carefully the genitalia and correct what nature may have left imperfect, for surely every one recognizes at this day the manifold disorders that may follow this apparently trivial and innocent oversight.

As to the matter of the cord, I am pleased to note that as far back as '93 Dr. Miller, of Pittsburg, in a paper before this Society, advised discarding all bandages after the cord had sloughed, a suggestion which I heartily endorse; but during the period of bandaging, if you please, regulate the width thereof as well as the tightness. In our part of the country I have frequently seen nurses pull the little ones' binders so tight as to almost squeeze the breath out of the little darlings. I have never been able to satisfy myself nor have I ever heard the question argued as to whether a bandage sufficiently wide and firm to compress the thorax or part thereof may not be a factor in causing the jaundice so frequently met with in the first or second week of child-life. If the gentleman who is to follow me or any of my learned colleagues will enlighten me as to the causes of this annoying disorder, I shall be under lasting obligation.

Having left your infant to the tender mercies of a good nurse and a nursing mother at the expiration of ten days or two weeks, it becomes your duty to pay a casual visit in four or six weeks or even at the end of two months to note the development of that child. Re-
member that the busy housewife with her multitudinous cares may have other little ones who also have a claim upon her mother care and mother love, and in consequence her untrained eye may not detect the lack of growth or even retrograde movement that is taking place so insidiously in her newest offspring. If on this occasion you examine carefully the little arms and legs (more particularly the latter), and find, instead of a rotundity, that the skin and muscles are relaxed and flabby both in appearance and feel, you will be justified in entertaining a strong suspicion that the child is ill-nourished, even despite the mother's protestations that the child is a good baby, sleeps all night and always satisfied. If, upon inquiry, you learn that the baby is constipated, you are safe in assuming that the mother's milk is no good, which will doubtless be confirmed by a careful examination. Now, supposing that you have found a milk that is little better than so much water, how to improve that mother's milk is still as great a problem with me to-day as it was twenty years ago, when I launched out in my professional career. Here also I am willing, yea, anxious, to try any advice that may seem reasonable and plausible. Of bottle foods I have opinions, and opinions and experiences endless that would supply matter sufficient for a paper in itself, and I shall consequently pass that by.

Assuming, then, that our child has been provided with proper nutriment, it will flourish and grow oftentimes like unto the famous bay tree until it arrives at the period of dentition. Some, but comparatively few, will pass through this stage apparently without any blare of trumpets or beating of drums. If, however, the occasional fever, restlessness and other concomitant symptoms are present and frequently annoying, in addition to your properly selected remedy trot out the water-bag, which at this day is found in every household, fill it half or two-thirds full of cold water, encase it in a pillow-case or an ordinary linen towel, and let that be your baby's pillow, and you will be both surprised and delighted at the peaceful sleep that usually follows. Above all, don't forget that lancet, for I have seen on numerous occasions the most happy results following as if by magic, certainly within the hour, and notably in those instances where a capillary bronchitis or catarrhal pneumonia were stubborn complications and utterly refused to yield to medication.

It is not within the province of this paper to treat of any of the childhood diseases; but one thing remains to claim our attention. Probably its importance should have placed it in the front rank, and
yet it would seem that in this enlightened day to simply mention baths would be sufficient. By baths I don't have reference simply to the tub, but the division as laid down by my dear professor of revered memory (the late Dr. Gause), viz.: Water bath, sun bath and air bath. The water bath as the strength of the child will permit, the sun bath daily, and the air bath pretty nearly all the time, or at least I think a safe rule would be the more delicate the child the greater the need for plenty of fresh air.

An afterthought has come to me like the parson's lastly, finally and in conclusion, which, while it may seem altogether superfluous to even claim momentary attention, I have frequently found a serious bone of contention, especially where a doting grandmother or a misguided but well-meaning maiden aunt happen to be members of the family circle. I refer to the matter of dress and clothing, and if your experience, my dear brethren, compares with mine, I am quite sure you will agree with me that the ready acquiescence in your views with regard to this all-important matter does not keep pace in geometrical ratio with the intelligence of your families. Do not hesitate, then, to make known your views and insist upon their enforcement. The thought has frequently occurred to me that the average parent, and oftentimes the nurse as well, have altogether an erroneous impression of an infant's mode of respiration, since they smother them with shawls, blankets and comforts beyond the crown of the head, and how the little dears manage to breathe is more than I can explain. Then, too, in the heat of the summer, with the mercury creeping up towards the hundred mark and a little humidity thrown in for good measure, the little ones who have not as yet arrived at that age when they can protest and enforce that protestation are encased in flannel of varying shades of fineness, simply because it was customary in mother's time, and they are afraid to make a change. If, instead of finding that innocent babe par-boiled and looking like a broiled lobster, the visitation might be inflicted upon the guilty head, I wot the day of reformation would be farther advanced.

Having safely guided the little dear from the hour of its birth to the day when it begins to roam at its own sweet will, we may calmly take theunction to our soul that a noble work has been well performed.
THE CLINICAL EXAMINATION OF THE INTESTINAL CONTENTS OF INFANTS.

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A rational understanding of the diseases of the intestinal tract presupposes an intimate knowledge of the character and composition of the stools in health and in disease. Without this knowledge it is impossible to diagnosticate the various disturbances of the functions of the intestine or the pathological lesions here found. Besides, we will often fail to understand the true nature of an apparently obscure constitutional disorder if we neglect to investigate the intestinal discharges for evidence of intestinal parasites, which often affect the general health in the most marked degree.

Unfortunately, the examination of the faeces impresses the average physician as a repulsive procedure, and the benefits to be derived from such an examination are held inadequate pay for the unpleasantness of the task involved. But with proper technique this is not the case, and especially so in infants. In paediatric work there is positively no excuse for neglecting such an examination whenever it happens to be called for.

In older children a specimen of faecal matter is best obtained by inserting a piece of glass tubing with rounded ends into the rectum for a distance of about three inches and allowing it to remain in place five minutes. By the end of that time the peristaltic action of the rectum will usually have filled the tube. In infants a freshly soiled diaper can, as a rule, be obtained without difficulty, although, when we wish to be absolutely certain that no urine is admixed with the stool, we will have to resort to the tube.

The Normal Infantile Stool.—Shortly after birth the infant passes three to four stools, consisting of meconium,—a thick, tarry substance, representing the biliary and mucous secretions that have collected in the intestinal tract during intrauterine life, besides epithelium and particles of vernix caseosa and hairs. Following this, the normal milk stools make their appearance.

The normal milk stool is of a golden-yellow color and of a thick, smooth, pasty consistency, without definite formation. The odor is
slightly sour, not offensive, and the reaction is acid. A large percentage of water is present, so that a ring of moisture surrounding the faecal matter forms on the diaper. This ring normally extends for a finger’s breadth beyond the stool; any considerable increase in moisture beyond this point is abnormal. In the early months of infancy there are from three to four stools in twenty-four hours; by the end of the first year the number is decreased to one or two.

The first abnormal condition to be observed in intestinal disorders is an increase in the size and in the frequency of the bowel movements. This means intestinal indigestion or dyspeptic diarrhoea. When we pause to reflect that the main work of digestion, and practically all of assimilation, takes place in the intestinal tract of the infant, we must be impressed by the fact that such a condition may be the forerunner of most serious consequences.

In the dyspeptic stool we discover, first of all, particles of undigested milk, “milchdetritus,” almost universally and erroneously designated “curds.” Far from representing mere particles of undigested casein, their composition is most complex and variable. While casein in greater or lesser proportion may be present in these clumps of faecal matter, still their composition is chiefly of fat, together with fatty acids and lime-salts. Indeed, in some forms of diarrhoea the fat percentage is so high (30 per cent. to 50 per cent.) that the condition has been designated “fat diarrhoea” (Biedert; Demme).

Together with the above alterations in the character of the stool, there is also a change in the color, manifesting itself as an admixture of green. The green color is due to the presence of biliverdin. Several explanations for its presence may be offered. In the first place, bacterial changes in the intestinal tract, by which the bilirubin is oxidized into biliverdin, may change the color of the stool to green already in the intestinal tract. In other cases there is simply an excess of bile, which is promptly oxidized on exposure to the air, the stool thus becoming more and more green as it stands.

Again, as Pfeiffer (Jahrbuch fur Kinderheilk., 1888) points out, the green color in the stool depends upon the action of an alkali on the bilirubin and does not signify acid fermentation, as was formerly taught. The important point to remember is, that while an alkali changes the color to green, an acid does not convert it back again to yellow. Therefore, an alkaline zone must exist somewhere in the intestinal tract—the alkali being most likely derived from the pancreatic juice. The reason for its excessive action is either feeding
milk in too large quantities, thus neutralizing the gastric contents completely, or hypoacidity of the gastric juice. After the intestinal contents have passed this alkaline zone, they may again become acid through the action of the bacillus lactis ærogenes.

Another cause of green stools is the chromogenic bacillus described by Le Sage. This is rarely present.

The admixture of green and yellow, together with the white particles of "milchdetritus," produces the characteristic appearance described as chopped eggs and spinach.

A further abnormal change in the stool is an increase in its fluid elements. Blood serum is always freely poured out in inflammatory conditions of the intestinal mucosa, and in cholera infantum the evacuations consist essentially of serum.

Increase in the Number of Stools.—An increase in the number of stools indicates either that the food is being hurried through the intestinal tract in an undigested state or that an inflammatory condition has supervened. Increased peristalsis is an important factor in both conditions. In dyspepsia there may be from four to six stools daily. In inflammatory conditions of the upper bowel the stools are large, increased to from six to eight daily, and, as a rule, expelled with considerable flatus. When the lower bowel is affected the stools are smaller in size and more frequent, while involvement of the rectum produces tenesmus that may practically be continuous. In such cases only a small amount of faecal matter is passed, but considerable mucus and usually some blood are present.

Decrease in the Number of Stools.—An abnormal decrease in the number of stools is designated constipation, when due to deficient peristalsis, insufficient or improper food, or abnormal dryness of the mucosa. The various forms of bowel obstruction cannot be considered here.

Mucus is found in insignificant amount in both normal and dyspeptic stools, but in inflammatory states it is always present in considerable quantity. In fact, in catarrh of the intestine, it may be the chief, if not the sole, constituent of the movement.

The character of the mucus offers most valuable data in the recognition of the seat of the lesion in inflammation of the bowel. When thoroughly admixed with the other elements of the stool and stained with bile, it comes from the small intestine. Under these circumstances gas usually accumulates in the intestines and the abdomen becomes distended.
Mucus coming from the large intestine is more abundant, not so intimately admixed with the faecal matter, and not thoroughly bile-stained. The mucus secreted from an inflamed rectum is passed in clear, jelly-like lumps, blood-streaked.

**Blood.**—Profuse hæmorrhage from the intestine most commonly originates in either tuberculous or typhoid ulcers. Hæmorrhoids are rare in children, but rectal polypi are not uncommon.

Blood from the small intestine gives the stool a dark, tarry appearance. In the new born, intestinal hæmorrhages are at times encountered, the blood coming from folliculous ulcers in the stomach or large intestine (melena neonatorum). Blood passed in fresh clots comes from the rectum or lower part of the colon. Small quantities thoroughly admixed with the stool in diarrhœa originate in capillary hæmorrhages.

**Color.**—The color of the stool is affected in a pronounced manner by certain drugs and by the food. As above stated, the normal milk stool is of a golden yellow. Excessive amounts of fat may give it a grayish color, while excess of proteids usually brings about greenish discoloration. Barley-water and meat-juice tend to give it a brownish color. In obstructive jaundice the stool becomes clay-colored. Calomel produces a decidedly green stool, loose in character. Bismuth and iron cause the stool to turn black.

**Chemical Examination.**—The chemical examination of the faeces has yielded data of the highest clinical importance. In this connection the odor may be considered, as it depends upon chemic changes in the food induced mainly through the agency of bacteria.

The sour odor of the infantile stool depends upon the presence of fatty acids and to the action of the bacillus lactis aerogenes upon the lactose, which is transformed into lactic and butyric acids. Under pathological conditions, acetic, formic and other organic acids may appear.

A foul odor indicates decomposition of proteids into tyrosin, indol, skatol and phenol. This is encountered in the severer forms of infectious diarrhœa.

The reaction is acid in the majority of diarrhœas. Baginsky states that it is likely to be alkaline when the odor is foul, indicating the presence of ammonia compounds from decomposition of proteids. From extended personal observations I have come to the following conclusions:

In dyspeptic diarrhœas, or in affections of the upper intestinal
tract, the reaction is acid. This, no doubt, depends upon the fact that in the small intestine the bacillus lactis ærogenes predominates. Besides, in these affections, mucus and serum are not as abundant as in affections of the lower tract.

Stools from the lower tract are, as a rule, alkaline. Here the bacillus coli predominates and proteid decomposition is most active. Moreover—and probably of greater importance—more mucus and serum enter into the composition of the stools from this region. I have invariably found that where mucus was abundant the reaction was either alkaline or neutral. Blood serum being alkaline naturally tends to render the stool so.

Neutral stools are frequently seen. A combination of causes seems to be active here.

Bile pigments are increased in catarrhal conditions, biliverdin predominating. Stercobilin (identical with urobilin), the coloring-matter of the stools, is not found in any considerable amount, owing to the absence of putrefactive changes, but hydrobiliurubin—a reduction compound of bilirubin—is found when fermentation with the liberation of hydrogen occurs. It can be readily detected by the corrosive sublimate test.

Blauberg (Experimentelle u. kritische Studien Über Sauglingsfoeces, Berlin, 1897) has made the following observations in his careful work in this line:

The green color of the stools is due to bilirubin, which not only develops after exposing the faeces to the air, but which is always present in the slightest digestive derangements. He is inclined to think that certain ferments play an important role in its production. The sour odor depends upon free fatty acids and butyric acid.

The amount of nitrogenous compounds averages about 4 per cent.

Fat is found in considerable quantity in the faeces during the early weeks of infancy, but under normal conditions a decided decrease in this ingredient occurs after the seventh and eighth days. An actual fat diarrhœa may occur in the new born, indicating that it must accommodate itself to breast-milk as well as to any other food. Chapin (Archives of Pediatrics, July, 1903) expresses similar views, basing his argument upon a study of the evolution of mammals. He writes as follows: "While the stomach of an infant is formed at birth, its function is not developed. Strictly speaking, then, an infant has no stomach at birth, as it does not secrete pepsin.
and hydrochloric acid, but a dilated sac that develops into a true stomach during the suckling period."

Lactic acid, fatty acids and iron are present in larger amounts in the faeces of breast-fed than in bottle-fed infants.

When cows' milk is fed there is a larger proportion of fat, nuclein, lime-salts and phosphoric acid.

The gases represent the products of lactose fermentation, together with some swallowed air and CO₂. Normally, they are never fetid.

Diastatic and invert ferments are normally present.

Microscopical Examination.—If a bit of normal faeces be placed upon a slide with a drop of normal saline solution and examined with a low power, we will not find much of interest. Small particles of nitrogenous matter, fat-globules and crystal of fatty acids, traces of mucus, a few epithelial cells and debris constitute the chief elements. Animal parasites are absent. The normal bacteria will be considered further on.

When the child is artificially fed, the findings in the microscopical field will depend upon the nature of the food administered. Under these conditions it is also not infrequent for animal parasites to show themselves.

The various cereals used in infant feeding leave a considerable amount of indigestible vegetable debris in the stools, representing the cellulose walls of the cells in which the starch-granules are contained. From an examination of a large number of diarrhoeal stools in which barley-water and other cereals were used as a diet, the writer has been led to believe that these foods are not without their drawbacks in inflammatory states of the intestinal mucosa. In this belief I am still further strengthened by the following findings, which indicate the microscopic appearance of the different cereals under different conditions:

Barley-Water Made from the Grain.—(In these examinations a two-third-inch objective and a one-inch eye-piece were used.) The field contains broken-down starch-granules and homogeneous starchy material, together with a large amount of cellulose detritus, wooden in appearance. The bits of cellulose structure represent clusters of from ten to twenty starch-granules, and some are visible to the naked eye.

Barley-Water from Patent Barley-Flour.—No starch-granules,
but homogeneous starch material, together with abundant cellulose detritus, slightly finer than above.

Barley-Flour Mixed With Cold Water.—Starch-granules and cellulose detritus, some visible to the naked eye.

Wheat-Flour, Boiled.—Broken starch-granules and homogeneous starch material. Clusters of swollen starch-granules in cellulose sheaths and cellulose detritus.

Wheat Flour Mixed With Cold Water.—Starch-granules free and in clusters, with envelope of cellulose.

Rice-Water Made from the Grain.—Starch-granules broken down and in solution. There is some cellulose, but it is not so coarse nor as abundant as in barley or wheat.

Arrowroot Mixed With Cold Water.—Starch-granules free from foreign admixture.

From the above it will be seen that the blandest solution on which the infant can be fed is arrowroot-water, after which comes rice-water. Wheat and barley both contain too much cellulose, particularly barley. In health this is no disadvantage, but under abnormal conditions it must be taken into consideration.

Charcot-Leyden Crystals.—The flat, needle-like crystals first discovered in the sputum of patients suffering with bronchial asthma are also found in the faeces quite constantly in cases of anchylostomiasis. Not so constantly, but quite frequently, they are encountered in association with tape-worm, ascarides, oxyurides and in amœbic dysentery. (Amberg; Simon.) On account of their close association with eosinophilic leucocytes they have been termed leucocytic crystals. These leucocytes and their free granulations can be demonstrated in such faecal matter by staining with eosin.

Blood and Pus.—Blood and pus-corpuscles are at times found in the faeces when the naked eye does not suspect their presence. In such cases it is well to stain for the tubercle bacilli, as tuberculous ulceration may be the source of these elements. It has been stated that the bacillus acidophilus of Moro possesses staining properties similar to Koch’s bacillus, but I have not been able to satisfy myself that mistakes in diagnosis could thereby arise.

Parasites.—In the faeces of children under mixed feeding, Pagliari (Jahresbericht uber Thierchemie, 1894) found the eggs of parasites in 90 per cent. of cases. They represented ascarides, trichocephalus and tænia solium. The eggs of the oxyuris are not found in the stool. The trichomonas is a protozoon of spindle-shape,
with four flagella at its anterior pole, and is of no pathological significance. It is thought to be identical with the trichomonas found in the vagina and in the urine. In examining for parasites and ova it is well to add a drop of Grassi's fluid (aqueous solution of iodine with potassium iodide) to the fecal matter.

*Amoa Coli.*—This organism was discovered in the stool of dysentery patients by Losch in 1875, but its true relation to the disease was first established in 1885 by Kertulis. In America, Osler was the first to demonstrate the amoeba in an hepatic abscess complicating amoebic dysentery.

Amberg (*Johns Hopkins Hospital Bulletin*, December, 1901) reported five cases of amoebic dysentery in children ranging from 3 to 5 years. The amoebae are motile and contain red blood-corpuscles. They may be stained with a watery solution of toluidin blue, which does not kill them for from three to four hours. If the ameobic movements are not discernable, the slide should be warmed.

*Helminthes.*—*Oxyurides* can often be obtained by means of the rectal tube, but their eggs are not deposited in the faeces. The eggs are smaller than those of the ascaris and are oval in shape. The ascaris deposits the eggs directly into the intestine. They are yellowish-brown in color, almost round, from 0.05 to 0.07 mm. in diameter, and surrounded by an irregular albuminous shell.

The ova of the *Uncinaria Americana* (hook-worm) are ellipsoids, 64 to 76 micromillimeters long by 36 to 40 broad, in some cases partially segmented, in others containing a fully developed embryo. Their color is grayish, like that of a steel engraving. (*Stiles, Bull. No. 10, Hyg. Lab. U. S. Pub. Health and Mar. Hosp. Serv.* Washington, February, 1903.)

*Tenia saginata* has elliptical ova of a brownish color with a distinct vitelline membrane. A double contour and striæ may be demonstrated under high magnification. *Tenia solium* is rare in this country. The ova are surrounded by a thick, striated membrane, and the hooklets of the embryo can be seen within the ovum.

*The Bacteria of the Intestinal Tract.*—The normal bacteria of the intestinal tract are represented chiefly by the bacillus lactis aerogenes and the colon bacillus. The former is found mainly in the upper intestinal tract, while the latter predominates in the large intestine. The duodenum is comparatively free from bacteria under perfectly normal conditions. The bacillus lactis aerogenes disappears from the stools as soon as the milk diet is dropped. Moro has described a
bacillus which he calls the bacillus acidophilus, and which, according to his investigation, normally exceeds all other micro-organisms in the stools of breast-fed infants. He has isolated it from the nipple of the human breast and from the milk. Under abnormal conditions its numbers become diminished and the colon group predominates. The chief characteristic distinguishing it from the colon bacillus (including the typhoid bacillus and Shiga’s bacillus) is the fact that it does not decolorize by Gram’s method.

By Escherich’s stain it therefore stains blue, while the colon group is stained red. Escherich (Die Darmbacterien in Sauglingsalter, 1886) was of the opinion that under normal circumstances most of the colon bacilli resisted the iodine solution and did not lose their stain, while in diarrheal affections they were decolorized. This view, however, has been controverted by Moro’s investigations. (Wiener Klinische Woch., No. 5, 1900.) Nevertheless, Escherich’s stain is of the greatest practical importance, as it demonstrates the exact proportion between normal and abnormal bacteria in the infantile stool. It is carried out as follows:

A cover-glass preparation of the stool is fixed in the flame of a Bunsen burner and stained for a few seconds with aqueous gentian violet plus aniline oil and blotted; it is then immersed for a few seconds in aqueous iodine solution and blotted; decolorized with a mixture of equal parts aniline oil and xylol, washed in xylol and dried. The specimen is now counterstained with alcoholic fuchsin, washed with water, dried and mounted in Canada balsam. The formulae for the stains are:


2. A mixture of absolute alcohol and aniline oil in the proportion of 11:3.

3. Mix No. 1 and No. 2 in the proportion of 85:15. This represents the stain, which will only keep for two to three weeks.

4. A solution of iodine, 1 part; potassium iodide, 2 parts; water, 60 parts.

5. Concentrated alcoholic solution of fuchsin, diluted with an equal volume of absolute alcohol.

With this method, normal and abnormal stools can even be distinguished macroscopically, by the preponderance of the blue color in the former and the red in the latter. When streptococci are present,
as is the case in grave inflammatory lesions of the intestinal mucosa with resulting infiltration and necrosis of the tissues, they retain the blue color, but are readily distinguished from the bacilli by their form.

While the colon bacillus and the bacillus lactis ærogenes are normally saprophytes, still it has been clearly proven that both, especially the colon bacillus, may, under certain conditions, assume pathogenic properties.

The proteus vulgaris is often found in the stools of artificially-fed infants, and when active produces a foul odor. It is usually regarded as non-pathogenic. The chief interest attached to it is that at one time pure cultures were used for therapeutic purposes, as it was found that the colon bacilli could not exist side by side with the proteus.

It is characterized by its variable forms and is decolorized by Gram's method.

*Shiga's Bacillus.*—Since the investigations of Duval and Bassett at the Thomas Wilson Sanatorium in Baltimore, during the summer of 1902, which resulted in the surprising discovery that the bacillus dysenteriae of Shiga was the etiological factor in the series of cases of summer diarrhoea under observation, this organism has come to occupy the most prominent role in the bacteriology of the intestinal tract of children. Mr. Duval had previously been engaged in studying the acute dysenteries of adults under Flexner, of the University of Pennsylvania, and his work was therefore immediately accepted as authentic. In an address before the medical association of New York City (October, 1903), Flexner commented upon the work of Duval and Bassett, stating that while these investigators were not prejudiced in the belief that the bacillus of Shiga was a distinctive germ of summer diarrhoea, still all other organisms present resisted the tests applied to them. Cultures were made and the agglutination test employed. In over forty cases was the bacillus isolated. Since then the Shiga bacillus has been isolated repeatedly from the stools of children suffering with acute diarrhoea, both here and abroad.

The bacillus is a short rod with rounded ends, and is slightly motile. Vedder and Duval claim to have demonstrated flagellæ. It does not produce spores, and, like the other members of the colon group, decolorizes by Gram's method. Like the typhoid bacillus, it possesses distinct agglutinating properties with the diluted blood
serum from an infected individual. On the strength of this fact, it is hoped that a curative antitoxic serum may be evolved.

Its growth is slower than the colon bacillus, and in a soft jelly it forms a perfectly spherical colony, while the typhoid bacillus forms threading colonies, and the colon bacillus a collection of small colonies. It is more difficult, however, to distinguish it from the paratyphoid bacillus. (Dunham, N. Y. Med. Record, February 28, 1903.)

It is best isolated as follows: Grow on agar plates at 37° C., and mark with a pencil the colonies appearing at the end of twelve hours. These are usually colon bacilli. The ones appearing later should be transplanted to glucose-agar fermentation-tubes in order to differentiate the gas formers. The agglutination reaction is possible with a 1-to-50 dilution of the blood serum of the patient afflicted. In fresh bouillon cultures the bacillus is motile during the first eight to twelve hours. It has but slight resistance to heat and antiseptics. (Muir and Richie, Manual of Bacteriology, 1903.)

FORTY CASES OF CAPILLARY BRONCHITIS TREATED WITH ONE REMEDY.

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Looking over the records of the last two years in the children's department of the Hahnemann Hospital Dispensary, I find that forty cases of capillary bronchitis have been treated with the use of a single remedy, and I thought it would not be amiss to merely draw your attention to the main features of this disease with the remedy used.

Capillary bronchitis, as you all well know, is essentially the pneumonia of infancy, comprising 75 per cent. or more of the pneumonias found in children less than three years of age, and is necessarily dangerous at any stage and in many cases fatal. I can, therefore, point with pride at the seeming success as a result of the use of this single remedy in question. Especially is this more pronounced when we consider the very poor hygienic surroundings of these cases, superimposed upon weakly constitutions already burdened with exposures and neglect.

Clinically, there are essentially three distinct types or stages of
capillary bronchitis. First, the acute congestive stage, found more often in the very young, and is either primary or secondary. Here we find the temperature high, 104° to 107° F., with extreme prostration; cyanosis is very frequent, the respirations are increased from 60 to 80. Cough is oftentimes absent, and the general picture simulates meningitis. There being a complete apathy, marked stupor, and oftentimes twitchings of muscles of face and extremities. The physical signs are nearly or entirely negative, showing only an intense engorgement. Rales are rarely found in these cases, and death is very rapid.

The second stage is more advanced, and takes on the character of bronchial pneumonia. The middle sized bronchi are engorged, and the main symptoms are about the same, but of a slower development. There is less prostration, but cyanosis is more pronounced. Cough is more marked, the respirations advancing to 80 or 100, but the temperature is lower. Rales are present, at first rough, then subcrepitant. Death rarely occurs before the third or fourth day.

The third stage is even less acute, and generally secondary to a previous bronchitis, the symptoms gradually merging into one of pneumonia, more of the parenchymatous type, but with no crisis as in a lobar pneumonia. The respirations number even 120 per minute. Dyspnœa is very marked, and cyanosis rarely absent. Vomiting is often troublesome from excessive coughing. Recovery is prolonged and often delayed.

Of my forty cases here cited, twenty-three were of the first class, ten of the second, and seven of the third type.

All but three of these cases were less than three years old; the majority less than two years. They were evenly divided between the males and females, and most were encountered during the colder months, or 66 per cent. to be more exact. They all had the characteristic signs of temperature, pulse, rapid respirations and cyanosis above enumerated. Cough and subcrepitant rales were frequent symptoms. A few of the cases were seen within twenty-four hours from onset of disease, some as late as the sixth day; the majority on the second or third day.

Eight of these cases did not return for a subsequent prescription or report. All the others were decidedly improved or cured, some as quickly as the second day after beginning treatment, others not before the ninth or tenth day; the major portion were relieved or entirely cured by the third or fourth day. Five of the cases complicated the
acute infectious diseases. Four cases had had a previous attack of capillary bronchitis. One case had a repeated attack at the end of a year, and a second one at five months. Both were as completely relieved as in the primary attack.

The remedy used in every case was Belladonna, prescribed in ix on pellets, every one-half or every hour, and continued throughout the course of the disease, or until resolution was complete. In my private work it is my custom to put the tincture in water and administer with the same frequency. In these cases there was no local application made, no stimulation used, and no particular attention paid to hygienic surroundings or treatment. In other words, very little was done for the patient besides treating the disease. When I began using Belladonna in this condition it was my custom to supplement it with a prescription of Merc. dulc. 1st x, given hourly for ten doses. But lately the Belladonna alone has been used, and the results have been just as satisfactory and complete. During the whole series of cases I have not seen an aggravation of the remedy except a slight rash on the back and chest in one case. This, perhaps, because Belladonna is so well suited to children and so well borne by them, and partly because it seems to be so well suited to the pathological conditions present.

I want to cite one case only. Helen C., five months old, natural birth; breast fed, and family history good. Was brought to dispensary June 9, 1903, with a history of having developed a cough during the night previous, beginning about 10 P. M. Cough was hard, tight and dry, not croupy or hoarse. Breathing very rapid. Eighty-two temperature, rectal 105½° F. The pulse was 182, she has vomited and since early morning there was twitching of arms and hands; head was thrown back, eyes set and prostration marked. Percussion was negative. The breathing was roughened and heard equally well in all parts of the chest. There were no rales. Belladonna ix was prescribed on pellets No. 40, five every hour. June 10th no improvement. June 11th about same general condition, although temperature was only 104.2°, the pulse was 190, respiration, 80. Rales made their appearance posteriorly. June 12th very much better; temperature, 100°; pulse, 115; respiration, 36. A slight red rash appeared over back and chest. The Belladonna was given every two hours. June 13th still improving, and continued to do so until June 24th, when it was not necessary to return for treatment.

In conclusion, I want to say that my results have been so uni-
formly successful that I have come to consider Belladonna almost a specific in these cases; but I must insist upon one point, it is absolutely necessary to use the remedy very low, and push it to the utmost, until resolution is well established.

A PLEA FOR THE BABY GIRLS.

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The condition of the foreskin of boys has received more or less attention, at least since the days of Moses, who is reputed to have inaugurated the practice of circumcision of the male portion of the human race. But the girls have been neglected. Without presuming to pose as their Moses, I do feel an impulse to cry out against the shameful neglect of the clitoris and its hood, because of the vast amount of suffering which could be saved the gentler sex if this important subject received proper attention and appreciation at the hands of the medical profession.

The first question which concerns the mother after the cry of her new-born babe is, "Is the child perfect?" The doctor knowing this, and also for his own satisfaction from a professional standpoint, carefully examines the child in all parts with a view of determining the question, so important to the parent and especially to the child. A cleft palate, a spina bifida, an imperforate anus, birthmarks of all kinds are carefully noted, and in due time are given whatever attention may be called for. But in spite of the numerous cures that have been effected in the diseases of the gentler sex, both young and old, the importance of taking an invoice of this part, as well as the rest of the baby, at the time of birth, has not received a shadow of appreciation which is justly its due.

All up-to-date doctors realize the importance of the proper condition of the foreskin in the male, and of securing it during infancy. Then why should not the same watchful care be required with the foreskin of the clitoris? The application of the same thought to girl babies will have to be harped upon and discussed and presented over and over by writers and teachers before the girl babies are privileged to enjoy the benefit of free terminal nerve fibres in the region of the clitoris.

The clitoris is the analogue penis, is furnished with many more
nerves than the penis, is very vascular, so much so that deep wounds about the clitoris are accompanied with haemorrhage, and often need sutures to arrest bleeding.

The clitoris demands the same attention as the penis, to avoid undue irritation, an irritation that is the source of infantile convulsions, hip-joint diseases, stammering, eczema, chorea, chlorosis, enuresis, idiocy and of lust and all its consequences.

From the origin of the word, signifies titillation, hence it must long ago been deemed over-sensitive to irritation.

Clitoridian masturbation, simple titillation, or friction of the clitoris by hand, is the most prevalent form of the solitary vice in children and women.

Peculiar movements of the body, often calculated to this end, may accomplish the same titillation of the clitoris, ending in voluptuous spasm.

The external form of masturbation is more common than the internal, and with those addicted to it there is real increase in size of clitoris, and it is frequently found situated higher up or farther away from the vaginal outlet. There is an alteration in color, not, however, of uniform nature, but dependent upon the amount of irritation to which the parts have been subjected. There is an external redness if recent, or a bluish mottled appearance, especially extending about the labia minora if the irritation be very chronic.

When the clitoris and its hood are in a normal condition, the point of the glans is exposed, the complete retraction of the hood is easily accomplished, and no smegma or an irritated condition is found to exist between them. Any deviation from this requires attention. If, as in the case of the foreskin, the hood be adhered, loosen it. After the tissues have been separated, they will be more or less devoid of epithelium, and consequently will be red. Then draw the hood back as far as possible and drop or pour a thin layer of collodion over hood and clitoris. This filmy covering will remain several days, when it comes off, and leaves the part in perfect condition. If the hood is too long shorten it, if too tight, it should be slit along its dorsum. In amputating the hood of clitoris, care must be taken not to amputate too closely, as in healing this would result in a binding down of the glans clitorides by a contracting band of cicatricial tissue, which would become a source of increasing irritation.

This is but one instance, but it well illustrates innumerable others in which sickness and death baffle the doctors, and where a little at-
tention to the hood of the clitoris would have speedily restored the entire organism to harmony.

Miss A. L., age 18, brunette, plump figure, nervous temperament, face pimpled, and had the expression of sexual self-consciousness. Family history showed tuberculosis and a tendency among the women of pelvic disease. Well as a child until three years old. Then began attacks of momentary unconsciousness, sometimes no convulsive movements at all. These attacks came on about every three months or longer, the period shortening until at puberty the attacks were coming every two weeks or less, the seizures increasing in severity and frequency, beginning with a scream and lasting fifteen minutes, followed by terrible headaches and digestive disturbances, keeping patient in bed two to three days. Attacks would seize her on street as often as in bed. Could not go out alone, and was compelled to give up school. She was sent to me by family physician at twelve years of age. Physical examination showed muscles tense all the time, hymen tough and irritable, uterus in good position, rectum all right, but there was no sign of a clitoris or any appearance to indicate one. The skin was perfectly smooth when gently spread, but I could detect a prominence underneath feeling something like a small shot. I explained to the parents the necessity of liberating the clitoris for the benefit of the nervous system. Nothing more was seen of the case, the parents refusing the operation. When she was eighteen, I was sent for; patient now confined to bed, is dazed most of the time, memory impaired, no self-reliance. Physical examination revealed nothing more than when at twelve years old, except that there was no history of menstruation. Treatment in the meantime has been bromides and patent "cures." The family now wished for an operation. The patient was etherized, the skin pinched up with a delicate pair of forceps, so as not to endanger the organ, and a portion clipped off. The underlying tissue was raised and separated properly so as to expose the good sized clitoris, and allow the passage of instruments around it, which liberated the white balls of smegma. The hood was stretched, and collodium put on so the parts would not readhere. The hymen was removed. While under ether she had convulsive movements. Ten days after operation the menstrual flow appeared; dark, large quantity, no pain. The menstrual flow became regular. There was one convulsion during the first period followed by one six months later, when upon examining found the hood adhered to clitoris, which was broken up. There
have been no attacks since. The work that was done two years ago has left her well, and she is now working in a store.

By all means, then, let the girls have as fair a start in life as the boys. Sensuality is pitiable and mischievous when the boys are neglected. But the neglect of the girls is still deeper and more disastrous, if possible, in its consequences. It is much easier to prevent than it is to cure. So let both sexes have a fair start in life, and be entirely freed from the sexual self-consciousness which comes from impinged nerve fibres about the clitoris and its hood, as well as at the glans penis and its foreskin.

DISCUSSION.

DR. W. G. DIETZ: If hip-joint disease is due to invasion by the bacillus tuberculosis, as is generally understood, what element does the clitoris and its morbid adhesions play?

DR. SCHANTZ: I have seen no hip-joint disease from it, but in talking with others they have told me that breaking perputial adhesions in boys and freeing the clitoris in the case of a girl has bettered the condition; in fact, effected a cure.

DR. DIETZ: If that is the case, would the fact of the cure of an affection of the hip-joint or of any other joint warrant the assertion that the trouble was truly an organic disease and not merely a functional one, probably of nervous origin? I think the old authors always confounded hip-joint disease and a number of affections which we now know to be altogether different ones, differing in their nature and sometimes in their results. I would like to hear what those who have more experience in this matter have to say on this subject, because it is such an important and practical one.

DR. E. R. SNADER: The few cases I have seen which resembled hip-joint disease that have been benefited by work upon the clitoris got well so quickly it was not possible for it to have been an inflammatory process. You can call it reflex if you wish, but they got well too speedily for it to have been a tubercular disease. We want a reclassification more than anything else.

DR. GEO. B. ROBERTS: The paper reports a remarkable case, one that is very valuable to us; where there was a definite lesion, where it was relieved, and where a cure of such an apparently serious condition resulted. Such a case is a matter of very great importance for record. The writer's reference to the relationship between phimosis
and hip-joint disease and adhesions of the clitoris and hip-joint disease I think is based upon a single case which was originally reported by Dr. Lewis A. Sayre, of New York. In the early years of Dr. Sayre's work in orthopaedics, among cases which he reported was one that resembled in appearance hip-joint disease. This case was a boy, and he was subject to phimosis; was circumcised, and the condition disappeared. There is nothing in the record of the case to show that it was a case of hip-joint disease. I am not aware of anything in medical literature afterwards which has definitely connected hip-joint disease with phimosis; but, as is the custom of the medical profession, once a thing gets in the literature it is repeated and repeated. I doubt if there is anything now to show that there is any connection possibly between adhesions of the prepuce and any organic disease. There are cases where some nervous symptoms are referred to the hip as they are to other organs. I do not believe the doctor intended to sanction the relationship between hip disease and this condition.

