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# The Wisconsin Medical Journal

Official Organ of the State Medical  
Society of Wisconsin.

A Monthly Journal of Medicine  
and Surgery.

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# THE WISCONSIN MEDICAL JOURNAL

JUNE, 1905

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## ADDRESS.

THE ANNUAL ADDRESS OF THE PRESIDENT OF THE  
STATE MEDICAL SOCIETY OF WISCONSIN.\*

BY C. W. OVIATT, M. D.,  
OSHKOSH.

FELLOW MEMBERS OF THE STATE MEDICAL SOCIETY:

I wish to thank you for the great honor you have done me in electing me as your presiding officer at this, the 59th annual meeting of this society.

In looking back over its history and recalling the names of the men who have been thus honored, I am filled with no small degree of embarrassment in assuming the duties and responsibilities of the position, and at the same time am led more fully to appreciate the honor thus bestowed.

In the great work of reorganization of the medical profession recently undertaken in this country, Wisconsin has made a most excellent beginning. This is shown by the greatly increased membership of the society and the attendance at its last meeting, and also by the good work done and the enthusiasm displayed in our county medical societies. There is yet much to be accomplished, however. Many physicians still fail to realize the importance of this unity of effort and the good that must eventually come from it. It must be acknowledged that there is much in our work of advancement that is discouraging. In our efforts to elevate our standard that we may better serve mankind, we have a right to expect aid and support from those in position to give it. This we do not always get. The press, claiming to be an educator of the people and to stand for moral principles

\*Read at the 59th Annual Meeting of the State Medical Society of Wisconsin, La Crosse, June 8, 1905.

and honesty, aid and abet for sordid gain, the boastful and pretending quack as well as the sale of vile, health-destroying nostrums. The medical profession of this great Commonwealth have little indeed for which to thank the press. Wisconsin was the last of the states in the middle west to enact a law regulating the practice of medicine. Year after year the profession made earnest effort to obtain legislation that should at least place us on a level in this regard with the states surrounding us. At every attempt the great dailies of the metropolis of the state filled their editorial columns with abuse of the medical profession. Many papers in the smaller towns followed in the same strain, all uniting to defeat the attempt to elevate the standard of the profession. Unscrupulous lobbyists were employed whose methods, whatever they were, were effective, and the success that finally crowned our efforts was reached in spite of, instead of with the aid of the press. It is common knowledge that the great advancement in public hygiene and preventive medicine has come through the medical profession; it is well known that the personal investigations of physicians have led to discoveries that have been the means of saving millions of lives, and adding greatly to the happiness and comfort of the human race. This knowledge has been given freely to the world, and yet when we ask simply that a standard of education and qualification be erected that should affect all alike who assume to practice the healing art, we are charged by the press with attempting to establish a "medical trust." They impugn our motives and judge us by their own standard of honesty.

In the recent effort through legislation to abate in a measure the patent medicine evil, the floodgates of abuse through the press were again opened upon us and the same old charges reiterated. They left no stone unturned to defeat the measure. When we stop to consider that the newspapers of this country are in partnership in this nefarious business by actually receiving, according to the figures of the manufacturers, 75 per cent. of the profits, we see the distinct outline of the Senegambian in the wood-pile and are enabled to form a correct estimate of the moral worth of the average newspaper.

Slowly but surely the public will have its eyes opened to the truth. The time will come when the papers will not find it profitable to publish the disgusting and suggestive advertisements we see to-day.

We as physicians can do much toward bringing about this desirable end. To enhance our influence with the people, we must cause them to have respect for us and for the work we are doing. In no way can this be done so well as by demonstrating that we are working as one harmonious body toward a common end, the welfare of man-

kind. Let us abandon bickerings and petty personal jealousies and think of our professional neighbors as colleagues and not as rivals whom we must antagonize. Let each member of this society resolve to do his individual duty in this great work of reorganization now going on; let us begin in our local county societies by doing what we can to add to their interest and usefulness, not forgetting the social side as a most important feature. If each will do this we shall see the profession of Wisconsin wielding an influence that will add greatly to our professional advancement and power for public good.

In casting about for a theme that should form an appropriate basis for my address, I have selected one which has for years impressed me deeply, namely, *The Responsibility of the General Practitioner in Relation to Surgical Diseases*.

I shall have nothing new to offer you, and my only excuse for selecting this topic lies in the fact that its importance does not seem to be fully realized by many practitioners.

It is well known that it is far easier in many cases to perform an operation than to have arrived at a clear and definite diagnosis. It is much easier to master surgical technique than to become well grounded in surgical pathology and diagnosis. It would be absurd to demand of the general practitioner that he always make a definite and unmistakable diagnosis in the surgical cases which come under his care, for this the most experienced and erudite surgeon cannot do. The great responsibility which lies at the door of the family physician in this relation, is in the prompt recognition of cases that are strictly surgical from the onset. He should differentiate between the cases which belong clearly within the domain of surgery and those which may be properly treated as medical cases.

An acute disease ordinarily amenable to medical care, may develop a condition requiring surgical treatment, as an empyema, following simple pleurisy. It is not to such cases that I now refer. It is the acute surgical infections and more especially to the recognition of malignant disease to which I wish particularly to call attention. The fact that about 80 per cent. of cases of acute appendicitis get through the attack alive, does not by any means justify us in saying that some cases of this disease are to be treated medically and others surgically. There is no possible way by which the most skilled diagnostician can tell during the early hours of an attack whether the case is one that belongs to the class that will recover, treated as a medical case, or whether it will develop in a few hours into a case requiring surgical intervention as a life saving measure. Everyone

at all familiar with the subject knows that operations done during the early hours of the attack give as low a mortality rate as those done after complete recovery, which in the hands of experienced operators is almost nil. This low mortality in the so-called interval operations is used by some as an argument in favor of attempting to tide the patient over until this time of safety for operation arrives. Knowing, however, that a seemingly mild case, starting in with no alarming symptoms, may in a short time be transformed into one filled with extreme peril, a great risk is assumed in delay for even twenty-four hours. Kelly, in his monumental work on this subject, tersely says: "If we must fix a date, it would be better to establish a two hour rule and call two hours the safe period, the preparations to operate being hastened in the meantime."

Treating appendicitis as a medical case for three or four days and then turning it over to the surgeon because it is doing badly, is illogical, unjust to the patient and not at all in keeping with our knowledge of the disease. A small proportion of cases operated on thus late make a good recovery; others get through with the draining of an abscess complicated possibly by a fecal fistula, and quite likely to be followed by ventral hernia, all of which would have been obviated by an operation done during the first few hours of the attack. It must be admitted that immediate operation, unfortunately, may not always be practicable. The services of a competent surgeon may not be available, or the patient may not be willing to submit to it. The physician then having no choice in the matter, must do what he can to get the patient through the attack.

In this connection I wish to say a word in regard to the so-called Ochsner treatment. If a case must be treated medically, the plan advocated by Dr. Ochsner is logical and without doubt the best. It should not be thought of, however, as taking the place of the early operation when this can be brought about. It is this misconception of its sphere of usefulness that has, in my opinion, made it responsible for many deaths. I am sure my own experience does not differ from that of other surgeons who have seen cases result fatally which would have been operated on early were it not for the dependence placed upon this special treatment. I recall one instance in which a magnificent and useful life was thus sacrificed. The attending physician advised immediate operation at the onset, which was readily consented to by the patient. Some one suggested a consultation and an older physician was called in. He suggested that the Ochsner treatment be tried before submitting the case to operation. In two



days diffuse septic peritonitis developed, placing the patient beyond aid.

There is no possible way in the present state of our knowledge, by which the most skilled diagnostician can estimate the actual condition of the appendix in the early hours of the attack, and there are therefore no data upon which to base a reasonable prognosis. Until some one arises who can furnish us with this necessary information, the physician who appreciates his responsibility in the cases of this disease under his care, will advise the immediate removal of the appendix before serious pathological changes will have had time to take place.

The same reasoning obtains in acute cholecystitis, gall-stone disease, acute pancreatitis, acute intestinal obstruction and other conditions which are not cases for medical treatment more than is a strangulated hernia.

In a recent article on the diagnosis of gall-stone disease, by William J. and Chas. H. Mayo (*St. Paul Medical Journal*, February, 1905), we find the following very valuable statistics. The article quoted is based upon the facts and deductions drawn from a personal experience of 1,000 cases operated on and therefore is authoritative.

In the 1,000 cases there were 50 deaths, or an average mortality of 5 per cent., counting as a death every operated case dying in the hospital without regard to cause of death or length of time thereafter. Taking them as they come, the death rate in 820 cases where the disease was confined to the gall-bladder and for benign conditions was 3 per cent. Included in this group are acute and chronic infections, local peritonitis, complicating intestinal fistula, etc. In 416 cases of simple gall-stone disease, the mortality was less than one-half of 1 per cent. and fully as good as the interval operation for appendicitis in individuals of the same age and general condition, for it must be borne in mind that those most liable to this disease are at an age in which degenerations of vital organs are often present. The difference between the one-half of one per cent. mortality in so large a group of cases and 3 per cent. by adding to it a nearly equal number in which there were changes due to obstruction and infections, shows the enhanced danger in the latter condition. When we come to the group of common duct operations, amounting to 14.6 per cent. of the whole (one case in seven), we find a startling increase in mortality. In 137 operations for common duct stones the mortality was 11 per cent., however, only 7 per cent. within three weeks, 4 per cent. later from anemia and general debility, etc. Still more impressive is the fact that 40 cases, or 4 per cent., had developed malignant disease, and the operative mortality was 22 per cent. In practically all of these cancers, gall-stone irritation could be shown to be the cause of the malignancy. This at once brings up the vital questions: Is it right and just that so large a percentage of patients should be subjected to the

dangers consequent upon delayed operation, to say nothing of the prolonged suffering and invalidism entailed? Can the diagnosis be made while the conditions are favorable, the mortality so low as to be largely accidental, and the cure almost certain?

We have no hesitation in saying that as a rule it can. There are, of course, some exceptional cases which cannot be correctly diagnosed, but the percentage of complications can be reduced to a minimum. Even a superficial inquiry into the histories of the common duet series will at once demonstrate the fact that in the vast majority the diagnosis could have been arrived at in the early stages and a safe operation performed."

Of early operations for gall-stone, Prof. H. Kehr, in Bergmann's Surgery, vol. 4, p. 695, says, "The more physicians advocate an early operation for calculi and do not allow them to remain in the gall-bladder for many years, the less frequently will one be called upon to operate for carcinoma."

But it is perhaps in the early recognition of malignant disease that the greatest responsibility rests upon the family physician.

The necessity for the early recognition and operative treatment of malignant disease has long been taught, but for some reason the actual importance of it does not seem to have been sufficiently appreciated by the profession at large. So long ago as 1882 in a paper before the American Surgical Association, the late Prof. S. D. Gross advocated the immediate removal of all malignant and suspicious growths as soon as the diagnosis was made. Since that time the giant strides of asepsis and modern surgical technique have made possible operations and results that were hardly dreamed of in Gross' time.

There is little room for doubt that cancer is gradually on the increase. Osler, in his work on Cancer of the Stomach, says: "If figures can be trusted, the death rate from cancer has greatly increased in all countries in which careful returns are made." Roger Williams, the English authority, estimates that the mortality from this disease is four times greater than it was fifty years ago. It has been claimed that this increase is more apparent than real and can be accounted for by the more refined methods of diagnosis now made use of, but the consensus of opinion is that the number of cases is actually increasing.

Our knowledge of the cause and development of the erratic cell growth which constitutes carcinoma and sarcoma is still meagre; in fact it is but little, if any, in advance of that which existed two decades ago, notwithstanding the earnest and continuous investigation that has been carried on. Clinically we know that primarily, malignant disease is strictly confined to the locality where it originates.

Evidence of the truth of this statement is steadily growing, based upon the actual cures following operations done sufficiently early. Even the laity are recognizing this fact and are presenting themselves for operation earlier than formerly. Unfortunately, however, the patient is often unaware of the presence of the growth until this latent stage is passed and regional invasion has occurred.

It is the family physician in the great majority of instances who is first called upon to make the examination after the presence of the growth has been discovered. His responsibility in the case begins with this first examination and he should fully realize the importance of it. Nothing short of a careful, painstaking investigation, paying particular attention to the history of its development as given by the patient, studying the relation of the growth to the surrounding structures, its mobility and physical characteristics to be followed by carefully weighed advice based upon his findings, will relieve him of this responsibility.

There will be cases where he will still be in doubt after pursuing the most careful investigation. In these he should remember that it is better to advise an operation in a condition which may prove not to be malignant, than to advise delay until a positive diagnosis of malignancy can be made, as this so often comes too late. When delay is advised by the attending physician, he should be fully cognizant of the responsibility he thus assumes, and if while following the advice thus given procrastination is continued until internal or extensive metastasis occurs, even though an operation is made, the death of the patient must be charged to the medical and not the surgical side of the account.

The great frequency with which malignant growths are found in the female breast, make their study of supreme importance. It is often quite impossible to make an exact diagnosis in the early stages and it is this very fact that should make us less willing to delay operative intervention. Carcinoma of the breast varies greatly in degree of malignancy and assumes a variety of forms. It should be remembered that pain here, as in most surgical diseases, is a most unreliable symptom. It is often found, as was long ago pointed out by Senn, to be more severe in some benign tumors of the breast, as in adenofibroma, than in carcinoma. In the early stages a positive clinical diagnosis cannot always be made between malignant and benign growths or a tubercular or infective mastitis, without resorting to an exploratory incision. This, of course, should not be done without being prepared to carry out the radical operation to completion. In doubtful cases it should always be made use of before resorting to the mutilating

and extensive operation now recognized as necessary in this disease. To this end the surgeon should be specially trained in the study of gross pathology. Unfortunately, most cases of cancer of the breast come to the surgeon so late that a diagnosis is easily made without resorting to exploration. While fully appreciating the great benefit derived from the use of the microscope and laboratory methods in our work, I cannot help believing that the ability to distinguish tissues and pathologic processes at the operating table to be of first importance. The knowledge derived from laboratory study in these cases, comes at the wrong end of the operation to be of benefit to the patient.

In carcinoma of the uterus an early diagnosis and prompt action are even more urgently demanded. How many women past forty are allowed each year to go on having irregular and repeated uterine hemorrhages under the care of their physician, quieted in the belief that their condition is due to the impending change incident to their age? Perhaps ergot is given and the patient kept in bed for a time. The patient continues to lose ground and after a time informs her physician that there has developed a foul smelling watery discharge. He is then impelled to make the simple digital examination which should have been made weeks or months before, only to find, perhaps, a carcinoma of the cervix that has already involved the surrounding structures, the uterus being immovably fixed in the mass. Up to this time it has been considered a medical case: now it is ready to be handed over to the surgeon. If asked why the physical examination was not made earlier, the answer is quite likely to be that the patient complained of no pain, which may be literally true. This only emphasizes the fact of the unreliability of pain as a diagnostic symptom in malignant disease. In carcinoma of the body of the uterus, a diagnosis may be much more difficult, but in these cases we have valuable laboratory aid at our command before resorting to operation. The curettings from every case of uterine hemorrhage should be subjected to a laboratory examination no matter what the age or condition of the patient. In my own experience I have seen carcinoma of the body of the uterus develop in a woman of twenty-three. These cases give much better results following operation than carcinoma of the cervix and it is therefore of the utmost importance to make the diagnosis early. The uterine scrapings should simply be placed in alcohol and sent to the pathologist. While a positive diagnosis cannot always be made in this manner, suspicious areas in the findings may give corroborative evidence, which, taken with the clinical history, may be of great value in arriving at a conclusion as to what should be done.