Dr. Anna C. Clarke: I did not hear this paper, much to my regret, but I am interested in the subject. I do not know what the author said about the connection between phimosis and hip-joint disease, but I have had some interesting experiences with adhesions of the clitoris in children. I am physician at the Florence Crittendon Mission, and there we have many children who are incorrigible, and who became very wild and thoroughly unmanageable at home. One such child, without any parents that we knew of, was sent to the Home of the Friendless, and there became such a public nuisance from continued masturbation that they thought she was a case of total depravity, and sent her over to us. I made an examination of the case, relieved an adherent clitoris, and had the satisfaction of having no more masturbation. We watched the case closely. There was an attendant with the case all the while, and the child stopped masturbating, began to brighten up mentally, began to want to read and want to learn letters. She was twelve years old. She began to want to do things, stopped her viciousness; and came to me one day when I came in the institution and said: "Dr. Clarke, I must have been very bad before I knew anything." All of her nervousness disappeared. She became one of the most obedient girls we had in the home. She has since been adopted by some people in the country, and they say she is giving perfect satisfaction. I have found that some of our most vicious cases have been relieved by unhooding the clitoris. I
can recall at least ten cases that have given us serious trouble, one of which was well known to the police. Finally, the case was picked up on the street and sent to us as a case of total depravity. That case has been a moral reformation in every way. She has shown no desire to leave the home. She was under observation for about six weeks before I gave her an anaesthetic and relieved the clitoris. After that I did not have one bit of trouble. I have made it a practice to examine these cases, and wherever I have found an adherent clitoris I have found a decrease of nervous symptoms by relieving it. I do not claim it is a panacea for all immorality. If it was we would strike the keynote of the new millennium, but it certainly will relieve nervous symptoms, and every child could be looked to for this condition, and they have a right to lay a serious charge to the home physician who does not attend to it.

Dr. H. P. Cole: In regard to the relation between reflex irritation and hip-joint disease, I had one experience which might possibly assist the gentleman who asked the question concerning it. In a case that I examined I found necrosis of the tibia and apparently hip-joint inflammation. There were all the symptoms, swelling and distention, and it seemed as if there must be an abscess in or about the hip. I operated on the necrosis, and removed a large piece of bone from the tibia, which was perforated. There was an opening in it through which the finger could be passed. In a few days the inflammation at the hip entirely disappeared. There was no abscess, and no evidence of any local inflammation beyond this reflex irritation. There was no local disease, no necrosis, no abscess in the soft tissues, or anything of that kind, and in two or three days the symptoms had nearly all disappeared, and the case went on to a very rapid recovery. If necrosis of the tibia will produce such a reflex condition, why cannot an irritation at a greater distance produce a similar condition? It may be argued that there was absorption of ptomaines or something of that kind which produced infection of the hip, but if that is so why was there not some evidence of tissue destruction at the hip? It was badly swollen, and the thigh flexed, with all the evidences of extreme tenderness, discoloration and other evidences of localized inflammation.
SOME OBSERVATIONS CONCERNING THE DIAGNOSIS
OF HEART DISEASE IN INFANCY AND CHILDHOOD.

EDWARD R. SNADER, M. D., PHILADELPHIA.

The diagnosis of any form of acute heart disease in infancy and childhood is notably difficult, and I may say with reason sometimes impossible—impossible if it be necessary to reach an immediate positive conclusion as to the exact nature of a suspected lesion.

The congenital lesions can seldom be diagnosed as to their particular departure from the anatomical form. We can know that there is a defect in the action of the cardiac pump, but we cannot always be certain as to what valve or what opening is affected, or whether this or that septum is absent or perforated, or whether the vessels are transposed, or whether the foramen ovale is patent or not. The most constant sign of congenital heart disease is a systolic murmur heard over the pulmonary area or the left body of the heart. This sort of murmur is heard with all kinds of heart defects of the congenital anatomical type. While, with an elaborate study and abundant opportunity for frequent observation, we may occasionally decide that the systolic murmur discovered soon after birth (without the subsequent intervention of any disease capable of causing a heart malady after birth) has a particular significance and represents a particular lesion; in the vast majority of instances this diagnostic result is not possible, and we are compelled to content ourselves with the diagnosis of “Congenital Heart Disease,” and leave its special form a matter of surmise and conjecture.

Perhaps the most frequent lesion represented by this systolic murmur of congenital heart disease is an unclosed or partially closed foramen ovale. I am satisfied, however, that partially closed foramen ovale exists at times without murmur, and hence there is no reason to suspect its existence. Cyanosis, the symptom above all others most constantly associated with congenital cardiac maladies, is not by any manner of means always pronounced, and may, indeed, be entirely absent, in not only patent foramen ovale, but also in other less obvious anatomical defects in the heart structures. I am led to take this view concerning the absence of murmur in some of these
cases because of the observation frequently made by Professor Rufus B. Weaver, that his discovery of a partially closed foramen ovale in his adult dissections is so frequent as to be common, and while he does not go into figures as to the ratio of patent to unpatent foramen ovale in adults, the fact of their frequent presence and clinical innocuousness is only too obvious. It cannot, of course, be proved that these cases did not have auscultable murmurs, sufficiently obvious to a careful clinical observer, to have led to a suspicion of a cardiac disorder. Unfortunately a clinical history does not accompany dissecting material as furnished by our anatomical board; but, nevertheless, it seems to me a fit assumption that, in the numerous instances of partially closed foramen ovale discovered in the dissected adult heart, a fair proportion were not represented during life by a discoverable systolic murmur in the usual or any other situation. Clinically, we need not worry ourselves about these undiscovered cases of unclosed foramen ovale, for, as a rule, when they do not produce a murmur they do not produce important symptoms, and, when sufficiently grave to induce severe clinical phenomena, the clinical phenomena in themselves are the measure of the gravity of the case, even in the absence of murmur whether congenital or acquired, and also furnish the necessary indications for treatment.

In the acquired forms of heart disease the inferential diagnosis is sometimes extremely easy and sometimes very difficult. The valvular diseases are far more frequent in infancy and childhood than is even dreamed of by the hurrying physician. Eighteen-twentieths of the cases are never recognized at the time of their inception or during their progress. This fact is shown by the discovery in countless instances in adolescence or adult life, of murmurs representing grave valvular lesions without any clinical history whatever to suggest that their lesions had been discovered when they were in progress acutely or subacutely. These lesions of the endocardium will continue undiscovered if the profession does not awaken to the fact that endocarditis accompanies other diseases besides inflammatory rheumatism and scarlatina. The conception must be had that all the exanthemas, all the pneumonias, all the diseases causing alterations in the character of the blood, from so-called lithia to biliousness, can cause endocarditis. If I were to trust my own experience I should emphatically say that endocarditis more frequently accompanies tonsillitis than any other one malady. You can call tonsillitis rheumatic, if you will; I care less now for the pathological condition than
for the general recognition of the clinical associations of endocardial inflammations. A conception of the clinical associations of endocarditis is essential, in order that the inflammatory process be diagnosed at a time when the secondary changes in the lining of the heart may at least be limited and mitigated, if not subsequently cured. It is most necessary that the possibility of the occurrence of endocarditis more readily in the young than in the adult be apprehended, and also that endocarditis may run its entire course in connection with some other disease of which it is a complication or sequence, without the presence of a single, definite, positive symptom ponting to the heart as the seat of a primary or secondary manifestation of disease. In the possible absence of symptoms, in a failure to recognize the widespread clinical relationship of endocardial inflammation to the most diverse and opposite disease pictures, and most of all, to a failure to examine the heart properly (and make use of the methods of physical diagnosis) is due the reprehensible fact of the too frequent non-recognition of inflammation of the endocardium in infancy and early childhood.

I may say, in passing, that this lack of discovery of lesions of the endo- and pericardium is just as true in adults as it is in children. While exceptionaly the diagnosis of endocarditis may be difficult, it is usually possible if a suspicion of the presence of the malady be entertained and careful and repeated examinations made. I am almost inclined to believe that the general practitioner will be more likely to discover that relatively rare lesion, ulcerative endocarditis, than the simpler and more frequent form of involvement of the heart's lining, because in some of these malignant cases the clinical phenomena present may point indubitably to the heart, at some stage of the disease, as a causative factor for the presence of certain symptoms.

The myocarditis, the endocarditis and the cardiac dilatations of infancy and childhood are, in some instances, specially difficult to discover, because of certain peculiarities in the normal signs in the young heart. The sounds of respiration in the young are sometimes so loud and so harsh as to obscure the presence of a murmur and make difficult of detection modifications that take place in the character of the heart sounds as the result, not only of endo- and pericarditis, but of myocarditis and dilatation. Aside from this loud respiratory sound, the restlessness of the patient during a prolonged examination is not an unimportant factor in the difficulties attending the investigation
and diagnosis of cardiac disease in children. The superficial cardiac space, too, is higher, and relatively much smaller than in the adult. The position of the apex beat is further removed from the centre of the sternum, is higher in situation, and more movable than in the adolescent and adult heart. Up until the sixth year, at least, and sometimes still longer, the pulmonary second sound is accentuated normally in the young, and thus alterations in the character of this pulmonic second sound, so invaluable in the diagnosis of left-sided chronic valvular affections of the heart in the adult, is either of no value, or must be discounted or most carefully weighed before being accepted as evidence of cardiac disease when it is found in the very young.

Despite all these disadvantages, however, the diagnosis of endocarditis in infancy and childhood is sometimes made with the greatest ease and certainty, while in others it remains a suspicion only, to be made positive or negatived perhaps long after convalescence has been established. I recall several cases in which I suspected the presence of endocarditis, but the evidence present seemed to me at the time insufficient upon which to base more than a tentative diagnosis, in which several months afterward I detected a well-marked and unmistakable murmur, with all the accessory evidences of valvular involvement.

Given a case of any sort of illness capable of producing serious blood changes in which I can discover a murmur that grows in intensity day after day, and I am willing to diagnose endocarditis. I do not expect at this stage to find enlargement of the heart or material alterations in the character of the heart sounds (save the muffling caused by the beginning of the murmur or its actual presence). Those modifications occur later, often when the patient is up and about, and weeks and even months may pass before the signs present indicate a chronic valvular affection. To me personally the gradual increase in the intensity of a murmur (which was at first a mere blurring of the affected heart sound, gradually growing into a definable new sound, a murmur) is of the greatest possible value in the diagnosis of endocarditis. If symptoms are present, the diagnosis is, of course, more certain, but their presence or absence is not essential to the diagnosis. I lay particular stress upon this gradual increase in the intensity of the murmur because this augmentation gradually of a murmur's loudness apparently represents the onward progress of the anatomical defect being caused by the endocardial inflammation; because if this murmur represented the incipiency of
asynchronism it would not increase in intensity gradually, but sporadically; because, if the murmur represented dilatation, as the dilatation and crippling of the heart grows greater the murmur diminishes in loudness. You see, therefore, that I do not rely simply upon the presence of the murmur to diagnose endocarditis, but upon the discovery of that murmur early and upon the recognition of the modification in intensity that takes place in the evolution of the murmur. This gradual increase in the intensity of the adventitious sound is true of the vast majority of the murmurs of endocarditis in the early stages of these new sounds, but not of all. Those cases of endocarditis accompanied by a considerable degree of dilatation (a degree of dilatation capable of causing death) is not characterized by an increase in the intensity of the murmur, but rather by a diminution or total disappearance of the adventitious sound. However, here practically the diagnosis of endocarditis is of little importance; the recognition of the dilatation is the important and necessary lesion to discover.

Dilatation of the heart in the young is not at all infrequent, and may complicate diseases that have no direct relationship whatever to the heart or endocardium, diseases that lay stress upon the heart by virtue of their special pathology or the height of the fever, or the contamination of the blood stream, but do not in themselves intrinsically and specifically attack the heart in such a way as to set up what are known technically as heart diseases. The young heart dilates readily, and also recovers its tone, in numberless instances, with remarkable facility. When the heart is seriously dilated you more frequently have symptoms that direct your attention to the heart than you do in most cases of endocarditis. In dilatation, if there be no pulmonary signs, and these often are present, you may be compelled to rely for the diagnosis of the dilatation upon the great relative weakness generally and of the radial pulse, signs of enlargement of the heart and a weakening of the muscular element of the first sound, together with slight or severe cyanosis, which is sometimes a symptom of dilatation. Sometimes a murmur, varying very much in intensity from time to time, is found with dilatation, but if the dilatation becomes extreme, this adventitious sound may disappear altogether. If the early signs of dilatation were looked for in the acute, and even in the chronic disease, that is, a lessening of the muscular element of the first sound of the heart, a prolongation of the expiratory murmur at the bases of the lungs, and slight labial cyanosis,
and the heart be given proper therapeutic attention, there would be fewer deaths in infancy and childhood.

The myocardial inflammations or degenerations accompany any of the diseases that profoundly affect the character and composition of the blood, notably diphtheria, typhoid fever and severe scarlatina. Myocarditis, according to the books, can seldom be diagnosed with certainty; but practically the lesion can often be discovered. Most of the cases of acute myocarditis that I have personally seen have been in connection with typhoid and diphtheria. In typhoid, late in the disease, where the death occurs specifically from heart failure, there is no reasonable doubt but that myocarditis has been present. However, sometimes as early as the first week, the heart will become exceedingly rapid, the first sound lose its muscular boom, and this, together with the septic condition of the patient, and the profound weakness, is sufficient evidence upon which to base a diagnosis of myocarditis and a most unfavorable diagnosis. These same signs, possibly minus the sepsis, will diagnose a myocarditis in any acute disease, where serious impairment of the heart’s power is manifest long before the period when the degenerative changes should normally appear during the progress of the malady. The “time” element, so far as the natural evolution of the disease is considered, is sometimes of vital importance in the diagnosis of myocarditis.

Those cases which I have seen in connection with diphtheria have made themselves manifest about two weeks after the subsidence of the acuter symptoms of the disease. In fact, in two cases which terminated fatally within twenty-four hours after I had first seen them, the fact that they had had diphtheria was an inference, inasmuch as the reported sore throat had been regarded as of no import whatever, and was not suspected to have been diphtheritic. Indeed, one other case that I now recall had had what had been called a follicular tonsillitis of a single day’s duration, and had only required one visit from the attending physician. Heart paralysis undoubtedly occurs during and shortly after diphtheria, but I am inclined to believe from my own experience that most, if not all, of these cases of so-called cardiac paralysis were cases of myocarditis, and the cardiac paralysis was not recognized as having myocarditis as its basis. It seems to me that the cardiac paralysis was the terminal symptom of an unrecognized myocarditis. The extreme weakness, the pallor, the extremely rapid pulse, and the loss of the muscular element of the first sound of the heart, would be sufficient evidence upon which to
base a diagnosis of myocarditis, when that disease occurs early in diphtheria. Sometimes the very first symptoms in the later cases of diphtheritic myocarditis, if I may so term it, is a sudden, unaccountable collapse, the patient apparently having seemed perfectly well to the parents. Sometimes death is immediate, but in most of my cases death has occurred in from ten to thirty-six hours after the initial collapse. Weak, relatively low-tensioned pulse, frequent irregularity and intermittency of the heart beats, and loss of the muscular element of the first sound, are the signs I have found in these cases.

The practical lesson to be learned is: If the first sound of the heart is losing its muscular element, your patient, if acutely (or chronically sometimes) ill, is in the throes of pericarditis, hydropericardium, endocarditis, dilatation, myocarditis or some one of the forms of cardiac degeneration, and it at once becomes incumbent upon you to do two things, one is to tell which one of these lesions is present (with its corresponding prognosis) and the other is to keep the patient at rest during the prevalence of the weak first sound.

This paper is intentionally not an elaborate or an exhaustive one. It is simply intended to suggest the possibility of recognizing cardiac conditions and diseases at a time when we will have a doctor's grasp on all the factors of a given case, and will not be caught napping by some smarter fellow or by a special dispensation of Providence, so-called.
REPORT OF THE

SECTION OF SURGERY.

The American Surgeon; Should He Excel? by E. R. Gregg, M. D.
Perineal Drainage for Chronic Gonorrhoea, by L. T. Ashcraft, M. D.
A New Method of Treating Talipes, by H. P. Cole, M. D.
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On the Necessity of Making More Frequent Examinations of the Anus, Rectum and Sigmoid, by G. B. Moreland, M. D.

THE AMERICAN SURGEON; SHOULD HE EXCEL?

E. R. GREGG, M. D., PITTSBURG.

Just now, when the attention of the world is directed more than ever before to America and things American, when the “American invasion” and American supremacy in the peaceful pursuits are engaging the attention of other nations, just now and before this bureau of this Society seems an opportune time and place to consider briefly the American in the art and science of surgery.

The very fact that a man is an American means more than that he is identified with the greatest Republic in the world. It means that he has within himself certain traits and characteristics which, if cultivated, and not allowed to wither, place him in an advantageous position at the start of his fight for success.

If he conscientiously enters the study of medicine, and elects it with enthusiasm as his life work, he will succeed.

If he develops a special liking for surgery and goes into that branch with the same honesty and enthusiasm, and has the necessary experience and hospital connections, he will be the successful surgeon and become one of the band that is giving a world standing to American surgery.

The American would appear to be particularly fitted to the requirements of a surgeon. He is a composite character, combining in
general the best qualities of other nationalities. He is not bound by ancient and obsolete traditions. He is a good student, independent and quick in thought and action, ambitious, deft of hand, careful, conscientious and equal to any emergency, which qualities, together with the proper experience, should make the ideal surgeon.

He has, therefore, every advantage to begin with and, other things being equal, he should excel. He is in a position to add to his knowledge by drawing from the world, if he will. Reared in a country of broad expanse, distances do not appall him, and financially he is as able to visit the world's medical centres as are men of other nations. His native curiosity inclines him to see the world's best. Let him follow this inclination and visit the leading home and foreign clinics. He is then in a position to judge the best and to endeavor intelligently to improve upon it, and his medical journals will then keep him in better touch with the world.

The increasing number of successful young men in all pursuits in our country lead us to believe that the American mind matures at an earlier age than others, giving a well balanced brain in a body still bristling with energy, and who can say what may not be accomplished by such an organism?

American surgery has already impressed Europe, and the signs indicate that it will continue to do so. A glance at the achievements of American surgeons in the past hundred years will convince any one of this fact. Tinker has summed up a few of them as follows:

1. Introduction of anaesthesia.
2, 3, 4, 5. Four of the most difficult ligations of arteries (innominate, common carotid, common iliac, subclavian).
7. Treatment of aneurism by compression.
10. Ovariotomy.
11. Introduction of nearly all methods of intestinal anastomosis now in use.
12. The introduction of the proper treatment of appendicitis.
14, 15, 16, 17. Four important excisions of bones (superior and inferior maxillae, clavicle, interscapulo-thoracic amputation).
18. Operation for osteomyelitis.
20. Manipulation in the reduction of dislocations.
21. Skin grafting.
22. Closure of defects in cleft palate.
23. The invention of the tonsillotome.

With so much accomplished in so few years imagine the future.

Read the address of Frederick S. Dennis, of New York, on "The Achievements of American Surgery," and the ..Address in Surgery," by W. W. Keen, of Philadelphia, and then judge the destiny of the American surgeon.

G. B. Ferguson, of England, senior surgeon to the Cheltenham Hospital, in a paper entitled "Notes on a Visit to Some American Hospitals," and read before the British Medical Association in 1901, of which he was then president, says, after describing his visit: "The sum of all the matter is * * * that the Americans are careful, painstaking and successful, rather than quick and showy surgeons."

This may not be enthusiastic praise, but it is at least a concession, and after all, success is the stepping stone to excellence.

While it is our belief that the American surgeon will become superior, if not already so, let him never feel that he does excel others for self-complacency usually misses the goal, but let him ever continue to strive for excellence, and he will force the world to acknowledge his merits.

The writer of this paper was greatly impressed, while studying in Berlin in '94, to be handed a copy of Allen Starr's "Brain Surgery" in response to a request for the best work in that line. Other American names and methods were frequently quoted in the various clinics, an incident which was rare but a few years before.

Another recognition is the fact that to-day the American treatment of appendicitis is generally conceded to be the most advanced.

Returning again to the subject of our theme; the surgeon's duties are to relieve suffering and cure diseases coming within his sphere. To excel others he must have success, to succeed he must have good results. Results, then, are what count in the final judgment.

Be ever on the lookout for results. Of what advantage to the patient is the brilliant operation if the result be fatal?

Let us not be deluded into thinking that surgery is all mechanics, but remember that we are dealing with living bodies and a vital force, which at times needs correcting by therapeutic, as well as by mechanical means.
George Ryerson Fowler, of Brooklyn, says of the "Recent Graduate to the Field of Surgery:" "The fact becomes more and more impressed upon him that in the field of surgery a full and complete knowledge of all the resources of the medical art are essential to the successful practice of this branch."

The surgeon, therefore, should be well versed in therapeutics; it will aid him to gain more perfect combined mechanical and physiological results.

This, then, being the case, has not the homœopathic surgeon some advantage? He has the same qualities with which to start his medical career; he is in as good financial condition to pursue his studies and investigations; he has his medical societies, his national one being the oldest national medical organization in this country; he has his hospitals; he has access to the same literature and clinics as his allopathic brother; he has a good knowledge of old school therapeutics and methods, besides which he has a thorough knowledge of the homœopathic system. His position cannot be better defined than in the following language, with which you are all familiar:

"All that pertains to the great field of medical learning is his by tradition, by inheritance, by right," and he "has added to his knowledge of medicine a special knowledge of homœopathic therapeutics."

We would wish for the truths in the words of George Ryerson Fowler, and in this last quotation from the American Institute of Homœopathy, to be more generally known and understood by the young men beginning their medical career, that they may fully appreciate the advantages of such a knowledge.

In concluding this paper, we wish to say if sufficient reasons have been shown why the American surgeon in general should excel, how much more reason is there that the homœopathic surgeon should excel, who has an added knowledge of a successful and accurate system of therapeutics?

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PERINEAL DRAINAGE FOR CHRONIC GONORRHŒA.

LEON T. ASHCRAFT, A. M., M. D., PHILADELPHIA.

My remarks will be confined to enumerating the benefits derived from perineal drainage for intractable cases of gonorrhœa.

Discussing its curative value in chronic inflammation of the posterior urethra, associated with contracture of the bladder-neck, let me say that, while most attacks of posterior urethritis are cured by means of intravesical irrigations of the recognized antiseptics, direct applications of silver salts and Guyon's posterior dilator, yet some not only fail to recover by such methods, but are aggravated thereby. Especially is such the case when the bladder is involved. The urethral discharge persists, the urine is loaded with pus and the pathogenic bacteria common to such cases; the calls to urinate are very frequent, often hourly, both by day and night, while the act is distressing during the entire performance. Frequently, the last few drops voided are tinged with blood, and complete incontinence may follow, the sufferer being compelled to wear a urinal. Residual urine is always present, the amount varying from one-half to three ounces. Consequently, the strength fails, which, together with the symptoms just mentioned, may lead to a suspicion of urogenital tuberculosis. Relief is imperative; it can be obtained by perineal drainage.

Although all are acquainted with the technique of this operation,
yet there are several points which should be emphasized. After the customary operating toilet, the patient should be anæsthetized and placed in the lithotomy position. A grooved staff is passed into the bladder and held there by an assistant, the patient’s legs being likewise supported by assistants. The operator then makes an incision through the skin and deeper structures, about three-fourths of an inch long, commencing it about two inches above the anal margin. Care should be taken to make this incision exactly in the median line, thus avoiding wounding adjacent tissues. The urethra is usually readily located, and, when seen, should be incised sufficiently to admit the second finger. The next step consists in overstretching the sphincter and neck of the bladder. This may be done by inserting the forefinger within the wound and sweeping it around within the neck of the bladder, making firm pressure upon all of its parts. Incidentally, the interior of this organ may be thoroughly explored by making counterpressure above the pubes. Should overstretching be very difficult, it may be necessary to incise the contracture. Under such circumstances it is better to tear the neck with the prostate, thus avoiding severe hæmorrhage. Bleeding points, if any, should be secured. After this the largest drainage-tube, which the wound will admit, is passed into the bladder, and that organ is then irrigated with a saturated solution of boracic acid until the fluid returns clear, when the wound is packed with sterile gauze and the patient returned to bed. Recovery may be hastened by daily irrigating with a saturated solution of boracic acid and administering urotropin in from 5 to 15-grain doses after each meal. The tube should not be removed (except to free from clots, or because of rise of temperature, chill, or cysto-spasms) until the fifth day, when a sound should be passed through the meatus to the neck of the bladder, after which the tube, or a smaller one, should be reinserted. Thus drainage may be maintained for several weeks. Sounding should be practiced every five days.

The complications which may arise from this operation are fistula, urinary septicæmia, or death from shock, due to prolonged hæmorrhage. This method is beneficial, since, by over-stretching and partially paralyzing the sphincter vesicæ, it gives that overworked muscle a chance to rest; it also affords an avenue for bladder-drainage, so necessary to cure cystitis.

It will not be necessary to recite every case cured; a brief review of a very interesting one may be sufficient.
O. B., aged twenty-two years, patient of Dr. Palmer, of Hollidaysburg, was brought to me, suffering from all of the symptoms associated with aggravated posterior urethritis and contracture of the neck of the bladder. He had contracted gonorrhoea about eighteen months previously, and, in defiance of proper treatment, became progressively worse. The urethral discharge was profuse and the urine loaded with pus and bacteria. Frequency had been followed by incontinence, and the patient was compelled to wear a urinal, not having voided urine naturally for three months; loss of weight and strength were prominent features. An examination revealed four ounces of residual urine. The patient was operated upon on the 24th of June by the method above described,—the after-treatment being conducted as outlined in my technique. He left the hospital ten days after operation, being able to void all urine naturally. A letter received the other day assures me that he is cured.

Perineal drainage has likewise proven curative in many cases of chronic gonorrhoeal epididymitis and funiculitis, either unilateral or bilateral, particularly where acute outbreaks occur without apparent cause; and, too, it is beneficial when the seminal vesicles are involved. That this procedure is curative will be recognized by remembering that the ducts of the deferential vessels and seminal vesicles make up the excretory ducts, which empty into the prostatic urethra. Following operation, drainage, which is essential to a cure, is obtained. As an instance:

V. B., aged thirty years, a dentist, consulted me for recurrent epididymitis contracted a year previously. He was a faithful patient for over six months, during which time he experienced several relapses, although he carried out my advice concerning sexual and alcoholic abstinence. Topical treatment to the posterior urethra, internal remedies and support of the scrotum were of no avail. Finally I subjected him to perineal drainage. It cured him.

The most urgent necessity for the employment of this procedure, however, is in those who suffer from chronic gonorrhoeal prostatitis, to which varying degrees of suppuration have been added, and which fail to respond to other intelligent methods of treatment; such men, too, usually have a coincident involvement of the appendages of the prostate and an inflammation of the seminal vesicles.

It must not be forgotten that a respectable majority of those who have chronic gonorrhoea of the prostate and seminal vesicles do very well, and are relieved from the associated urinary, sexual and rectal
distress by proper massage of the prostate and seminal vesicles, combined with dilatation and irrigation. That many have relapses and fail to recover is because of the peculiar structural arrangement of the prostate, which invites material through its ducts, but affords no opportunity for drainage and, too, because free drainage is not afforded the seminal vesicles. For this reason operation is indicated, during which it is imperative to always thoroughly massage the prostate and vesicles, since it empties them of their morbid products. This may be quite effectively done while the patient is under an anaesthetic. Where there exists excessive irritability of the sphincter ani, improve the opportunity to divulse that muscle. Such a procedure may prevent a recongestion of the prostate and may remove the annoying symptoms of weight, tenderness, and pruritus ani, usually present. Also, open any pus pockets, if found, and always over-stretch the neck of the bladder. If during operation the surgeon’s judgment suggests searing the lobe, because of marked hypertrophy, my modification of Bottini’s operation may be practiced, observing the technique outlined in one of my previous articles.*

To illustrate: A physician, a patient of Dr. A. B. Arthur, was seen in consultation, presenting the following symptoms: Bilateral epididymitis and funiculitis, marked inflammation of the prostate, urinary and rectal tenesmus, constipation, furred tongue, high temperature, rapid pulse and marked sensitiveness over the pubes, likewise an exquisite tenderness in the right inguinal region and iliac fossa. He had experienced a severe urethral inflammation about two years ago, which had resisted well-directed treatment. Because of pain in the right inguinal region and iliac fossa and the associated symptoms, appendicitis was diagnosed by previous attendants. Suspecting the severe pain to be due to inflammation of the right seminal vesicle, I inserted my forefinger in the rectum and confirmed my opinion. Perineal drainage was suggested and declined. After the subsidence of the attack, the patient was transferred to me. After a conservative course of treatment, a second attack decided in favor of operation. The patient left the hospital three weeks afterward, and following a course of irrigations and soundings, covering a period of four weeks, was dismissed, cured. This was a few months ago. The urine is now absolutely free from shreds, and all distressing symptoms have disappeared.

*“The Bottini Operation for Hypertrophy of the Prostate: A Modification of its Technique.”—Reprint from the Hahnemannian Monthly, August, 1900.
A NEW METHOD OF TREATING TALIPES.

DR. II. P. COLE, HARTFORD, CONN.

I must apologize for not having a written paper to present, but I desire to call the attention of the general practitioner, as well as the surgeon, to a few points relative to the treatment of orthopædic conditions. There is very little system or uniformity of opinion in the treatment of these cases. If there is any defect in a child he is very liable to be sent to a machinist. This machinist knows very little about anatomy, consequently his efforts are directed in the line of mechanics only, regardless of anatomy, to the correction of the crooked member, just as you would straighten a crooked stick by applying pressure at both ends and at the middle to convert the curve into a straight line; but the relation of the foot to the leg, the anatomy of the foot, the relation of the weight of the body to its reception by the foot are entirely overlooked and neglected. These points must be understood, and must be adapted to the case when the deformity begins to develop, either by the general practitioner or the surgeon, in order to get the best result.

If you step upon a small stone your foot will tip inward or outward, depending on the position of the stone under the bottom of the foot. If it is at the inside of the heel your ankle will turn outward; if it is under the outside the ankle will turn inward. We stand upon two round points, which are to the foot what the under surface of the tire is to the bicycle. The under surface of the os calcis is convex, not flat. The under surface of the great toe joint is also convex. These are the two points upon which we rest, upon which we have to balance our weight, just as we would upon a pair of skates; and just as you drive a horse with the two reins equally tense in order that he will go in a direct line, so the foot is held in relation with the leg by the muscles on the inside and those on the outside of the ankle in opposition to each other. This allows a normal action of the foot.

If the muscles on one side become weakened the weight of the body will crowd the top of the foot in the direction of the weakened muscle, consequently we develop a talipes by pushing the top of the
foot toward the weak side. The books will tell you that talipes-varus is due to an inward traction of the foot by spasmodic contraction of the inner-side muscles, and that these muscles must be divided or stretched in order that the foot may assume its normal position; but I am sure you will find that primarily the weight of the body crowds the ankle to the outside, and the inner muscles are shortened in consequence of the position into which the foot is crowded. In these cases the fascia is also shortened, and that has not the power to voluntary contraction.

I.—"A NEW METHOD OF TREATING TALIPES."

If you stand in an elevator and look out at the top you will see a rope going up over a pulley. If that pulley and rope are in line the elevator will run, all things being equal, but if they are not in line it
will stop. If your foot is tilted to one side the pulleys at the ankle, through which the tendons of the muscles of the leg pass to the foot, will be deviated; the muscles then cannot act, and atrophy will invariably follow. Atrophy will also be caused by the bands of a brace, which prevent the contraction of the muscles. Both foot and leg will grow weaker and smaller while wearing a brace, because the weight of the body is carried almost entirely by the brace, while the foot and leg are not used. The foot usually turns round in the shoe and assumes the same position that it would out of the shoe.

The inward pointing of the toe is an instinctive act on the part of
the patient to better maintain the upright position, and is accomplished mostly by a rotation of the femur at the hip. If you stand upon the outer edge of your foot, with the toe pointed for-

ward, the weight of the body conducted down the tibia will fall outside the point where the edge of the foot is touching the floor, and your tendency would be to fall away from the center, but if you turn this foot transversely this is avoided, for you then have a greater transverse diameter to the contact point. This the patient learns by experience, and soon adopts it.

The treatment of a condition is based on its pathology. If I am correct in saying that the departure is due to weakness of the muscles it is evident that a support for the side of the foot which the muscles are unable to hold in position would prevent the deviation
and allow the muscles that are giving way to regain their vitality that they are rapidly losing by the additional strain in the mal-position. If I fasten to the sole of my shoe a board that is wider than that sole, and extends beyond it to one side, I will not be able to turn my foot in the direction of that extension, for the contact point of the sole of the shoe is beyond the line of the weight of my body.

IV.—"A New Method of Treating Talipes."

If I build a shoe so that one-half of it was wider than the other the foot could not turn toward the side of the greater width, because the weight of the body would rest on the other side of the sole. How well this plan will work I can show you by a few photographs. I do not feel justified in taking any more of the time of this meeting, and will therefore show you very few.

The first photograph shows the condition of a boy of nineteen years, who was apparently sound at birth, but who through paralysis began to go wrong, and gradually arrived at this condition.
He was braced to the knee, and to the hip, and served a time in at least one good hospital, and was finally turned over to a home for incurables, where he was considered beyond all repair. He could not stand or walk without a crutch, and the calf of his leg measured only 8 1-8 inches in circumference. All his muscles were very weak, and one orthopaedic surgeon made the remark that he was all gone. The first time he put on the first shoe that I had made for him he walked about in my office with only the tip of one hand under his elbow for support. In two months he was able to walk alone, without crutch or any assistance. The second picture shows him bare-footed after one month's wear of my shoe, and the third one shows him six months later wearing shoes that he has worn six months, out of doors as well as in, and the soles of which are worn entirely through in the center. Photograph No. 4 shows the bare leg and foot of a boy of nine years, who came to me wearing a brace. His foot
turned round in his shoe until he walked on the outer edge of his foot, as can be seen in the picture. The atrophy of the leg that wore the brace is nicely shown. The next photograph shows him wearing the first pair of shoes I had made for him, immediately after he received them. The shape of the shoe prevents the weight of the body from crowding the top of the foot away from its normal position, and directs that weight to the inside of the foot, where the tissues have contracted on account of the position the foot has assumed and retained, and uses it to stretch those contracted tissues to their normal length.

This principle works just as well in the reverse of the condition we have been considering; that is, where the top of the foot is pushed inward, as we find it in the beginning of talipes valgus, or what is called weak-foot or flat-foot, but in these cases the arrangement of the bottom of the shoe is reversed.

SURGERY AS RELATED TO HOMŒOPATHIC THERAPEUTICS.

J. W. Coolidge, M. D., Scranton.

It has been an oft repeated saying in advocacy of the surgical disciple of Hahnemann that such a one should achieve higher surgical results because of the greater therapeutic efficiency of the correlated homœopathic drug to surgical conditions. Again, it has been said that by virtue of such drug advantages many surgical procedures are rendered unnecessary, as surgical conditions are oftentimes anticipated by prompt and decisive drug action. How far these two commonly accepted statements can be made to stand the test of critical examinations and unbiased opinion in the light of the medical truths and experiences of to-day is a matter of more than ordinary interest and a subject worthy of earnest discussion. It is apparent to the most casual observer in the realm of medical thought that the old-time, almost slavish, adulation of and faith in the power of internal medicine when administered according to the dogma of Samuel Hahnemann to cure most of the ills human is to-day greatly minimized. This is a departure in our school not so much from its bedrock principles as from its foibles and from the extravagances of its early claims and its means of progress. It means a casting out
of the false and the fanciful, getting rid of the quackery by which
the simple fundamental truths of our school have been over-
shadowed.

If, then, the supposition is true that we have become and are more
surgical, mechanical, hygienic and preventive in our methods, and
less therapeutical as to drug measures, let us ask what is the mean-
ing of it? Are we falling away from our faith of several decades
ago by reason of more satisfactory curative results obtainable by
these so-called modern methods? Two decades ago there was much
discussion in all of our medical societies and in our literature of
matters relating to medicine principally. What possible defence can
be raised of the status of surgery in both its literature and its prac-
tice in the homœopathic school a quarter of a century ago? The
literature of that time was certainly very meagre, principally the
rather general work of surgical practice, of Helmholtz and Franklin.
Excellent books for medical students and general practitioners, but
entirely insufficient to meet the wants of the progressive specialist in
surgery. To meet these further requirements recourse to old school
literature covering special lines of study and research was necessary.
That this was the right of the physician to do was recognized by
our national medical society in its definition of a homœopathic phy-
sician as one who adds to his knowledge of medicine—using the
term in its generic sense—a special knowledge of homœopathic
therapeutics and observes the law of similars.

All that pertains to the great field of medical learning it declares
is his by tradition, by inheritance, by right. It might be pertinent,
and I hope it is not impertinent, to raise the inquiry as to whether
we have a literature in surgery to-day that is altogether worthy of our
school? That we have workers in this field who are at the very
front and fore in the column of earnest workers no one can deny.
Successful, open-to-conviction, broad-minded men, but are we gath-
ering where we have not strewn and harvesting where we have not
planted?

We have publicly by our accepted definition of what constitutes
a homœopathic physician declared our intention to hold and our
right to profit by all the experiences of the past in medicine and by
all the researches and discoveries of the future. Do we not then by
this heraldry also announce that, in addition to observing the law
of similars, we are open and free to observe all other accepted med-
ical methods? That as a medical body we are free to do this can-
not be gainsaid. That it is of advantage to do so might be a question for debate, but the individual right must not be denied if we are to escape public criticism. From this viewpoint then the keynote of progress in medicine is still along the lines of experimental research! Having reduced similia to the best known, to us, general rule of therapeutics, a field of limited drug action, we must expand and enlarge our scope of work along all other lines. A little unfaith in the indication and drug action of the remedies of our classical Materia Medica will not harm any member of this society whose presence here to-day is a manifest of his desire to go up higher.

Sectarianism must yield to the invincible forces that are marshalled behind the banner of progress unless she herself is the advance guard and leads the procession.

The great and noticeable advancement in medicine in my day and in yours—equally noticeable to the physician and the layman—is not in internal drug giving by the rule of "similia" or any other dogma, but in surgical, mechanical, hygienic and preventive medicine. The trend of all physicians is away from empirical drug giving. The trend of the laity is decidedly towards other methods, all of which betoken a growing skepticism as to the value of old methods.

However much it may be held that we have the true doctrine of cure will we henceforth be better able than in the past to amplify and demonstrate it, and must we, to be consistent homoeopathic physicians in the future as in the past, proclaim "similia" to be paramount to all else? These are plain practical questions from one in the ranks, and might not be asked from the rostrum. Teachers of medicine and editors of medical journals should be and doubtless are the leaders in medical thought, but will they lay aside bias and speak the thoughts which stir the toilers in the great field of general medicine?

The time will surely come when that which is not full-blossomed truth must perish, and then all men can and will unite upon that which is vital and enduring.
ON THE NECESSITY OF MAKING MORE FREQUENT EXAMINATIONS OF THE ANUS, RECTUM AND SIGMOID.

GEORGE B. MORELAND, M. D., PITTSBURG.

In view of the fact that so many people are afflicted with anal, rectal and sigmoid disease it seems singular that so many of those thus afflicted should go untreated, or, if treated, that treatments should be given on the subjective symptoms alone. Why is it that examinations of these parts are not oftener made? The prevalent idea that such investigations are always accompanied by disagreeable features has no doubt had an influence in deterring physicians from making examinations. A series of examinations made will show the fallacy of this thought. Fear on the patient's part that examination means great pain has caused them to decline to submit to examination. Gentleness and the use of proper instruments for diagnosis—some form of the tubular specula will dissipate this fear.

The lack of appreciation of the great influence irritation and disease in these parts has on distant parts of the body has tended more than any other reason to lessen investigation.

If all the symptoms elicited by diseased conditions of the anus, the rectum, or the sigmoid were localized—and by diseased conditions are meant any changes from the normal—and were of such a character that their cause would be invariably discovered there ought not to be any necessity for writing on this subject.

Yet many cases with distinctly localized symptoms are neglected, and treated, if treated at all, in such a half-hearted and apologetic way, without examination, that it is necessary to emphasize the idea that all cases with local symptoms should be examined.

If such cases are neglected it is little wonder that those presenting obscure symptoms, frequently with no apparent relation to the actual cause of the disturbance, should receive no attention.

It is hard to conceive, in the light of our present knowledge of the results of pelvic irritation or disease, of any physician neglecting to
make examinations of women who come to him presenting symptoms that may be caused by such conditions. While, of course, such cases are at times neglected, and even when examinations are made no cause for the symptoms found, through inability, perhaps, to connect the symptoms presented with the slight changes from the normal that are present, or from lack of knowledge of what the normal consists of, yet there are none practicing medicine to-day who do not realize to a more or less extent the relationship that exists between irritation or disease of the female sexual apparatus and the production of disturbances remote from the seat of trouble.

The anus, the rectum and the sigmoid are supplied by nerves having a similar origin to those supplying the other pelvic organs and the sexual apparatus, or by branches of the same nerve.

As an instance, take the pudic nerve, composed of nearly all the third sacral and branches of the second and fourth sacral, which forms a large part of the nerve supply to the penis and clitoris. Branches from this nerve supply the bladder and rectum, hence the great disturbance that arises in the pelvis—in the bladder, the rectum and the genital organs, in any one or all of these—when one of these organs is damaged. If irritation of these nerve endings in the penis and the clitoris cause reflex disturbances, and who doubts it, it is equally true that irritation of these nerves in the anus or rectum may cause similar symptoms. Experience teaches that this theory is a fact.

I have in mind a case where a gentleman suffered for over thirty years with frequent periodic headaches of a severe neuralgic type, whose headaches disappeared immediately following an operation for the removal of haemorrhoids to the surprise and delight not only of the patient, but to the astonishment of the surgeon, who had not anticipated any such result. This gentleman was so struck with the evident relationship between rectal irritation and disturbances elsewhere that he recently came to me for examination in order to discover if there existed any reason in the rectum to account for some gastric symptoms that resisted all other forms of treatment.

More cases could be related to demonstrate that rectal irritation causes such symptoms, but one will be sufficient to emphasize the necessity of physicians familiarizing themselves with the disturbances evolved from such causes.

No one can diagnose accurately diseases of the rectum, anus, or sigmoid on the subjective symptoms alone, and the more one
familiarizes himself with these organs the more and more he comes to realize the necessity of ocular, digital and instrumental examinations in attempting to make a correct diagnosis.

The entire field from the anus to the sigmoid, or even the descending colon, is open to ocular inspection by means of the electrical lighted proctoscope and sigmoidoscope, unless some unusual condition intervenes, and in most cases these instruments can be used without pain and without the use of a general anaesthetic. There is no longer need of blind guessing, when with the aid of the instruments at our command we can both feel and see. All cases presenting local symptoms should be examined before treatment is instituted. While it is possible to treat satisfactorily some cases without an examination, it is not so in the majority of them.

I have in mind a case of fissure, perirectal abscess, stricture and rectal polypus, all of which cases were treated without an examination for haemorrhoids, in any one of which a correct diagnosis would have been made by any one who examined by digital and ocular means.

Those presenting such symptoms as indigestion, flatulence, loss of appetite, irregularity of the bowels, vague aching pains about the pelvic or sacral region, pains in the legs, especially in the left; a sense of weight or constriction about the pelvis, especially in males; spasmodic or periodic dysuria, without apparent genito-urinary cause; a tendency to diarrhoea, especially in the morning; the presence of blood, pus, shreds of mucus in the stools; irregular menstruation or dysmenorrhcea in young women, when no other cause can be found; all these and many other symptoms call for anal, rectal or sigmoid examinations. In fact, I would suggest that in all chronic cases, where other treatments and diagnosis have proven unsatisfactory, and where the symptoms may be reflex, that an investigation be made of these parts in order to determine if irritation or disease there may not be the cause of the disturbance.

The general disturbance present is not always in proportion to the changes found. Very slight changes may produce very marked symptoms and very serious changes may produce very insignificant general symptoms. It is no easy task to determine whether rectal irritation is causing symptoms in some cases, and the only thing to do when one feels that irritation may be present is to relieve all possible sources of irritation.

Realizing, as we all must, the important bearing pelvic irritation
and disease has on the general system, we should try and remem-
ber that the anus, rectum and sigmoid are important organs in that
region, and capable of producing disturbances elsewhere when the
seat of irritation or disease.

DISCUSSION.

Dr. Geo. B. Roberts: I should be sorry to see as valuable a paper
as this go by without discussion. It is refreshing to hear a temper-
ate and sensible paper upon diseases of the rectum. In my opinion
the subject has been hoodooed to a certain extent, if we may use that
term, by the claims which have been made for surgical work in the
rectum, which claims have seemed to be beyond what could be sub-
stantiated. Whether all the claims that have been made could be
substantiated or not I do not know. Personally, I hardly think they
could, but certainly all the claims made in this paper are perfectly
apparent, and it is a very timely one. The cure of reflex conditions,
conditions arising or evidencing themselves in other parts of the
body, which take their origin in the pelvis or in the organs of gener-
ation or in the rectum, has always seemed problematical. That such
cures are made I am fairly certain. It is always difficult, however,
actually to demonstrate them, but we do not need to employ that
class of diseases as evidence to prove the necessity for the frequent
examination of rectal cases. As the doctor has intimated, a diagnosis
of haemorrhoids is frequently made, and the patient is turned away
with the statement that he or she has a haemorrhoidal fissure, or
something of that sort. Medical treatment is instituted or local
means are used without making proper examinations. As he has
said, the examination of the rectum and sigmoid is perfectly easy.
No man requires more than an ordinary cheap cylindrical tube to
gain an enormous amount of information, information which is in-
valuable to the patient. Perhaps the most important lesion which is
overlooked in the rectum is the beginning of malignant degenera-
tion. For some reason or other the profession seems to think cancer
of the rectum is not a very common disease, while the fact is cancer
of the rectum is second only to cancer of the pylorus in frequency.
So far as I have been able to ascertain, and I have been very much
interested in this subject, over forty per cent. of cases of cancer of
the digestive tract are to be found in the rectum. Unfortunately
these cases of cancer are not most frequently directly at the anal
margin. They are to be found in the middle and upper portions of the rectum, and not until the case has gone beyond the possibility of surgical or other relief does the disease approach the anus, so that a casual examination will not demonstrate it until it is too late. It might be argued by some that granting that cancer has begun in the rectum, what is the use of making a diagnosis? You cannot do very much for it. As a matter of fact, I believe we can do a great deal for these cases. I believe the time will come when we will feel the same confidence in our operations for cancer of the rectum that we now feel in our early operations for cancer of the uterus and in our early operations for cancer of the female breast. We will never have the opportunity of elaborating our operations and of becoming skilled in this class of operations until the medical profession as a body takes up just what the doctor has emphasized, the frequent and painstaking examination of cases which have any rectal symptoms whatever. When we can actually see and remove specimens of diseased tissue from the rectum to the extent of sixteen or eighteen inches from the anal margin it strikes me that there is no reason for us to remain in doubt about the diagnosis in cases of this sort.

I wish to report upon two cases which I have still under my charge. One was operated on two years and a half ago and the other a year and a half ago for cancer of the rectum. I have preserved from one case a specimen fourteen inches long. The cancer began about an inch above the entrance and extended up the mucous membrane of the rectum into the sigmoid. In this case we removed nearly eighteen inches of the rectum and sigmoid, annihilating the anus and making an artificial anus on the side. This woman has resumed her house work, including her washing, and is in comparative comfort. She has very good control of the artificial anus, and is, so far as we are able to say at this date, a cured case. Of course, we cannot say positively that these cases are cured until at least three years have elapsed after the operation; it is possible a recurrence will take place even after that. The other case was a piano polisher. He has passed through practically the same history. The cancer, however, was not so extensive. It began about five inches above the anus and extended up three or four inches. About sixteen inches of his rectum and sigmoid were removed, and he is supporting his family at his trade and is in good health. These cases can only be successfully operated in the early stages of the disease, and they will only be discovered.
when the medical profession discovers them early in their history and does not wait for the late symptoms of irreparable disease.

Dr. H. P. Cole: In addition to the very valuable remarks made by Dr. Roberts, there is another field it seems to me wherein this paper is decidedly applicable, and that is in the sphere of headaches and stomach trouble. I believe many cases are having their stomachs washed out from day to day for dyspeptic difficulties which are entirely due to rectal disease. It has been my fortune to meet with several of them, including one extremely striking case that was treated for a number of years for dyspepsia, wherein the symptoms were due to rectal inflammation with haemorrhoids, proctocele, small abscesses and abscess cavities, and a fistula, all of which were overlooked. Repairing this condition resulted in the immediate improvement of the case and a continuance of that improvement up to the present day. This was two or three years ago. The lady can eat anything and everything. I believe one-third of our cases of indigestion, inability to eat whatever they wish, are due to rectal irritation, and can be relieved by a careful removal of any irritated condition in the rectum. Many of these things come up for our consideration, and in many cases the patients do not suspect the condition that exists. Many cases of irritation have progressed very far without giving any local symptoms at all; so that before you wash out a patient’s stomach prescribe a limited diet, and do all things that are usually done in treating indigestion; see if you have not some rectal difficulty which is creating the whole trouble.

Dr. G. J. Berlinghof: I was called a short time ago to a patient who was suffering from intense pain in the anal orifice. He said he had been treated for haemorrhoids by one of our prominent physicians, and showed me some suppositories that he had been using about a week. He said: “They are doing no good. I can’t stand it. I feel as if there was a sliver in my rectum.” I took it for granted it must be haemorrhoids. However, before leaving him I decided on investigating. The external parts were very red and congested, but did not have the appearance of external haemorrhoids. Not being thoroughly satisfied with the objective symptoms I inserted my finger in the rectum and came in contact with a foreign body. I was unable to make out what it was, but it became dislodged after pressing on it with my finger. After repeated manipulations I removed a spicula of bone probably an inch and a half in length that had evidently been a piece of bone from a chop. I directed him to come
to my office the next day, when I made an examination and discovered that the spicula had punctured the bowel, and in a short time he would have had fistula.

Dr. D. C. Kline: Dr. Berlinghof’s remark recalls to my mind a patient who was suffering and had suffered intensely for several days. He called me in in the evening. He was a plumber by trade, weighing probably two hundred and fifty pounds, and not having a very good heart. His pain was excruciating. I endeavored to make a local examination. He suffered so intensely that I had to desist. The following day I examined him again. He then complained of a pulsating, cutting pain. He was a brave man, an old soldier, one who I would have thought would endure almost anything, yet he seemed to suffer so acutely and made so much ado about it that I felt sure there must be something radically wrong. At my first visit I had given him some local application without any relief. I insisted upon a more careful examination the second day, and though it caused him intense agony I finally introduced the finger and found a piece of the so-called breast bone of a chicken, fully an inch of one wing, with an inch and a quarter of the other, with ragged points, and cutting into the rectum on each side. By dilating the anus with the fingers of the left hand and working this back gradually I finally succeeded in turning it and removed it. He had no further pain.

Dr. W. G. Dietz: About fifteen years ago I was called one night to see a child about seven or eight years old. It was screaming with pain, which it referred to the anus. There was nothing visible from the outside, nothing to indicate what could be the cause of the pain. The child was screaming and throwing itself around. I inserted my little finger and felt a sharp substance immediately within the external sphincter. On account of the restlessness of the child I was only able to insert one finger, and had great difficulty in dislodging the foreign body, but I pushed my finger as far in as possible and finally removed a part of the core of an apple which the child had eaten, and this sharp edge acted similar to a knife-blade. This was an unusual case, but the possibility of similar occurrences should be kept in view. Children, and adults also for that matter, will carelessly eat apples or anything else. Generally it is three chews to the apple, and down it goes. By removing that little piece, which was just about half an inch long, the whole trouble was removed.

Dr. H. W. Chaplin: If it is necessary to say anything further in regard to the importance of local examination, let me recount the
case of a child sixteen months old which I was called to see rather unexpectedly on last Sunday. This child had been ill for some days, but was improving, so the call was somewhat unexpected. On examining the napkin which had been removed last we discovered a piece of bone about an inch long and one-third of an inch thick, which had been passed. Had this bone lodged for some days longer in the alimentary tract, or in the bowel, just above the sphincter, which would not be unexpected in a bone of that size in a child of only sixteen months, the case might have been very serious, and because not discovered it was undoubtedly to some extent a factor in the local inflammation.

Dr. Francis Boyer: I would like to say that an unexpected event happened in my practice some years ago as the result of a dilatation of the rectum for fissure. A patient of mine who applied to me very frequently because of violent sick headaches associated with intense nausea and vomiting, followed by loss of appetite for two or three days, developed in the course of his trouble a rectal fissure. After treating it about three weeks I insisted upon dilatation of the anus, which not only relieved him from the trouble caused by the fissure, but relieved his constipation and his headaches. It is my custom invariably to make an examination when any one suggests that he possibly has piles. It is the only safe way to do. Modesty and fear of soiling one's fingers must be put to one side, and the advantages to the physician insisted upon. A patient cannot be relieved unless the physician knows the condition of the patient as nearly as he is able to determine it. In order to know that condition, as Dr. Moreland insists, even his rectum must be examined. I have had several experiences of foreign bodies in the rectum, one a peach stone swallowed by a man, one a piece of china inserted by a child and several instances of splinters of wood, and the only relief is mechanical, as we know.
REPORT OF THE

SECTION OF SANITARY SCIENCE.

A Few Jottings on Sanitary Science, by Edward M. Gramm, M. M.
Typhoid Infection, by I. B. Gilbert, M. D.
The Water Supply of Towns and Cities, by C. S. Middleton, M. D.
Prophylaxis, by R. E. Tomlin, M. D.

A FEW JOTTINGS ON SANITARY SCIENCE.

EDWARD M. GRAMM, M. D., PHILADELPHIA.

Several years ago the chairman of the Section of Sanitary Science compared the work done by that section with that done in other sections, and found that comparatively few papers had been written by members of the society on this very important branch of medicine. Physicians as a class are apt to be so much engrossed in dealing with the cure of diseased states that the prevention of the condition for which they are called receives less attention that it should. And yet who in the community is more called upon to study the subject than the doctor? His knowledge that right living, proper surroundings, correct clothing and a diet suited to the individual, all tend to preserve to him that health which all seek, should make him take advanced ground upon all questions pertaining to the personal welfare of the members of the community in which he resides. There are matters pertaining to the community as such which should receive his attention—the water supply, the disposal of garbage and offal of other kinds, the drainage, even the location of towns. All these will be improved if the physicians will constantly preach on the laws governing them.

When it comes to the location of individual residences, the best means of heating, lighting and ventilating them and the proper arrangement of their drainage, another field is opened which will well repay tillage.

The care of the clothing is a subject on which the average individual thinks little. When you take into consideration the fact that
the outer clothing is sure to become the lodging place of many varieties of bacteria which are blown from place to place, and that dark closets are the usual receptacles for it as soon as it is taken off, it is a wonder that harm is not produced when it is again taken from its hiding place. The unexplained transmission of contagious diseases no doubt could be traced to this habit in certain instances were it possible to isolate the cause of the infection. For instance, I was called to see a case of small-pox in a community where none had existed for a long time, but which appeared after a colored cook had unpacked the clothing which she had worn the previous winter while down South in a community where small-pox had been very prevalent. It is a well-known fact that outbreaks of diphtheria have followed the unpacking of clothing worn years before by diphtheria patients. Cleansing and disinfection of street clothing should become just as much a habit as is washing the underclothing. We have in formaldehyde an efficient substance, which, in solution, can be sprayed into closets and on clothing without harming the fabrics of which it is made.

Adulteration of the various foods and drinks should receive the closest attention of the sanitaryian. At the present time a crusade is being waged in Pennsylvania against the dealers in foods which contain preservatives. It is a lamentable fact that there is hardly an article of food which undergoes the least process of manufacture that has not added to it various materials which are intended to enhance its appearance, taste or keeping qualities. A newspaper "campaign of education" has been started to offset the effect of the exposure as to the various deleterious and even poisonous materials which are daily sold for public consumption. Statements are made that the quantities of the adulterants which are taken into the system at one time are so small that toxic effects cannot be produced. As physicians, we know that the habitual use of any chemical or drug is bound to produce alterations in the economy of greater or less severity.

The character of the ingredients used for adulterating foods and beverages and the acute and chronic effects of their use should be explained whenever opportunity offers. This is a field of work that has the largest possibilities, as limitless resources will be sure to be brought to bear on the public to lull it into a sense of security while using adulterated articles. In how many cases in the past death has resulted in diseases that would otherwise have been conquered by
skilled attendance if the system of the patients had not been under-
mined by adulterants taken in foods or drinks we do not know. It
is, on the other hand, a blessing that the human body is able to with-
stand comparatively powerful abuse, but I believe that the resistance
is more apparent than real and that every influence of the drug
character leaves its impress for harm.

The sanitary aspect of the contagious diseases is frequently lost
sight of by the practitioner. Considerations that should have no
weight from the viewpoint of the welfare of the community often
decide a physician’s action in certain of what he counts his best
families. Precautions that should be taken are neglected in conse-
quence and risks are run that are avoidable. It is no doubt a hard-
ship to have any, and much more so a contagious disease in a house-
hold, but the recklessness with which some persons who come in
contact with contagious diseases mingle with the community at large
is nothing short of criminal.

We have at the present time small-pox appearing week in and
week out in Philadelphia, the reason for which apparently is undis-
coverable. That some of the citizens do their utmost to escape hav-
ing its presence detected in their homes is unquestionable; that many
who have been exposed to the disease are not quarantined with the
case discovered in a house is also a fact, for many times they are
assisted in concealing their identity by others who are compelled to
remain isolated. It seems almost incredible that practitioners of long
experience, and who have seen numerous eruptive diseases, should
make the blunders that they do from ignorance, and it certainly
looks as if the diagnosis of chicken-pox, which is made in some of
the cases, is intended for the preventing of quarantining the infect-
ed family rather than the good of the community. A better co-
operation with the health authorities on the part of the physician
and a thorough understanding of the needs of the community at
large by the patients will help to stamp out this and other infectious
diseases.

The question of the pollution of the sources of the water supply
of large cities is of such magnitude that I hardly feel like touching
upon it at all. That the population of our country is becoming
denser every year is an undisputed fact, and that all regions which
now collect the water that is used by the citizen of this country is
bound to receive a portion of this increase is inevitable under exist-
ing conditions. Where families have settled and businesses have
been established in localities that are drained into our water-sheds nothing but a campaign of education will bring about a realization of the fact that the destruction of garbage and offal and the waste of manufacturing plants devolves upon every citizen individually. Where such care of injurious substances imposes a hardship on those who have vested rights in the localities mentioned the State in which that locality is should come to their aid.

These are but a few random thoughts thrown together in order to invite a discussion of the points glanced at in the paper. In conclusion, I would suggest that a perusal of the headings enumerated by Dr. Pratt in his article read at the meeting of the society in 1900 will well repay any member who is desirous of investigating some branch of sanitary science to present at a future meeting.

TYPHOID INFECTION.

I. B. GILBERT, M. D., PHILADELPHIA.

Considered in the light of its relative frequency in the practice of nearly every physician in country, village, town and city, and, coupled with this, the serious character of the disease, typhoid fever remains a subject for perennial discussion.

And the subject is seemingly inexhaustible through the diversity of views as to the nature and cause of this disease, which is prevalent everywhere and at all times; or owing to new discoveries in its etiology and pathology, or the endless suggestions as to its proper care and treatment, or the novelty and effectiveness of new and rational sanitary means used to curb its spread by destroying the cause.

Assuming, as the initial proposition, that the true cause of typhoid fever has been found and established, I shall not attempt an exposition of the bacteriology of this fever, but shall restrict myself in a general way to the consideration of the means by which the specific bacterium may gain entrance and infect the human system and the possible and probable sources of infection.

The chief factors now generally recognized and conceded as the disseminators of the bacilli of typhoid fever are milk and its products and the water supply—especially that of municipalities. As a matter of course, there are many subordinate causes that play their minor part, some of which I may notice.
Although milk enacts a secondary role, being primarily infected by admixture with water containing typhoid bacilli, or from some other cause; yet, if such a thing were possible, it is a more potent and effective means for propagating and spreading this infection than water itself. For its use is universal, and as a cause for disseminating disease it is not yet under the ban of suspicion by the public in general, such as is the case with water, owing to the warnings given and the teachings inculcated by Boards of Health and many individual physicians.

Eschewing all controversies, or anything that hinders united action, we should ponder deeply conditions now prevailing, for the history of older times and of older lands is beginning to repeat itself in our own country. Myriads of the inhabitants of the old world are turning to us—lately in increasing numbers, and, unfortunately, multitudes of those whose conditions, habits and customs have not changed for many centuries. Fortunately our country has been large enough to dilute or absorb this stream of emigration, but situations will inevitably develop that will be perilous unless the current can be turned or sanitary science is able to cope with this portentous problem.

The remedy is cleanliness, antiseptic, aseptic, cleanliness and adaptation to new conditions. But the physician must learn those now prevailing owing to our dense population, the aggregate of which consists of all kinds and classes of peoples.

Filth is the most powerful and active ally of infection. It is a center of incubation, and the sustenance of all organisms that are dangerous and prolific in their increase. The feverless Cuban city is simply a clean Havana. A striking object lesson of cause and effect. A signal exemplification of “old” and “new” and an exemplary manifestation of present scientific sanitation and its practical beneficial workings. The virtue of cleanliness has always been known and acknowledged. But modern cleanliness is the effect of the application of the true sanitary science, which is the sequence of a correct knowledge of the cause of infectious diseases and the manner and means of their dissemination.

The mystery of the relentless and insidious spread of typhoid fever will only be revealed and solved when both the profession and the laity become more fully conscious of and acknowledge and live up to and in conformity with our changed and changing conditions.
Roughly and briefly outlined the influences now in force and operation, either directly or indirectly, are:

1st.—Water, the primary source of infection.

2d.—Milk, infected by water containing bacilli.

3d.—Increase and closer aggregation of urban population, with a continued drift from country to city.

4th.—A large city infected with typhoid will become an immediate center of infection (and a remote one for a much larger area) for smaller towns for a surrounding range of fifty miles by the "trolley" system of communication.

5th.—Through increased population sewerage and sanitary methods become inadequate to demands, and the soil itself becomes an agency of infection. And the smaller towns by the absolute lack of these means of prevention become new points of infection, each dominating a new district of its own.

6th.—Foreign emigration, with habits and customs fixed and unchanged for many centuries.

I would not have the temerity to contend that these include all the causes that produce our epidemics, but I am sure they are the chief and fundamental agencies in operation to-day. In regard to water it must also be borne in mind that relatively as the population increases so does the pollution of the stream from whence the supply is drawn, and that the remedy is no longer merely a matter of changing to purer sources. All accessible ones are now apparently contaminated, and it has become a problem of filtration in order that towns and cities be furnished with an abundant, pure and potable supply.

Let me here interpolate an episode of personal experience as an example and illustration bearing on the subject of our milk supply, and also as an evidence that we are now actually in a transition period—at least in our city with its many improvements, and, incidentally, its rapidly progressing filtration plant. It may also be descriptive of other like possible foci of infection; and very happily of its retrogression and disappearance, and the refreshing, aggressive and progressive presence of the "new."

Standing back about twenty-five or thirty feet from a dusty street—now a wide, clean avenue paved with asphalt and bordered on the opposite side with new, clean and neat dwelling houses stood an old frame stable, sheltering about a dozen cows.

In order to reach the homes of some of my patients I was obliged
to pass this building for a number of years previous to its demolition. But thanks to the spirit of progress and improvement a large, solid, brick factory now covers the greater part of the area then occupied by the stable, the old frame house, the disreputable and slat-ternly looking “yard,” with its patched and leaning out-buildings and the rickety fence that was attempting to enclose the whole.

With the slope towards the stable (about the only redeeming feature of the place for the inhabitants of the house) the lot was tilted up in the air about twenty feet by the grading of the streets to their proper lines. Now it, too, is levelled down to and sloping in conformity with the topography of the streets and the good, sound laws of scientific sanitary drainage.

The part not covered by the factory building is now a modern, health-invoking lawn; smooth, solid, sodded and surrounded by a graceful iron fence, each slender rod of which is covered with a glossy black paint, betraying its antipsoric source and character by the healthful phenol odor it still gives forth.

This is a sharp and significant contrast to the old conditions, where sweetness could exhale from nowhere amidst such environ-ments. The odors emanating from the stable were foul and dis-gusting, and the sense of filth embodied whose sway was not confined to the limits of the palings encompassing the lot.

Contending that filth, consisting of organic matter, is the pabulum of disease germs, and granting that in such surroundings it must inev-itably pollute the milk produced, and knowing that a very small quantity of foul and infected milk will contaminate a quantity suffi-cient to poison a community, need we look farther for one great source of typhoid infection?

While not reflecting upon the general cleanliness exercised on the farms scattered over the neighboring territory from which comes the milk supply of our towns and cities, we too well know that abso-lute cleanliness does not prevail in every household, farm and dairy that adds its individual quota to the whole. The product of one care-less, slovenly family, or one diseased animal, commingled with and disseminated through the output of the largest, cleanest, healthiest herd, will promptly transform it all into a virulent fountain of dis-ease.

“Creameries,” the place in which milk is converted into butter, the supplies of which, too, are collected from a wide scope of country, fall into the same category of possible, or even more likely sources
of infection, than when the milk goes directly to the consumer instead of indirectly in the form of butter.

For may not that which is harmful in the milk be more effectively enmeshed and concentrated in this fatty matter? Can simply washing with cold water remove foreign organic matter from any oleaginous substance?

C. Bruck (Deutsche Med. Woch., Nov. 26, 1903), a German investigator, has found that butter can be infected through milk stored in vessels rinsed with water containing typhoid bacilli, and has demonstrated that they can exist in it for twenty-seven days without losing their vitality. Dr. Edward Martin, our praiseworthy and efficient Director of the Department of Health, declares his belief that one-third of the cases of typhoid fever existing in our city can be traced to the milk supply. And I cite as an example of the highly practical manner in which he deals with the problem of prevention, municipal hygiene and sanitation, the fact that he has ordered a list of all milk dealers to be made who deliver milk at the homes of families where typhoid fever exists, in order that he may prove this view of infection beyond cavil or doubt.

While writing this I note in one of the daily newspapers that there is an increase of typhoid fever in one of the sections of the city supplied with filtered water from our new plant. Although this is apparently strongly confirmatory of the milk infection theory, the deduction is strained and doubtful, for the water may become contaminated in its passage through pipes that are not yet free from old deposits.

Nor can this be used as an argument against the purity of filtered water for the same reason.

It is simply a truism to say that everything that comes in contact with water containing the germs of disease will become infected by it. The result of it is shown in the many minor and subordinate causes of infection. Such as using it for a mouth-wash and for the ablutions of the face or other parts of the body. For culinary purposes in washing vegetables that are eaten in their raw state. Many other causes might be enumerated, but it is not necessary to prolong the list. Heat is the only absolutely sure destructive agent, and all liquids suspected of containing the germ should be thoroughly boiled; and the dejecta of the patient (the seat of the evil) should be subjected to a disinfection that is absolutely destructive to all microorganisms contained in them.
In concluding, I wish to urge one more point with all the emphasis possible, and that is the tenacious vitality of the bacillus of typhoid fever. Neither freezing temperature, nor burying it deeply in the earth, will destroy it; and errors in both directions have been the cause of severe and serious epidemics.

If I have succeeded in reanimating and quickening the attention and interest in this all-prevailing disease that sweeps with a blast of death across our whole land, with the hopes that some of the ideas contain their grain of truth, this desultory paper has attained its purpose.

THE WATER SUPPLY OF TOWNS AND CITIES.

C. S. MIDDLETON, M. D., PHILADELPHIA.

The supply of water for drinking and other purposes, except in the arid portions of the earth, is usually both abundant and good. In the latter regions water is often not only scant, but frequently unfit for drinking or for steam purposes owing to alkalinity, and, indeed, occasionally contains mineral poisons from solutions of metals in the recesses of the earth in such abundance as to be prejudicial to health and life. It is said there is a noted spring in "Death Valley," California, the water of which is so saturated with arsenite of copper that it has caused the death of numerous men and other animals.

Man has from time immemorial always looked for this essential to be furnished from springs and streams, or from the clouds, in the form of rain.

In primeval periods there was absolutely no danger in drawing upon nature's fount for man's requirements, and only as the population of the earth increased and men began to congregate into small and then larger communities did danger to health accompany the water supply through diseases, which are the inevitable results of civilization and assemblies if care be not exercised to prevent pollution of the water used for drinking by excreta from the human body particularly and by filth in general.

Even at this late period of our vaunted civilization we find with what imperfect knowledge or care at least we locate our habitations and with what disregard of requirements for our future generations we conserve our prospects for health.
Notably, as an incidence, the illness, chiefly typhoid fever and dysentery, which attacked a certain military camp in the southern section of our country during the late Spanish-American War.

There is very little question, however, that the water supply was not the only nor perhaps the original source of poison imbibed by the victims.

A military camp life approaches the original mode of living, when men began to assume the communistic existence and the greater danger of accumulating pollutive matters; and not all the evidences of disease should be attributed to location alone, as much depends upon the community in making every effort to prevent polluting the source from which they draw their supply of drinking water.

A camp is the miniature of a town, the town of the city, without the conveniences and protection of the latter, and in the case cited furnishes an illustration of, first, of the possible fault in location, and, second, the want of foresight in not preventing the pollution of a supply of good water through the carelessness of the community.

No amount of good water, however free from contamination it may be in its original source, can prove a safe dependence for drinking unless protected absolutely from pollution as the stream flows through the country and the springs and small streams supplying the volume are kept pure. This is a fact well known and acknowledged by all, yet it is a neglected factor in almost every instance where a town has been built; the protection of the supply of water for the coming thousands of people to occupy that town and future city has been utterly neglected. Numerous other smaller towns and cities located on the same stream above the larger, tidewater city, have been allowed to build their manufactories of all kinds, from a dirty "tan yard" to a "slaughter house," on the banks and drain into the river, as well as all the wash from cesspools of houses comprising the numerous dwelling places of men! No end of instances can be cited to prove this fact.

It is not necessary to go beyond the largest city in the State of Pennsylvania for a most glaring illustration. This city is now spending many millions of dollars in the effort to filter out the filth, which it might have been possible to have kept out with a sufficient amount of forethought and the expenditure of a minimum amount of money.

What then is the remedy for this dreadful state of affairs? How can, first, primitive towns be protected which are located upon
streams from which they draw their supply of water, and, secondly, towns which eventually become large cities be secured against an evil which is so manifest in the case of Philadelphia and numerous cities in all countries?

If it be necessary to protect smaller communities from the danger of polluted drinking water, so much more imperative it becomes to do likewise by the larger cities.

To my mind this can be accomplished easily enough; the only objection that can be raised being expense, and that is always the cry in municipal governments. No expense, however great, should be considered comparable to the safety of the lives of citizens of any community. This can and should be done by securing control of the water-shed of the source of a given stream and of the portions of the country through which it flows.

Such a proceeding does not always mean that the city should own the land, but such legislation from the State should be obtained by which to control all drainage into streams which eventually form the rivers from which the town or city draws its supply.

A complete system of this kind could be established in all our States, as it would mean practically a control of all drainage, no matter how apparently insignificant. In many instances the conservation of waste matters could be turned to good account and made to do duty as fertilizers.

In the case of Philadelphia—some of us have been advocating for many years—leaving the city go to the Delaware Water Gap for its supply of water instead of using Schuylkill river water, which river is well known to be a veritable open sewer for numerous towns and cities along its banks for many miles above Philadelphia.

If such a course had been pursued the city could have been furnished long ago with an abundant supply of comparatively pure water at a much less expense than it will take to build the filtration plants, besides being much more satisfactory.

On the other hand, if legislation had been obtained at the outset whereby absolute control of the drainage into the Schuylkill river had been placed in the hands of a State Water Commission, and all drainage into the river containing impurities prevented, we would have had an ample supply of pure water for a hundred years yet to come.

Philadelphia awakened to the necessities of the case too late, but she has been making strenuous efforts recently to prevent sewage
PROPHYLAXIS.

R. E. TOMLIN, M. D., PHILADELPHIA.

Prophylaxis! Preservative or preventive. What an ocean of opportunity; what a privilege; what a duty; what an obligation confronting us. How the horizon fairly emblazons as the many and varied trains of thought flash into and through our minds. Aye, we may well pause as we consider the knowledge and wisdom in that sacred injunction, "Whatsoever a man soweth, that shall he also reap."

The term "health" is in reality but a relative one. For many centuries the science of medicine has been at sea without guide, rudder,
anchor, or known port. It has been a great system of guesswork. Of late years the progress of the early stages of disease has been made clear in some maladies and germs have been found at work in the body. It cannot be proved that these germs alone are the cause of disease. Something more is necessary. A person who is in perfect health is immune from the germs of disease and will not be made sick by them. The life of the disease-producing germs may convert good matter into poisons. The probability is that each variety of germs goes about eating or absorbing poisons of its own liking; one kind devouring one toxin and another another toxin, and so on; getting them either outside or inside the body wherever they are most available. Some day it may be proved that these deadly bacteria are given the work of destroying the toxins that produce disease, each having its prey; but it is difficult to explain why they develop them outside the body. It became known that toxins must be present in the body, either introduced by the germs or made dangerous by them, or attracted by them from a condition of the health already existing. They are now supposed to be in the body, and the germs are supposed to be created for the purpose of absorbing them. There are more varieties of disease germs than there are known diseases chargeable to them; but for every variety of such germs there is a toxin which it is probably created to devour, and there are many kinds of disease that are not classed as bacterial, although they are due to the presence of toxins in the body, which are generated there. Some are necessary, but many are not. A well person throws them off and is therefore not under their control. To prevent disease it is necessary to prevent the accumulation of toxins; and the real science of medicine consists in throwing off toxins and thus preventing disease.