Patients suffering with a bloody discharge from the rectum, again perhaps without pain, are too often treated for months for hemorrhoids by means of ointments and suppositories without even being examined. When too late for operation the diagnosis of carcinoma is made. A case which was never for a moment a medical case, has been treated as such, and the death must be recorded on the medical side of the book.

The early recognition of malignant disease of the stomach and other abdominal viscera is much more difficult, but none the less important. This paper is already much too long, but I cannot close without making a plea for an early exploratory incision in cases of suspected cancer of the stomach. Waiting for a tumor to develop so that a positive diagnosis of cancer of the pylorus may be made, is not in keeping with the advanced ideas of to-day. We must remember that it is only by early operation that any good can be hoped for. The early diagnosis can only be made by an exploratory operation. It will not do to depend upon the clinical examination of the stomach contents, but the situation should be laid frankly before the patient and the early operation advised.

In a paper on operation on the stomach by Dr. John C. Munroe, of Boston, read last year before the Massachusetts State Medical Society, he makes the following plea for the early exploration:

"If we can advance a little farther and establish in the mind of the general practitioner that the risk to life in any of the accepted types of operation is small enough to be disregarded when placed in the balance with the risks and the suffering that go with the so-called conservative treatment, we shall feel that the work has not been in vain. Moreover, the pathology of the various gastric lesions, as Mayo and others have pointed out, must be learned in the living at operation and not on the cadaver. All the time that we have been, so to speak, feeling our way, we have observed and noted the various conditions found at operation, hoping that eventually we can associate clinical symptoms with the operative findings.

It is a serious and embarrassing commentary that scarcely a single case of carcinoma in our series has sought, or been driven to seek, surgical aid until it was too late to attempt radical cure. There is no valid excuse nowadays with the clearcut, splendid work of men like the surgeons named above, for the medical specialist to turn over his malignant cases, when far advanced in disease, with the apology that the laboratory failed to demonstrate a malignant process, at the time when an exploratory operation as harmless as any major opera-

tion can be, would have definitely and accurately established a diagnosis.

It has been pathetic, in some cases, to have patients withheld from operation by the supposed absence of cancer, because of the presence of hydrochloric acid, when a calm consideration of the clinical symptoms would and should have indicated some serious lesion."

Dr. W. J. Mayo, whose experience in surgery of the stomach is second to no man's in the world, in an article in the *Annals of Surgery* for May, 1903, says, in reference to exploratory operations: "We have in exploratory incision the one diagnostic resource which is reliable and which must be resorted to in the large majority of cases before a surgical diagnosis can be made. Without it the truth is but slowly established at the expense of progressive hopeless involvement. Exploration can be safely accomplished through a small incision and with a short period of disability."

In the same article the writer says of laboratory methods of diagnosis in cancer of the stomach: "Laboratory methods of diagnosis are chiefly based upon chemistry of the gastric secretions (test meals and so forth), and the microscopical examination and chemical reactions of gastric "findings," as well as the urine, faeces, and blood. In the surgical stage these examinations have little value, but gain in the diagnostic importance with the progress of the disease to become of the greatest value only when the patient is in hopeless condition." The authority of the men above quoted upon this point should impress its truth upon all.

In closing I would say that I do not by any means wish to be understood as saying that it is common to see cases neglected. The great majority of physicians are too well informed for this and are awake to the importance of the subject. My own experience, however, teaches me that there are still too many who fail to realize their personal responsibility.

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**ORIGINAL ARTICLES.**

**THE STATE SOCIETY, THE STATE UNIVERSITY AND  
STATE MEDICINE.\***

BY C. R. BARDEEN, M. D.,

PROFESSOR OF ANATOMY, THE UNIVERSITY OF WISCONSIN.

MADISON.

To the members of the State Medical Society of Wisconsin gathered here for co-operation in advancing scientific medicine, it is needless to speak of the close intimacy which exists between medicine and the physical sciences. Medicine fostered chemistry, botany, comparative anatomy and physiology for generations before the principles of physical science began in general to be applied to practical purposes, and since this application has taken place, no practical art has profited more than medicine from the great advances made in the physical sciences. Modern rational medicine is based primarily upon physics, chemistry and biology.

I desire to speak briefly, to-day, of what is at present being done at the State University toward the development of these various sciences, of the fields for future development there which appear to be most fruitful for medicine, and of the advantages which would be gained were relations of closer intimacy to be established between the University, on the one hand, and the physicians and officers of public health, upon the other.

Within a generation the State University has developed from a good college into a great university, from an institution for the mere imparting of knowledge into one where the advance of knowledge is recognized as of essential importance. This latter aspect of the functions of the University has been popularly most recognized in the agricultural department. But advance of knowledge in other lines is likewise of fundamental value for the state, in none, I think, more so than in the line of the medical sciences.

Twenty-five years ago it was proposed to establish a medical school at the State University, but the plan was given up. It was recognized that what the country needed was not another medical school, but more opportunity for a training in the fundamental sciences

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of physics, chemistry and biology. Strong departments of physics, chemistry and the biological sciences, zoology and botany, were established, and early in the eighties, under the active leadership of Professor Birge, opportunity was given for a thorough, scientific, preliminary preparation for medicine. Similar courses preparatory to medicine were established in some other institutions, but the course here came to be recognized as one of the very best in the country.

In addition to departments devoted to the sciences of physics, chemistry, zoology and botany, some acquaintance with which is coming more and more to be recognized as essential for the preliminary education of a student intending to study medicine, there have been developed at the University, departments of bacteriology and anatomy (including comparative vertebrate and human anatomy, histology, embryology and neurology). Next year a department of physiology and physiological chemistry will be established. The studies commonly included in the first year of the medical curriculum can thus be taken with advantage at the State University and the student may be well prepared to enter upon the second year of work in a medical school.

In a considerable number of state and endowed universities which do not maintain a complete medical curriculum, there is offered work in those sciences commonly given during the first two years of the medical curriculum. The student can then enter at once upon the practical work of the last two years of the course in a medical school. It seems highly desirable that the facilities at the State University be so extended as to make this possible there. For this, departments of pharmacology and pathology will have to be established.

The advantage of studying at a great university the sciences mentioned is that most of them have other bearings than those related to medicine, and can be fully developed only when cultivated in their entirety. If a student studies merely the practical application of a science, medical chemistry or medical physics, for instance, he is apt to lose sight of its more fundamental aspects. It thus is usually much more difficult for such a man to appreciate those additions of a physical science to medicine, which are discovered after his graduation, than it is for a man who has learned to know the broader aspects of the science.

One of the functions of the University, therefore, is to offer students who expect to become physicians or officers of public health, training in the fundamental sciences on which medicine and hygiene are based.