The latest steps in medical practice are those that counteract the influence of these toxins. Hence the advanced practice of to-day consists in the use of anti-toxins. And these are generally milder forms of the bacterial disease, which devour the toxins in the body and leave little or none for the stronger germs to feed upon. They get rid of the toxins, and the person is then called safe or "immune." It has recently been proven in this country and in Europe that the condition of the body controls the question of safety from disease. In communities where typhoid water has been drunk by a large number of people it was found that those whose food was plain and wholesome escaped the malady altogether; while those who ate a
low grade of food were the victims. Experiments have clearly shown that not only the quality of the food had much to do with the safety from disease, but also that the quality and quantity of the air that was inhaled determined the condition in many cases.

The whole science of advanced medical practice of to-day may be summed up in the following statements:

1. Persons whose bodies are free from an excess of toxins may be exposed to infection without danger; it is impossible for them to get sick.

2. The same persons, by change of food, air and habits, may invite an excess of toxins into the body and thus become the victims of disease.

3. The same persons by allowing different vitiating influences to give rise to different varieties of toxins may become liable to catch different diseases. This fact is perfectly established, and proves that the toxins in the body give rise to its maladies.

4. Some toxins invite germs of disease; others do not. Many forms of sickness are due to toxins for which there are no known germs, although such germs may exist.

5. There is no sickness that is not due to toxins in the blood and tissues. Finally all toxins arise in the body from the food taken in the body that is not made up into pure blood and tissue.

There is no questioning the fact that the great subject of prophylaxis is considered in a too greatly restricted sense by our profession. From very careful observation by the writer and others it is treated very indifferently by a great many doctors. The so-called rank and file seem to feel that they have discharged their full obligation to their patients when they have prescribed the medicine and given a few general (and often indefinite) directions regarding food, etc. In view of the above statements the writer has felt it his conscientious duty to more thoroughly investigate and grasp as completely as possible this matter so as to correctly and courageously and directly inform any and all persons calling for his advice. What a common thing it is to have a patient suffering from any of the great variety of ailments so familiar to the general practitioner, and to be able at once to trace the trouble to any of the usual indiscretions. There is no reason why our subject should be limited to the consideration of infectious diseases so-called, for as a matter of fact how many diseases are there that can not be directly or indirectly traced to infection, either from within or without the body?
The infective nature of small-pox, scarlet fever, etc., together with tuberculosis and syphilis, is very well known and as a rule careful prophylactic measures are used. It is a very well recognized fact that the subject of prophylaxis has attained such a degree of proficiency that the almost complete extinction of certain communicable diseases has exerted and is exerting an altogether remarkable effect upon the health of the individual and of the community; that the eminently successful efforts of public hygiene to provide a pure and plentiful supply of water, adequate air-space, safe and inoffensive removal of sewage and refuse and a better control of our food and drinks, is producing a meritorious effect that is quite pleasing. It is often true that the medical adviser is called only to divert complications and death where disease has already appeared; as a rule, he is seldom consulted as to the manner in which disease itself may be prevented from crossing the threshold. The human economy has been repeatedly approached, with the result of an ever-increasing knowledge from the medical, surgical, pathological and psychological aspects, but it has had but a limited period of time and thought given it from the viewpoint of the prevention of deterioration and disease. For instance, take the subject of drinks and foods. Begin with water. Much that might be taken by a robust person, or one who is not an invalid, cannot be taken ad libitum by one who seeks absolute health. Ice water is never dangerous when taken in small sips, but is quite harmful when swallowed rapidly. First, it lowers the action of the heart and weakens the bodily vitality; second, it contracts the stomach and forces food out before it is digested; third, a large quantity destroys the tone of the nervous system of the stomach and more or less of the adjacent viscera.

Hard water causes intestinal troubles with infants and brings on old age and limy deposits with adults. And, further, it often contains various chemical poisons that lead to impoverished blood and organic disease. Well water is seldom safe in either country or town. Mineral waters are practically never safe, for they are charged with carbonic acid gas, and you all know what a subtle and virulent poison it is, causing great depression and sinking of the vital forces. For the above reason all soda waters, beer, champagnes and like drinks must be avoided by all those who wish to have good health. The beer drank so extensively now is very destructive to the kidneys, containing, as has been shown, so many poisons. Fully one hundred and twenty have been found by analysis. The amount of tannin in
tea disturbs digestion and induces vesical weakness. Iced tea especially is a barbarism in spite of its popularity in the "good old summer time." It is very debilitating; leaving the stomach and lungs a prey to disease, and as the winter season comes on the subjects become easy victims of catarrhs, pneumonia, la grippe, etc. Hot biscuits, fresh bread, doughnuts, pie crust and many cakes, owing to the union of fat and starch and incomplete cooking, play havoc with the digestive system. And so on with many foods improper in themselves or improperly prepared or served.

The above brief reference to foods is also seen in the indiscretions in wearing apparel, apparently popular, as they are so frequently seen, where the ladies, especially in evening costumes, are so lightly, and slightly, and tightly, and nightly attired for the ball room and theatre.

It is one of the functions of this branch of medicine to ascertain as early as may be in the existence of the individual, and with the aid of the life history of his immediate progenitors, what is the predisposition of that individual towards any given "pathological reaction;" and having ascertained such tendency to prevent its operation.

In conclusion, permit me to reiterate the fact that disease is not "a thing," but the resultant of many factors, the working together of which alone constitutes disease; and one of the best uses to which the public can put medical science is to seek its aid towards preventing the co-operation of the several factors involved. Pure food, properly prepared; pure water, pure air, the cultivation of an aggressive good nature and a life of varied activity, will constitute a prophylactic beyond compare, and as easily attained as it is invaluable.
REPORT OF THE

SECTION OF MATERIA MEDICA.

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OPIUM.

EDWARD CRANCH, M. D., ERIE.

The use of this valuable drug in accordance with homœopathic law is one of the best illustrations of the value of the law itself.

The effects of Opium and of its alkaloid, Morphine, are too well known in grosser doses to need a full recital here. It will suffice to cite a few cases cured in the application of our law by the higher potencies of the drug.

Mr. E. L. P., past middle life, was found one afternoon in a profound stupor, warm, relaxed, showing no attention to efforts at awakening beyond a surprised way of opening the eyes and murmuring, only to lapse into renewed slumber. It was not natural sleep, nor alcoholism, nor effect of any drug. The pupils were well-contracted and there were movements of both arms and legs, showing absence of paralysis. The patient having previously had a slight cerebral hæmorrhage the diagnosis of recurrence, without paralysis, was made, and one dose of Opium 200 placed on the tongue; in ten minutes a few drops of the same in solution was given, with swallowing, and prompt return of consciousness, but with marked debility and headache, with throbbing whenever position was changed, especially on lying down. These symptoms persisted for several days, al-
ways relieved by the Opium 200. The outcome of the case is, of course, uncertain, but the present relief is very real.

A child of six months passed into a state of coma following exhaustive diarrhoea. Pupils contracted, heat of head, impossibility of rousing attention. Opium c.m. on the tongue helped inside of two hours, followed by cure of the case.

A young woman of eighteen years just delivered of her second child after a not very severe labor suddenly lost consciousness, with stertorous breathing and eclampsia of a violent type; it looked for a few minutes as if any breath would be her last.

Opium 200 on the tongue, every two minutes, restored a normal condition within ten minutes.

A case much like this, in which Opium was not administered, died on the second day.

Without going over any more particular cases I will state that I have found Opium useful in the 30th and higher potencies in constipation, in retention of urine, in bad dreams or "night terrors," in protracted wakefulness, like that which follows the abuse of Morphine and its withdrawal; in the somnolence of fever, with contracted pupils and dry mouth; in the lethargic state that often prevents the chosen remedy for other conditions from acting, and in delirium, with idea of being away from home.

The sphere of opium is not large, but exact, and it is a pleasure to see its prompt action when duly indicated.

THUJA.

MILLIE J. CHAPMAN, M. D., PITTSBURG.

Known as the Arbor vitæ—"Tree of Life." A tincture made from the fresh twigs of this shrub furnishes one of the most important remedies in our Materia Medica. The drug was first proven by Hahnemann. His attention was called to it by a patient—a theological student who consulted Hahnemann. He complained of symptoms suggesting gonorrhœa; a thick purulent discharge from the urethra, with burning on voiding urine. There were small pimples, attended with itching, about the glans penis and some swelling of the parts. He stoutly denied any opportunity of contracting a specific disease. Hahnemann gave him a placebo, requesting a return in three days. He came back well. It was then learned that he had
picked and chewed some leaves of the Arbor vitae as he sauntered through a garden a few days previously. This led Hahnemann to investigate the properties of this substance. It was proven by several of the early homoeopaths. It is one of the first remedies suggested to us when sycosis is recognized. However, it has other interesting actions on the system, especially upon the nervous system. These nervous phenomena may rest upon a syphilitic basis, but they may also exist without the presence of any such taint. Grauvogel tells us of hydrogenoid constitution, in which the poison of gonorrhoea acts most virulently, and in which vaccination proves most injurious. Thuja is an antidote for both these conditions, particularly after vaccination if diarrhoea results and the vaccine pustules are very large. It was on account of these symptoms that Boenninghausen recommended Thuja in variola. He gave it as soon as the vesicles began to turn into pustules, and he thereby prevented scarring. He also saved a life by noting that uncovered parts only were covered by sweat, when Thuja dispersed all evidences of the existing disease.

The Thuja patient exhibits a hurried, impatient manner, talks hurriedly. His movements are unnaturally active. His temper is easily aroused. Trifles make him angry, depressed, sad, irritable. Music causes weeping. Discontentment, loathing of life. There is a form of insanity or mania where the patient has fixed ideas. One is that he is made of some brittle substance and he avoids personal contact lest he should be broken. Another has sensation of living child in her abdomen and has produced favorable results in cases of pseudocyesis.

This remedy is most commonly known as an agent for skin eruptions or warts. Here, as in other conditions, individualization is necessary. Thuja cases have fine prickings, as if from needles in the skin. Acne appearing at puberty on forehead often calls for it because of this sensation—violent itching, stitching in the warts—seedy, pointed warts. A red tubercle is also characteristic of Thuja. Soreness of condylomata about the anus distinguishes this from some other remedies. Moist fissure about the anus, without the aching of bones found under nitric acid. Cauliflower excrescences of the os uteri have been benefited by local application, added to the action of internal remedies. A recent case where warts appeared about the vulva soon after marriage fully recovered by the use of Thuja. Several years since a patient came in for treatment having a large,
brown, painful wart on the third toe. Skillful surgeons had pronounced amputation of the toe her only chance of cure. Thuja 30th and 200th, with Thuja cerate locally, in a few weeks left a smooth surface.

Thuja will change the soil on which the poison grows by altering the sycotic constitution. This is true in cases of anaemia attended by amenorrhoea. It has helped me wonderfully in many a trying case.

Thuja, followed by Kali carb., is more certain than Iron or other crude drugs often administered. It is also valuable in persistent sleeplessness, whether the patient is an infant with marasmus or a banker burdened with financial cares. Another very common indication of a sycotic taint, and which is helped by Thuja, is decay at the root of the teeth, the crown being apparently normal. The teeth become a dirty yellow. Small, white vesicles on the tongue: tip of tongue painfully sore. Soreness of all ulcerations, painfully sore fissure in wing of the nose. After severe headaches in forehead and temples the hair becomes remarkably hard and dry and falls out.

My experience has been with this remedy in the 30th or higher, and locally with non-alcoholic tinctures, cerates or gelatine wafers.

CLINICAL VERIFICATION.

J. W. DEHOFF, M. D., YORK.

The road to wisdom passes through the wilderness of experience. It is obstructed by mountains, angles and rough places, which hinder the traveller from making a rapid journey. Previous to departure a thorough information may have been obtained relative to the distance and impediments liable to be encountered, yet it will require a practical test to obtain a perfect knowledge of the difficulties to be overcome. It matters not how well a mind may be trained in the theory of knowledge, the understanding can make no complete inventory of the information until it has been verified by experience. A knowledge of drug pathogenesy is requisite for logical application, but experience, even though it teaches slowly and sometimes at the expense of mistakes, will prove the better guide to the solution of the problems encountered by physicians in the performance of professional work. The proving of drugs on the healthy system is a distinct feature of Homoeopathy, and a record of symptoms thus obtained is the first essential to intelligent application. The great
commonwealth of humanity owe a debt of gratitude to the great army of drug provers for the production of a scientific Materia Medica, surpassing all others produced by methods entirely different in principle and obtained from sources so unreliable that an intelligent application cannot be made for the relief of suffering humanity. It is a rare occurrence to find physicians practicing methods other than homœopathic make similar prescriptions, because they are not able after repeated application to clinically verify the action of drugs. The homœopathic physician on the other hand can depend on his Materia Medica to meet the requirements of his profession, and his judgment will accord with others of the same school of medicine. To prove drugs individually would be a laborious task and not necessary, except when new drugs are to be introduced. The older drugs have been so thoroughly proven that a repetition would be unnecessary. But for a thorough understanding to gain greater confidence in prescribing the clinical effect of each drug should be closely studied, the action whether favorable or unfavorable carefully recorded, then the symptoms which stand the test of clinical investigation after repeated verification can be marked as reliable. It is clinical investigation that has eliminated many of the spurious symptoms credited to drugs, which were due no doubt to nothing more than some peculiar idiosyncrasy of the prover. It is a noted fact that physicians of other schools prescribe according to the law of Homœopathy. They may do so after a study of our Materia Medica, but the great majority of them base their prescriptions on so-called new discoveries in the science of medicine and give no credit to the source from which they obtained their knowledge. They evidently possess some knowledge of homœopathic drug action, which they verify by clinical experience. Another matter which not infrequently embarrasses the mind of the physician, especially the beginner, is the question of attenuation, dose and frequency of repetition. There are questions which must be settled by the individual practitioner and therefore cause a diversity of opinion, only to be decided by the experience of the individual. In order to be thorough and practical the investigation must be confined to the single drug. Many compound formulas recommended for various diseased conditions are prepared by pharmacists, and they make very good shotgun prescriptions, the results of which cannot be verified on account of the uncertainty of their action. A mixture of drugs may prove satisfactory, providing it contains one remedy meeting the require-
ments of the disease, but a continued use of it will give a negative verification. A compound of Pulsatilla, Viburnum and Caulophyllum may be prescribed for delayed, scanty and painful menstruation, and will produce favorable results if the condition corresponds to the pathogenesis of one of these remedies. The question is, then, which one produced the result. The symptoms given are the same under each drug, and yet only one of them will be indicated, because the symptoms are not sufficient to discriminate one from the other. A Pulsatilla case is not a Viburnum case, neither is a Viburnum case a Caulophyllum case. It is not the disease, but the symptoms produced by the disease, which demands the careful selection of the remedy. Any remedy may be required for a diseased condition, providing the symptoms indicate its application. The symptoms of Arsenicum, such as extreme prostration, restlessness and red tongue, belong to several diseased conditions, and would indicate the remedy regardless of the disease. This is a fact clearly demonstrated by clinical verification. It is not our purpose to assert that every symptom which has not been verified by individual experience should be excluded as unreliable. The object of clinical verification is to test the genuineness of the symptoms to the satisfaction of the observer, who will not rest satisfied until he has practically demonstrated the knowledge obtained from the study of drug pathogenesis. Knowledge will profit us little if we have not the ability to apply it. A knowledge of Homœopathy will not make a homœopath unless a proper application is made of it. A thorough knowledge of drug pathogenesis verified by practical experience greatly enriches our fund of information.

DISCUSSION.

Dr. E. H. Hill: I have appreciated this paper, and always feel more confident when prescribing drugs for conditions in which I have previously proven their efficiency. No doubt there are many symptoms in our Materia Medica that we have not yet been able to verify sufficiently often to consider them characteristics and which are really valuable symptoms, but those that we have been able to verify time and time again we can rely upon in selecting the remedy. I feel that the symptoms that we have developed by continued verification are the all-important ones.
The following proving was made upon myself. My health is about as nearly normal as that of the average individual:

July 22, 1903.—Took 30 drops of the tincture prepared from the whole plant, well-pounded and macerated for about eight days in an equal bulk of alcohol, kept in a dark place and then thoroughly pressed out. Later in the day headache in the region of the coronal suture, numb feeling, fine stinging from the interior to the exterior, particularly of the hands and face, with congestion.

23d, 6 A. M.—Took 50 drops—hands swollen and somewhat stiff, capillaries engorged (these had been in an inactive state for over a month), sensitive to cold.

11 A. M.—Took 90 drops—agreeable taste, eructation of tasteless gas.

5 P. M.—Took 100 drops—not much change in symptoms, some digestive symptoms, as inactivity of the bowels; even flatus is not passed freely.

24th, 11 A. M.—Took 100 drops—fever, more activity in the sweat glands, sweating is produced easily; griping in the abdomen; lazy feeling; burning, smarting, aching in parts when moved; dull aching in the small of the back and right iliac region; stinging sensation in the skin.

25th, A. M.—Took 90 drops of an old tincture—soon felt its stinging, burning, nettle-like action internally, but not so severely as after inhaling its apparently pleasant odor.

5 P. M.—Took 120 drops—soon had an intoxicated feeling, an agreeable delirium; night digestion disturbed; mental and emotional exaltation, did not rest well; stinging in the skin of fleshy parts, although the feet suffered considerably; no desire for stool, scanty evacuation after taking an injection; strong smelling urine, but no sediment.

26th, 6 P. M.—(Feeling fairly well) took 130 drops—soon felt a fine, stinging sensation in the skin, worse in the neighborhood of the floating ribs and worse on the right side; deep, heavy sleep, dis-
turbed by dreams; tense sensation in the neighborhood of the in-
ternal abdominal ring, as from incarcerated flatus.

27th, 11 A. M.—Took 160 drops—soon felt that agreeable warmth peculiar to urtica urens; drowsiness, eyes feel heavy (deep in the orbits) causing the lids to close (unlike Gelsemium); smarting, burning, itching sensation about the head, face, cheeks and back of the neck, causing scratching without relief; slept poorly from the action of the drug upon the abdominal viscera; towards morning stinging sensation on the ears and back of the fingers.

28th, 11 A. M.—Took four tablespoonsfuls of a decoction of urtica urens and one of the tincture—soon felt a fine, benumbing, stinging sensation in the face, as though the parts had gone to sleep: during the latter part of the night suffered from soul-afflicting dreams; also a deep itching of the hard palate, not relieved by rub-
bing; naso-pharyngeal catarrh, with slight discharge. Took two doses of the third decimal potency of Nux vomica (two hours apart) followed by a hard stool, somewhat lighter in color than normal, and the nose became clearer.

29th, 6 A. M.—Took the same dose as yesterday, followed by sim-
ilar stinging deep in the mucous membrane of the mouth; sharp, abrupt stinging on the inner side of the left ankle, continued after rubbing with a chafed smarting sensation; on the left wrist an eru-
tion which burns, smarts and itches: on the right ear in the auditory meatus and in other localities similar effects of the drug were felt: for the first time (10 A. M.) I feel a sensation as of nettle stings and taste the drug: fleeting rheumatic pains about the knee joints; rheumatic stiffness and lassitude.

8 P. M.—Intense and persistent itching, burning and smarting, temporarily relieved by deep, rubbing pressure; itching, burning and smarting on the dorsum of the little and ring fingers, the left hand and the flexor surface of the left wrist (these symptoms followed rubbing a small, pale papule); isolated papules, resembling insect bites; rheumatic stiffness and soreness of the calves, worse right.

30th.—On the left wrist stinging and burning sensation, later on the left foot; itching of the scalp.

31st.—Severe itching on the front of the left ankle.

August 1st.—In the afternoon itching of the anus, not much re-
lied by a hard, rubbing pressure; itching of the right side of the scalp and here and there in other places, but not so stubborn or con-
tinuous as on the scalp; superficial veins distended.
2d.—Bronchial oppression at night, asthmatic; itching, smarting and burning on the hard palate and in the pharynx; attacks of sneezing; cough sounds loose, with scanty adherent expectoration, followed by relief of the cough for a while; nasal and bronchial catarrh; collection of flatulence in the stomach; sleep unrefreshing.

3d.—At intervals different symptoms produced by the urtica urens were felt, mainly in the extremities.

6th.—Itching all over the scalp.

8th.—Scales are detached, otherwise as before the proving.

SYMPTOMS CAUSED BY COLLECTING URTICA URENS.

On July 2, 1903, a few minutes after gathering the plant to make the tincture, a benumbing, stinging, finer than a bee sting, was felt; hands congested, swollen, tense and stiff on grasping anything; a smarting, as though from a burn; sensation, as though the skin were studded with innumerable prickling points, very annoying, day and night, whether quiet or when moving; later an intolerable itching eruption appeared similar to urticaria, without any systemic symptoms.

Clinical.—I was called to see a little girl who had attempted to help herself from a large pot filled with boiling coffee, which she upset, pouring the contents over the upper portion of the chest and the abdomen, seriously scalding these parts. The case was seen by me an hour after the accident occurred. I saturated linen cloths with the tincture of urtica urens, and applied them over the scalded area, which brought about speedy relief.

September 12, 1903.—A little girl, aged seven years, was scalded by boiling water poured over her left shoulder and upper part of the arm. The accident happened a week ago and various remedies had been applied for relieving her sufferings. An angry, red, foul ulcer had been produced, which itched and burned. I applied urtica urens tincture on linen cloths, with the result that the case was cured in a week.

Urtica urens is a valuable local application in every variety of burns and scalds, whether slight and superficial or severe and deep.

For further symptoms produced by the remedy I would refer you to Allen’s "Encyclopaedia of Pure Materia Medica" and Hughes’s "Cyclopaedia of Drug Pathogenesy."
This salt, though an essential constituent of almost every tissue of the animal body, and a most important dynamic agent, therapeutically, has been much neglected. Its chemical value is recognized but its dynamic power ignored.

Hahnemann with characteristic acumen early selected it as worthy of proving. The pathogenesis that he presented has furnished valuable guidance for the therapeutic application of this drug.

Permit me just here to call attention to a fact too frequently overlooked in reference to the homœopathic use of these early provings, namely, that the drug employed therapeutically must be the exact counterpart of the drug proved. Failure to secure reliable pharmaceutical preparations has led to many ill results in practice, and beyond question is responsible for loss of faith by many in these early records. I doubt not that much of the ill success with a number of our remedies, prepared according to modern pharmaceutical methods, may justly be attributed to change in the mode of manufacture of the crude drug.

My early experience with Kali points unmistakably to this grave fault. Failure to secure curative reaction in response to clearly defined indications as given by Hahnemann led me to ask the pharmacist from whom I procured my supply, what preparation of Kali carb. was employed in his pharmacy. He unhesitatingly replied that he used a chemically pure potassium carbonate from one of the leading drug houses of our city, and from this made the triturations and dilutions.

Feeling satisfied that herein would be found the cause of such failures, I determined to prepare the remedy after the Hahnemann method. Since then I have been delighted with the action of Kali, and can assure you my faith in Hahnemann's provings has been made abiding.

A proving is the symptomatic expression of the effects of a given drug; any change in the mode of preparation must, or at least may, cause change in its pathogenetic effects. Hence the provings of one preparation may really be utterly useless as a guide to the therapeutically pure potassium carbonate...
peutic use of another preparation even though, chemically speaking, the drug is the same. Indeed, such I found to be the case with the two preparations of the Kali carbonicum.

Recognizing the necessity of securing uniformity of preparation, Hahnemann says: "I wish to state, once for always, I am convinced that, whenever it is possible, the materials for homœopathic use should be prepared according to the most simple and least technical process, and for this purpose give directions whereby every physician, in every place, can provide himself with the identical material.

For this reason, which to me was the most important (and not simply for the purpose of avoiding any appearance of ostentation and puristic pedantry which here would be sorely out of place), I was led, so far as possible, to avoid the use of all expensive apparatus necessary to secure absolute chemical purity of such materials." Introductory to the pathogenesis of Kali, Hahnemann gives the following directions for the preparation of this salt: "Mould into a ball about half an ounce of purified cream of tartar moistened with a few drops of water; wrap this in paper and let it dry; then placing it in a furnace between glowing charcoals bring it gradually to a red heat. Take it from the fire, place it upon a porcelain saucer, cover it with a linen cloth and set it in the cellar that it may attract moisture from the air, which will dissolve out a portion of the Kali carb.

"If it be permitted to stand for a couple of weeks even the last trace of lime salts will be precipitated."

"This," says Hahnemann, "will for our purpose be a sufficiently pure Kali carbonicum."

We must remember that the cellar referred to was damp and without fire, not like our city cellars of to-day. To secure a sufficiently moist atmosphere I placed the incinerated mass in a covered vessel containing a small quantity of water.

From such preparation the provings were made, and such preparation must be duplicated if we wish to employ homœopathically the provings recorded by Hahnemann.

Kali carb. won its early reputation in homœopathic therapeutics largely through its marked efficacy in certain well-defined forms of disease of the respiratory organs. Its sphere of action, however, is by no means limited to this narrow range.

A careful study of its pathogenesis will amply repay the time required. Hahnemann recorded 1,650 symptoms. Of these the following appear of characteristic importance:
KALI CARBONICUM.

Mentally we note a disposition to be easily vexed or angered, trifles vex one.
Marked tendency to be easily startled, especially noticeable on being touched. This symptom led Raue to use it in erysipelas with brilliant results.
Noise is annoying and frets one.
Anxiety and apprehension hold full sway and are generally directed toward one's disease.
Sadness and weeping are commonly found, and aversion to society is marked.
Dulness of the head, a confused stupid feeling as if intoxicated.
Pressive headache, especially in the forehead accompanied by irritability of temper. Stitching or tearing pains, especially in left side of head. Constant sensation as if something were loose and turned or twisted toward the forehead. Tearing or stitching pains in the eyes. Redness of the conjunctiva. We find in Kali an excellent remedy for brain-fag; and in eye-strain it will not infrequently be indicated.

Next I would call attention to the catarrhal conditions of the respiratory tract. Of these the acute fluent coryza accompanied by much sneezing, headache, lassitude and pain in the back compares with Allium cepa, Amm. carb., Bryon., Sulph., etc., while the sub-acute and chronic naso-pharyngeal catarrhs, characterized by obstruction of the nose, thick yellowish or greenish muco-purulent, tenacious discharge which may be fetid, sore and crusty nostrils, lead one to compare it with Ant. crud., Kali bic, Natr, mur., Nitr. ac., Lycop., Puls., Sepia, Silic., Sulph.

The pharyngeal symptoms such as stitching pains as from a fish-bone (Hepar and Nitric acid). Sensation of a lump in the throat that is very difficult to dislodge, a symptom dependent upon the viscid condition of the mucus. Sensation of dryness of the posterior wall of the pharynx, which may indeed be dry or may be covered with tenacious mucus, must not be overlooked. In laryngeal catarrh with hoarseness or aphony Kali compares with Bryon., Caust., Carbo veg., Phos., Lycop. The bronchial condition is characterized by dry, teasing, spasmodic cough, later by loose cough with yellowish or greenish expectoration. Cough frequently induces gagging or even vomiting of ingesta and sour mucus. Symptoms are worse between 2 and 5 A. M.

In pneumonia Kali often follows either Aconite or Bryon., being
indicated by the persistence of the severe stitching pleuritic pains in the lower portion of the chest, more frequently right side. There may be great dyspnœa, loud, coarse, moist rales, beginning cyanotic symptoms of face and hands. Expectoration of extremely viscid blood-streaked sputum.

Asthma frequently calls for this remedy; the paroxysms are very severe for a time, then abate somewhat only to recur with equal severity. The attacks are brought on by exertion or even motion; the patient is obliged to sit quiet, leaning forward, resting head on table. Aggravation most intense between 2 and 4 A. M. Accompaniments—headache, dry cough or rattling of tough mucus in bronchi, which cannot be expectorated, loss of appetite, anxiety and apprehension.

Quite recently I saw in consultation a typical case that had resisted treatment for a number of days that yielded within a few hours to Kali carb. 6th, and made a rapid recovery under this remedy.

In phthisis we have in Kali carb. a most important remedy; in fact, Hahnemann said of it: "Rarely does a case of phthisis in the suppurative stage recover without this antipsoric." Its pathogenesis is replete with characteristic indications for its use.

Nor dare we neglect Kali in heart affections, even in the much dreaded angina pectoris; the stitching pains in the cardiac region shooting through to the scapula; the frequent and strong palpitation; the constrictive sensation in or about the heart as if it were hung upon tightly contracting bands; frequent intermission of heart beat, together with the manifest weakness of heart's action, all point to it as a valuable remedy. Clinical experience has abundantly confirmed the pathogenesis.

Again, the gastric symptoms afford useful indications for its therapeutic application in disorders of that viscus; among these sour eructations, flatulency, nausea with faint-like feeling, relieved by lying down, morning sickness without vomiting, and vomiting with stitching pains in the abdomen form leading indications.

In chronic gastric derangements calling for Kali we often have burning, painful vesicles in the mouth; tip of the tongue burns as if raw or full of vesicles; shooting and stitching pains in the abdomen with pains in the back and down the gluteal region.

The diarrhoea of Kali presents light, grayish stools accompanied by sharp, shooting and stitching pains throughout the abdomen.

Kali also has a marked torpor of the bowels, there is an unsuccessful desire for stool with sensation as if the rectum were too weak to
expel it. The most characteristic peculiarity of the constipation is "the patient feels anxious and distressed an hour or two before stool." The faeces are large in size and dry. This rectal atony is in conformity with the nervous weakness and sluggish portal circulation of the average Kali patient.

Hæmorrhoids are a frequent source of suffering, they are swollen and bleeding, accompanied by severe stinging, burning and tearing pains as from anal fissure. Great soreness of the rectum is common. Violent itching of the anus and in the rectum also point to this remedy.

The urinary symptoms are not so prominent, but we may have great desire to urinate. Obliged to urinate frequently, but there often is pressure upon the bladder a long time before the urine will flow. Must rise at night several times to urinate. In this as in many other symptoms we see a marked similarity to Pulsatilla.

In diseases of the female generative organs Kali deservedly holds a prominent place. The "feeling of emptiness of the whole body" is most characteristic, though a sluggish condition, "the body feels so heavy she scarcely can exert herself," holds a good second place. Absence of mind. The patient seems at a loss to know how to begin to say or do what she wishes, is a usual accompaniment.

The menses are too early, of pungent, offensive odor and acrid, causing soreness of the thighs, which become covered with an eruption (the antithesis of Pulsatilla).

Great soreness about the genitals before, during and after menstruation.

Hahnemann notes, however, that cases of delayed menses in which Natr. mur. failed were speedily relieved by Kali carb.

The leucorrhœa of Kali is yellow and causes itching and burning of the pudendum.

During labor, pains appear insufficient or are misplaced, running from the back down the buttocks and into the thighs. After pains of this character are speedily relieved by the Kali.

Kali has many rheumatic symptoms, such as stiffness in the nape of the neck in the morning in bed; this may pass off during the day. Bruised pain in the back during rest, not during motion. Stitches in the right scapula on breathing. Tearing in right scapula. Drawing pain in small of back. Stitches in small of back. Tearing pain in lumbar muscles. Great uneasiness of limbs in the evening in bed, can find no easy position. Trembling of the hands in the morning.
Loss of power of hands. Hands fall asleep. Kali also has great affinity for the joints, the pains are stitching and tearing in character.

In scarlet fever where there is marked swelling of the right parotid gland, high fever, dry skin, restlessness worse about 3 A. M., and especially if there be that characteristic sac-like swelling between the eyebrows and upper eyelids, we find in Kali a veritable boon.

To the routine prescriber these cases suggest Bellad., which inevitably proves disappointing. The dry skin and the swelling above the upper eyelids are sufficient to differentiate.

I have attempted thus briefly to picture the characteristic indications of Kali carbonicum, hoping to arouse renewed interest in a most useful but much neglected remedy; to emphasize the importance of securing the exact reproduction of the originally proved substance; and, in addition, to assure those who may have been led to doubt the provings and to discard the remedy that with a reliable preparation made according to Hahnemann's directions we can with confidence prescribe upon indications derived from his recorded pathogenesis.

SOME THOUGHTS CONCERNING THE PRINCIPLES OF DRUG MEDICATION.

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When the world was still young drugs were administered for the cure and amelioration of disease conditions. There was something instructive in these efforts to use drugs for the modification of maladies, and, being thus apparently suggested by an instinctive impulse, it seems more than likely that there was underlying truth in the self-born supposition that the fruits of the soil and the mineral ingredients of the earth existed also for some other cogent reasons than were ordinarily evident to the eye and the commoner experiences of every-day life.

Since the dawn of time the administration of the medicaments we call drugs has had an empirical, that is to say, an experimental basis, and the use of drugs to this day, no matter how refined may be our imaginings to the contrary, are nearly as empirical as when the first herb was employed for therapeutical purposes. Much of this empiricism exists of necessity, and it will continue to exist until we
know more of drugs and the principles that govern, not only their administration, but also the supposed methods of their actions. Even in the glare of the nineteenth century's progress, and the golden dawn of the twentieth, we almost unconsciously assume that we are at the end of knowledge; that, practically, there is little more to be learned about drugs, and this unconsciously assumed mental attitude, demanding, as it does, more obvious results from the administration of drugs, leads to skepticism in regard to the action of drugs. At present, therefore, our only rule is empiricism; our only guide clinical experience.

In this discussion I assume that drugs act. A cloud of witnesses in the guise of deaths from poisonings, and the thousand times repeated results achieved in the sick chamber, are sufficient attestation of the innate power of drugs. That they do not always act as we desire is altogether another story. My present contention is simply that drugs act, and that they are, properly handled, necessary in the treatment of certain diseases.

The old woman, with her herb teas, who gives her libations to a sick individual because she has found them serviceable, or has been told by her grandmother that certain plants were of service in certain cases, is more closely related to the modern empiricist with drugs than either the ancient lady or the modern doctor dreams of. The physician, it is true, is more scientific, and has wonderful advantage in his side knowledge, and he has a more accurate, even if still imperfect knowledge of drug powers, and of the conditions to which he wishes to oppose drugs, and yet, nevertheless, at present, every drug prescription is an empirical one. Some prescriptions are less empirical than others, but all are, to a greater or less extent, chargeable with being tinctured with experimentalism. Much of good has come down to us from other days from this lay and professional empiricism; but we have not held fast to that which was good, certainly not always to the extent that should have characterized a profession who must recognize the fact that medicine is not, and, in the nature of things, never can be, an exact science. Many therapeutic pearls without price have been lost to humanity through carelessness in observation, and through lack of ability to properly observe the effects of drug medication. This point is true no matter upon what supposed principle or ism drugs were administered, whether upon the so-called antipathic, homeopathic, isopathic or eclectic, or upon the dictum of some dead and gone dogma, whose tenets are forgotten.
The most patent reason for the failure to hold on to that which was good was and is that the medical profession is on the lookout for specifics for named disease. A search for specifics is not only irational but impossible of achievement. There will never be a time in the history of medicine, present or to come, when it will be possible to cure or ameliorate every given case of a given curable disease with one drug or one combination of drugs. It is this search after specifics that is doing more to prevent genuine progress in medicine possibly than any other one single factor.

If we would be successful prescribers of drugs in the treatment of the sick, we must recognize two important and (I think) self-evident facts. The first of these facts was given due prominence by Hahnemann, and is practiced more or less consciously by every practical physician, namely, the individualization of the case. It seems to me that no one at all acquainted with clinical medicine will deny the utility of such individualization, and yet it is this idea of taking the individual into consideration, as well as the disease from which he is suffering, that gives the death-knell to the search for universal specifics. We may and ought to, however, search for specifics for morbid conditions, if we do not for named diseases. This theoretic consideration, of course, will not prevent the clinician from first employing that drug treatment in a given named disease, which has, in the vast majority of cases of named diseases, proved valuable; but with the distinct understanding that the drug is not to be blamed if it fail to give us the results we have obtained in other apparently similar cases. If we are to be of real service to our patients in the sick room we must be practical; but we should be quick to recognize the reasons for either the failure or success of a given drug prescription in a given kind of a case.