But this is only one of the ways in which the University may aid medicine in Wisconsin. Students seeking a general education should there be enabled to gain some true understanding of what modern, scientific medicine is; to learn to know how to distinguish between the high minded members of the profession and the quacks, and to support wise measures for public hygiene. A popular course of lectures given during the past year by Prof. Frost on Communicable Diseases is an illustration of work of this nature that should be further extended. With the establishment of a department of physiology, and a thorough training offered teachers intending to teach that subject in the high schools, further opportunity will be given for increasing popular respect for and support of scientific medicine and medical practitioners.

The functions of a real university do not, however, end with the mere imparting of instruction to students. University departments should stand for the conservation of knowledge and the advance of science. The libraries and museums of a department should enable anyone seeking the latest information in regard to the subjects within the domain of the department to find this information. The laboratories should be active centers of investigation. It is departments of this nature that we desire to see established and maintained in the sciences on which medicine is based.

With the establishment of these departments it is quite obvious that relations of mutual benefit may be entered into between the members of this Society and the State University.

1. **LIBRARY.** For the benefit of the departments devoted to the sciences on which medicine is based the facilities of the University library are being constantly increased. There is, however, no great medical library in Wisconsin. It might be well for the State Medical Society to found a library and establish it in connection with the University Library. The State Historical Society very properly gets from the State some \$20,000 a year to maintain its library. The library of the State Medical Society should get similar support. The ease with which books may be sent by mail would put the library within reach of every physician of the State and it would prove of great benefit to those interested in the advance of scientific medicine.

2. **MUSEUMS.** In connection with the various departments, such as anatomy, bacteriology and pathology, museums should be established sufficient in extent to illustrate well the development and modern knowledge of the subjects covered by those various departments. For much of the material for these museums the aid of the medical profession of the State is of vital importance. Human embryos and path-

ological specimens, for instance, can be obtained only through the aid of medical practitioners. On the other hand, the establishment of these museums should prove of real value to the scientific physicians of the State. When interested in some special topic of anatomy or pathology, the physician could either make a trip to Madison and study the corresponding specimens there, or, if the nature of the material permitted, he could borrow from the museum specimens for study at home. Scientific work on the part of medical men would thus be greatly aided.

3. LABORATORIES. Furthermore, many problems of great importance to medicine can be adequately attacked only in laboratories specially fitted for work in the basal sciences. Koch was but a simple country physician when he went to a great university to work out the solution of problems that had occurred to him. Without the facilities offered by the university he probably would not have found the tubercle bacillus. There's many a great idea born to die unimproved because of lack of opportunity for scientific study. It is to be hoped that the physicians of the State may realize the advantages for scientific investigation now offered at the State University and may utilize their great influence in the State toward the further improvements of these opportunities.

While the University should come to be more and more of value to the physicians of the State interested in scientific medicine, there is special need that its present and future resources be more fully utilized in the direction of state hygiene. For this development the services of the members of this Society in creating a healthy public sentiment are specially needed.

The official control of state hygiene in Wisconsin is vested in several bodies. The chief duty of the State Board of Health is to discover sources of infection and to enforce laws designed to prevent the spread of communicable human diseases. The Food and Dairy Commissioner enforces laws designed to prevent the adulteration of foods. The Live Stock Sanitary Board enforces the laws relating to communicable diseases in the domestic animals. H. L. Russell, professor of bacteriology at the University, is a member of the Live Stock Sanitary Board, he is likewise the director of the State Hygiene Laboratory founded in 1903. This laboratory was established in connection with the bacteriological laboratory of the University by the Regents of the University. While it will retain organic connection with the university bacteriological department its control passes this year over into the hands of the State Board of Health. R. Fischer, assistant professor of pharmacy of the University, is likewise chemist to the Dairy

and Food Commissioner, and his laboratory is situated, like the Hygiene Laboratory, in a university building. It may thus be seen that university departments already play an important rôle in maintaining State hygiene.

In the State Hygiene Laboratory special attention has been paid to furnishing culture media for examination for diphtheria bacilli, to the Widal test for typhoid fever, to testing the purity of water supplies, to testing for rabies and miscellaneous examinations. But a very modest allowance, \$2,000 for next year, has been made by the State for this important service, and far less than the deserved appreciation has been shown by the medical profession. Thus, while at the Minnesota Laboratory 5,000 examinations for diphtheria bacilli were made in three months, at the Wisconsin Laboratory but 1,000 examinations of all kinds were made in a year.

What is needed, therefore, is first, a greater appreciation on the part of the medical profession and of the general public of the value of the services of the State Hygiene Laboratory, and second, an increase of the facilities, both for the routine examination and for scientific study of comparative pathology, and the causes and prevention of disease. An institute for experimental pathology should be established at the University. It would prove of special value both to the State Board of Health and to the Live Stock Sanitary Board.

In a considerable number of states far more efficient support is given for state hygiene than is offered in Wisconsin. In three states the Boards of Health publish periodicals which serve to further the intelligent promotion of public health. Dr. F. F. Wesbrook, who has charge of the laboratory of the Minnesota State Board of Health, one of the best in the country, has subdivided the work of such a laboratory into two classes. (See 12th Biennial Report of Iowa State Board of Health).

“First: Routine work, whose aim should be to assist, when necessary, local boards of health throughout the State in the exact determination of the foci of known infectious diseases, and thus to attempt to prevent the spread of such diseases. This should include not only the examination of materials from human beings, but suspected water, milk, food and even domestic and other animals where the infection may be spread from them to man. The testing of new methods of bacteriological diagnosis, of the values of various commercial anti-toxins and disinfectants, together with the investigations of other problems for which methods have been formulated, should constitute a part of the routine work of such laboratories.

“Second: Research work should be undertaken so that the etiology of obscure infectious diseases and their methods of transmission may be determined, new methods formulated and old ones adapted to the conditions which obtain in the particular locality, while in general all problems which may benefit the state and protect its health, should be studied.”

How much more should be undertaken by the laboratory of the State Board of Health than the functions mentioned, depends mainly on local conditions. In several states, New York and Massachusetts, for instance, the manufacture of antitoxins is undertaken. The State might likewise, with great advantage, maintain an institution for the treatment of persons bitten by rabid animals. Of course the diseases of animals should be studied and controlled as well as those of man, and this is especially true, in an agricultural state like Wisconsin. The studies of animal diseases by Pasteur has saved millions of francs to France, the studies conducted by the Bureau of Animal Industry at Washington have saved millions of dollars to the stock breeders of this country. A local research laboratory, if in the hands of the right man, should prove of untold benefit to the farmers of this State.

The functions of the university laboratories should be more especially investigation of the principles of bacteriology and comparative medicine, and the thorough training of those who wish to study these subjects. The functions of the hygienic laboratory of the Board of Health, on the other hand, is rather that of the application of the principles of bacteriology and experimental medicine to practical problems connected with public health.

In Minnesota, \$100,000 was appropriated in 1904 for erecting a building, of which one-third is used for the laboratory of the State Board of Health, and two-thirds for the departments of pathology and bacteriology of the university. Two distinct staffs are provided for these two phases of work by the State, and their salaries, equipment and running expenses come from two separate funds, one under the control of the State Board of Health, and one under the medical department of the university. The State Board of Health had \$10,000 per year for 1902-4, but this fund has been found insufficient for the accomplishment of all that is desired. (See F. F. Westbrook, 12th Biennial Report Iowa State Board of Health, 1904).