Another very important conception should always precede the administration of a drug. We must have some sort of an idea of what we intend to do with the drug, a working hypothesis rather than a vague, general notion that we want to cure. We must try, then, to know in what particular, or, if that is not possible, in a more general way, by what route we expect the cure to be wrought. We must have some conception of what particular thing we intend the drug to do. The only possible manner in which a drug can act (and this is the second fact, next to the individualization of the case, that must be apprehended by him who would successfully and intelligently apply drugs) for either good or ill, when administered to the-
sick or well, is by virtue of the inherent power of modifying the function of the cells. All therapeutic endeavors, whatsoever, called by whatever name, given under whatever guise, have this one property in common, the ultimate anatomical element, the cell, must respond to the stimulus of the administered drug or other therapeutic procedure, or the cells must resist the action, that is, the system, as we call it, a congeries of cells, reacts against the introduced medicament (when a drug is employed therapeutically), and its specific influence over the cells. It matters not whether the introduced action be chemical, bacterical, balneological, electrical or nutritive, or whether the treatment is local, special, or general, or surgical, every medical procedure depends for its efficacy (or even its failure) upon its ability to destroy or modify the function of the cell. If this proposition be admitted, it follows that disease, so far as we are practically acquainted with it, is a series of morbid phenomena dependent upon an alteration in cell function, and, in order to determine, so far as possible, the nature of this alteration in the functions of the cell, we must make a diagnosis of conditions, at least, even if we cannot at the time name the disease to which the disorder of functions symptomatically belongs. When we have made the diagnosis we obtain an idea of the pathology of the case (where the pathology of the malady is known), and this knowledge, furnished us by pathology, tells us in what manner the normal function of the cells has been interfered with by disease. We are thus often placed in a position to know in what manner we can alter cell function in order to bring back normal function, if possible, and, if not possible, in what manner we can so affect the functions of the remaining healthy cells as to bring back partial health, or, that failing, if we can call on other cells not so profoundly affected to carry on the work of the disabled structures, a vicarious state of affairs that must occasionally take place, if we are to believe the stories told by our examinations in the dead house. So overwhelming are these revelations of the pathologist's knife, that in some instances we cannot conceive, with the profound cell alterations shown on the post mortem table, how life could have been so long prolonged, save upon the theory of a partial vicarious cell action.

Pathology has been an unquestioned boon to medicine, but we must not consider that the science pathology is complete or final, for it is not. We are even now, with all the great work that has already been done on the threshold of a vast field of knowledge that will come to
us as a profession with the further development of this science. But with all the advances that it will be possible for pathology to make with new instruments of precision and the still further development of the wonderful studies that are now going on in this inviting field, it is self-evident that there are some things about disease, no matter how great its development, that pathology will never be able to tell us. Pathology of necessity deals only with the material side of the question of disease phenomena. There is something, I wot, beside what we call material in this wonderfully made body of ours. A man is a splendid congeries of cells, with an extraordinary and almost inconceivable play of diverse yet harmonious functions. Yet those cells, without what we call life, are naught but a shadow of shades, a dream-like, empty temple. A congeries of cells is man, but man is more than a congeries of cells. The force we call life uses the congeries of cells to act through, to shine through, as it were. Mayhap this life force is from eternity to eternity. Certain it is that the life force plays through these cells, and vivifies and works its will through and by them, possibly like a great stream of light shining through a many-hued window. For the purpose of illustration, we say that some cells may have the function of reflecting only certain kinds of light, and when there is a failure to transmit the proper color, owing to changes in the structural function of the cell, pathology can tell us the character of the change that has taken place that prevents the transmission of the function, but it cannot tell you (or it can only guess) the change in the life force itself that formerly used that particular group of cells to perform a certain function. Pathology only knows that the cell is not what it was, and that if the cell undergoes further so-called organic change, it will no longer be able to perform its function of acting for the life force; but pathology cannot affirm that because the cell is destroyed, therefore the life force that animated it is also destroyed. It can only say, in relation to the life force, that it is dying or dead. You may call this life force, this higher force, if you wish simply a more exalted form of matter (in contradistinction to the term spirit), but at that such an assumption remains unprovable, and hence we can only be sure that anything save certain of the phenomena of the higher material force (if so it be) is not within the ken of human knowledge, and hence is outside the domain of the possible discoveries of pathology. There is, then, something about disease that pathology will never tell us. We can only justly ask her for more light in the sphere in which she can
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only give us light. Most reasoning about pathology, mentally, assumes that the present discoveries are necessarily correct, when our real attitude towards these discoveries ought to be tentative. We see the light, but we can only guess as to its nature. The sun of discovery may gild a new mountain top, and leave the hill of yesterday in the shadow forever. We are simply studying material pathology. Pathology tells you which cog in the life machinery is wrong; but it cannot tell us about the life steam that runs the engine. We study pathology, too, in order not only to discover tissue alterations, but the better to understand the symptomatology of disease, and the information in this line has been monumental and epoch-making for medicine; but pathology cannot point out to us (perhaps) the changes that take place in cells as the result of the emotions, the truest feelings, the keenest consciousness of life. Where, pray, and in what cells, in what tissue, shall we be able to discover the pathology of fear, of anger, of horror, of joy, of despair? Where is the anatomical seat of instinct? A blood-vessel may swell, a face may pale or grow red; but these phenomena are only the outward signals, the manifestations, but not the real change that takes place in the cells, if these actions are evolved by the direct mechanical action of the cells. Yet we are quick to recognize the emotions as potent causative factors of disease. We know in what part of the brain are seated certain cells that apparently have to do with certain mental operations we call thought. But who ever saw a thought? We can see only its effects. Changes in the muscles of the face show fear, or joy, or indifference. These are the outer showings of thought, which may have a dwelling place in the brain cells, but we cannot say just where. We only surmise that thought, so far as we know, uses the brain as an instrument. Think a moment of the insane, and the impossibility often of determining the lesion that shuts the sufferer out from the light of reason and love, and makes him apparently lower than the beasts of the field. What is the pathology of essential insanity? Are we not of necessity, then, shut out from the acquisition of very important knowledge, not by the fault of pathology, but by the limitation of our powers in the investigations into the unseen and unseeable mystery that lies back of the visible machine made up of the conglomeries of cells we call man.

And it is this intricate machine that we, as physicians, try to restore to health by the administration of drugs. Is it any wonder that drugs fail sometimes? Is it wise to demand that this intricate
machine yield to your crude touch as if that touch were a wand of magic. Considering that we, with all we know about medicine and its co-related branches, in reality possess little working knowledge, have we any right to be skeptical about the action of drugs? Have we even a right to affirm very strongly that they act at all? Yes, we have a right to assume that they act, that is, that they can produce alterations in the functions of cells, because that fact is demonstrable by observing certain phenomena, and because we know that other inorganic substances affect cell function. The trouble with most of us is that we want the drugs we administer to act after a manner that we have preconceived they should act.

All schools have a right to an existence, for there is much of truth in all. Do not let us tear our clothes and weep in sack cloth and ashes because our particular pet theories are only, to a certain extent, applicable. We are not yet at the end of knowledge in medicine. We are babies, sucklings. We need not worry whether this or that theory prevails. We cannot but believe that in the end, no matter who wishes to the contrary, the truth will prevail. The truth will prevail, the "eternal years of God are hers!" Our plain duty is to add to the general knowledge of the profession of medicine all that we can, in every possible way, so that her great mission, the helping of suffering humanity, will be the better fulfilled. For the glory of the noblest profession on earth, let us be the evangelists who shall proclaim that the good of humanity is our only aim, and not the exploitation of any particular creed or ism, but truth and truth only.

The administration of drugs for the cure and amelioration of diseased conditions is a very important part of our work as physicians. Many attempts have been made to explain the mode of action of drugs, and the manner in which certain phenomena of disease are made to disappear or are modified. Viewed in the light of our present knowledge of disease, and the manner of drug application, is there not more than a modicum of truth in every system; or are these modifications but crude outgrowths of an underlying principle that has not yet been shown? The two most prominent of these many methods are the so-called homœopathic and the so-called allopathic. Are not these two systems, in many respects, essentially the same? Let us see if there are reasons to believe that there is a mutual foundation for both practices. Both methods are empirical, and will be until medicine is an exact science. We never know when we give a drug whether it will act or not, nor do we know what will be the
extent of its effects until we have observed its action or lack of action. Therefore, the administration of a drug given on any supposed principle of action is empirical, that is, experimental. I think it will be conceded that when a drug that is active is introduced into the economy it must modify the cells of the body or some particular group of cells. We can only expect to achieve our results by modifying cell function. We stimulate, we depress functions, according to our ideas of what particular modification in the morbid action of the cells we wish to change in our efforts to bring about a cure or an amelioration. I believe that every drug along the plane of its action has the power to produce two diametrically opposite states in the functions of cells. This power is somewhat dependent upon the size of the dose and upon the idiosyncrasy of the individual. These two effects are not always produced, because it is not desirable to do so, because the drug is discontinued, or for other more or less obvious reasons. My contention is simply that drugs have always the power to produce diametrically opposite effects, the two convexities of a circle, or the two ends of a plane. Whether these two effects are produced by the drug itself, or one effect by the reaction of the cells against the drug impulse, I am not prepared to say, nor do I think it essential for my present purpose that the manner of production of these two opposite conditions be established. The fact, if it be a fact, is all I need for my object. It seems to me that there is an abundance of evidence to prove this dual, or more than dual, action of drugs, in the almost daily instances that come under the eye of the observant doctor. Think of the tonic first effects of quinine, and the ultimate depression; of the stimulant effects of strychnia, its later tetanization of the spinal cord, and the subsequent relaxation; of the primary slowing of the pulse of digitalis, and the later quickening; of the sedation of pain with morphia and the sequent torturing neuralgia; of the primary stimulation of glandular activities of the iodides and the later atrophy of the glandular structure that was stimulated; of the primary tonic effect of arsenic, and the subsequent blood degeneration. Instances of the dual action of drugs could be multiplied almost indefinitely. Drug affinities for certain groups of cells form guides for the selection of that drug when those organs are at fault; but when used for the cure of disease it is for the purpose of modifying the function of the cells for which the drug has affinity. Is not this dual action of drugs the real basic principle upon which drugs are best prescribed? Hahnemann scented the truth of the dual action of
drugs when he proved them upon the healthy, and then used the symptoms that indicated drug action for the purpose of prescribing. Did he not miss half the truth with his symptomatic prescribing? Are we not robbed daily of the fruits of clinical experience by a too strict adherence to the method of merely symptomatic prescriptions alone? Is not this method only one-half the truth, and illy expressed at that? Symptoms of the subjective sort show that the cells are modified, but they only show us one side or an angle of the drug picture. Provings, as it were, show us the dress but not the real being beneath the habiliments. Has not Homœopathy, by a strict adherance to symptomatic prescribing, defeated most of the ends for which it has striven so strenuously? Undoubtedly it is an effective way of prescribing drugs, but it is not always the most effective. Where known, the pathology ought always be taken into consideration in a prescription. The pathology suggests the manner in which drugs are capable of altering, or can be made to alter cell action. I do not decry symptomatic prescribing. I wish to amplify it. We must have provings for objective as well as subjective conditions. The symptomatology gives us the emotional side of the picture. We must know both symptomatology and pathology. We must prove drugs in the way Hahnemann did, and then supplement those provings with all the investigating means furnished by modern methods. The blood, the secretions, the excretions, must be examined. We must know all that a drug can do, irrespective of any theoretic considerations as to how it will act, i. e., according to what principle. But we must have the provings for symptoms, for without them we cannot have the lights and shades of drug action. Many of the symptoms produced by drugs are of such a character that they cannot be referred to any mere pathological change now discoverable. A drug may dip down into unknown depths, and betray an action that cannot be explained upon the theory of an anatomical alteration in the cells. A drug, it is possible, may touch that life force which is so elusive, and may go through the skeleton of cells, as it were, into the subconscious life, and act upon centres of which we do not as yet dream. We may say, because we do not know better how to describe it that a given drug acts upon the sensorium. Whence those properties of drugs, like that possessed by Cannabis Indica, that produce such weird and unexplainable pictures of mental activity? Do drugs touch the so-called soul? What we call soul is certainly modified by other material influences, why not by drugs? Even if we cannot give a
rational explanation for these phenomena, common or uncommon, the fact that they occur is a fact nevertheless. Because we do not know the rationale of these symptoms we should not be debarred from making use of these phenomena when we employ drugs in the treatment of the sick, for we know positively, at best, very little as to the real action of drugs, and we know still less as to the manner in which cures are wrought by drugs when we introduce them into the body.

We must prove drugs on animals, and carry it to the lethal extreme. Otherwise we can only guess at some of the possible actions of drugs. No proving in man has been voluntarily pushed to the production of its ultimate effects, and hence there is no absolutely correct proving in existence. We have, therefore, all along been struggling with partially proven drugs, and we have been more or less successful in their employment, as has also every other school or system, according to their lights. More or less successful, I say, for men are not fools, even though they may differ in regard to many points in the administration of drugs. Schools could not exist for twenty minutes if there was not a rational or fairly rational ground for that existence; if they did not secure some apparently good results from the administration of drugs.

I do not deem it necessary here to combat the idea that suggestion or hypnotic influence is responsible for most of the results we think we secure from drugs. Such a position is worse than begging the question. While undoubtedly the mind, or the influence of the mind of the doctor upon that of the patient, has much to do with certain kinds of success, it is not responsible for the undoubted drug effects produced upon the unconscious, the insane, or babies in arms, and we do not all have that wonderful influence over our patients that we can make a dropsy disappear over night by the process of hypnotization. If we could we would not have to make night calls. We could hypnotize them over night, and make their colics take to themselves wings. If we could do these things by suggesting, I fear we could be justly accused of out-quacking the Christian Science brethren, with their one part of truth and ninety-nine parts error theory, and we could go into the "absent treatment" with a vengeance, particularly in such easy cases as uræmic convulsions, or such a pecadillo as a post partum hæmorrhage; and immediately upon the administration of any old kind of a drug our rheumatic patients would, with smiles on their faces, take up their beds and walk, and bless us besides. At any rate,
suggestion as a means of treatment, even if fairly successful, is not nearly so frequently useful as the giving of drugs, chosen with something like decent regard for the object to be attained by their administration.

It seems to me that we, as homoeopaths, have failed to recognize the full significance of our supposed law of cure. It appears to me that there is one general law underlying this whole matter of drug administration. We have boasted about our law of cure without thinking much about the fact that there is no such thing as a law of cure.

Although we have, as a medical profession, been studying drugs for years, we do not, to a certainty, know how any cure is wrought, The homoeopath says he cures by substituting a drug disease for a natural one, while our old school friend says he does it by utilizing the physiological actions of his medicines. Both are partly right, and both are partly wrong. Both are simply using words to make plain ideas that they entertain about how a drug acts; but no one actually knows how a drug acts. It is administered, certain results follow, but seldom, if ever, can these results be traced to the fons et origo. If the homoeopath gives to a case of simple fever, with a hard, bounding pulse, hot skin, and anxiety, a dose of Aconite, and the skin becomes moist, the pulse softer, and the fever falls, he declares that his cure is wrought by the law of like cures like. Our old school brother gives quinine to his case of intermittent fever, and his case recovers, and he says that it is because quinine is an antiperiodic, a protoplasmic poison, and that it destroys the plasmodia of malaria, and yet quinine cured intermittent fever before it was known that such a thing as the plasmodial germ existed in the blood of malarial patients. Drugs affect the function of cells, and certain of these results we see, or think we see, in the phenomena that follow the administration of drugs, but we do not, in reality, know in exactly what way this change in function is wrought, although we see certain alterations in phenomena, but these are the mere outer results of the inner workings of the drug. We cannot tell whether the action is chemical, electrical, nutritive or what not. We classify drugs so as to indicate, in a general way, the outer aspects of their action. We say diaphoretics act on the skin; we simply know that certain glandular structures are more active and the skin moist, after their administration, and we guess we know the action that is taking place in the
cells, and in many instances, no doubt, our surmises as to the ration-
ale of the action of certain drugs upon the cells is correct.

I have asserted that there is no such thing as a law of cure; that
the so-called law of similia was a misnomer. The supposed law
enunciated by Hahnemann is not a law of cure, but a principle of
drug selection. The method of selecting a drug has nothing whatever
to do with the law or method by which a cure is wrought. Have we
not been mistaken in supposing that the administration of drugs ac-
gording to the dogma similia was tantamount to the evoking of a law
of cure? The cure is wrought in many instances, but not in all. We
are led to the cure by the method of selection as practiced by the
homeopath. The benificent change was wrought by the manner of
selection, but not by virtue of a law of cure, for symptomatic prescrib-
ing takes in but a small portion of the principle of similia that lies at
the bottom of the selection. This principle of drug selection, wrongly
termed a law of cure (and only partially employed by homoeopaths
to-day), is at the bottom of all drugs administered internally, no
matter by what school. The law or rule of similia, properly under-
stood, properly applied, is the greatest principle of drug selection it
is possible to conceive of in the present state of our knowledge, and we
as homoeopaths have been recreant to our trust in that we have not
fully developed it and shown to the world of therapeutics, not that
medicine knows nothing of drug prescribing, but that in the despised
law of similia lies the secret of the fundamental principle that lies at
the very foundation of all successful drug prescriptions in curable
cases.

Do not tell me that the investigations into the origin of many dis-
ases have shown that many maladies are the result of the ravages of
certain germs and of their products, and hence we must adopt wholly
new methods of treatment. Before you adopt that view think for a
moment. Is Aconite less successful in the treatment of pneumonia
now than it was when we did not know that the pneumococcus is the
cause of the disease? Is Veratrum viride any the less successful in
lowering the pulse rate? Is China, or its alkaloid, any the less cap-
able of aborting a paroxysm of intermittent fever than it was when we
knew nothing of the malarial plasmodium.

So far as I can see, all drugs used by any school, that have at all a
definite and specific curative relationship to certain diseases (or I
may say to disease processes) show that, whether consciously or un-
consciously to the prescriber, those drugs had or could produce a
more or less perfect picture of the condition for which they were prescribed. We have thought that similia was a law of cure. I think it is a principle of drug selection. I do not detract, therefore, from the dignity of the so-called law, and it would not matter if I did, for we, as physicians, want to know the truth and nothing but the truth. Regarded as a law of selection the field of its application is infinitely widened, and its importance, fully understood and appreciated, will lead to an entire revision of our methods of interrogating drugs as to their powers to modify cell function, upon which fact their ability to assist the sick solely depends.

I have frequently claimed that many of the so-called physiological drug actions of the old school were exquisite examples of selection according to similia, and I have been met by the answer that I was wrong, forsooth, because the results were not produced in the so-called homoeopathic way, but were due to the physiological action of the drug employed. My answer is that we do not really know how the alteration in cell function takes place, and that we only see the ultimate result, not the inner mechanism by which the result is achieved. I have said that all drugs have the power to produce two opposite states and conditions, either as the direct result of differing dosage of drugs or as the result of the reaction of the system against the influence of the drug, and that, practically, whether as the result directly of the action of the drug or the reaction of the cells against it, the position that the opposite conditions and the intermediate states were produced, could be assumed as correct. This being true, the other proposition that all known so-called specifics showed a similitude to the condition for which they were prescribed, is understandable. If we accept the necessity for proving drugs upon human beings and upon animals in order to secure a picture of their possible action, it will be seen that the rule of similia is everywhere prevalent in the prescriptions of all schools. The old school man prescribes Digitalis because he conceives that it is this particular function in the heart he wants to modify, and he expects certain secondary effects to follow. The narrow homoeopath who will not see that drugs nave two ends to a plane of action, or rather a circle of action, any part of which is a certain phase of a disease picture, condemns the old school method as physiological, and then he prescribes his Digitalis for a slow pulse, and finds that the pulse-rate quickens, and he calls his action homoeopathic. Both were homoeopaths, and both were allopaths, when they made the prescription, if viewed in a narrow sense.
How much simpler the conception of the action of drugs becomes when we take the so-called law of cure, similia, as a method of selecting drugs, and say nothing about how the cure is wrought, for none of us know or can know that. Many of our local applications are employed on the principle of similia as a selecting formula. The action of heat is primarily to dilate the tissues, and subsequently to contract, and cold to primarily contract and secondarily to dilate, and we utilize both these phases of water temperature, and we are following the similia method of selection when we do it. Taking all the possibilities of drug action into consideration, we can play along any part of the plane (or circle, if you like that idea better), and understanding what we want to do with our drug, what particular part of cell modification and how much of it we want, by modifying the dosage of the drug, secure an action.

Do not let us blame drugs for failure, but our lack of knowledge to know how to select them, and what dose to use, when to repeat, when to stop, when to modify by the addition of another drug, which shall partially maintain one action while we are working on another function with another drug (possible), all of which are factors that come in for blame rather than the drug itself.

I could, I think, infinitely multiply examples illustrating the fact that the underlying principle of drug selection is the so-called law of similia. You can yourselves, however, by taking up the materia medica of any school, and noting the similitude to either the symptomatology or known pathology of disease, see that the drugs employed have the power to produce somewhat similar phenomena to the maladies for which they are prescribed.

My principal contention is that drugs have a twofold, aye, more than a twofold action; that they, or the reaction of the system against them, produce precisely opposite states and conditions of the body cells, and that any phase of this action may be made the basis of a drug prescription, on the principle, not of like cures like, but that a similitude of symptoms or states forms the basis for the selection of the curative drug.

A drug selected according to its similitude to a case may act by inducing equilibrium in function, and equilibrium of function, the happy medium between exaltation and depression of activities, ought to approximate normality. A drug properly given establishes this equilibrium, no matter whether we hit at it in what is called the homoeopathic or the allopathic method. A failure to appreciate the
fact that a drug has a variety of actions from the moment of its entrance into the system, and that regulated dosage or individual idiosyncrasy determines the effect along the plane of its action, and that, whatever its starting point, it has the power of ultimately reaching the opposite state of action, has robbed the homoeopath of far more than half his ability to successfully prescribe, and has also deprived the so-called regular from the magnificent drug effects secured by his homoeopathic brother.

Drugs affect certain cells or groups of cells in a particular manner, that is to say, their function is obviously altered, and this phase can be utilized in prescribing as well as its opposite, or even middle effect.

I think, therefore, that most of the effective prescriptions of drugs, by either isopath, homoeopath, allopath or eclectics, show that there is a similitude between the disease picture, or rather some phase of the disease picture, and the administered medicine alters cell action in such a manner that a return toward health is promoted. True, cells may have to be altered in many ways, before, in acute disease, complete health is restored in curable cases; but, nevertheless, there is in every intelligent prescription a similitude between the phase of the disease successfully prescribed for and the resultant move toward a restoration of cell equilibrium. Even in Nature's attempt to cure, in the so-called self-limited diseases, whether she do so by the development of a phagocytosis or an antitoxin, she endeavors to produce the very opposite of the diseased picture, and while neither she nor the drug always succeed in producing the very opposite picture, the whole tendency of nature and of drugs is to go toward the opposite side of the prevailing condition, and mostly equilibrium, and not the opposite condition is produced, and equilibrium is relative health.

Drugs prescribed at either end of a disease picture produce the best results, not when the opposite condition is induced, but when they tend toward the opposite and induce equilibrium.

To my mind the interpretation of the so-called law of cure as a principle of drug selection, of almost universal applicability, and the recognition by the homoeopath that his purely symptomatic prescriptions only embrace half the truth at the foundation of the possible cure, and the recognition by all schools of the fact of the relationship of drug prescribing to a similitude in the symptoms and states produced by drugs, will lead to the development of a materia medica that will ultimately, with the hearty co-operation of all schools, lead to in-calculably important results in the systematizing of our present vague
and uncertain observations of drug action, and will tend to make a rational posology. If similia be accepted as a basis upon which a remedy may be selected, because provings have shown a power of the drug to act upon the tissue cells that have produced the symptoms, we will be at the beginning of a new and glorious era in the progress of medicine. Come, "let us reason together."

TWENTIETH CENTURY HOMŒOPATHY.

ROBERT WALTER, M. D., WALTER'S PARK.

We are here, friends, in search of the truth; even the truth that shall make us free. All human interests are involved in its discovery, within the realm of medicine more truly than in any other department of purely earthly activity. Human lives are daily being entrusted to your care and mine by confiding patients or friends, thus making our responsibilities second to none other in any walk or profession of life. The judge upon the bench may at times be called upon to sentence the criminal, or the jury in the box to pass upon his guilt or innocence, but you and I must deal with the issues of life and death for innocent people almost every day. It were well for us if we measure up to our responsibilities. Ignorance ought not to be accepted as valid excuse for error. Certainly every physician is called upon to keep himself informed upon all subjects at all connected with his especial line of work.

It is the physician's duty also not simply to follow the well-trod paths of his predecessors, but to add to human knowledge by his own patient and laborious research. All the discoveries have not been made; all the realms have not been explored, nor all the truths been apprehended. We rightly claim for Homœopathy one of the greatest discoveries of any age, and the name of Samuel Hahnemann will stand forth on the scroll of frame as one of the greatest prophets of science, the value of whose work is exceeded by none other.

But great as were the discoveries of Samuel Hahnemann, no one acquainted with the facts will ascribe to him a completed science. He made no pretences in this direction. The task of restoring order to medical doctrines was in that age a hopeless one. He was a practitioner and an extremely practical one at that. He conceived his work to consist of the "true art of healing." "The first and sole duty of the physician," he says, "is to restore health to the sick."
"Actual experience" was to him "the only infallible oracle." "In short," to use his own words again (Organon, Sec. VII.), "the ensemble of the symptoms is the principal and sole object that the physician ought to have in view in every case of disease—the power of his art is to be directed to that alone."

But what is art without science—skill without knowledge? Hahnemann rightly claimed to have discovered the law of cure, one of the greatest truths, if fully comprehended, that ever came to earth to redeem it from sickness and woe. But he had based this law upon an even greater truth, which he consistently advocated, viz.: An "immaterial vital principle" as the source of all function and the cause of all sensation. Sec. 10 of the Organon puts into a single sentence the true foundations of a vital science and the basis of all successful practice as follows:

"The material organism deprived of its vital principle is incapable of sensation, action or self-preservation; it is the immaterial vital principle only, animating this organism in both its healthy and morbid conditions, that imparts to it all sensation and enables it to perform its functions."

"Sensation," "action," "self-preservation," these are the salient features of vital existence. "Without them," says Hahnemann, "the organism is dead;" with them we have all that we do have, whether health or disease, pleasure or pain. These answer to all the facts of vital existence, and to understand them in their proper relations to each other constitutes a science which has no equal in value within human recognition.

And it is the science which we sorely need. The age in which we live is not content with simple practice; it wants to know the why and wherefore of the practice. In Hahnemann's day "actual experience" was indeed the only oracle, but it never was infallible. But the dark ages of empiricism are now happily passing away and science is taking its place. The twentieth century, while acknowledging its indebtedness to its predecessors, must not, will not tarry in their footsteps. I claim for Homœopathy the privilege and the duty of establishing a science of medicine as exact as mechanics and reliable as chemistry. Let no man take our crown. Hahnemann has given us the basic principles; let us build thereon, and demonstrate to the world a logical science which justifies and explains the success of our practice.

What, then, are these basic principles? First and foremost is the
fact that “immaterial vital principle” imparts all sensation of which the pains and discomforts of disease are most prominent, and performs all functions, whether it be breathing or coughing, sneezing or purging, or any other activity of vital existence. The absolutely necessary inference is that the force of health is also the force of disease, both of which are at the same time the patient’s vital force, the power of his life. It is for this reason that agencies known to be destructive to life have always proved to be also destructive to disease, but being equally destructive to health, they readily cure the disease by making the patient a chronic invalid or a corpse. Produce a corpse and you always destroy the disease; destroy the fever, for example, by paralyzing the heart, and the undertaker does the rest. It is needless to say that this is not the Homoeopathy of Samuel Hahnemann.

That the force of health is also the force of disease is perfectly analogous with like facts in the material world. Chemical affinity operating under chemical laws produces dynamite or gunpowder whenever we supply the conditions for its manufacture, or under changed conditions the same force destroys it and constitutes the power of the explosion. Just so gravity floats the ship or sinks it, sails the balloon or dashes it to the earth, the same force operating under the same law, producing exactly opposite results in response to opposite conditions. And these illustrations might be duplicated by the hundred. Why doubt then that vital force may produce either health or disease according to the conditions supplied, and constitute the power of both of them?

The paradoxical nature of these truths in the physical as well as in the vital realm cannot be doubted, but are they more paradoxical than the formula similia similibus curantur? That chemical affinity explodes dynamite, as well as makes it, and constitutes the power of the explosion, is the perfect analogue of the fact that vitality makes disease, as well as health, and is the power of both. All of which proves that things are not what they seem. The demonstrations of the great Newton that the earth revolves around the sun and not the contrary, and the paradoxes of the Great Teacher are, we believe, the best illustrations of the paradoxes of vital science.

But we have barely entered the realm of the paradox. The problems of medical science are numerous indeed, and as paradoxical as they are numerous. An even more important problem than the law of cure now presents itself, the nature of disease. Who can doubt that
this is fundamental to any science of medicine? How may one hope to deal successfully with a subject unless he has some definite knowledge of its nature? And how disastrous is his practice liable to be if his ideas are erroneous, and especially if they are the opposite of the truth?

What, then, is disease in its essential nature? Hahnemann, we believe, deduced, unconsciously it may be, his law of cure, whose salient feature would seem to be its paradoxical nature, from the words of Sec. 10 of his Organon as already quoted. From the same words we propose to deduce this not less important, and as we shall soon learn, no less paradoxical element of vital science, the nature of disease. And that it may be still more firmly established as scientific truth we shall develop it in accordance with principles common to all science and knowledge.

Three things, and three alone, are necessary to the production of any result in nature, whether physical or physiological. These are well described as, first, the cause; second, the law, and, third, the occasion or condition. The cause is properly defined as "that by the power of which an event or thing is;" the law is the method by which the power works, and the occasion or condition is the agency which brings into operation this power. For illustration, the chemical force in the affinities of oxygen for hydrogen, operating under control of chemical laws, produces water, but only when the proper conditions are supplied. Under other conditions other results will be secured. Just so in every case of disease; we must first have the power which always operates under the same laws, but what the result will be depends upon what conditions we supply. The power and the law are inherent, God-given and unchangeable; man supplies the ever-varying conditions which determine the results. In the physiological world the results thus produced, though infinite in number and variety, all fall into two classes, known as health and disease. If we supply the conditions for health we will get it with great certainty, or if the conditions be for disease we will surely get the disease. subject, however, to a law of vital accommodation which we may well denominate nature's balance-wheel. The analogies in these respects with the physical realm are wonderfully perfect. If we supply the conditions for the manufacture of dynamite we will get the dynamite, or if the conditions be for its explosion we will get the explosion. If we supply the conditions for floating the ship gravity will float it, or if the conditions be for sinking it gravity will
sink it, the force and law in either case being the same inherent, God-
given power.

Now let us apply these principles to the production of disease. Disease we have learned is vital action, the product of "the immaterial vital principle." But this principle could not alone produce disease, for its normal operation is health. Some occasion or condition must have arisen to direct it into abnormal ways or the abnormal results could not have followed. This occasion or condition may be well-described as—injury, real, threatened or imagined, producing real, feared or imagined diseases.

But it is not simply the injury that produces disease; recognition of the injury is the important consideration, a truth which explains the fact that feared or imagined injury will do the business just as well as real injury. But how do it? The answer is that every living thing is endowed with an instinct of self-preservation, which is the pre-requisite to any and all diseases as Hahnemann appreciated. Only living things possess this instinct, and therefore only living things have diseases. That self-preservation is the first law of life has passed into a proverb which Hahnemann recognized, though he failed to consciously employ it. It is this law which directs the immaterial vital principle in its work, and with it constitutes the two necessary elements of all diseases. But modern research has added the other element, viz., injurious habits, indulgences or agencies. Diseases are no longer dispensations of Providence; they are the products of our own misdeeds when they are not accidental; no wise Creator, let alone Father, delights himself in worrying his creatures.

And now as to a satisfactory definition of disease. Can we marshal the facts in such order as to arrive at an exposition consonant with all known truth? And will the facts of experience justify the conclusions of reason? Let us see.

We have an immaterial vital principle, endowed with an instinct of self-preservation, animating an organism which has suffered injury, real or threatened, and as a result certain painful manifestations have arisen. What are these manifestations? They are called disease. But what is their nature? We have already seen that they are vital actions in response to morbid agencies, and that the law which prompts the activity is self-preservation, a fact which compels the inference that they are defensive or reparative. If the injury is only threatened or imagined the result will be defensive. But if a real injury has occurred, can there be any doubt that attempts at
repair will follow? And if the power of repair be present and the conditions be supplied, how can there be a failure? In the meantime, while the process of defense or repair is going forward, will there not be a condition of discomfort, disturbance, disease? You can’t threaten a self-preservative organism without arousing resistance. Nor can you injure it without inciting efforts at remedy. And whether it be resistance or remedy the only power that can do the work is the power that works the organism injured—the same that made, preserves and finally repairs in order that it may preserve. And while all this is being done must we not have the condition called disease: that is, want of ease? Who can doubt, therefore, that in its essential nature

**DISEASE IS NATURE’S PROCESS OF CURE.**

That this definition is sufficiently paradoxical to make it the companion of Hahnemann’s law of cure cannot be doubted, while both of them are based upon the theory that “the immaterial vital principle,” operating in accordance with an instinct of self-preservation, produces all sensations and performs all functions, whether in health or disease. The power and law of cure being always present in the living organism leaves but one thing more required in order to disease and attempted repair, viz., conditions which threaten or produce injury. This is one of the thoughts that underlie homoeopathic medication; its medicaments are intended to possess an intensely morbid nature even if trituration has robbed them of their dangerous character.

Let the facts of observation testify as to the nature of disease. Who does not know that inflammation is at one and the same time a great representative disease and equally a great healing process? Are not purging and vomiting often, if not always, cleansing processes? Who doubts that self-limited diseases are processes of purification and repair? And what other treatment is required but facilities for rest and cleansing? What are germs inside or out but nature’s scavengers to return to inorganic realm the foulness of the organic? Sir Frederick Treves, the surgeon who so lately operated upon King Edward, has even urged that tubercular disease is a curative process. And the great Prof. John Hughes Bennett (University of Edinburg) well says: “In most cases what we call disease, instead of being an enemy, is our best friend. It is the effort made by nature to eliminate from or reconcile the frame with those noxious
causes which have influenced it. If it cannot do this the vital force is exhausted."

Disease, then, is itself the process of cure, and the patient's own vital force is the power of cure as well as the force of disease. Bearing in mind this fact, the physician's work is greatly simplified and the results rendered correspondingly certain and beneficial. The law of similars is thus justified, demonstrated and made so reasonable that a wayfaring man, though a fool, cannot intelligently object to it. The similarity consists in the fact that the power of the disease is the power of cure, and the law of the one is the law of the other. Vitality makes the disease and vitality cures it; it is required of the physician that he shall supply to the organism the conditions for both health and cure at one and the same time.

And now let us turn to the consideration of the necessary conditions for cure. Let surgery furnish to the medical world a useful lesson. Has it not proved that the instinct of repair is always present where life is? And that only two things are necessary to healing,—rest and cleanliness. The importance of the latter, even for the cure of disease, we need not now urge. The proverb that cleanliness is next to Godliness differs greatly from the theory that our Godliness is best proved by our filthiness. The odor of sanctity in our day is less offensive to one's nostrils at least than it once was. No good physician can neglect cleanliness for his patient, or the pure air and water so necessary to it.

But the all-important consideration for good health, its preservation and recovery, which is too often neglected in our day, is embodied in one little word—rest. The object is recuperation of the power of cure. Disease represents struggle, and this always means insufficiency of power to do the work easily. Omnipotence never struggles; only finite beings suffer taxations. It is the enfeebled, tired, worn that get seriously ill and perhaps fail to recover; it will be the recuperated and rejuvenated that return to vigorous health.

Even the subject of cleanliness, to which we have referred as so important to recovered health, is largely involved in this one of recuperation. Five of the more important organs of the body are cleansing organs whose operations will be efficiently carried forward if the power is abundant. In such a case germs cannot live or produce disease. Experience proves that even malaria will get no foothold until the patient's powers are depleted. And in the treatment of malarial diseases we never find any trouble in curing either acute
or chronic cases by simply recuperating their powers. Add to the power and you at once give relief. A case of chronic malaria which I have just been treating illustrates both the nature of disease and the process of cure. While she continued in her malarial atmosphere no acute symptoms manifested themselves; when transferred to pure mountain air, ague and fever at once developed. An allopathic physician who observed the case thought it impossible to cure it except by liberal doses of Quinine. He will be astonished to learn that her ague fits ceased in a fortnight, with a marked improvement of general health, without any treatment whatever except to warm her during the chill and cool her during the fever by unstimulating processes, and secure to her abundant rest and pure air. This case got no medicine. Another similar case I restored perfectly with Nat. mur. 30x after he had been dosed liberally with Quinine without success by another physician. I recall a case of twenty years ago of violent chills, fever and sweating that I treated with hot bottles and bricks to warm him, a mild, wet sheet pack to cool him and good towel rubbing to dry him, and he was perfectly cured in ten days and never had a recurrence, though he returned to the same atmosphere.

It is really surprising what an hour’s sleep will often do for an invalid, not because it is a word of five letters, but because it is the inactivity of rest that saves and recuperates power. The utter prostration of the crisis of fever is an even better illustration of the value of rest. Recovery begins in most invalids, not with some extraordinary burst of vital activity, but with cessation of activity. Healing operations are distressing and painful only when the power is insufficient to the work to be done. Recuperate the power and relief is at once secured.