Other departments of the university than those more or less closely related to medical science, should likewise prove of benefit to the public hygiene of the future. The water supply, and the disposal of sewage, for instance, are of the utmost importance from the standpoint of preventive medicine. Thus, the introduction of a pure water

supply in the city of Munich reduced the death rate from typhoid fever from 270 to 3 per 100,000. In Germany, the duty of guarding the public water supply is vested in the Imperial Board of Health. In this country the power of controlling the water supply should be vested in the State Board of Health. This has been practically done in Massachusetts with the striking results recently published by Robin (*Journal of the American Medical Association*, April 8, 1905). The State Board of Health should have, in turn, the advice, not only of the hygienic laboratory, but also of the engineering department of the university, in order to avoid fatal and expensive mistakes, such as that made by the city of Wilmington, Del., where large sums of money were spent for a filtration plant which proved of no real value (*op. cit.*). Splendid opportunities for valuable research are offered in this field of engineering. The experiments should not be tried in a city full of people before they have been given a thorough test under controllable conditions.

One of the most important functions of laboratories, such as those maintained at the University of Minnesota, is the training of those intending to become officers of public health. It is of the utmost importance that more attention be paid to the need of special training for those who enter upon these important duties. It cannot, however, be expected that specially trained men will be found willing to give all their time to serve as officers of public health until more adequate rewards are offered for the service.

To sum up what I have had to say to-day:

(1) At the State University are to be found departments for the cultivation of some of the sciences on which practical medicine is based. In addition to departments of physics, chemistry, zoology and botany, departments of bacteriology and anatomy have been established there. To these a department of physiology and physiological chemistry is to be added next year, and it is to be hoped that before long departments of pharmacology and experimental pathology will be established. These departments serve to offer a general training to those who desire information concerning the fields which they cover, to offer special preparation to students preparing for practical medicine or to serve as officers of public health, and to offer facilities for investigation and research.

(2) Friendly relations of mutual benefit may well be entered into between the scientific physicians of the state and the University departments, cultivating those sciences most closely related to medicine. The State Medical Society might well join hands with the University in building up a great medical library. The aid of the physi-

cians of the state is essential for building up great museums of anatomy and pathology. Both library and museums as well as the laboratories of the various departments should prove of increasingly greater value to a physician desiring to go to the bottom of a problem in medical science.

(3) The value of the State Hygienic Laboratory in promoting public health should be more widely appreciated, both by the general public and by the medical profession. In addition to the department of bacteriology at the University there should be established a department of experimental pathology for the study of diseases common to man and the lower animals. The functions of the University laboratories should be more especially investigation of the principles of bacteriology and comparative medicine and the thorough training of those who wish to study these subjects. The functions of the Hygienic Laboratory of the State Board of Health, on the other hand, should be more especially those of the application of these principles to practical problems connected with public health.

There is a special need of educating the public to understand that liberal financial support should be given to officers of public health and that they should be especially trained for their work.

The aid of the members of the State Society in effecting these advances is especially desired.

#### Discussion.

DR. ARTHUR J. PULS, of Milwaukee: In reply to the question, "What are the opportunities for higher instruction and research in state universities?" President Van Hise says, "The opportunities for higher instruction and research in some state universities are as great as in the average of private institutions of similar incomes."

This would indeed mean that it takes dollars to manage an ordinary institution of learning and more dollars to institute research work and higher instruction.

Most of the medical schools of this country are owned and conducted by private corporations, and receive the gratuitous services of the incorporators or of physicians willing to sacrifice their time for the honor or benefit of holding a professorship and the prestige which goes with the name of the institution. You can readily understand that time for research work cannot well be spent by its faculty. The running expenses of most of the medical proprietary schools are exceedingly low. Hence the great number of them. In Chicago, out of sixteen medical schools, only three are affiliated with some institution of higher learning, and only one of them receives financial aid from the trustees. In answer to a letter addressed to Dr. Dodson, Dean of the Medical Department of the Chicago University, I received the following reply:

"Dr. Earle, Secretary of P. & S., tells me that that institution never has received any money from the University of Illinois, though they hope for state aid some day. The Northwestern University Medical School has never received

any money from the University; on the contrary has had hard work to secure all of its own income from fees. The medical courses at the University of Chicago are pretty liberally endowed. I cannot give you, off-hand, the exact figures, but two years ago we estimated that each student's instruction cost us about \$350; each paid in tuition \$165. With the smaller number now in attendance, the average cost per student is over \$400 (not counting interest on buildings or equipment), and though the annual tuition has been increased to \$180, the fees fall far short of meeting the expense. The annual appropriation for the departments engaged in medical teaching is in the neighborhood of \$60,000."

At the University of Wisconsin medicine has not been fostered on account of lack of funds.

I had occasion to discuss, before a meeting of the Academy of Sciences, Arts and Letters, in December, 1896, the needs of medical instruction at the University and received a promise from President Van Hise, then Professor of Geology, Dean Birge, Prof. Daniells and others, that as soon as the present departments were fully provided for, a department of medicine would be quickly built up. This was ten years ago, and the premedical course remained virtually on the same footing until in 1903 human anatomy was added to the course, and later in the fall of 1904, with the arrival of Dr. Bardeen, the department of anatomy was completed. Next year a chair of physiology will be added, and later the chair of physiological chemistry is to be filled by a scientist of great promise. Had it not been for some financial difficulties on account of cutting the mill tax of two-fifths to two-sevenths of a mill for the University fund income by the present legislature, a chair for experimental pathology might have been filled by a scientist of repute during the next semester.

Experimental Pathological Laboratory.—The value of an experimental pathological laboratory to the physicians of the state can only be estimated when we take into consideration the services which this department will render the entire community by its approval of the serums now in daily use. None but those serums stamped by the government at the Ehrlich laboratory at Frankfurt are used by the German practitioner. The physicians of Wisconsin are at a loss to know the value of a given preparation except by experience, and then the practitioner is in constant fear lest the injection of an old serum may do bodily harm, or prove valueless at the time, or he may dread their after effects familiar to most of us. The experimental pathological laboratory should not only supervise the commercial serums, but in the course of time should be equipped to produce serums now in demand for diphtheria and septiemia and also such which may prove to be of specific value for other contagious diseases.

What a vast field for investigation is still open to this laboratory no one dare predict today, and, if in order, I would urge upon this body to take action at some future time to call the attention of the legislators to this want so that they may set aside a fixed sum for the purpose of establishing and maintaining a laboratory fully equipped to manufacture serums, and by order of the State Board of Health to test the value of the commercial serum.

A National Board of Health.—The experimental pathological laboratory should be in close connection with the Agricultural Experiment Station of the University and should come under the supervision of the State Board of Health and be subordinate to the National Board of Health to be created by the U. S.

government at Washington, D. C.; the head of this institution to hold office in the cabinet for the interests of state medicine.

A Department of Education.—Another much needed reform in the interests of higher learning and for direct benefit to the state universities and to the greater endowed universities would be a department of education at Washington.

The Association of American Universities, whose object may be of a similar nature, is absolutely powerless in regard to bringing about marked changes in the curriculum of the institutions belonging to this organization, but by mutual agreement have been able in some respects to advance the higher learning to a plane upon which the best of the European universities stand. On the other hand, a department of education instituted by our government would have power to act and to advise the state universities of a necessary uniformity in the instructional work, and to assist in having an equal standard of requirements for all courses and examinations leading to the different degrees.

Contrast our state school system with the best of the European countries, and you notice in the first place that the foreign universities are all on the same footing and that research work is the achievement of its faculty members. In this country we have only just begun to do original work at the state universities, and with this end in view have initiated a graduate school at the Wisconsin State University. It was President Van Hise's policy, when he entered upon his duties, to favor research work and ask of the colleges to teach those studies which, in Germany, belong to the gymnasia—the preparatory schools of the universities. At present Dr. Van Hise is building up a strong medical course, which in a few years will meet with the requirements of the first two years' work of a scientific medical school; this is soon to be followed by the selection of a corps of clinical teachers, provided that the legislature appropriates a building fund adequate to construct the necessary hospitals and laboratories, befitting a modern medical department of a great university.