How shall we secure the power is the important consideration. It cannot be manufactured; it can only be hoarded. Being an immaterial, God-given principle it cannot be transmuted or manufactured from material things. There are only two other things in nature at all like it, gravitation and chemical affinity. When you show me how to manufacture or produce these I will show you how to make vital force, but until you have learned how to manufacture gravity, or to transmute some other force into chemical affinity, I must continue to deny that you can transmute any of them into life. The transmutation of the baser forces into life is a wilder dream than the transmutation of the baser metals into gold ever was.
Whence, then, is life or the power of life? Space will not permit any detailed discussion of this subject; I can only refer to a fact of observation that is indisputable, viz.: Life only from life. But I will spend a few moments in showing whence it does not come. It cannot come from tonics. These have no life or power of life, and so cannot give what they do not have. They are poisonous, and the most effective of them are the most virulent poisons, which are best known by qualities destructive to life. But when properly (?) administered they always produce increased manifestations of power, and the inquiry at once presents itself—Whence the power? There are only the two possible sources present, the tonic and the organism. As the tonic had no vital power to give, while the organism did, we are compelled to the conclusion that the power manifested and expended came out of the man and not out of the tonic, unless indeed it can be shown that the organism assimilated the drug and so transmutes its power into vital power. But as no one ever seriously advocates this theory, and as we have elsewhere shown that the transmutation doctrine of some modern authors is the wildest dream of speculative philosophy the world has ever seen, without a single well observed fact in the universe to sustain it, we may dismiss the subject as too chimerical for intelligent consideration.

But stimulants are more prompt in their effects upon the organism than tonics ever were. Do they not increase vital manifestations and give evidences of vital power? Whence, then, their power? Are we not again compelled to conclude that the power comes out of the man and not out of the drug? And this is further proved by the fact that the more you take them the more you feel their need. If stimulants give to the user of them the vitality they seem to give the habitué should become a Hercules in power and not a tottering incompetent, as under the spell of alcoholic stimulation.

But let us apply the same principles to tonic and stimulating baths and the like. They all seem to give strength to the individual, but we properly inquire, whence the strength? Did it come out of the bath or out of the patient? As the bath had no power to give, and underwent no change so as to lose any, the conclusion becomes inevitable that the bath, like any other tonic or stimulant, takes away from the organism just what it seems to give, and so prevents the very recovery it is supposed to promote, a conclusion which has been forced upon me by forty-five years' experience with sanitary appliances,
during which time over 20,000 cases have passed under my observa-
tion.

But if tonics and stimulants cannot give us any power of life, food
at least answers to our needs. Yes, food answers to our needs. With
air and water it is a necessary condition of life upon the earth. But
like the others it cannot give what it does not have. And it has no
life. All food is dead food—dead because of digestion and chewing,
if not because of cooking. Food is material, out of which bodies may
be built, provided the power of life is present to do the building.
Life is the power. It is an inheritance and not a product; it made
us, but cannot be made by us; it is a cause and not an effect. Food
is also an agency of work. Who works must eat, but who eats with
the idea that the amount of life or strength he has depends upon
the amount of food he eats is liable to find that it does for him what
all others do; it takes away from him just what it seems to give and
gives what it seems to take away.

Again we are brought to the recognition of the homoeopathic prin-
ciple, the true law of cure. This law applies not simply to the use of
drugs, but to every act, habit, indulgence or agency that can affect
living existence. It applies to food and drink, as well as to drugs.
The real effect is the exact opposite of what might have been ex-
pected. Drugs, baths, electricity or any other appliance from with-
out possess in themselves no power of cure, but they become import-
ant conditions of cure when employed in accordance with the law
of similars. The discoveries of Samuel Hahnemann in this connec-
tion are without a parallel in medical history. To remove the pa-
tient’s fears, quiet his restlessness, soothe his nerves and ease his
pains by the use of agencies wholly innoxious, and accomplish it with
a certainty nowhere else observed, brings rest to the patient and re-
cuperation of vitality and restored health with great certainty. Vital-
ity cures, not medicines; the rapidity and certainty of cure corre-
sponds to the amount of vitality; medication conducted upon homoeo-
pathic principles, having in view the removal of the totality of the
symptoms, recuperates the vitality and promotes recovery as no other
treatment ever did. Results depend upon the principle of use rather
than upon the agency employed. All things are good in their place,
and all may be employed so as to exhaust the patient’s powers all
the while they seem to be giving it, or may be employed so as to
recuperate the patient at the very time and by the very means that
it seems to take away his power. Sleep is the great typical illustra-
tion of recuperation, and all processes that shall be effective to the patient’s recovery must operate as sleep does. It reduces vital activity, not increases it. It takes away the consciousness and evidence of power in order that it may hoard it for future use. The wise physician sends his patient to bed; the unwise patient says: “Oh I don’t want to go to bed, for if I do I will lose my strength.” Paradoxical Homeopathy again; we gain by losing and lose by gaining. The best way to have abundance of power for to-morrow is to refrain from using it to-day; the best way to become exhausted and die is to stimulate one’s self to great vital activity in the present.

The homoeopathic principle applies to baths and to sanitary appliances just as truly as to drugs. Principles are everything; men are comparatively nothing. The best appliances upon allopathic principles become utterly destructive; even the worst become the best when employed scientifically, as in ordinary homoeopathic practice. The homoeopathic law is as broad as the universe and as comprehensive as truth. Let us keep to the law and a success which knows no exception will indeed be ours.

THE CALCAREAS.

CHANDLER WEAVER, M. D., FOX CHASE, PHILADELPHIA.

Calcarea all more or less affect the nutritive functions of the body, suiting both the young and old. Impairing the products or nutrition, which affect the growth or the renewal of life in adults, producing constitutions similar to scrofula, tuberculosis and rachitis.

In my clinical experience always think of them when I see a person wrongly made, showing that some elements of his or her construction is deficient. Such cases we all have seen, too large head, too large bellies, spindle legs, etc. You can depend they need some of the salts of lime, and if growth has not gone too far it will change them. In fact, I have begun treating an expected child through its mother’s blood where previous birth has been faulty. Now for some symptoms that run through all Calcarea salts: Poor circulation and appearing irregular, shows in local sweats, cold clammy foot sweats, sweating only about the head and neck, sour stomach and in children shown by vomiting milk early after nursing, curdled and sour. Affected by changes in temperature, also easily affected by the condition of dampness in the air; easily touched by outside in-
fluences; don't have any strength to resist anything whatever; poor bone development; bad teeth; slight hair, and irregular bowels of a white color and generally very offensive, even if formed or in old people, showing a lack of some of the elements in the nutritive fluids; mentally changeable, easy to take offence, cross without cause; restless sleep and more or less sleepless, not getting rested from a good sleep, restlessness, sees objects on closing eyes. These symptoms run through all of the Calcarea salts. Now for some special indications in choice of the individual salt.

Calcari. ostr.—Favors the increase of adipose tissue, which is a soft fat, rather transparent, looking robust in size, plump, round, but can't stand any kind of changes, and when sick are slow to improve. It suits the young, especially in teething, has more of the sleeplessness, looseness of bowels, sour and offensive undigested milk; milk disagrees: more of the scrofulous constitution; vomits milk sour and curdled. Open head bones; too free and too often menstruations; biliary calculi or renal stones with irritable bladder.

Calcari. phos.—More of the tubercular constitution, having a mixture of Calcari and Phos.; build rather spare, in stature tall with rather large head; they are sensitive to smell; easy to take cold, with coughs loose and rattling of phlegm, and often stay a breaking down of lung tissue; sour stomach, bad formed joints, and joints large and prominent, and often ache or feel stiff from dampness. Simulating rheumatism and often indicated where you would first think of Rhus or Bry. A good remedy in arthritis deformans and also in rachitis, one of our best remedies for hydrocephalus, where bones are thin and frontals are open. For debility from excessive child bearing or nursing, and from excess of phosphates in urine.

Calcarea iod.—In Calcarea and Iodine constitutions; the favoring glandular troubles, either light or dark complexion; glands enlarged and continue large, hard without much soreness; don't suppurate if you use this remedy, and if they should it would be a slow process. Great appetite and yet grow thin. Has a dry cough from the swelling bronchial glands; no expectoration; reverse of the Calcari. phos.

Calcarea fluorica.—Favors exostosis; hard deposits in joints, also has hard fibrous deposits in muscular tissues, and in this it is a very good remedy for fibroma wherever found; will help to keep them from growing and sometimes aids their softening and absorption. Is very often the remedy when Rhus is used for joint rheumatism; re-
lieved by motion by Rhus, but from a local condition and not inflammatory, but by getting the deposits more in a movable state. I have kept fibroid uterus from enlarging with this remedy until climaxis took place, when they grew smaller, and all trouble from them disappeared.

Calcarea mur.—Dr. Neidhard used extensively for diphtheria in the calcarea constitution with good results. I always use it as a disinfectant in this disease and scarlet fever, and with some benefit I think. It is recommended for moist prurigo capitis of children; a paste of chloride of lime is an applicant for painful boils or abscesses.

Calcarea sulph.—In the calcarea and sulph. constitution, large, flabby children that are always dirty with greasy skins; you know the calcarea child is clean and transparent generally; this remedy lately has been suggested in place of Hepar and to hasten suppuration when you need suppuration, and high to stop same as a Hepar, and is said to be more active in the connective tissue suppurations. This I have not proven as yet.

You see that I have given a general outline of these salts with some of my distinctions, leaving the minute indications for each to fill in or look up in their Materia Medicas.

I often use these remedies in cases for their help in their general constitutions that call for the Calcarea, even in acute diseases where some special other remedies are needed for the acute condition, given a few doses to help the constitutional dyscrasia. All these Calcarea salts will act well in the 30th potency, yet I prefer it low at times to aid the element of lime for system to appropriate, but for long use the 30th will finally rectify the nutritive functions to produce its own lime and appropriate it to its proper place particularly in bone deficiencies.

DISCUSSION.

Dr. W. G. Dietz: I think we do not know as much about the calcareas as we ought to. In fact, we do not take time to study Materia Medica. When you speak with medical men about the use of the calcareas, you find the one that is generally used is Calcarea carbonica, and that is given promiscuously for anything that ails children, whether it is indicated or not, and the result always corresponds with the intelligence of the administrator. Calcarea carbonica is almost a specific in rheumatism of the lower extremities. In those people who work out in the weather often Rhus toxicodendron, though
seemingly indicated, will fail. It only appears to be indicated because if it was properly indicated it would do the work. Calcarea carbonica in these cases will often act as supplementary to Rhus toxicodendron. In general rheumatic conditions, where patients manifest the general characteristics of a Rhus toxicodendron case, and where they work very much exposed to the weather, going from warm to cold and cold to warm places, from wet to dry and dry to wet places, Calcarea phosphorica is a very reliable remedy. I have had no experience with the Fluoride of calcium in fibroma. Certain cases in which the remedy is indicated by profuse, early and free menstruation, especially in those who are inclined to obesity, and where there is a good deal of constitutional debility, especially with weakened circulation, evidenced by weakness of the heart, shortness of breath on ascending steps, and so on, Calcarea carbonica will do wonders. It does not always cure these cases, nor is there anything else that absolutely does, but there are many cases where the remedy will give relief. I think one of the great characteristics of all calcarea salts is debility. I never think of Calcarea carbonica in an adult unless there is a marked degree of debility. Where there is obesity and pseudo anæmia without any diminution of the red corpuscles and is due to lack of proper circulation from a weakened heart, that is the Calcarea condition.
REPORT OF THE

SECTION OF CLINICAL MEDICINE.

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THE INFLUENCE OF TRAUMATISM OF THE CHEST WALL IN THE DEVELOPMENT OF PHTHISIS PULMONALIS.

WILLIAM F. BAKER, A. M., M. D., PHILADELPHIA.

We as practitioners have been accustomed to associate tubercular lesions wherever found, except those perhaps of the lung with traumatism.

If this is not pointed out by the patient the question will always be asked concerning it, but does it often occur to us when examining a case of tubercular lung disease that a blow or a kick may have been the starting or exciting cause of the whole disease? That there could be a positive relationship has been hinted at before, verified by good observers, and an attempt will be made to show such relationship in the cases about to be cited. That this later statement may be called into question is to be expected, but if this can be considered as a plea for surgical aid to some cases of lung disease diagnosed as tubercular and are being overlooked because of the failure to bring out in the examination a history of traumatism then will it have accomplished its purpose. It is not the intention to add new
thoughts, but to call attention to a certain class of cases essentially tubercular, dependent on trauma of the chest wall, which require the surgeon’s aid and under surgical treatment improve and in some instances recover by the prompt intervention.

As to injuries to the chest in general they may be “superficial” or “deep seated,” but in either case there is resulting soreness and confusion of the chest wall, inflammation within the lung, pleuritis and resultant effusions, abscess of the lung, caries of the ribs and other lesions. There is also more or less limitation of motion in the affected side, not only on account of the bruised chest wall, but also on account of an inflamed pleura. (The characteristic position of the chest in ordinary pleurisies is familiar to you all.) Not alone does the pleura suffer in this inflammation, but also the lung, and a deep-seated abscess may result. With a pleurisy there is a serious inflammation and a throwing out of an exudate with the formation of tight and firm adhesions, binding the lung down and giving rise to what may be termed if you please “a dead space” in the lung, i. e. (a portion of the lung walled off by inflammatory exudate with its expansibility disturbed, its contractility and possibly its circulation interfered with). This term is one of the author’s own suggestion, and it seems to convey very well the idea intended. These portions of the lung may be termed “inactive respiratory localities or areas.”

This explanation will perhaps suffice for superficial cases, but the question arises, is it possible for an undiscoverable lung inflammation deep-seated in origin to produce a pleurisy? We know that certain pneumonias are seldom accompanied with pleurisy until the inflammation reaches the serous coating of the organ, and it is fair to assume that all lesions inflammatory in character situated well beneath the surface would cause some pleural involvement. Whether pneumonia or pleurisy be the primary lesion the lung substance has lost some of its resistance by changes in nutrition, for when there exists any inflammatory trouble there must be the nutritional changes by impairment of motion, of expansibility and functions of air cells themselves. Again it has long been recognized that the apices are the most suitable residence for the development and growth of the tubercular bacillus, for there they have the least disturbance and they thrive better, the organism being of slow growth.

Professor Coats says: “The localization at the apex of the lung is probably related to the fact that the apices of the lung are the
least expansible and the germ is more liable to obtain a footing when it is left undisturbed. In parts where the air is more or less stagnant this organism grows particularly well. It must be mentioned that the tidal air, while it should reach well into the apex, does not do so, for we are as a class "lazy breathers" (if this term will be permitted). Seldom, if ever, do we use the tidal capacity until it reaches the apex, hence these organisms are permitted to grow and develop undisturbed.

What would be then further impressed on your minds is that the "respiratory inactive areas" formed by the described adhesion can be likened to an artificial apex of the lung. We have in them the same condition of the tidal air as we do in real apex, but with their lowered nutrition and limitation of motion by the obstruction of the inflammatory cell and resulting fibrinous bands. It is then in these apices or "respiratory dead" areas that the lung infection takes place.

Case I.—Girl, aged eight years.

Family History.—Tubercular conditions have been prevalent in the family for some years, the father being at this time in a "run down" condition. There is also one sister in a very weakened neurasthenic and anaemic state.

Personal History.—Many of the usual children's diseases. Typhoid fever; always subject to croup and colds on the chest with the least exposure.

History of Present Illness.—Mother noticed that the child was becoming careless in her school and had no desire to attend; with loss in weight and an increasing weakness. The fever at this time was a low one, coming on mostly in the evening after the meal, and as the night wore on a profuse sweat made its appearance. In questioning the nurse I received the information that the child had been treated for malarial fever, but she said that never did the temperature reach above 102 degrees, and then only in the evening. The other symptoms noted were pain in the left side of the chest, loss of appetite, some slight cough. Perhaps the most interesting feature of the case was the suggestion of the mother that the disease could come from an injury the child had received some little time previous, for she said the child had not been the same following a blow she had received on the left chest. At the time of the injury little was thought of it other than the attending bruises, and for a time
a little catch in the breathing. The mother added at this time that she feels positive the child was never the same after it.

Examination.—Child emaciated and with a flushed appearance. Tongue coated, abdomen swollen and tender to pressure, some tym-panites. Urine scanty and high colored. Examination of the chest showed tenderness over the injured side and a dull area at the base of the left lung extending posteriorly. The respiratory murmur was decreased on the left side and modified by numerous fine or superficial crepitations; vocal fremitus and vocal resonance diminished. A few days later there appeared coarser and distinctly crepitant rales. At the left apex there was some dulness and a little harsher breathing, but practically no cough. A little later she began to cough and began to be troubled with very weakening night sweats and some pain in the chest. One attack of coughing in particular was followed by a cry and a retch, with an expectoration of six ounces of green pus.

After this it was thought advisable not to wait, but to aspirate the chest at once, and if possible to drain the lung. The diagnosis now following the rupture of this abscess was a pneu-pyo-thorax, which could be determined by large bubbling rales and a flat percussion note.

The breathing became distressed and followed by a bulging of the intercostal spaces. The condition of the child now demanded further surgical interference, and this was begun with the hope of at least relieving the dyspnœa. An incision in the midaxillary line in the sixth interspace and resection of two ribs gave vent to a large amount of pus. The pleura was found to be covered with an exudate, which was found to contain the tubercle bacilli. There was also congestion and loss of lustre of the pleural surface. Thin, whitish flakes, mixed with some yellowish flakes, were scattered over it, and the appearance of the two surfaces presented very much the appearance of bread and butter (two pieces of buttered bread separated after having been pressed together), the so-called bread and butter pleurisy. Some few shreds of fibrine were also found on the surface. Abundant granulations and a firm fibrous band was formed by which the pleura was held down to the costal surface, but these could be brushed aside or mowed down with the hand. Following upon the liberation of the pus and respiratory collapse, which showed itself as soon as connection was established with the outside air by reason of our fingers breaking up the adhesion, the pleural cavity
was washed with a boric acid solution and a gauze drain introduced. The condition of the patient at this time was very grave, but she rallied and began to improve steadily until at the end of four months she left the hospital. A few months afterward upon being examined by an insurance physician the examiner made the remark that “the child looks well, but I do not like the left apex.” The child has remained in good condition for over four years, but her recovery did not seem complete until we changed the climate and put her on forced feeding with oil massage.

Pardon me if I cite another case.

Case II.—Male, aged 32, a blacksmith by trade, with a history of having been kicked on the right side of the chest some time previous and developing a pain and soreness and inability to breathe freely, which passed off in about ten days or two weeks. Examination at the time of the injury could reveal no fracture, but a severe tender-ness over the injured bone, general chest soreness, respiratory sounds and vocal sounds seem normal. Percussion note could not be determined on account of soreness occasioned by percussion. About five weeks after this injury he began to complain of his “old side going back on him,” as he put it; by that he meant that he began to have pain in the side. About this time there developed a cough, which increased in severity, and with this increase a corresponding increase in the pain, so that when he was examined he was found holding his side when he coughed. A gradual loss of weight, a night sweat and a low, sneaking fever developed, but the patient, thinking he could wear off the illness, began to work against advice, and in an attempt to lift a heavy sledge he said he felt something give way inside, so that he was compelled to give up work and felt so bad that he laid over night on the floor of his shop. He was taken home and confined to his bed and steadily grew worse until in three months the tubercular process had spread until it involved the whole side, rapidly spreading to the other lung with a gradual weakening and death.

Reviewing these cases we can say that in the first there is a marked tendency to tubercular disease, but in the second, the patient being in an occupation where muscular strength was developed and where out-door life was practiced, we could hardly expect to find it. It is significant that the child remained well until the time of the injury, and in the second case the symptoms developed closely on the injury, notwithstanding the strong and vigorous occupation
which he followed. In the history of the first case we find that early she had suffered from tubercular adenitis (cervical) and that they had been excised. It was thought at that time that she would go into decline, but that was six years previous.

In the second case does it seem a mere coincidence that this man should have remained well for so long, then immediately following an injury of this character he should have developed the trouble. Perhaps the most convincing argument in the favor of such relationship is found in the fact that, as far as physical signs are demonstrable, the process began at the site of the injury, which is decidedly contrary to the usual custom, unless it be considered that the germ lodges where it is used the best and that is in the quiescent areas of the lung.

The question now arises to what extent is the lung or the pleura affected by traumatism. That the pleura was affected is evidenced by the appearance of the effusion and that the deeper structures were affected is shown by the presence of the abscess of the first case. Whether in the second case the pleura or the lung was affected primarily is not to be considered.

Further reasons may be demanded by some, but it seems not unfair to assume that there exists a close relationship between injury to the chest-wall and consequent lung trouble; but if by calling into question the logic of the paper you arrive at the conclusion that all seemingly hopeless tubercular cases are not doomed, and that a certain percentage, particularly those resulting from traumatism, will respond to surgical interference, then will it have accomplished its purpose. This question is brought to you with the hope that the practitioner will find during his examinations of tubercular cases, diseased ribs, diseased pleura, lung diseases, which have been allowed to go unremedied when at least our surgeon's opinion should be asked concerning them. Let me conclude by offering you this as a diagnostic plea.
A CASE OF SUBDURAL HÆMORRHAGE IN THE RIGHT FRONTAL REGION; SUCCESSFUL LOCALIZATION; OPERATION; RECOVERY.

CLARENCE BARTLETT, M. D., PHILADELPHIA.

In presenting the various clinical phenomena making up the complete clinical picture of the following case, I shall adopt the unusual course of recounting the same as they were developed, rather than of presenting a condensed statement of the symptoms as viewed by those in attendance with the case successfully closed.

On March 25, 1903, I was asked by Drs. T. L. Chase and W. C. Goodno to see Mr. F. E. D., aet. sixty-three years, in consultation. The history as elicited at the time was as follows: In August, 1902, he consulted Dr. Chase for a deafness which seemed to be progressive. He was then examined by Dr. C. M. Thomas, who diagnosed a dry catarrh of the middle ear, for which very little could probably be done by treatment. Shortly following this deafness he developed a constant nausea, without, however, any associated gastric disturbance. At about the same time there appeared, on several occasions, an unsteadiness of gait, which was never observed by Dr. Chase. Then these symptoms were somewhat relieved. Tobacco, of which he had been very fond for years, became obnoxious to him. In December he developed vertigo, having two well-marked attacks during that month. This vertigo was characterized by being drawn to the right side associated with a sense of falling. After stopping for a moment he was able to resume whatever happened to be his occupation at the time. Early in February he began with severe headaches. These finally became constant and of great severity, but were always relieved when he assumed the recumbent position, and were made worse by any motion. About the middle of March drowsiness supervened, and by the 25th of that month it had increased to such an extent that he could be aroused with difficulty.

My examination was confined entirely to the discovery of objective symptoms. The patient was somewhat bald, and the right anterior portion of his scalp exhibited a slight öedema not manifested elsewhere. The scalp was absolutely normal posteriorly. There was
no sensitiveness to touch or manipulation. The left knee-jerk was more energetic than the right. The patient could be aroused sufficiently to protrude his tongue and grasp the dynamometer. The tongue was protruded straight. The dynamometer grasp of the right hand was 40; of the left, 15. The pupils were equal and moderately contracted. The ophthalmoscopic examination was unsatisfactory. His radial arteries were no more thickened than one would expect in a man of his age.

The intense headache, so strictly localized in the frontal region, offered two suggestions: One, organic disease of the brain, and the other, chronic renal disease. I inclined to the latter view until positively assured by Drs. Chase and Goodno that repeated examinations of the urine did not show sufficient kidney disturbance to account for the severity of the symptoms. In favor of the organic brain disease also were the relatively weakened grasp of the left hand, and the exaggeration of the left knee-jerk. The oedema of the frontal portion of the scalp was suggestive also of disease beneath. The problems next in order were the determination, first, of the nature of the lesion, and, secondly, its location. The history of the case as outlined to me led me to strongly suspect tumor. But the very rapid progress of the symptoms for the preceding three or four days seemed to negative that view with a fair degree of certainty. The evidence at hand favored a focal lesion. Excluding tumor, we had remaining abscess and hæmorrhage. The patient gave no history of either middle-ear suppuration or traumatism, and Dr. Goodno asserted his positive convictions that there were no lesions in any portion of the body capable of producing brain suppuration. The patient's son, who was admitted to the consultation, then called to mind that his father had sustained a severe head injury in June, 1902, while in the cellar of his home. It was sufficiently great to knock him down and force him to remain seated for half an hour after the blow. The beam against which he struck was dirty, and there was a scalp wound. The wound was to the right of the median line and over the anterior end of the parietal bone near the frontal suture. With this information I inclined very strongly to the opinion of brain abscess, admitting only as a bare possibility that of hæmorrhage. In favor of abscess were the infected wound of the scalp, the oedema, the rapid progress of the symptoms during the past few days, and the evident fact that the lesion was a focal one.
The next point to be determined was the location of the lesion. The prominent brain symptom was the mental cloudiness, suggesting a lesion of the frontal lobes. It is true that the vertigo and nausea made one think of a cerebellar lesion, but as these symptoms were long since ancient history in his case, a localization of that portion of the brain was dismissed from mind. for there was positive evidence of a frontal lesion in the edema of the frontal scalp. The right frontal lobe was indicated by evidence of right-sided brain disease, as shown by the exaggeration of the left knee-jerk and the loss of power of the left hand. Whatever the lesion was, it must be situated sufficiently near the motor area to affect the functions of that portion of the brain. At the same time, it must have been sufficiently far away to have paralysis as a late manifestation. The spot selected for trephining was just within the hair line and about an inch from the median line.

An operation was urged as offering the only hope for recovery, and was accepted by the family.

At 5 P. M. of the same day Dr. W. B. Van Lennep trephined at the point indicated. The process of going through the bone was unusually tedious, owing to the great thickness and hardness of the cranium. The dura beneath was unduly tense. An incision was followed by a forcible gush of a reddish serum, which was evidently retained under considerable pressure. Altogether, about one to two fluid ounces of this serum escaped. The completed incision discovered a localized sinking of the brain structure. At the bottom of this cavity was some old blood-clot. A lesion having been found, further operation was decided as unnecessary. The sinking in of the brain, or rather the failure of the brain to come forward on the relief of pressure, indicated the absence of any tension producing lesion as abscess in the cerebral substance. The wound was packed with iodoform gauze and the patient returned to his bed.

On the following morning he was perfectly conscious and headaches were gone. Everything promised an uninterrupted recovery. On the morning of the 27th he was again drowsy. There were coarse rales over the upper portion of the chest, but the heart and kidneys were acting well. The gauze was removed from the wound, and with it escaped some blood. Again the patient improved.

Favorable and unfavorable symptoms alternated for several days, during which time the wound was irrigated daily. Then a new set of phenomena appeared. The patient exhibited a pure Jacksonian
epilepsy. The convulsions began in the left hand and extended to the face and left leg, and were followed by paralysis of the left hand. He never lost consciousness throughout their continuance. These symptoms caused all interested in the case considerable concern. The advisability of another trephining was seriously considered, but, inasmuch as the patient seemed to be doing well in all other particulars, operation was dismissed for the time. These convulsions gradually became more limited, and after three or four days disappeared entirely.

There still remained a recurrence of the drowsiness to worry us. The condition of the wound did not permit us to entertain any possibility of a recurrent hæmorrhage. Inasmuch as this symptom had regularly recurred on alternate days, I advised the administration of quinine. From this time on the progress to recovery was uninterrupted. The patient reported to me at my office on May 3, 1903, and again on September 8th, as entirely well.

Looking back over the completed case we have to consider the finding of hæmorrhage when pus was expected. Certainly the lesion as found was not such as the symptoms suggested. As we study the phenomena of the case we are forced to the view that the injury produced a meningitis, chronic in character, leading to adhesions in the frontal region, and ultimately a hæmorrhagic extravasation, which was fortunately limited. Whether the Jacksonian epilepsy was explainable on the same ground is hard to say. Personally, I believe that it was dependent upon irritation of the motor cortex by escape of the irrigating fluid at the time of dressing the wound.

THE GENESIS OF PROFESSIONAL INVALIDISM.

W. D. BAYLEY, M. D., PHILADELPHIA.

Progress in medicine may be likened to the excavations of a buried and forgotten city. Many streets and buildings are thoroughly cleared, exposing their structures and characteristics in all detail. Other portions are but partially in view, leaving much yet to inference as to their real appearance; while on the outskirts are unexplored mounds and hillocks, the contents of which can only be matters of present speculation and conjecture.

Thus, the nature of many of our diseases is quite well understood; with others, our knowledge, while considerable, is less clearly defined,
and stretching beyond the lines of our vanguard of patient workers, one can discern the uncovered fields of future pathological, psychological and clinical research.

Among the conditions of which our information is as yet meager are the multitudinous things which the neurologist classes rather vaguely under the general term “neuroses.” These curious maladies with elusive pathology, so perplexing and yet so painfully evident in the actual practice of our art, have received only the broadest classification into “hysteria,” “neurasthenia,” “hypochondriasis” and the like. We are such creatures of habit (and one of our choice habits is to employ a name so often as to finally clothe it with purely fictitious meaning) that we are apt to talk learnedly of a given case as being “hysterical,” with as much nonchalance as we would refer to another as having pneumonia; losing sight of the fact that the one is a well understood pathological entity, while the other—well, who knows what it is? We even know of physicians who use the word hysteria as a term of reproach. “It is only hysteria,” say they, with a knowing look which is intended to indicate, “you can’t fool an expert with a trouble which is so perilously suggestive of malingering; we’re on to you, you’re hysterical.”

Let us take such a practitioner aside, seat him gently in an easy chair, and ask him, “What is this hysteria you talk of so learnedly, anyhow?”

Get out your stop-watch and time his answer. As was formerly the case with “biliousness” and “malaria,” “hysteria” and “nervous prostration” are merely convenient terms to designate but not to define.

Declining then to be enslaved by words which have no more meaning than the celebrated Abacadabra, let us direct our attention to a very general class of cases, especially designated by the title of this paper, and discuss the philosophy, etiology and the problem of cure, in so far as is possible in the light of present knowledge.

Mild and amiable looking as you all are, there is not a doctor in this room but who, after a lengthy and tiresome interview with some patient, has given appropriate vent to pent up feelings, and then muttered this awful paradox, “There goes a sick woman who hasn’t a darn thing the matter with her.”

Do you recognize the picture? Yes, I venture to say you do, and what is more, it is an experience relatively common.

Haven’t we auscultated, and percussed, and centrifuged, and mi-
croscoped, and haematokritted, and tendonhammered, and palpated
with entirely negative result; and still the patient has the audacity to
persist in complaining. In spite of our imperious "nothing the matter
with you," is she apparently any the less miserable. Is she a chronic,
forlorn, woebegone invalid from pure and deliberate choice?

It is now that we place the index finger of our right hand to our
frontal eminence, and with a flash of inspiration exclaim, "I have it;
it's nervous prostration!"

These cases which have to be differentiated from obscure organic
disease on the one hand, and malingering on the other, constitute a
not inconsiderable class whose multitudinous symptoms have been
purged and ironed by the old school, and played to on every gamut
of the materia medica of the new. They have tried all of the golden
medical discoveries placed upon the market at a dollar a bottle by
disinterested philanthropists; their dislocated bones have all been
osteopathed into place; they have been subjected by eminent special-
ists to the subtle influence of powerful prayer; mind cures of both the
"present" and "absent" varieties (the latter being certainly the more
agreeable if equally efficacious) have been the latest resort. Be-
yond this there is nothing else in view, and knowing that all things
move in a circle, I now pause to solemnly prophesy that in the near
future there will be a general return of all these invalids (who have
not meanwhile been reduced to impecuniosity, and, perhaps, thereby
cured) to the offices of the real sheep skin, sure enough Aesculap!

What are we going to do with them when they come back?

The symptoms of these chronic ailiers are so numerous, perplexing
and changeable (as anyone who has tried to match them in the
materia medica will warmly affirm), that it appears impossible, at
first sight, to delineate any one feature which they all have in com-
mon, and which could serve as a basis for classification and inter-
pretation. We have to co-ordinate the symptoms of the bed-ridden
woman who is sure she cannot walk with those of the man whose
life is miserable because he thinks he cannot think the same kind of
thoughts that other people think. The crotchety old woman who can-
not stand the least laughter or noise about the house, with the staid
respectable matron who has read her Bible copiously, and is sure
she has committed the unpardonable sin. The woman who has
built up a fantastic dietary as a tribute to an inexorable liver, with
the timid youth who is haunted with the horror of prospective lost
manhood.
In some it will be seen the symptoms complained of are entirely mental, in others the discomforts are physical, in most of them it is both.

In the comparative study of a number of these cases one is impressed first by the fantastic character of the symptoms; and, second, by their persistence in spite of what is at times considerable effort at self-emancipation. From the patient’s standpoint, the symptoms are sure-enough ones, and not imaginary phantasms capable of summary dismissal by the mandate of conscious will. We will notice that the prevailing characteristic of these neurasthenics, hysterics, cranks, hypochondriacs—call them what you will—is the unbidden persistence of morbid ideas which are not assimilable among the numerous and complexly inter-acting contents of ordinary consciousness; or, to use a crude analogy, ideas which are not soluble in the kinetoscopic fields of consciousness, and which persist as a blot or blur throughout the whole series.

A normal field of consciousness is very complex; it contains perceptions derived from our immediate environment; sensations dim or distinct, of our bodily and organic conditions; fragments of our past experience in present recollections; emotional states with all sorts of voluntary and involuntary determinations which we term impulse and will. The standard of mental health is sustained or represented by the mutual assimilability and co-ordination of these complex elements, determining lines of thought and action which are in fine adjustment to the necessities of the moment.

Bearing in mind this conception, it can be readily seen that morbid ideas are not primarily of the nature of absolute foreign bodies in consciousness; nor in fact can we point any sharp line of demarcation between normal and morbid ideas. In our ordinary life all of us have certain “mental indurations,” so to speak, in our mental activities, these constituting “individuality,” or the little “tricks of personality,” or “characteristic mental proclivities,” which makes each one of us differ from all of his fellows. Another step, and these mental “indurations” become “excrecences,” representing more marked idiosyncrasies, strong prejudices, oddities and eccentricities of conduct, and in the bodily sphere persistent and usually unaccountable physical discomforts. A more definite disaggregation of the currents of thought, and we have the fixed ideas and morbid fears like claustrophobia or astrophobia. And so on, we could trace these disintegrations and morbid segregations of the elements of the
stream of consciousness (as I have attempted to do elsewhere*) through the region of morbid notions and painfully recurring or insistent ideas out into the wider fields of hysteria and insanity proper.

The persistence, then, in the stream of ordinary consciousness, of some definite emotion, or fixed idea of bodily discomfort, or disability constitutes the psychical mechanism of this general class of cases which, for want of a better term, I have loosely designated as "professional invalids."

Where do these ideas come from? What is their manner of accretion, and why do they persist in spite of conscious will?

To fully answer these questions would lengthen this essay far beyond any time limit which could be reasonably granted by even your urbane chairman. To be brief, I am compelled to appear dogmatic, but no statement will be made which is not conceded by all those who, by reason of full acquaintance with the facts, are qualified to express opinions.

It has been ascertained through a study of dream states, spontaneous cases of alternating personality, somnambulism, and, more particularly, hypnotic experiment, that consciousness is not a term co-existent with mind. That beyond the narrow field which is illuminated by consciousness, there are many mental activities of which we are totally unaware, or but dimly so. These subconscious faculties which are at times partly exposed by the accident of "neurosis" or the design of hypnotic experimentation are found to possess qualities of which the conscious mind is not capable. It would even appear that in the subconscious mind memory is complete, our ordinary imperfect recollections being but the limitations of waking consciousness.

Another peculiarity of the subconscious, as shown commonly in hypnotism, is what is called "suggestibility." In hypnotic lucidity ideas can be segregated at the will of the operator, and may be made to persist after the return of the ordinary conscious state, as in familiar instances of post-hypnotic suggestion. I venture to say that in good hypnotic subjects every phase of what I have termed "professional invalidism," both physical and mental, could be experimentally reproduced and temporarily maintained in post-hypnotic awakening.

Nor is it necessary to induce hypnotic sleep in order to fasten a

*What is insanity?
dominating idea upon the waking consciousness. The shock of accident may do it as in the "traumatic neurosis," the ordinary influence of one mind over another is constantly resulting in new mental reactions, which may become fixed and permanent disabilities. Note how often the foolish and fussy mother is directly responsible for the "professional invalidism" which develops in her daughter. Do we not at least tacitly recognize this when we insist on isolation if a cure is to be hoped for? Does not that vile criminal, the advertising quack, with his skilfully worded book on the terrible calamities of "lost manhood," time and time again, sear the mind of unsophisticated youth with these printed abominations? Does not the asinine gospel pounder (now happily becoming an extinct species), who paints livid pictures with hell-fire, furnish goodly material among the weak and susceptible for the neurologist? Even the physician may not be guiltless of implanting pernicious ideas in certain patients who trust him implicitly, and are therefore in a condition favorable to the subconscious reception of a dominant idea. If you doubt this, let me cite an example. A young girl suffering with slight and perhaps normal menstrual discomfort is taken to a doctor whose chief qualifications are a wise look and long whiskers. He ruthlessly "examines" the youngster, and, turning to the mother, exclaims, "Very bad womb trouble, indeed; you came to me just in time; she needs local treatment." Local treatment she gets; but, alas! with it there goes a mental shock which has persisted as a morbid impression long after a really expert gynaecologist declared there was absolutely nothing the matter, locally, with the girl.

Mind has influence over mind, both to destroy mental harmony and to create it. In one susceptible by neurotic heredity, or mental preparedness, morbid impressions made in some such way as here outlined, or in manner much more subtle, may persist for a long time or even permanently as the invalidism of a dominant idea.

As it is produced, it can frequently, by utilizing the same processes, be so cured. The successful practitioner by his very mannerism abounds with unconscious healing suggestions in his associations with his patients. "I am better as soon as I see my doctor," is no meaningless phrase when applied to the tried and trusted family attendant.