The medical men of this state have been unfairly dealt with, inasmuch as the legislature never provided the means for medical instruction.

In order that our followers may receive a better treatment, not that they are more worthy, but because our great commonwealth can better afford it now, I would earnestly request this society to aid the Board of Regents to secure an appropriation to establish a medical department in connection with the University.

DR. W. H. WASHBURN, of Milwaukee: Dr. Bardeen's paper suggests a few thoughts that might appropriately receive expression here. If the University of Wisconsin had a medical department, but little exception could be taken to the suggestions made by the doctor. But the University has no medical department and rather ostentatiously denies any intention of establishing one.

That the State Medical Society of Wisconsin ought to possess a medical library will be admitted by all, and that the possession of permanent quarters for such a library and for the annual sessions is highly desirable and within possible reach in the future will also be readily agreed. But as to the location of this library and permanent home there is room for difference of opinion.

In the first place a permanent home for the State Medical Society should be in that city which is most accessible to every part of the state, and that city is Milwaukee. In the second place a great medical reference library is



not needed at the State University, where there are no medical students, but, on the other hand, would be of great service in Milwaukee where there are about three hundred medical students every year. It might be here suggested that inasmuch as the Milwaukee Medical Society has already laid the foundation of a great medical reference library, having upwards of 3,000 volumes on its shelves, it might be well to consider the desirability of joining with this society in building up and maintaining this library, and ultimately in owning a building in Milwaukee in which all medical meetings may be held. The library of the Milwaukee Medical Society is open to members of the society and to all medical students in the city and is largely resorted to by these young men and women.

Dr. Bardeen suggests the establishment by the State Society of a pathologic museum at the University in Madison. The same objections apply to such establishment by the State Society as those mentioned in connection with a medical library. There being no medical students at the University such a museum would be useless, and worse than useless, because there are hundreds of medical students in Milwaukee who might make use of such a museum and who, if the museum were in Madison, would be thereby deprived of the educational advantages of such a collection of pathologic specimens. The Milwaukee Medical Society maintains a museum of pathology, and the best interests of medical education in Wisconsin demand that contributions to this museum be made from every quarter of the state.

It might be suggested here that it is the business of the state to educate men in those departments of knowledge (and not leave it to private enterprise and generosity) which serve the general public most intimately. This being admitted, the first (and not the last) department to be established in a university should be that of medicine.

Dr. Bardeen laments the few calls that have been made upon the laboratory of hygiene of the University by physicians of the state. I gather from the text of his remarks that the assumption is that no other laboratory of such a nature exists in the state. This assumption, if such it is, is unwarranted, for there are in Milwaukee at least four laboratories in which similar work is done and these laboratories are receiving specimens by thousands from all parts of the state for diagnosis.

Dr. Bardeen has spoken of the desirability of a more extended course of instruction in hygiene and public health.

I hope that I may be excused if I indulge here in a rather pessimistic view of the situation, though I am of course ready to admit the theoretic beauty of the proposition.

Some years ago a college or school of hygiene was established in the city of Washington, D. C. An extended course of instruction was laid out, and at the end of the work the student was to receive the degree of Doctor of Hygiene. Circulars of information were sent out for two or three years. Not a single student registered and the plan was abandoned. Why should men of intelligence spend their time in the acquisition of knowledge and skill in a department of activity in which there are no rewards? The remuneration of public officers of health is ridiculously inadequate and their tenure of office uncertain. In our own state a man who had served the state faithfully and well, and had achieved a wide reputation in the work of sanitation, and had sacrificed his private interests to those of the state, is summarily dismissed

without cause, or assigned cause, after ten years of service. This is not an isolated case. The same thing has occurred in Illinois and also in Michigan.

Events of this sort tend strongly to make one endorse the famous sentiment said to have been expressed by a Vanderbilt: Men of ability will not enter vocations in which they must look for their reward in the "bright beyond."

DR. EDWARD EVANS, of La Crosse: The advent of Dr. Bardeen into our University and into our State Society bodes well for medicine in this state. He comes not as an anatomist, with dry bones and microscopic views. He is a skilled and learned anatomist as those of us who knew of his work at Johns Hopkins expected, but he is also a man of broad views, large sympathies and high ideals, as we gather from this first address before us. As such, we welcome Dr. Bardeen into the ranks of the profession in Wisconsin and bid him success and Godspeed as man and brother.

In perusing his very practical paper let us not neglect to read between the lines and try to grasp the high ideal he would set for the true physician—a gentleman of broad culture, learned in the basic sciences on which modern scientific medicine is founded, availing himself of all means within his power to advance his knowledge, to test his conclusions, and protect his patients, to be so educated and so conduct himself as to compel the citizen to "distinguish between the high-minded members of the profession and the quacks, and to support wise measures for public hygiene."

It behooves the profession of Wisconsin to realize the fact that persistent united effort on our part is needed to awaken a livelier public interest among our citizens on state medicine and to compel larger appropriations from our legislature for the use of the State Board of Health, and better laws for the benefit of state medicine.

Inasmuch as this society is the organic body representing the profession of the state, we must not only bombard the legislature for better laws and bigger appropriations, but we must also lobby as individuals with the individual members before election. When the executive and the legislature realize that it is best to follow our suggestions and advice, then only will appropriations be larger and appointments be removed from the field of politics and be based on scientific attainments. Then we may hope "that more attention be paid to the need of special training for those who enter upon these important duties." Then, too, it may "be expected that specially trained men will be found willing to give all their time to serve as officers of public health."

The profession of the State of Wisconsin must gather its forces and press more aggressively forward along the lines indicated by Prof. Bardeen if we are not to fall shamefully behind our sister state of Minnesota, and other states doing splendid work in state medicine.

We needed a stirring up and it has been gracefully and skillfully done by Dr. Bardeen. His criticisms are no less forcible because only implied. He points out the road for advancement. Let us go forward.

The central government at Washington maintains an elaborate, and by no means inexpensive Bureau of Animal Industry for scientific investigation of all questions relating to live stock, its improvement, prevention of disease, etc., etc. Strangely enough the human animal does not share directly in the benefits accruing from these investigations—only incidentally and from the executive is "race suicide" strenuously endeavored to be stemmed. That man him-

self, and his health, should be so generally ignored by our government seems anomalous.

A witty Russian writer says this is the only country in the world where a man is spoken of as worth so many dollars. This perhaps is too true, but the young and vigorous nation, like the young man, is very apt to neglect the care of material comfort and bodily health till forced by disease and age to do so.

But we should now look for more attention to be given to State Medicine and Public Hygiene, even in this young nation.

Even as a territory Wisconsin had made provision for a seat of higher education, a university, free and open to all her citizens. As a state she has fostered the university. Slowly at first and haltingly, it grew; latterly by leaps and bounds till now the university is recognized as the first of our State Universities. Our population, mixed as it is, reveres this seat of learning. With the native American free education is a shiboleth. With the German born citizen love of learning is an inheritance. The Irish born citizen grasps eagerly the opportunity presented of a free and unrestricted means for a liberal education. The Scandinavian race brings with it to our state keen and intelligent appreciation of the value of college training. All citizens unite in liberally providing for its maintenance, and this session of the legislature will see it endowed with a liberal and flexible appropriation, which will enable us to advance more rapidly along such lines as those indicated by the writer of this paper. The state through the University educates its lawyers, its musicians, its engineers, its men of commerce, its agriculturalists, and however the equity or policy of doing this at the expense of the state may be questioned, none have ever questioned, nor can it be successfully disputed, that such expenditures have been returned in material wealth, and social uplifting a hundred fold.