Our knowledge, crude as it is, of psycho-therapeutics has already shown that here we have an ill understood curative agent of great power. Neglected by the medical profession, which has always
hated to walk anywhere but on its predetermined chalk-line, this subtle means of cure has fallen into the hands of all sorts of irregular and incompetent practitioners, and thereby suffers disrepute. Some day, perhaps, in the near future, some of our patient explorers will open up a new mound, and in it we will find clearly indicated the exact method of procedure for curing a psychic disease by psychic treatment.

DISCUSSION.

Dr. I. W. Heysinger: On the solution of these momentous questions, which Dr. Bayley has presented in a skeletonized form, depends the future of the medical profession. As these questions shall be answered the medical profession will endure, or it will pass away as an authoritative means for the preservation of mankind, and the functions which are now exercised by our profession will be taken on by another, kindred perhaps or antagonistic, but one which recognizes that we are creatures of mind and not of matter, that a fixed habit is far more dominant than a cancer. By some of us certain methods have been practiced for centuries, but not by all of us. Hippocrates did not so practice, and the great teachers of antiquity did not so practice. They walked with limited light, but they walked in that light. We walk in a realm of physics. We walk in a realm of matter. It seems to me that our profession is like those ancient scholars who believed and knew nothing but the map of the Holy Roman Empire, in which on a certain side it was marked “Frigid Regions,” and in another “Darkness,” and in another “The Region of Cannibals,” and the world that they knew was a world circumscribed by the Mediterranean on the south and by Northern Africa, and a little kink of land here and a little bit there, and they said, “This is the world, and all the rest is darkness and ignorance. We do not need to consider it,” and they did not consider it, and they do not consider it to-day. The way medicine is practiced to-day is somewhat similar to the following: A train is derailed and a hundred lives are lost. Surgeons are called from all parts, an investigation is made, and it is found to have been caused by a pile of stones on the track. That ends it. The cause was a pile of stones on the track. Somebody like Dr. Bayley gets up and says, “How did the stones get there?” “For heaven’s sake, sit down. We have things settled. It was caused by a pile of stones on the track.” Gentlemen, the man, the profession or
the branch of the profession that finds out what that pile of stones means and who put it there has a future. A fixed habit is a dominance. It controls everything. We say, "This is a cancer." How do we know it is a cancer? It is full of cancer cells. There was a time when there was just one cancer cell there, and before that a time when there was none, but one was about to develop. There is a realm of medicine behind these physical things, these appearances, and unless we recognize the fact that mind exists, mind controls and mind manufactures, we do not appreciate the true state of affairs. Mind is the master; matter is the servant. Before there was organized matter there was an organized mind. "In the beginning God created the heavens and the earth." I do not care whether that be the philosophy of the Hindoos, the ancient Mexicans, the Hebrews, the Christians, or whose it is, in the beginning was mind, and the mind fashioned and modified and shaped and made the matter into some sensible form, into some intelligent form, for there is not a man living who believes that matter is intelligent, so that there must have been a primordial intelligence. When John Tindall said that there was an impassable chasm between mind and matter, he, materialist as he was, recognized the fact I have just stated, and Huxley also said the same thing. When a man says, as Dr. Hammond has, that when the brain is quiescent there is no mind, he might just as well have said that when a piano is not being played upon there is no music.

The strata and substrata of mind that Dr. Bayley has touched upon are dominating factors. If you see wall paper disintegrating, do you say there is something the matter with the paper? No, there is nothing the matter with the paper. The paper is all right. There is something the matter with the wall. Every feeling that we have as a feeling comes from a substratum.

Dr. H. P. Cole: There is another side to this question which I think is perhaps a little more practical. It will help us along in our work in this particular line, if we will consider that a nerve has two ends. If the brain is capable of control over a remote part of the body by a message sent through a nerve, the other end of that nerve is just as capable of producing some disturbance in the brain. Just as you, from a remote part of the town, can call up the central by telephone by taking down the receiver, just so a small disturbance at some remote part of the body is capable of keeping up irritation at the central office, and when we give a little more attention
to that fact we will obtain better results in our treatment. One by inspecting the outside of the cervix of uterus cannot tell what is going on in the endometrium, along the line of the Fallopian tubes, or in the peritoneum surrounding that uterus, and in some of the nerve filaments in the rectum, or at any other part of the body. The term neurosis and others of the indefinable medical expressions, which are, as one man defined language, the means of obscuring ideas, should be set aside and more definite ones employed. If we carefully examine the body of the uterus, the condition of its substance, or the condition of some other part of the body at one or the other end of the sympathetic nerve, or at the end of the spinal nerve, we will often dispose of some of these chronics who are drifting about from one physician to another.

CLINICAL EXPERIENCE AND SYMPTOMATOLOGY.

S. W. S. DINSMORE, SHARPSBURG.

By the title of this article it seems clinical experiences come first. To the man who is busily engaged in the practice of medicine clinical experience comes not only first, but last, and all the time; in fact, his every day life is composed of incidents made up of clinical experiences,—one day you will see illustrations of one form of disease, and again it may be the type is changed from the infectious and contagious to those of an entirely different nature.

The past summer has been an active one. Typhoid fever has been accountable for the most of the activity. The greater number of cases in my practice have been those of the hemorrhagic variety, which tests one's faith as well as skill.

For example: Miss Ortha K. visited my office on May 12th, with a temperature of 103; flushed face, coated tongue, complaining of loss of appetite and pain in the limbs on exertion; with thirst at long intervals, but when she did drink she desired a large quantity. She received Bry. 3d. I was called in to see her the next day, when I found her A. M. temperature 103; I called again in the evening to find it 104½, but inasmuch as there was no change in the characteristics of symptoms, in other words, modalities, aching of the limbs, pain in the forehead, flushed face, nausea on rising, tenderness over the abdominal regions, with loose, brown passages, accompanied with pain, with the same character of thirst.—I continued the Bry.
3d, while I had her put upon a regulation diet of liquid peptonoids; the whole body sponged over with cool water when the temperature rose to 103.

Now there was no deviation from these symptoms for the next ten days, nor was there any change in the remedy. On the evening of the twelfth day, after I saw her, I was called back by a messenger, who stated she was having a hæmorrhage. She had passed, probably, a pint of dark, livery looking blood; she was somewhat ex-sanguinated, perspiring freely, with a sub-normal temperature. I had the nurse apply cold stoups, gave her Ham. 3d every fifteen minutes. In the course of the next hour there were two more hæmorrhages, in which she lost a slightly lesser quantity of blood, without pain, and after passing a restless night she fell into a doze in the morning, and from that time forward had no more hæmorrhages. I kept up the Ham. 3d during the day at intervals of one hour, and as her temperature rose to 103, and the other symptoms were in evidence in a modified degree, I went back to Bry. 3d. She made a slow, but complete, recovery, without further loss of blood, or any other untoward symptoms. She mainly got Bry. 3d the entire course of her disease; was fed on the liquid peptonoids and milk; she was confined to bed five weeks, but at the last interview I had with her she was regaining her color and seemed entirely free of disease.

Now she was only a type of many others; the peculiarity of the disease in this community this season was that almost every one affected with typhoid fever had the abdominal variety and suffered with hæmorrhages and relapses.

I believe that almost every individual I heard of, as well as those I attended, after having regained their normal temperature, had the temperature again rise, and for a shorter period go through the same symptoms.

Now I might multiply such experiences over and over again, for from the latter end of May until the fore part of September there was never a time when there was not many such cases on hand.

Now the important part of the matter to Homœopathy is that I found it all sufficient to save the lives of all but one, and that patient died from exhaustion after having been free of the fever at least two weeks. There seemed to be a lack of ability in the human economy to react.

The remedies laid down in Nash’s letters undoubtedly cover the
ground, while here and there one may run across some peculiarities of the individual, yet, take the human family big and large, very few of them will not respond when one finds the characteristic symptoms, and who can say that that few are curable? It does seem that there is a time in the life of man when remedies of no kind avail, and should one always blame themselves for not getting the right remedy in such cases? The greatest reform to be made in the treatment of typhoid fever in the future is the sustaining of the patient. It is a well-known fact that the foods at the present that are the most in use, namely, milk and meat broths or juice in some form, while they sustain the life of the patient, they are also typical culture media for the bacteria that is causing and prolonging the disease.

Several experiments have been tried with fruit juices, but so far the ideal nourishment has not been found; but that it will consist of some of the fruit juices, in which the juices of the pineapple enter largely as a factor, there seems to be no reasonable doubt, and I hope that experiments will go on until an ideal of food is discovered, namely, food that will sustain the human body and not the germ that produces the disease.

While it is true that there are very few cases of typhoid fever whose beginning corresponds exactly with the symptoms laid down by the books, and some physicians go as far as to say it is impossible to make a diagnosis before a rash appears on the abdomen, yet when typhoid fever is prevalent in a community it seems better to make a mistake in that direction than in any other, and yet sometimes a mistake is a very serious matter, both to the patient, to the family and to the physician, and it does seem to me, without the necessity of Widal's test, it is possible to make a diagnosis of typhoid fever, at least at the end of the first week. Many mistakes have been made by not clearly differentiating typhoid fever from small-pox.

Now if a physician has not had any experience with small-pox for many years, or, in fact, has been so fortunate, or unfortunate, as the case may be, not to have had any experience at all, he is excusable to a degree, and yet I think every one should be qualified to make a diagnosis between the two such ordinary complaints as typhoid fever and small-pox.

Much stress is laid frequently upon rare and unusual cases that may occasionally come to the knowledge of the physician, and, while it is true it is well enough to know the unusual when you see it, yet
it seems to me much more important to be able to distinguish between those complaints that we have so frequently to deal with.

Now I will give this case as an example: On the 12th day of August I was called by Mr. W. to see his son, who was taken suddenly and severely ill. The son, a young man, probably twenty years of age, a clerk in a large establishment in the city, had enjoyed good health heretofore. The symptoms that were most prominent were nausea, vomiting, severe pain in the top of the head, general aching and hurting of the body, coated tongue, offensive breath, easily exhausted by the slightest exertion. Now for these symptoms I gave Gel. When I called and saw him on the following morning his temperature had dropped from 101½, at my first visit, to 98; tongue was white, much like that of a person who had suffered from haemorrhages; still complained of aching, soreness and hurting all over the body; thirst for large quantities of water, which were immediately rejected by the stomach. When he rose to an upright position his head symptoms were aggravated; he became dizzy and nausea returned. He complained of severe aching pains in the lumbar regions, which had been a constant factor since I first saw him, and the remedies prescribed had given no relief. Now this symptom alone, if it had been alone, would have aroused my suspicions, and while he had been vaccinated in childhood, and had not, to my knowledge, been unduly exposed, I apprehended small-pox, and so stated to his parents. They were much alarmed, but inasmuch as nothing was to be seen on the skin desired me to call another physician in consultation, which I did. The other M. D., after what he thought was a careful examination, pronounced it a case of typhoid fever, but time proved it was small-pox. The rash was very slow in making its appearance; in fact, was more readily distinguished on the limbs than the upper part of the body for a few days, which of itself was misleading.

He went through an ordinary course of small-pox, having the confluent variety, and after about the usual length of time recovered.

Now there have been in this community many such cases of errors in diagnosis between small-pox and typhoid fever, but if one will remember small-pox is accompanied with severe aching pains, the patients always state they feel like their back was breaking, together with sudden fluctuation of temperature, it will put one on their guard, and I have found Rhus tox. 3d indicated more frequently than any other remedy. In the beginning of small-pox it
INFLUENZA.

M. J. HOLBEN, M. D., SLATINGTON.

Influenza, commonly called la grippe, is an acute infectious disease is slightly contagious, occasionally becoming epidemic in different communities. In its history may be said that the first epidemic occurring in this country in 1655 its etiology is difficult to explain, sex, age and climate having no influence. A bacillus discovered by Pfeifer, of Berlin, Germany, in 1892, is generally conceded to be the exciting cause. This bacillus has rounded extremities, is not motile, cultures are obtainable upon agar and grow at a temperature of 78° to 80° F. In its pathology have a profound toxaemia; catarrhal condition of mucous membrane of the respiratory and gastro-intestinal tract accompanying, may often have different forms or pneumonia, fibrous and purulent pleurisy, meningitis, cerebro-spinal meningitis and peri-neuritis. There are two common varieties, catarrhal and nervous. It is usually ushered in suddenly with high fever, great prostration, pain in the head, back and extremities, marked severe catarrhal symptoms of the respiratory and gastro-intestinal tract. The catarrhal variety has for its chief symptoms sudden high temperature of 103-104, coryza, severe paroxysmal, painful cough, coryza conjunctival injection, sleeplessness, a profound depression altogether out of proportion to the intensity of the disease. In other cases, having intestinal symptoms, nausea, vomiting, diarrhea, abdominal tenderness and typhoid state. In nervous variety usually have more or less of catarrhal symptoms, sudden onset, agonizing headache, hyperaesthesia of special senses, delirium is rare, but often find it intense in some, approaching to mania; slow pulse and respiration.

Diagnosis.—Finding the symptoms of sudden onset, agonizing headache, hyperaesthesia of special senses, fever and prostration out of all proportion to the other symptoms. In the majority of cases have the presence of an epidemic to guide you. In doubtful cases may resort to the use of the microscope by examining the respiratory secretions.
From typhoid fever is differentiated by the sudden onset, no typhoid eruption, no enlargement of the spleen.

Prognosis.—Influenza is rarely fatal, except through complications, and upon these we must mainly place our prognosis. In the treatment we should first of all insist upon our patient being in bed and at complete rest, no matter how mild the attack, there to remain until well.

A nourishing liquid diet should be prescribed, water, either hot or cold, as the patient desire it. Complications should be treated as independent conditions.

The different remedies I usually find occasion to use in treating a case of influenza are Gelsemium, generally one of the first, sneezing, worse usually in the morning, and spasmodic, nose red and sore, internally and along the edges, neuralgic pain in face, going up into the head and down in the shoulders; patient gets drowsy, lanquid towards evening, sore throat, especially the right tonsils swollen; a feeling of fullness in the throat, cough, husky or loss of voice.

Aconite Nap.—Dry cold winds, burning thirst, everything tastes bitter except water, vomiting, with intense restlessness; colic, has to bend double, but gives no relief, anxiety and fear of death.

Bryonia Alb.—Bleeding of the nose, with headache; drinks seldom and much, eats often and little; Arsenicum, drinks often and little; a purely involuntary cough, aggravated by eating; lips dry and cracked, heavy coated tongue; Bryonia acts powerfully on all serous membranes, and also affects the muscular tissue itself. My experience teaches me as a rule Aconite or Gelsemium begins a case of influenza, Bryonia completes the cure.

Allium Cepa.—From northeast damp winds the discharge from the nose excoriating, profuse, watery and acrid, dripping from tip of the nose. Eyes burning, bite, smart, suffuse as from smoke.

Merc. Viv.—Profuse fluent corrosive coryza, rawness in throat, with burning pain or swallowing; dry spasmodic cough, caused by damp weather; slimy, bloody diarrhoea.

Arsenicum Alb.—Affects the upper portion of respiratory tract, the nose and larynx, a violent coryza, with copious watery excoriating secretion; a burning pain in the frontal cavities, dryness, with burning in the larynx and trachea, with hoarseness and cough. These are some of the best remedies in my experience of treating a case of influenza, but we always should be guided by the law of similia similibus curantur. Merc. cor. sub. 6, size of large bean, put in a
cup of hot milk and drinking it, will control the vomiting and diarrhoea due to influenza.

OUR HABITS AND WHAT THEY DO FOR US.

C. SPENCER KINNEY, M. D., EASTON.

It seems unfortunate to many of us that what we come to know as true through long years of perhaps hard experience cannot be passed on in all its fullness in order that others may profit by our years of observation and study. We can, however, do something by patient repetition, and though we tell the same things over and over day after day, without being able to detect results from our efforts, yet I am sure that favorable results more often follow than not.

Our first duty may be with the children, and here our work is often of untold benefit. We see little, nervous, ill-nourished children being made the pets of injudicious parents and relatives,—fondled, teased, played with and jumped in the arms of their enthusiastic admirers, when rest and an opportunity to sleep is what they most need. I believe that much nervousness, irritability and in some instances marked mental deficiency can be traced directly to this wretched interference with nature's laws during the early life of the infant. He should be kept quiet, given a proper amount of food that is duly assimilated, and permitted to sleep the greater part of the time, not walked with, tossed, trotted or rocked.

Measures should be taken to prevent such habits as sucking the thumb, and biting the nails, on their first discovery, as the former interferes with the growth of the teeth, and the other deforms the nails to such an extent that well-shaped fingers cannot be hoped for in after life,—and the habit also indicates a sexual disturbance that should be carefully looked after. Circumcision should be performed whenever necessary, as an elongated or tight foreskin irritating the part often induces masturbation at an early age, especially in those possessing a nervous organization.

The little things that may at first be easily corrected frequently give us the most trouble in later years, and it would be better if every family could have a physician visit them every few months while the children were well, in order to go over them carefully and ascertain whether they are indulging in any habit that is likely to
be injurious to their physical, mental or moral welfare. Parents ordinarily have not had the experience necessary to detect or correct these evils, and as the child goes on and attends school he comes under the charge of teachers, who, as a rule, have but little interest in his development along healthy lines. We do not hesitate to tell an adult of any habit that may be endangering his life or sanity, consequently we should feel it a more imperative duty to save the children in every way possible, so that they may reach the age of maturity with well-formed habits of mind and body.

A child's training should be as free from emotional strains as it is possible to make it. Fear should never be a part of the child's discipline,—as this fear brought unthinkingly into his early life may ever afterward belittle his efforts to make the most of himself. This may seem trivial, but is not so, as I have heard men of mature age claim that it had followed them in everything they had attempted, and that they could trace it back to their earliest impressions. Probably nothing engenders a half-hearted effort more than this nameless fear or doubt which surrounds the whole mental atmosphere of these people.

The age of pubescence is the most trying one in the life of every child, especially in those possessing a nervous diathesis. As a rule, parents do not realize or understand the dangers of this period in the lives of their children, and added to this lack of knowledge is a false modesty, a mawkish sentimentality which prevents them from explaining to the child the things it has every right to be intelligently informed upon. If the injury done by the vile misinformation which comes from unprincipled servants and pernicious associates at school and elsewhere was understood by parents as it is by physicians there would be less for us to do in our efforts to correct bad habits formed at this period.

Children cannot be taught too early in life the necessity for keeping their bodies pure, and to avoid irritating in any way the sexual parts, but the pubescent age brings with it a more urgent need for their having a thorough understanding of their changing condition. Often long before this age self-abuse is taken up and carried on to perhaps an unfortunate termination by those having a predisposition to nervous and mental disease. These children are usually introspective, conscientious and inclined to be religious, and this practice is more common with them than many of us realize. The habit of self-introspection feeds upon idleness, and acts like dry-rot upon
any personality. In the majority of cases of this kind it is possible to replace sentimentality in the child by developing the will-power and judgment through timely suggestion, and by reading, regular work and proper associates. Recollect that nothing is a greater help than making them responsible for the accomplishment of certain duties, and moreover there must be instilled in them a thoughtfulness for others, and a pride in keeping their minds and bodies pure and sound.

It is the physician's duty to see and correct these conditions, and as girls are more emotional than boys they should be more closely guarded, especially in the study of music, the reading of trashy novels, which, added to carelessness in diet and the taking of too little exercise in the open air, will lay the foundation for many a well-deserved sermon.

Much good may be done by the advice given to women in their early pregnancies, both for the mother and the future health and disposition of the child. Do not let any fad that is inconsistent with health dominate the mother at this time. She should be advised to use care in her diet and in the use of intoxicants, to avoid fits of depression, take plenty of exercise in the open air and cultivate a cheerful' outlook. These are the objective points to be impressed upon the patient and her relatives, who, however, well meaning, frequently create an atmosphere that is quite as pernicious to the patient at this time as would be that of a malarial swamp. And this is where all your tact and firmness and diplomatic skill will need to be exercised without hesitancy. Be sure of your position and of your knowledge of the case, and then speak so that no one will feel that you have any uncertainty as to what is best to be done.

When it comes to doubt and indecision on the part of our patients we must encourage and sustain, making them feel that there is no reason for fears, which, if continued, will insensibly grow into delusions, especially with those who possess a certain nervous predisposition to mental disease. Worry has caused more trouble than any one thing I can name. It is a wretched habit of the mind that invites disaster to every human effort. Break it up whenever met with, for it is a curse to every one who indulges in it. We should study the emotional nature just as carefully as we do any physical symptom, as our mental states govern our lives.

Those who use tobacco have a peculiar poison to deal with. Many who use it freely, and with apparent immunity from any bad ef-
fects, while others find after using it for some length of time that the heart's action is more easily accelerated, their appetite lessened, and their ability to exercise interfered with by shortness of breath, a feeling of dizziness and faintness, and a diminishing degree of strength as well as of endurance. When these symptoms are recognized, and they are accompanied as a rule by a lessened pleasure in the use of the weed, it is time that tobacco be given up, whether one has been smoking or chewing, although the latter habit, I believe, produces less ill effects than smoking. These symptoms generally occur unexpectedly, and all within a short period of time, and are to be considered as cumulative effects of the nicotine poison. The only thing to do is to stop the use of tobacco, when the symptoms will disappear. They will, however, recur soon after a return to the habit. One suffering from nicotine poisoning should practice the art of deep inhalation a number of times each day, taking care to breathe fresh air through the nostrils, to retain it until the heat of the lungs expands it, and then to slowly exhale it. Simple as this thing is, it is too many times overlooked, for it is of decided benefit in every form of nervous difficulty in which there is an irritability of the nervous system.

With the boys cigarette smoking is a most unfortunate habit and wrecks more lives than many outside the medical profession realize. Inhaling the smoke poisons the lungs, rendering it impossible for the blood to become sufficiently aerated. Nutrition is interfered with, which, taken in connection with the poison of the nicotine itself, produces a benumbing action upon the developing mentality that is evidenced by a lax expression, flaccid mouth, nerveless manner, and a dullness of the moral and mental faculties—all of which strongly suggest the drug habitue. A young cigarette smoker cannot take prolonged exercise with ease, and an ill-defined perception of the truth accompanies the habit. Until he is twenty at least a boy should not use tobacco. Dr. Crothers says that the injurious effects of tobacco may be more readily observed in his descendants than in the individual user, and that "in not a single instance will the children, especially those born after the habit had been long indulged in, possess an equal degree of vigor and endurance, and particularly in not a single instance can they indulge in the habitual use of tobacco without experiencing the injurious effects which their fathers may have escaped."

Among the things that lead the State Homeopathic Hospital, of
Middletown, New York, to a success second to no other of its kind in this country was a recognition of the fact that mentally sick people needed rest and individual treatment. Dr. Selden H. Talcott, the medical superintendent, was one of the first to recognize the importance of this, and from a daily observation of his methods for years I feel that he taught a lesson which should be an inspiration to every one of us in our efforts to treat disease.

Exercise is frequently recommended to those who are worn out physically and mentally, to whom further physical effort is actually suicidal. No exercise can be safely taken by one who has exhausted his vitality beyond the degree of easy recuperation. If taken in excess of this point it draws upon his resources and diminishes the amount of strength it is necessary for him to have in order to make a good recovery. In my opinion, exercise is being carried to a point where that is decidedly dangerous to many of nervous temperament and weak heart action. It is a matter of surprise to me,—the number of cases which come under my care that have a history in which exercise in some form or other has been carried to excess. Even with a physically depleted frame more exercise is urged upon those possessing a restlessness of body and a confused and irritable state of mind that calls sharply for rest and a storage of every available element of physical and mental strength in order to make a return to health possible.

Baths of various kinds have become the fad during the past few years, and in many instances have been prescribed recklessly. Cleanliness is necessary to health, but water is an agent that must be used cautiously in connection with those of neurotic temperament. A nervous patient with a weak and irritable heart, subjected to a prolonged bath or needle spray, becomes exhausted to such an extent that only those who have seen or experienced such a result can appreciate it. A shock to a nervous patient means the giving up of energy that he cannot afford to lose.

The greatest care should be exercised with those having the insane diathesis, as a habit with them is easily formed, persistently adhered to, and is with difficulty broken up. The ease with which certain ones will be induced to rely upon drug effects for strength and enjoyment is deplorable. One patient will take morphine for months and then give it up without difficulty, while another will be given it for a few weeks and it becomes a matter of tedious moment to break up the desire for it. As homœopaths we are seldom likely
to be denounced for giving morphine, but when we do find it absolutely necessary to employ it we should never allow the patient to know what he is taking, and under no circumstances should he ever be allowed to inject the drug for himself. A great responsibility goes with the handling and prescribing of both morphine and cocaine.

Alcohol is contra-indicated in brain difficulties; injuries to the head; sunstrokes; apoplexy or any gross brain disturbance. The only exception to this rule is after exhaustion from continued effort, shock or threatened collapse. The indiscriminate drinking of whisky at any and all times throughout the day is done less generally now than it was twenty or thirty years ago, to the advantage of all concerned. After business hours, preferably just before retiring for the night, is the safest time to use it. However, it is something we must consider in the same light as we do a drug, and use it accordingly.

Sexual errors are probably the hardest ones to combat, and they are generally the last ones spoken of to the physician, when they should be the first to come under consideration. The fear of bearing children has led to preventive measures that prove injurious to both, but more particularly to the man. Neurasthenic states have been directly attributable to perverted sexual habits in many cases that have come under my observation. The attempt to cheat nature seldom meets with success, and there is no more obstinate depression of the nervous system to treat than that resulting from sexual exhaustion arising from perverted habits.

For seventeen years I dealt almost entirely with men, and had all the various forms of mental disturbance under daily observation during that time,—and I found that about 25 per cent. of these cases had histories of masturbation more or less prolonged. This was a much larger percentage than I at first believed possible, but the percentage among women exceeds even this, and is due, I believe, to their more restricted lives, lack of proper exercise, and in many cases to the great amount of time they are left to themselves as children and young women—with nothing to do,—their imagination leading them along emotional lines to their undoing. This habit of self-abuse tinges the whole life, perverts childhood and affects a healthy mentality in the most unmistakable manner. There is an irritability of disposition, a tendency to varying moods, with an inability to do prolonged mental work; an exaggerated conscientiousness that is
erratic, whimsical and very persistent in its exhibition, which, combined with hyper-sensitive nerves and the habit of introspection, gives us an unstable individual with the mind tending toward degenerative changes. This is a preventable condition, but in the beginning requires the keenest judgment and perception on the part of the physician to detect and approach this trouble in the right manner. The habit can be stopped and each individual should know the terrible results accruing from prolonged indulgence in this habit, know that failure lay ahead for them in everything they attempted,—that the mentality and self-confidence so necessary to success in this world was slipping away from them into the gloom of dementia, which we so often speak of as the grave of the human mind.

Something can be done for these people if rightly advised in the beginning. We physicians come into the most intimate relationship with our patients, and in many cases probably know them better than they know themselves, and it is our duty to caution them against the continuance of any habit or method of living that we believe prejudicial to their general health and well-being. The physician's duty lies not only in the treatment of disease, but in the prevention of it, and whenever he sees either the mental or physical health of an individual menaced by an unsanitary habit of thought or action he should point out the dangers so clearly in words so strong and to the point that they can never afterward be wholly forgotten. But unfortunately much of our time is given to patching up human wrecks, where, in spite of our best efforts, we can hardly be proud of the results.

We may find stimulus in the following admonition by Amiel:

"He who is silent is forgotten; he who abstains is taken at his word; he who does not advance goes back; he who stops is overwhelmed, distanced, crushed; he who ceases to grow greater becomes smaller; he who leaves off gives up; the stationary condition is the beginning of the end,—it is the terrible symptom which precedes death. To live is to achieve a perpetual triumph; it is to assert one's self against destruction, against sickness, against the annulling and dispersion of our physical and moral being. It is to will without ceasing, or rather to refresh one's will day by day."
In thinking over the subject for a probable paper that I might produce for this meeting, the first thought that came to me was something like this: This is a bureau where the experiences of the physicians at the bedside should be most prominently mentioned. This society represents a belief and adherence to a fixed principle by which the physician believes he will relieve and cure his patient, namely, a belief in the principle of similia similibus currentur, likes may be cured by likes, and the question is oft put to the general practitioner, because of this fixed principle that this society represents, namely, what is the difference between the method of prescribing under your system as compared to the method of prescribing under the so-called old school? This question undoubtedly is put as frequently to our brother on the other side of the fence, who probably also does not believe anything as to the principle of similia similibus currentur. There is no doubt truth in the principle of allia alis currentur, which is also, I believe, not denied by the members who believe in the principle of similia. But it is not a question when we come to the bedside as to what principle we are guided by in relieving and curing our patient. It is our duty to use that which seems to our honest and most enlightened convictions to be the best and quickest relief for our patient. But the law stated or the principle claimed for that is best, simply upon that likes may be cured by likes, does not deny that there may not be cures by some other principle or law. To answer the question then to the laity, the natural tendency of the physician is to put up an argument in favor of his side of the case, be he homeopath or old school practitioner, and whatever side of the fence the individual practitioner may be on, the tendency is individually to glory, as it were, in the results brought about by individual efforts, and while we ascribe to the law of similia similibus currentur, as homoeopathic physicians, and that which makes us feel more proud in results accomplished more than anything else, is that we do get results positively under the principle or law of
similia. The tendency of the times, however, in every department of
learning is to prove everything scientifically in such a way as seems
most tangible to our every-day faculties, but when it comes to deal-
ing directly with the forces of the human mechanism that have gone
wrong, because of this tendency of the times, we are led to medicate
with a remedy that we know acts physiologically, and we tend to for-
get the great experiences and apparent truths that have been handed
down to us by the great masters in symptomatic prescribing.

Then, too, the great principle of surgery, namely, of placing
everything upon the basis of antisepsis, asepsis and on general nutri-
tion, of trying to neutralize the vital forces diseased by a remedy
that acts antiseptically, leads us also to forget that there is a chemistry
of the life of the cell that makes up the different organs of the human
mechanism that can and will respond, even where surgical pro-
cedures have been adopted, to carefully symptomatic prescribing.
Antisepsis and asepsis are all right where they can be applied without
destroying the cellular tissue or cell life, but typhoid fever and
similar inflammatory states in the deeper structures of the human
mechanism cannot be cured antiseptically, unless this antisepsis is
so highly attenuated as to approach the attenuations of homoe-
pathic single remedies, for we know the antisepsis necessary to de-
stroy, or rather neutralize, the germ will tend to more quickly kill
the vital forces of the whole patient than to abate the disease; as we
have heard from the other members and bureaus of this State So-
ciety meeting much that tends to deal with physical and mechanical
action and physiological appliances, this department of clinical medi-
cine offers an opportunity if the practitioner will closely study the
results he obtained from his simple remedies prescribed sympto-
matically on the principle of similia similibus curentur, and this
paper is intended to touch up, as it were, and bring out by discussions
the experiences that we have had in prescribing under our law at
the bedside. We have all had cases that come to us from our brother
practitioner, as well as from our confreres among the old school,
but, as I said before, we like to glory in our own individual results,
and, anyway, when it comes down to the individual it makes no
difference what school the general practitioner belongs to, for he is,
as it were, a law unto himself when he comes to the bedside to pre-
scribe for his patient. I have selected a few cases from my general
practice where the simple remedies prescribed on the principles of
similia have shown most satisfactory, yes, I dare say, brilliant results;
we all have such cases, and it is your duty, it seems to me, to make a public record of them, for it helps others become more positive in the belief, in the use of remedies that have stood the test of time, and that apparently in very extreme cases, even, have somehow brought about a change for the better.

I will cite such cases as have come to me through the hands of the old school practitioners, not for the purpose of reflecting upon what may have been done, or what had been done, but simply to show what were the results in these cases when prescribed for under the principle of similia; and these cases were emergency cases, not in the sense of emergency cases such as accident cases might be, but you will see in what sense as I go on, and they prove, it seems to me, results that can be brought about when we happen—alas! that we must say happen, for if we were more diligent it the study of the beauties of diagnostic symptoms of remedies no doubt we would happen to strike the right homœopathic remedy more frequently and prescribe it, and know how to prescribe it at the right time.

A few months ago I was called at midnight (and I was myself not feeling very well) to attend a case that had been ill for five days; three physicians had been prescribing for the case, and the message calling me said: "Come at once, a young man is dying of convulsions and hiccoughs." I answered, saying, "If the case is as extreme as that my assistance would no doubt be of no use, especially since other physicians were attending the case." The second message came begging me to please come as quickly as possible. I yielded to this second entreaty, went, and found the family that I was called to in tears, and in the sick room four men were holding a young man down to prevent him from injuring himself while in a convulsion. It seemed to me a terrible state of affairs for the first moment on entering the room, but I was impelled to stretch the sphincter muscle with my fingers, not having a rectal speculum with me, and pull back the preputial tissues from the glans. He had been receiving medicine, of course, and had also been narcotized with hypodermic injections of morphine. What was the homœopathic remedy in this case? It certainly was an emergency, was the question that stared me in the face, and especially after hearing the history of convulsions intermitting with hiccoughs for five days; and now a devitalized state of the system from the terrible strain as well probably as from the drugging. I could get no symptoms, only it seemed to me as though Nux vomica ought to do something, so I put some Nux
vomica powders in a half glass of water and ordered a high saline enema per rectum. I ordered Nux vomica to be given every fifteen minutes for one hour, and thereafter every hour. The convulsions having subsided after the stretching of the rectum, and a large movement of the bowels brought about by the enema, the young man quieted down in the course of an hour and I went home. In calling the next day I found this patient very much better; it was 2 o'clock in the morning when I saw him the day before, and I endeavored to learn more about the case. Going into the history of the case, getting at the source of the trouble, I learned that he had had worms; my diagnosis then in this case, and the young man was 20 years old, was a condition of disturbed digestion due to a parasite, although I didn't see any worms. This case became somewhat of a prominent case, because it was mentioned in the daily papers, and had even been noted by the Metropolitan papers. The family received letters of sympathy from all over the State, from people who had had experience with hiccoughs and convulsions where doctors had failed to relieve the hiccoughs and convulsions—these good people suggesting different things that had been used in such cases of hiccoughs and convulsions where doctors had failed, and it would be amusing to read the remedies suggested by these kind-hearted people all over the State; yes, from as far out as Ohio and Chicago even, who wanted to help save this young man's life from hiccoughs and convulsions where doctors had failed. These letters with the advice coming even for a week after I had commenced treating the case. About four days after I saw the young man for the first time he was out again among his friends, everybody was happy to see him about, and the cure was pronounced wonderful; simple, however, was the cure and the prescribing that had the effect which brought him out of the terrible difficulty from which he was suffering.

About two months after this time the same young man was taken with hiccoughs and convulsions, and again at midnight I was summoned to treat him; it seems as though this tendency had become a midnight horror to the young man and his family, and was something of a midnight shock to me when I was summoned again to treat him; but having had the experience with my Nux vomica and my saline enema, I tried the same prescription, but I could get no symptoms of worms, and he had not been drugged. This second time of hiccoughs and convulsions he was, however, constipated and also he had not been passing his urine as freely as he ought; I could get
no albumen in the urine from a previous test, and I could not think that this was due to albuminuria, and so I concluded there must be a condition of hysteria in this case; still I relied on my Nux vomica, and I also gave him, hypodermically, 1/60 of Strychnia, as his pulse and heart seemed to be, and, indeed, were, very weak. I remained with him for an hour when he quieted down and I went home. The next morning I was summoned again, telling me that the hiccoughs and convulsions were still persisting. It seems to me as though I were, to use a somewhat slang term, "up against it," but I stretched back the preputial tissue from the glans penis, took out my pocket scissors and decided to try an experiment; I snipped the frænum, but in order to cut the frænum as deeply as I wanted to I had to make two or three efforts to cut through it, and each time I made the effort to cut I observed hiccoughy responses, indicating apparently a symptomatic relation existing between the frænum and the centre of the pneumogastric, apparently the source of the irritation, causing the hiccoughs. It was a very interesting observation, and no doubt some of you have found it existing, but you will if you ever have an opportunity to witness a case of this kind.

By cutting through the frænum and prescribing for my case symptomatically, and thinking of remedies lying in the hysterical realm, the young man improved at once; the hiccoughs ceased, the convulsions stopped gradually; but the cure, as I call it, was augmented no doubt at all to the similar remedies, namely, Ignatia, Nux vomica and Arsenite of copper. This case has been one of the most interesting that I have been called to attend during the past year. and has won some commendation as well as proved the efficacy of physiological action, adjuvants and the indicated homœopathic remedy, and I cite it to you, believing it a most interesting case.