Along the same lines the faculty and the Board of Regents desire to extend the work in the basic sciences of medicine—in anatomy, comparative anatomy, bacteriology, departments already established; and also in physiology, experimental pathology and public hygiene.

It may be that not farther than this will the state ever feel justified in going toward the establishment of a medical course. Yet it is quite possible that sooner than the imagination of the most sanguine doctor from Milwaukee can picture, the march of events may call for the establishment of a fully equipped medical department of the university.

In the meantime, the courses now established and about to be, fall naturally into the curriculum for the education of a student of science and fit him well for his place in life as a healthy human animal and a useful citizen of the state.

Dr. Bardeen calls for volunteers in the establishment of a museum in his department. Are we going to help him? He points out the great present value and future possibilities of the Laboratory of the Board of Health at the same time giving figures to show how little we avail ourselves of it. Will the future show a greater use of the Laboratory and of the other departments of the University closely allied to medicine by the profession throughout the state?

How we respond will be a good index of our standing in the profession.

I wish again to congratulate Dr. Bardeen on his excellent paper and to congratulate the profession of Wisconsin on his coming amongst us.

## THE SURGICAL TREATMENT OF POSTERIOR MAL-POSITIONS OF THE UTERUS.\*

BY GEORGE A. CARHART, M. D.,  
MILWAUKEE.

For the retention of the uterus in its proper position, nature has supplied this body with a basic support and eight ligaments. As a result either of accident, bad hygiene, child-bearing, or pelvic disease, the normal condition of slight anteflexion and anteversion may be lost.

Among the posterior positions of the uterus which a gynecologist is most frequently called upon to treat is that of retroversio flexio. This mal-position, with the subsequent endometritis, or vice versa, in a large majority of cases, soon causes symptoms of a definite character which we have all learned to recognize.

We can omit from our discussion this evening the group of cases which, for some reason, give no symptoms whatsoever, and are, perhaps, only discovered during the course of an examination for some other trouble. It is the patient whose pathological condition demands surgical aid in whom we are interested. These cases may be divided into two large groups:

1. Those in which the uterus is movable and may be replaced by external manipulation.
2. Those in which the uterus is fixed, bound down by adhesions, and cannot be replaced by external manipulation.

It is not my purpose to discuss the cases in which the uterus may be replaced and retained by the use of a pessary, or frequent tamponing. To many women these manipulations are unpleasant, the constant use of a pessary a nuisance, and ample time for the treatment cannot be given. So we may classify many of these with our second great group in which surgical interference is necessary to keep the uterus in its proper place.

When one comes to choose what means shall be employed to accomplish this end, we may consider three methods:

1. Alexander or a modified Alexander operation.
2. Ventral fixation.
3. Ventral suspension.

Previous to the year 1886 we were practically limited to the one method of replacement, namely, the Alexander operation, or one of its various modifications. This operation consisted of the extraperitoneal shortening of the round ligaments. Of course this procedure was applicable only to cases where the uterus was easily replaceable. In order to give this operation a wider scope it has been modified by

\*Read before the Milwaukee Medical Society, May 9, 1905.

Wylie, Mann, Dudley, and others, and converted from an extra- to an intra-peritoneal operation. These modifications have widened the field considerably. With the opening of the peritoneal cavity, adhesions around the uterus could be broken up and pus tubes and cystic ovaries removed.

The operation of ventral fixation, first conceived and carried out by Tate in 1880, received its death sentence at the meeting of the American Medical Association in 1895. For various reasons—which we shall consider later—this operation was a decided failure so far as affording uncomplicated permanent relief to any great number of cases.

In 1886 Drs. Kelley and Olshausen first advanced the idea of retaining the uterus in its proper position by the operation which is now commonly termed ventro-suspension. The technique and nomenclature of this operation have been severely abused. The real operation of ventral suspension consists of including only a small portion of abdominal peritoneum, and a like small area of uterine tissue, within the sutures. This temporarily holds the uterus forward, and, during the next few weeks, a ligament one or two inches in length is formed, which tends to maintain the uterus in its proper place. Operators soon discovered that this mode of procedure was as likely to fail as the old Alexander operation or any of its modifications, and, in their anxiety to obtain immediate results, they gradually grasped more and more uterine tissue, and more and more abdominal wall within their sutures, until finally, instead of doing what they considered a suspension, they were in reality performing a fixation.

The average surgeon of to-day in performing this operation will undoubtedly include within his abdominal stitch a few fibres of the rectus muscle. All things considered, this will, perhaps, give more satisfactory results than the mere inclusion of the peritoneum, but herein lies one of the great dangers of the operation.

Ever since the year 1886 the drift has been steadily toward the side of ventro-suspension for all posterior displacements.

Let us stop a moment to analyze some available statistics. In considering the advisability of an operation we are not justified in taking into account the immediate result only, but must also look to the future. Dr. Lynch, Associate in Johns Hopkins University, in the *Bulletin* for May, 1904, has collected a very interesting series of cases following fixation. He there reports twenty cases upon which it was necessary to do Cesarean section, showing the exceptionally high mortality of nearly 50 per cent.

In 1896 Dorland tabulated 179 cases of pregnancy following

fixation or suspension. In only 38 per cent. did pregnancy and labor have an uninterrupted course.

G. R. Holden (*Amer. Jour. of Obstetrics*, April, 1905) resident gynecologist at Johns Hopkins Hospital, has reviewed the post-operative histories of 445 cases operated upon at that institution. The time elapsed since the operation varies from four months to eleven years. The results as regards improvement of subjective symptoms were good. Out of 182 cases, cures were obtained in 60 per cent., partial cures in 19 per cent., and no results in 21 per cent. The dysmenorrhea from which these cases suffered showed better results in multiparæ than in nulliparæ.

61 per cent. in multiparæ as against 52 per cent. in nulliparæ were relieved;

8 per cent. in multiparæ as against 14 per cent. in nulliparæ were partially relieved;

31 per cent. in multiparæ as against 34 per cent. in nulliparæ received no relief.

I believe these results are about as favorable as we find reported from many other kinds of operations, not alone in gynecology, but in general surgery.

But when we come to consider the question of fertility in cases which have submitted to these operations do we find as satisfactory results? I once heard a clergyman of national reputation make the remark that he had yet to know of the perfectly contented woman who had not borne a child. Out of 238 cases in which pregnancies might be expected 145 reported that they had borne no children; 24 failed to report; and 69 had borne children.

Assuming that one-half of those who failed to report had borne children, we find that only 33 per cent. had subsequent pregnancies. Taking the normal sterility among women at about 6 per cent. the jump to 66 per cent. is appalling. Of the 69 who had borne children 10 had considerable trouble during gestation, or dystocia at the end. Only 14 of the 69 cases had been examined after labor and in these the retroposition had recurred in five. Deducting these 15 from the 69 we find that out of 238 cases of possible pregnancy only 44 conceived and passed through a normal pregnancy and labor without a recurrence of their original trouble, or a percentage of about 14.

Some of the conclusions drawn by Dr. Holden are, I believe, open to criticism. After the examination of 14 patients following labor with a recurrence in five cases (or 33 per cent.), how is it possible to argue that retroposition would occur in less than 5 per cent. of the total operated cases? We must keep in mind one fact in regard to the statistics just quoted: all this work has been done in one of the best hospitals in this country, and by men far above the average operator in point of skill. Were it possible to-day to accumulate data

from a greater field with the more mediocre operator, there is room for doubt whether the figures would show as favorable results as these.