Another case:

A lady about 28 years of age who had been ill for over a year. She had been prescribed for carefully, too, by first-class physicians, and it had been decided by these physicians that the only thing to relieve her of her continual suffering was that she should have a laparotomy done and her ovaries removed to cure her of her ills. In fact, arrangements to do a laparotomy in two days at one of the private hospitals of this city here, had been made. Her husband was persuaded, however, to call in another physician before allowing an abdominal section to be made, and it was my lot to see this patient. She had never had any homœopathic medication before. The history
of the case as it was given to me was something like this: "This lady had been married for about four years; she had during the first two years of her married life given birth to a still-born babe; in the third year of her married life she conceived again, and during the period of pregnancy she was one of those unfortunates who have all kinds of symptoms we find during the period of gestation, and which so often puts us to our wits' end what to do to relieve the distressing symptoms of nausea, vomiting, albuminuria and convulsions; her second baby was born and lived one week, and she nearly lost her life in puerperal convulsions; she was anxious for her child, but the terrible strain of the last two pregnancies upon her system had shattered her nervous system, as it were, and she became, in addition to the conditions already mentioned, very hysterical, and had pains almost everywhere, in the head, in the back, and all kinds of symptoms radiating from the pelvic organs. I went over her case carefully as I could, took notes on the case, examined her thoroughly as I could, per rectum, vagina and abdominally, and the case, indeed, was obscure. It seems to me right here a very important and great help to every practitioner is to take notes on a case to get a picture of the case in order to be able to prescribe a remedy that may cure the case on the principle part of similia. This patient had been drugged with all kinds of polypharmacy; she was constipated very much; she had had some expectorating of blood; she had hot flashes and a hot spot on the top of her head; she itched all over her body; she was worse about 11 o'clock in the morning; she had an all gone sensation in her stomach, and a leucorrhoea condition existed. It seemed to drain her, as she called it, and the symptom of taste of blood was also quite marked. I gave her on general principles Nux vomica, and told her I would call again the next day, and prescribed what seemed to be indicated when on first seeing her. namely, Sulphur powders, the 30th trituration. Why it is that the trituration in the 30th potency in my hands seems to be more efficacious when I prescribe them than the lower potencies, and I have a full set of the polycrests in the 20th trituration, I do not know, nor do I believe it is tangible to anybody in these days of thinking scientifically, but we do get results, and every day some one gets some remedy of the 30th trituration from me. This was also, indeed, an extreme case and an obscure case, too, and somewhat of an emergency case, too, and in opposition to the opinion of men who are considered first-class diagnosticians, my advice was to hold on for a week or two before having a laparotomy
done, and with prescribing on a symptomatic basis as best I could, I thought we might bring about a condition that would make a laparotomy unnecessary. After about three weeks of prescribing the remedies which seemed indicated on the principle of similia, the results were indeed surprising, as you will see. The patient made from the time that I first saw her a continual improvement. The nervous symptoms gradually disappeared, and in about five weeks from the time the case came into my hands the patient was out calling on her friends, and ultimately made an uneventful complete recovery, and is to-day a perfectly well woman and has not had a laparotomy. The remedies prescribed in this case were Nux vomica 3x, Sulphur 30th, and Cannabis indica. You have all, no doubt, had similar experiences, and such experiences and such results cannot but help to prove the efficacy of principle that likes may be cured by likes.

I have no excuse to make for this rambling paper, as it were, but as said before, while there is not much opportunity for discussion and arriving at and formulating tangible two and two problems are four, but these experiences prove that the greater part of the work that we do in general practice is done upon the truths that have been handed down to us by the great masters in the proving of the single similar therapeutic remedy, and it is these proofs that we get ourselves in our daily experiences which should be recorded to strengthen those who come after us and as well who are with us to-day in the value of the teachings of the founder of the school that we represent. And, furthermore, we as well represent the benefit that the advanced scientific therapeutic teachings offer for Homoeopathy simply affirms truth and does not deny it anywhere, and its followers are as eager to give their clientele the benefits of anything and everything that positively proves its scientific value to relieve human suffering.

DIET IN CHRONIC NEPHRITIS.

F. MORTIMER LAWRENCE, M. D., PHILADELPHIA.

For many years, certainly since a time antedating by a long period the entrance of most of us upon the practice of medicine, it has been customary to limit and often to prohibit the ingestion of albuminous foods by patients suffering from chronic nephritis. Without, for the present, indulging in any criticism of this generally exercis-
ed prescription of proteids, it would be interesting to inquire into the reasons which have led to the general recommendation of a non-nitrogenous diet in these cases. Probably the discovery by Bright that kidney disease was accompanied by albuminuria afforded a starting point. What could be more natural under the circumstances than to prohibit albuminous foods and so endeavor to banish the abnormal urinary constituent? Possibly this same thought has to some extent underlain our dietetics ever since, even though we all know that the ingestion of proteids bears no relation to albuminuria, nor is the presence or absence of albumin in the urine, or its amount, any criterion by which we can judge the renal condition. We all know that albuminuria is not due to the ingestion of an excessive amount of proteid food, but to a lesion of the renal parenchyma whereby the normal barrier to the passage of albumin from the blood is removed. The undoubted participation of gout in the causation of nephritis, and the wide-spread acceptance of Haig's belief that the gouty state was due to uric acid derived from albuminous foods, has more recently constituted a popular explanation of why proteids should be forbidden our nephritic patients. But recently our views have changed, for Haig's doctrines are antagonized by practically all physiological chemists. Haig's theories are tottering, and the tendency is to look to an auto-intoxication, having as its source intestinal putrefaction, for an explanation of the gouty phenomena. It may still be urged that urea is formed from proteid materials, and this is true. But uremia is not due to the presence of urea, no matter how much of it is present. There is no evidence that over-ingestion of proteids, even though they become converted into a formidable percentage of urea, has the ability to produce uræmia. But even were this demonstrable, the question is not whether we shall permit our patients to consume excessive amounts of albuminous food, but whether it shall be prohibited either in whole or in part.

One sound reason, and only one, can be urged in favor of the exclusion of meat and eggs from the diet of the patient with contracted kidneys: and that is to save the diseased organs from unnecessary work. This protective therapy is based upon the same principle which leads us to rest an overworked heart and avoid overloading a weakened digestive system. In theory it is perfectly sound. In practice it is wise only within certain limits. It is safe only so long as it does not damage some other organ or weaken the system in gen-
eral. In particular it is dangerous if, as may readily be the case, the
diet affords insufficient nutrition for the heart muscle: for upon
complete cardiac adequacy depends the life of the patient.

Another injunction which has usually accompanied the restriction
as to meats and other proteids, and one still much in vogue, con-
cerns the taking of water. “Drink large quantities of water, so as to
flush out the kidneys,” is the advice given time after time. Now, I
am not inclined to dispute the fact that many patients drink too lit-
tle water, and that not enough fluid is ingested to keep the waste
matters in solution for elimination. Nor am I questioning the ad-
visability of administering water to dilute the poison-laden blood and
stimulate elimination in uraemic patients. My query is, is the in-
gestion of water in large quantities a desirable routine procedure in
the treatment of chronic nephritis?

I question it very decidedly, and for two reasons. In the first
place the drinking of water in excessive amounts leads to high
arterial tension, and this in turn to arterial sclerosis. A familiar
example of this is seen in stokers, who work in an atmosphere of
intense heat, perspire freely, and drink large quantities of water. As
a rule, they develop arterial sclerosis at a very early age. Possibly
another example is seen in excessive beer drinkers. Nephritis is
their doom—Osler says that it is rare to find a man past forty work-
ing in a German brewery—and their early decay is due, in all prob-
ability, to the immense quantity of fluid which they consume rather
than to the fact that it is beer. In the second place, the one com-
plication most to be dreaded in nephritis is failure of the heart. This
is the direct result of the tremendous strain put upon that organ in
its efforts to overcome the resistance in the peripheral circulation,
and I am positive that in many cases this cardiac failure can be
traced directly to the increased arterial tension resulting from the
ingestion of large quantities of water.

The arguments which have been advanced against too severe re-
striction in the matter of albuminous food, and against too great an
ingestion of fluids, apply with greatest force to the exclusive milk
diet so warmly recommended by the French physicians and by some
in this country. Although in exceptional cases this rigid regime may
have proved successful, it seems only too probable that its applica-
tion to all cases must lead frequently to an early breakdown of car-
diac compensation and to premature death.

Bearing these facts in mind is it not time to re-examine the evi-
dence at our disposal and to seek to determine just what our dietetic limitations have done and are doing for our patients? In calling your attention to this subject I have purposely kept my own views in the background. My desire is rather to bring about a discussion by the society, in order that we may all profit by an interchange of opinions.

DISCUSSION.

Dr. F. W. Lange: I would like to ask Dr. Lawrence as to the proper diet in albuminuria of pregnancy, a condition which of course simulates Bright's disease.

Dr. F. Mortimer Lawrence: I do not feel we are yet in a position to say anything definite in regard to diet, either in albuminuria of pregnancy or albuminuria of nephritis. The conditions are not quite the same, but I feel some very careful work should be done and very careful observations made as to whether any change can be brought about by a certain diet.

Dr. T. J. Gramm: In reply to the question, I would say that my own personal custom in reference to the treatment of albuminuria of pregnancy is to restrict the diet at once upon ascertaining that the patient has albumen in her urine in any material quantity, or if she show any other signs of approaching eclampsia, which latter is, after all, the reason why the question is asked. My habit is to restrict the diet materially; to withhold, first of all, solid food for a day or so, and then to take from her all meat. I am in the habit at present of allowing milk, not as an exclusive diet, but to have the food consist largely of milk. Other liquid foods are given, and I allow any quantity of fruit. Now I have in charge a maternity where we can very closely observe our cases, and every now and then I am informed that some of the cases have shown albumen in the urine, or find it myself, and in almost every instance after the introduction of this method of treatment the albuminuria disappears and the threatening signs of eclampsia also.
REPORT OF THE
SECTION OF OPHTHALMOLOGY, OTOLOGY
AND LARYNGOLOGY.

The Omnipresent Spectacle, by E. W. Brickley, M. D.
The Modern Treatment of Trachoma, by W. W. Blair, M. D.
Epistaxis, by Henry F. Schantz, M. D.

THE OMNIPRESENT SPECTACLE.

E. W. BRICKLEY, M. D., YORK.

The presentation of this paper to the members of this society has not been prompted by a desire to present anything especially new to the ophthalmological section particularly, but rather to bring into more prominent notice and invite discussion at the hands of the general practitioner, as well as the specialist, of a subject with which both are more or less familiar.

On every hand the spectacle and eyeglass are in evidence. From "green old age" to childhood we see humanity blessed or cursed by the artificial assistant to nature's focussing apparatus.

Where is the reason? Where lies the fault?

Do visual defects begin with childhood and must they have their fling like measles or whooping cough, seemingly necessary evils—or are they the result of undue strain imposed at a time when the eye is illy able to bear it, namely, the formative stage?

Does the obtaining of the education of the present day impose too heavy a burden upon the eyes of the growing child?

If so, is there a remedy?

These and similar questions, which have doubtless presented themselves to all of us, it will be the purpose of this paper to briefly reply to.

When we are met on the threshold of our investigation by the well known fact that over sixty per cent. of those presenting themselves for the correction of visual defects date the trouble as beginning with the years spent in the school room, it would seem as if school life were prejudicial to normal vision, and that one of the
chiefest sources of ametropia being located, it is quite time that those vitally interested, teachers, parents and the medical man also, should be alive to the danger which threatens to make us, like the Teuton, a bespectacled nation.

For a more thorough comprehension of the subject let us for a moment examine the structure of the optical apparatus, in order to refresh our memories upon a portion of anatomy which has possibly to some of us at least become slightly hazy with the passage of the years.

Resting upon a fatty cushion within the orbit, the eyeball is almost spherical in shape, its outer tunic the tough sclera, in the anterior portion of which is set the transparent cornea so similar to the watch crystal in its frame.

A system of six muscles attached to each eyeball allows perfect movement in all directions.

Internally and at the posterior portion of the globe is the optic, which, by way of the optic foramen, communicates with the brain.

Within the cranial cavity these two nerves cross each other, beginning their fibres so closely that they are evenly divided.

The focussing machinery by which the vision is adjusted for far or near objects is also within the globe, while immediately behind the pupil is located the crystalline lens by which are brought to a common focus all rays of light emanating from the object looked at.

This, with the vitreous and aqueous humors, make up the refractive media.

By the alternate contraction and relaxation of the ciliary muscle the crystalline lens is rendered more or less convex, according to the distance from the eye of the object looked at.

Lying within the sclera and retina is the choroid, which, besides furnishing the blood supply for the eye, serves by its pigment to absorb all unnecessary rays of light.

Rays of light emanating from far or near distances are united on passing through the convex crystalline lens in a common focus on the retina.

Whenever we use the eye in reading and writing, or any close work in fact, this lens is required to be more convex or fuller in the center to give clear vision, and in order to accomplish this the muscle of accommodation must be kept in a constant state of contraction, and this when long continued constitutes a source of the greatest
danger to the eye; in fact, it seems to be well known that near-sight and astigmatism are largely due to this cause, as well as to the constant tension exerted upon the cornea by the action of the extrinsic muscles exerted at close range.

Those who are far-sighted are obliged to tax the muscle of accommodation still harder, so that near work is rendered difficult and uncomfortable or must be abandoned altogether.

This over-exertion of the accommodative muscle is, however, often borne in robust children for a long time without serious inconvenience, but gradually when the eyes are used for several hours at a time at close range fatigue of the muscle becomes apparent in the eyes beginning to blur and to feel as there was sand in them, tears flow and headaches make the child a burden to itself.

Possibly after a rest the symptoms may abate, only to reappear again upon continued application.

Children who are far-sighted often acquire the habit of leaning closely over their books, which leads parents to believe them near-sighted, when the reverse is the case.

Others become cross-eyed or one eye is employed to the total disregard of the other.

This continued strain produces the most damaging changes in the ocular structures, the ball often elongating at the posterior pole, with a resulting high myopia and black spots floating in a diseased and fluid vitreous disturb both the mind and vision of the sufferer.

Finally a detached retina may ensue and partial or complete blindness brings brightest hopes of parents and scholar to an untimely termination.

This melancholy picture, while it may astonish, is by no means overdrawn, as any oculist of experience has had ample opportunity to substantiate it a few times at least.

It is a noticeable fact that eye troubles increase in schools from the lower to the higher classes; that is, in direct proportion to the amount of close study required of the pupil.

This should be a significant warning, but in this literary age of ours seems to be totally disregarded.

Throughout the civilized world the prevalence of eye troubles is in keeping with the educational demands made upon the student.

It is certainly logical therefore that, every means at our command should be employed to counteract this tendency to the weakening of
the eye of the rising generation who are compelled by our present methods to use them constantly for near work.

Children are certainly sent to school at too early an age in many instances more to get them out of the way than for any educational advantage they may acquire at such tender years.

None should be allowed in the school room under the age of ten.

The alphabet should be learned at home, not at school, and more attention given to the physical development at this time than the mental.

It is running against public opinion to advocate keeping a child out of the school room so long; but observation will prove the plan to be right.

Look at the children of ten and twelve years who daily stagger home under a load of books, the lessons in which must be prepared for the morrow, by the worst form of illumination and oil lamp, the reflection of which from the glazed paper of the ordinary text-book compels the constant contraction of the iris, with eye-strain as a consequence.

School work should be done in the school room—less hours of close application and more of physical recreation is the crying demand of thousands of aching heads and eyes.

The proper illumination of the school room is of paramount importance.

The light should if possible come from behind, or, better still, from a skylight overhead—never from the front—and close study should be subject to frequent interruptions for short periods of rest.

The book should be held about sixteen inches from the eyes, and the stooping posture avoided as much as possible by having desks and seats of the proper height, the latter allowing the feet to be in contact with the floor.

A visit to many of our public schools, however, will convince the most skeptical that this important point has been too often totally disregarded, the seats being either too high or too low for comfortable work.

Too much stress cannot be laid on the avoidance of the stooping posture while at work, the continued inclination of the head causing more or less compression of the circulatory system of the neck and head, with a consequent blood stasis in the region of the retina, its vessels becoming unduly distended, losing their elasticity to a
greater or lesser degree with resultant elongation of the eyeball and 
the production of near-sight.

Glaring illumination of the school room should be avoided by so 
arranging the windows and blinds that the light falls from above.

White walls, so dazzling to the eye, should be painted a neutral 
tint.

Frequent rests for close study should be provided for by oral reci-
tations, blackboard work at long range, etc.

Astigmatism in all its phases is almost invariably the outcome of 
long-continued work at close range, and especially is this true of 
hypermetropes or far-sighted persons, who, in order to obtain dis-
tinct vision in near work, are obliged to hold the same very close to 
the eyes, thereby increasing convergence, narrowing of the pupil 
and a pathological congestion of the fundus oculi.

Many persons suffering from far-sight present themselves for the 
correction of near-sight, and are amazed to learn that the reverse 
is the case.

The explanation is easy, viz.;

The increased convergence and narrowing of the pupils obtained 
by holding the work close to the eyes shuts off the major portion of 
the light rays that would otherwise pass through the peripheral por-
tion of the crystalline lens and thereby suffer refraction, but allows 
the rays that pass through the center to be transmitted as parallel 
rays without being deviated.

Environment too plays its part in affecting sight, residents of 
cities, closely built, having but scant opportunity to exercise the 
vision at long range; the eye necessarily loses its acuteness from 
want of use, and it is the larger cities which furnish the larger 
quota of myopes.

Take the Indian, for instance—so long as he remains on his native 
plains he has the vision of the eagle—so soon as education begins 
to make its demands upon him the spectacle almost invariably fol-
lows.

The elimination from our flour of practically everything but the 
starch in the process of grinding seems to me a prolific cause of nerv-
ous degeneration, and the eye is but a nerve, and must suffer with 
the rest of the organism for want of proper sustenance.

DISCUSSION.

Dr. H. B. Wake: I can most heartily concur with all that was said
in the paper. We often find an inflamed retina, an inflamed optic disc, on examining the eyes. This may be due to slight irritation of the kidneys, and also to irritation of the nasal membrane. In either case it may cause a severe headache, and the ocular appearances be about the same. The way I ascertain the nature of such a case is to do it by elimination. First, I find what the condition of the nasal mucous membrane is. If there is no congestion there, no hypertrophy, I can eliminate that as a cause. The second is to find whether there is any trouble with the kidneys, any backache or general symptoms that go along with that. If I find nothing there I also make an examination for errors in vision. At times I do not remove the symptoms by correcting the vision. In that case I insist on making a urinary examination myself, and if I find any cause, renal condition causing the difficulty, I send them to their family doctor for treatment.

THE MODERN TREATMENT OF TRACHOMA.

W. W. BLAIR, M. D., PITTSBURG.

Trachoma, furnishing, as it does, such a large share of the daily routine work in our hospitals and dispensaries, should claim the attention not only of the specialist, but also that of the general practitioner as well.

The disease, as we find it in this country, is confined mostly to that class of foreigners who come to us as immigrants and who contrive to live huddled together in very close quarters, so that anything like preventive measures must of necessity be of little avail.

Hence it is my purpose to consider chiefly the treatment of the disease in its different stages after it has become established.

As to treatment, the subject naturally falls into two divisions—the medical and surgical—though most cases will need both, and some of the remedial agents are a combination of the two.

In the early stages of an acute attack I find that a daily application of Silver nitrate in 1 per cent. or 2 per cent. solution, along with frequent instillations of Boracic acid in 3 per cent. solution, very efficacious; in fact, if the case is seen early this treatment, along with proper hygienic surrounding—regular walks in the open air (the eyes being protected by dark glasses)—nourishing diet and regular bathing, will bring about a cure in a few weeks.
In my experience, however, it is rare that a case is seen in its inception—the class of people amongst whom the disease most flourishes being slow to consult a physician for such a minor complaint as this is usually thought to be in the beginning.

Indeed it is not easy to diagnose these cases early, but I have seen them where an entire household was affected, thus exhibiting the disease in all its stages.

Commonly when the case of trachoma reaches the physician it has gone over into the chronic stage, which shows frequent acute exacerbations. If we have to do with this condition the treatment must be somewhat varied; in fact, this is where we have frequently to resort to many different forms of treatment in order to succeed.

If the case comes to consultation during an acute exacerbation I again would recommend the Silver nitrate in solution, even though there may be beginning corneal ulceration; if the latter complication should exist or threaten to occur we must of course use Atropine and frequent hot fomentations in addition to the silver solution and cleansing Boracic acid flushing.

I would say that in my practice Argyrol has almost entirely supplanted every other form of the silver preparations in all forms of conjunctivitis—excepting in trachoma—here I have not found it as efficacious and have returned to the routine use of Silver nitrate, as above indicated.

After the subsidence of the acute manifestations we come to the consideration of those methods which are more or less surgical in their nature.

At this time, and not previously, we may safely employ the copper sulphate in the form of a large crystal, which has been carefully smoothed off to avoid cutting or scratching the conjunctiva.

I would like just here to say a few words in regard to the use of copper sulphate—I think it is to be avoided during an acute aggravation, as the reaction may be, at this time, excessive. I recall one case which was brought to me in which there was panophthalmitis in both eyes, resulting in the entire destruction of both eyeballs, and the history was that of an old trachoma of years standing, which had received during an acute period one treatment with copper sulphate, with a violent reaction on the following day, which reaction went on to the end above described in spite of all that could be done to check it. I have also seen other cases, in which the copper was used with excessive and dangerous reaction—so that I am extremely
careful in its use—making the first application superficial and not long in duration until I find what the patient's reaction is likely to be.

A form of treatment which I have used much and with satisfaction is the daily application of Glycerite of tannin to the everted lids, and this supplemented by the instillation of the following Collyrium, two or three times a day:

R. Acid Borac .................. gr. v
    Acid Tannic  .................. gr. xxx
    Glycerin  ...................... 5iij
    Aquae Dest  ..................... 5ij

M. ft. sol.

Sig.—Tannic Acid Collyrium.

This treatment causes no reaction whatever and in some cases is exceedingly satisfactory.

A form of treatment which is really surgical in its nature is the application of powdered Boracic acid to the granulation surfaces by the finger of the operator, which has been wound with a strip of gauze—the powder is applied with more or less friction, which is increased by the crystalline nature of the acid; the bleeding is severe and the reaction quite sharp in some instances—so that I think it well to forestall the latter by the immediate use of ice water compresses for a few hours immediately after the operation.

More radical than the last mentioned method is the mechanical removal or expression of the trachoma granules by means of Knapp's roller forceps or by a form of grattage, which is accomplished with a small instrument with a file-like surface. Both of these latter procedures are quite painful and should be carried out under chloroform narcosis; the reaction is intense and must be combated by the more or less continuous application of ice water compresses, which should begin as soon as the patient is removed from the operating table and be kept up for several hours.

The most recent innovation in the line of treatment is that by means of X-rays; this has been carried out in many of the large hospitals, both in this country and Europe, and many reports have been made concerning the results gained thereby. As these reports were universally favorable we took up the method at the Homoeopathic Hospital in Pittsburg, where in the eye and ear annex five cases were selected, all of them being typical cases of trachoma of several months' standing—in three of them pannus was present and the others were showing signs of beginning pannus. As the method
of treatment may be new to some of those present I will give you briefly the details:

The treatments, which were under the direction of Dr. V. S. Gaggin and Dr. W. J. Martin, of the X-ray department, were given at first thrice weekly—the exposures varied from four to six minutes at twelve inches distance, the exposures being made in each instance through the closed lids. Subsequently we found it advisable to give the treatments but twice a week. The primary reaction, which was noticed within a few hours, was marked by redness of the ocular conjunctiva and a very considerable degree of lachrymation; this was never severe, however, and was not of as great import as the erythema of the skin which occasionally appeared. and which, presaging the dreaded X-ray burn, caused us to intermit the treatment occasionally.

We never had a reaction of this sort which could be termed a burn owing to the watchfulness of Dr. Gaggin, who has had much experience in this work.

As to results, I would say that they have been on the whole favorable—the cases were all discharged cured—there developed no corneal ulceration in any case—and the lids healed up with absolutely no scars. My objection to the treatment is that in some cases it is slow in reaching the desired end, two of the cases being two months under treatment, while four weeks was the shortest length of time that any case was in the house.

However, I am sufficiently encouraged with the treatment to pursue it further, and may at some future time be able to communicate more positive results.

In addition to the above procedures there are certain general measures to be carried out, the neglect of which will render all forms of treatment of no avail.

These patients must get a certain amount of fresh air every day and have their dietary carefully scrutinized in order that certain objectionable forms of food be prohibited, as well as to see that they do get plenty of nourishing food.

The indulgence in alcoholic drinks must be interdicted absolutely, and the use of tobacco prohibited as well; and it is also important to instruct these patients that it is as deleterious for them to be in a close atmosphere where others are smoking as to smoke themselves—therefore they are to avoid as far as possible such surroundings.

In regard to the administration of the internal remedy the symp-
toms of this disease are so characteristic that it is impossible to get a clear indication for a remedy from the eye symptoms alone—hence we have to look farther and take in the entire symptomatology of the case before we can arrive at proper homeopathic prescription, and to go into that would take us too far afield in a paper of this sort.

DISCUSSION.

Dr. H. F. Schantz: I am glad that the author of the paper did not use the term "granulated lids synonymously with trachoma." The public press has been filled with accounts of granulated lids that have been epidemic in New York city. It is a question whether those were cases of true trachoma, or whether they were cases of follicular disorder, that we find in poorly nourished foreign individuals. In the well nourished individual we do not find many genuine cases of trachoma. It is always associated with some ill nourished condition. In reference to the use of Argyrol I want to say that it is applicable not only to cases of trachoma, but to many other eye conditions. It has the advantage of not being nearly so irritating as Nitrate of silver. The question of the Knapp roller and the use of Tannin in granulated eyelids was discussed some years ago—I think it was by Schneidemann, of the Philadelphia Polyclinic—in which he found that the conjoined use of the Knapp roller and the Glycerole of tannin gave better results than any other treatment, of course associating that with the use of hot or cold applications, as the case demanded.

Dr. E. W. Brickley: I think the point Dr. Schantz made in regard to so-called granulated lids is well taken. I have had case after case come to me, saying that they had granulated eyelids. In some instances they had. In the majority of instances they did not; they had the follicular form. Fortunately in my section of the country true trachoma is very rarely seen. Our foreign population is almost nil. It is among foreigners that you usually find it. Dr. Ware, as well as myself, has had ample opportunity to see numerous cases of trachoma during our studentship in Vienna years ago. To one who has seen true trachoma its appearances are unmistakable. You can never confuse it with simple granular folliculitis. I have had no experience whatever with the Roentgen ray in its treatment, and would hesitate to use it, being fearful of possible corneal destruction, but in grattage I have found an ally which has stood me in good
stead. I have rubbed down the granulations until they were smooth, and afterwards rubbed in pure pulverized Boric acid with excellent results. I do not use a three per cent. solution of Boric acid, but always a saturated solution, in the form of a cold compress, for hours after an operation until the active symptoms have subsided.

Dr. H. B. Ware: Dr. Blair states that the use of Knapp’s forceps causes such a shock that he uses them under a general anaesthetic. That is a great surprise to me. I have used them in many cases with a local anaesthetic, and have gotten the very best results in treating cases with the Knapp forceps. The rational method of treating the disease is this. You squeeze out the gland discharges, then make an astringent application of Argyrol or Nitrate of silver, or whatever other preparation you prefer. Of course it is used for its astringent properties. The patient is much more comfortable after the operation, as the sensation as though splinters or little needles are scratching the eyeball is relieved as soon as these glands are emptied of their discharge.

So far as the New York schools are concerned, I only know what I read in the papers. It seems to me that this disease, as I know it, has been limited to a scrofulous, strumous class, which we find most prevalent among a certain grade of foreigners. The higher the social status, the more people take care of themselves, the greater is the resistance to this disease, and it does not have an opportunity to progress as it does in a lower class of people. It is a question in my mind whether it is true trachoma that they have in New York, although the disease has caused, as I understand, the closing of a number of schools, so that it cannot be simply a follicular inflammation.

Dr. J. W. Stitzel: I spent last winter in New York at the New York Ophthalmic Hospital, and we saw hundreds of cases there. In ninety-nine cases out of a hundred they were follicular and not trachoma. There was undoubtedly an epidemic of eye troubles in New York during last winter. The Board of Health appointed inspectors to visit the schools. Each inspector had three schools assigned to him. He was not allowed to touch children’s eyes at all. They passed before him, and with one finger pulled down the lower lid. He was supposed to diagnose trachoma by simply looking at them. They were sent out of school by the hundreds, and they came to the clinic at the hospital, but among all that number very few were true trachoma.
Dr. H. B. Ware: Did you see any that were true trachoma?

Dr. Stitzel: A few of them were. These came not only from the Italian and foreign districts in the boroughs, but also from the better class. It was the belief among men who treat diseases of the eye that the trouble was simply due to the torn up condition of the streets on account of laying the new subway there. The hospital was overrun with those cases. Almost all were treated by the forceps operation, taking the so-called Knapp forceps and expressing the granules. They were put in the hospital and kept there twenty-four hours. Compresses were kept on constantly, and there was no serious reaction in the cases I saw. There were at least five hundred operated during the winter.

A form of treatment that is almost universally employed in New York for trachoma that is not mentioned in the paper is the application of Bichloride of mercury, one to one thousand and one to five hundred in old chronic cases. I have seen some of them respond markedly to the application of Bichloride of mercury, one to five hundred, both out and in patients. It was applied daily for a time, afterward every other day. The Bichloride of mercury, one to five hundred, was placed on a cotton roll, the lid turned up, and the solution rubbed into the eye thoroughly. Whether the rubbing does any good or not they seem to respond better after being thoroughly rubbed, but cases do respond without any rubbing. There is undoubtedly a great scare in New York about the spread of trachoma. It is the universal opinion of physicians there that very few of the cases are trachoma. They are nothing more nor less than so-called follicular conjunctivitis, and very likely due to some condition of the atmosphere, resulting probably from the torn up condition of the streets.

Dr. H. F. Schantz: I happened to be in New York last May and the air was full of dust. During the two weeks of my stay there was no rain. The streets were dusty, and the elevated cars and surface cars caused such a suction that you could not get away from the fine dust, and all of the mucous membranes were irritated. I know quite a number of people in New York at that time were very much annoyed by it. There were a number of cases of conjunctivitis among the physicians there at the time. I do not remember whether it was Dr. Norton or Dr. Helfrick who made the remark, but one or the other said that the cases they had were not true cases of trachoma, but due to some local irritant.
In considering the symptom epistaxis it will be well for us to keep in mind that there are two classes of causes. One class we place under the heading constitutional, the other local.

In many of the acute diseases, diphtheria, scarlet fever, typhoid fever, small-pox and pneumonia, nose bleed may appear early. If it occurs late it is a danger signal.

Delicate children suffer from it especially at puberty and after violent exercise. Associated with menstrual difficulties we encounter vicarious haemorrhages from the nose. Mountain climbing and the inhalation of hot or cold air may cause it.

In chronic heart or kidney disease it is a frequent symptom, and in haemophilia or bleeder’s disease it is constantly present. In cases of high arterial tension it may be a safety valve to the circulation.

Epistaxis is a common symptom after operations within the nose, or after traumatism to the nose, either with or without fracture. It may be associated with fracture at the base of the skull or the result of cerebral concussion without direct violence to the nose.

In cases of caries, necrosis of nasal bones, deviated septum, ulcerations, polypus, new growths and chronic nasal catarrh we encounter it. It may result from picking the nose, which is not necessarily an indication of intestinal parasites, and hence not calling for Cina.

Treatment.—In treating epistaxis it is necessary to seek for the exciting cause, stop the haemorrhage and improve the bodily nutrition. If the haemorrhage is from one nostril only the cause may be local, and is usually found to come from the anterior septal artery on the lower portion of the septal cartilage, about a half inch within the orifice of the nostril. Here the vessels are insufficiently protected by a thin mucous membrane and are exposed to irritation and easily injured. Firm pressure, either over the nostrils or on the lip below the nose, usually controls it.

If the cause is traumatic the indication is for local remedies. If constitutional in origin we must consider our internal remedies in ad-
dition to our local measures to stop the bleeding. Cleanse the parts and search for the source of the haemorrhage. Apply cotton plug, gauze tampons or Lintine strips, either dry or soaked in Peroxide of hydrogen or 5 per cent. solution of Antipyrine. The nostril is packed well back and up so as to apply pressure to the bleeding surface. The tampon should be large enough to cover the wounded artery and the tissues beyond.

In cases where the bleeding persists despite these efforts we may need application of the galvano-cautery of chromic acid to the part. Tamnic and gallic acid in solution, lemon juice or even vinegar is used in some cases. But avoid styptics.

If tamponing of the anterior naris fails, posterior plugging must be resorted to, and here the Belloq canula is not absolutely necessary. A soft rubber catheter, with a long silk suture tied through the eye, can be passed through the nostril into the pharynx and brought forward through the mouth. The plug is then attached to the middle of the silk suture and drawn into the naso-pharynx and forced into the posterior naris. Gauze is then packed into the anterior naris so as to completely occlude the naris. The ends of the silk are then secured and the pack allowed to remain twenty-four to forty-eight hours. The pack my be applied dry or soaked in adrenalin solution, which I shall refer to again. When the pack is removed the nostrils are cleansed, and if any haemorrhage exists the pack is repeated.

One word of caution as to the size of the post-nasal plug. If too large it will cause the patient discomfort. If too small it will not occlude the naris posteriorly.

If the epistaxis is followed by syncope and the patient is collapsed the use of intravenous or subcutaneous injections of salt solution is indicated.

The nutrition of the patient must be carefully considered and suitable diet prescribed.

If the haemorrhage is vicarious, or there is high arterial tension, it should not be stopped unless the condition of the patient demands it.

Case.—On December 3, 1900, I was called to attend Mr. W., age thirty-eight, who was injured in a runaway. He was thrown out of his carriage and struck his head on a stone roadway. He sustained an ugly lacerated wound in right temporal region, fracture of right superior maxillary bone and severe contusion of right frontal and nasal regions. I found him unconscious; nose bleeding freely. After
suturing wounds in temporal regions, reducing fracture and controlling the epistaxis with pressure and Peroxide of hydrogen solution he was placed in bed, regained consciousness in a few hours and progressed favorably until December 9, when I was called and found him suffering with profuse hemorrhage from right nostril. I packed the nostril with gauze soaked in a solution of suprarenal extract. Two hours later he began sneezing and dislodged the plug. Again I repeated the pack to the nostril and controlled the bleeding, but patient persisted in trying to cleanse left nostril and dislodged second packing. Then I concluded to plug the posterior naris and in that way controlled the hæmorrhage. The plug was allowed to remain forty-eight hours and removed after soaking it with an alkaline solution. I found no hæmorrhage and case progressed to recovery. In this case I was compelled to resort to injections of salt solution. At the time I treated the case I used suprarenal extract in tablets dissolved in water. Now I use adrenalin chloride or suprarenal solution and as hemostats they do me good service in cases of epistaxis, particularly those following operative measures in the nose. In cases suffering with repeated attacks of epistaxis it is my practice to supply the patient with a vial of adrenalin chloride in salt solution 1:10,000 and direct patient to apply gauze tampon soaked with it to bleeding nostril and apply pressure.

Remedies.—In cases due to constitutional causes we have our well-indicated remedies to aid us:

**Aconite.**—In the excited angry patient, with bright red blood and the characteristic Aconite symptom.

**Arnica.**—In traumatic cases or in the low grade fevers.

**Belladonna.**—Night epistaxis in children.

**Bryonia.**—In vicarious epistaxis an excellent remedy.

**Cactus.**—Epistaxis associated with cardiac disease.

**China.**—For the ill effects of the hæmorrhage.

**Hamamelis.**—For all forms of epistaxis (highly recommended by Dr. Hughes).

**Lachesis.**—In climacteric cases.

**Melilotus.**—Epistaxis relieves periodical headaches.

**Pulsatilla.**—Vicarious epistaxis, dark blood.

**Phosphorus.**—In bleeders.

**DISCUSSION.**

Dr. H. B. Ware: One thing, it seems to me, might be added here.
It is just a little out of our line, outside of the mechanical treatment—and that is,—that these cases are often due to some liver congestion. I have seen two cases in which bleeding had persisted for a long time, and in which I advised putting a big blister over the liver, which stopped the bleeding, and it did not recur for over a year. They had been having attacks of bleeding for over a year.

DR. F. W. LANGE: A very good remedy is Tincture of geranium, both internally and locally. In every case where I have applied Tincture of geranium the bleeding has stopped. A remedy I use for the cases of nose-bleeding (with which I do not believe I have ever had any failure) is Bryonia in the third decimal potency. That stops the general tendency to nose-bleed.

DR. M. J. HOLBEN: When I started in practice I was called to a case of epistaxis in a young man. He had had eight physicians and bled profusely every two weeks. The only way to stop it was to purge him. I gave him Camphor, and that stopped it and he never had a recurrence. He was reduced almost to a skeleton by the haemorrhages. I had an old man in the same condition, bleeding every two weeks, and I cured him with Camphor. Those two cases made a great stir. I have used it a great deal since then in epistaxis.

DR. J. W. STITZEL: In my first year in general practice I came in contact with a patient that three or four physicians had been attending. She was a lady about fifty years of age, who had not a profuse bleeding, but enough bleeding so that she could not lie down at night from the dropping in the throat. I plugged one side. It never bled from both sides at the same time. If one side was plugged it would occur on the other. I prescribed the usually indicated remedies and did not get any result. The next time I attended her I went over her case very carefully, and on account of her general condition I gave her Theridion and cured her of the trouble. Another remedy that has been mentioned by Dr. E. W. Palmer, of New York, is Thlaspi, in ten to fifteen-drop doses every hour, until the haemorrhage stops.
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