Unfortunately, we have not at our disposal any statistics as complete or far-reaching in regard to Alexander's or the modified Alexander operations. What we have are collected from many authors. Martin (*Amer. Jour. of Obstetrics*, April, 1904) has collected 144 cases followed by 134 normal gestations and labors. In addition he reports pregnancies in 27 per cent. of personally operated cases.

Nowhere can we find such a flood of literature in opposition to the Alexander, or modified operations, as we do in regard to ventral suspensions. Is it not fair, then, to conclude that although we may not have cured our patient, yet on the other hand, we have not put her in a position where she is liable to serious future complications? Many surgeons who are called upon to treat this condition never consider the seriousness or the remote consequences of the suspension operation. It is relatively easy to perform, temporary results are obtained, and thus it has gained favor.

Dr. Kelley tabulates the following conditions which may result from too firm union:

1. Retraction of the scar, due to the tugging of the adherent uterus.
2. Constant hypogastric pain.
3. Retraction and displacement of the cervix even up into the abdominal cavity.
4. Formation of a tumor obstructing the pelvic inlet, resulting from hypertrophy and deficient expansion of the anterior uterine wall.
5. Excessive thinning of the post-uterine wall.
6. Abortion, or premature labor.
7. Persistent and excessive nausea.

During labor the following complications may be noted:

1. Prolongation of the pregnancy.
2. Inertia of the uterus due to thinning of its wall.
3. Dystocia.
4. Inability of the cervix to dilate, owing to abnormal position.
5. Increased frequency of abnormal positions.
6. Rupture of the scar of fixation.
7. Rupture of the uterus.

It was because of these conditions and complications that fixation proper has been discarded. If it were always possible to limit adhesions to the desired extent many of these conditions would certainly never occur.

I do not wish at this time to put myself in the position of one who is absolutely opposed to all operations of ventral suspensions. I do, however, want to leave the impression with you that, in my opinion, it is an operation not to be lightly considered or advised.

Serious disturbances have been noted of late years in increasing numbers, and many operators have abandoned this mode of treatment to a great extent, and have returned to the old methods. It is not suitable or justified in every case. We must always consider whether it is proper to undertake an operation for the cure of a condition which does not threaten the life of the patient, but merely exposes her to a certain amount of discomfort, when we know that the operation may give rise to most serious dystocia, should she become pregnant.

In conclusion we may summarize:

(A) In regard to the Alexander, or modified Alexander operations:

1. The Alexander operation is a safe, rational, and satisfactory procedure where no pelvic complications exist.
2. As far as we know neither of these complicate gestation or labor.
3. Where the entire fundus of the uterus has been denuded, a modified Alexander operation is preferable because of the possible extensive adhesions in doing a suspension.
4. An operation of extra- or intra-peritoneal shortening of the round ligaments is preferable in a woman of child-bearing possibilities.

(B) In regard to suspensions:

1. Very careful and exact technique is required—a suspension must not become a fixation.
2. The possibility of future pregnancy with its complications must be taken into account.
3. Where the patient has passed the child-bearing period, or where sterility is rendered imperative, it is always the operation of choice.

This entire subject is still open for definite solution. We are on the uncertain sea. Let us steer clear of the danger signals which have been set up by more experienced mariners, taking care not to drift too far in either direction until the safer course has been established beyond doubt or cavil.

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### MENINGITIS.\*

BY MAURICE DUANE BIRD, M. D.  
MARINETTE.

The first description of meningeal disease that we are able to find in the literature, was made by Robert Whytt, of Edinburgh, in 1768, although without doubt it had long existed without recognition. The "phrenitis" of Celsus and "typhus fever" of the middle ages, together with other epidemics, may have been due in part to this disease.

\*Read before the Marinette County Medical Society, May 9, 1905.



The term "brain fever" has covered a number of affections, and even now it is not always differentiated from the inflammation of the meninges. At present our knowledge and classification are far from perfect, and will without doubt be very materially advanced in the near future.

The epidemic cerebrospinal meningitis, in which the inflammation covers the meninges of the entire central nervous system, caused by the diplococcus intracellularis, is the form that I will attempt to study with you.

To us Americans this disease becomes especially interesting, for several noted epidemics have taken place in our land: Massachusetts suffered from 1805-1809; from 1837 to 1850 it was prevalent throughout the United States: during our Civil War its ravages were felt; an epidemic took place in Maryland in 1892 and in New York in 1893; and since 1898 there have been cases in Boston and New York most of the time, while at present New York is having the hardest fight in her history with the disease. During the last week of the past April there were one hundred eighty-four (184) deaths due to this disease in New York City. France and Italy have both suffered from its presence, notably in their military branches, and the disease may be followed from one barracks to another. The Prussian army in 1807 lost many of its men, and the Spanish prisoners at Buenne suffered severely from the epidemic.

The contagiousness of the malady has caused many debates and much has been written on both sides. It seems well established that there are well marked cases that develop like lightning out of a clear sky, with no cases following. On the other hand, we have had several well marked epidemics in which the disease has shown itself to be communicable. In stating that the affection belongs to this class it might be well to name a few proofs, for even now it is not rare to find people who do not admit it. In the epidemic of Lippusch twelve and one-half (12½) per cent. of all the inhabitants were ill. In many instances those that cared for the patients became ill. Many cases are on record of physicians and nurses losing their lives in the line of duty. In the Cologne Hospital a sister and three nurses were attacked by the disease while caring for a meningitis patient. There had been no other cases, and these people had not been out of the building since the patient entered.

Hirsch gives with considerable detail a series of cases occurring during an epidemic in Eastern Prussia, that certainly are instructive. A person named K. was taken ill at Szczakau on February 8, 1865, and a young woman W. from Sullenczin came to care for him. After K. died W. returned home and died of meningitis on February 26th.

The administrator's family came from Podgrass to attend the funeral of W.; accompanying this family was a servant D. and a child O. A few days after the return from the funeral, a daughter of the administrator was taken with meningitis and died in 24 hours. The domestic D. and child O. also died, the first on the 4th and the latter on the 7th of March.

Kohlman reports an instance in which he saw two families suffering from this disease, where there was no communication except in the following manner: In the first home there was a death, and to appear properly dressed for the occasion, some clothing was borrowed to wear at the funeral. It was kept in the house a few days and then returned. The two members to whom it belonged both contracted the disease.

Richter cites a case in which the malady was introduced by a healthy third person. In the residence of C. two children, Gretchen and Rose, had meningitis, the first coming down October 29th, the second November 9th. They had not been in contact with any other cases of meningitis, but a servant of the family had been burned, and her wounds had been dressed by a sister of charity who was nursing a case of meningitis.

I know an instance in our own city where a child was ill and later died of the disease; the mother who cared for the little patient contracted the same affection, but recovered after a prolonged illness.

While the disease is without question communicable, there are several peculiarities about it. Clearly it is not of the same class as smallpox, diphtheria, or typhoid fever. As to dissemination, it seems to be in a class by itself, as not a few of our well-known diseases are. In private homes it is the rule to have but one case, while in institutions or barracks there may be several. The disease being within the cranial and spinal cavities, the infection is without doubt carried by nasal or aural discharges, expectorated matter, and urine. It may be of interest to know that the disease also exists in the horse, sheep, dog, goat and ox. The symptoms are very much alike, as are also the post mortem findings. In 1876 there was an epidemic in Cairo, Egypt, in which 5,000 horses died. New York has also had a like epidemic.

The ordinary symptoms may be summed up as follows: The disease begins abruptly with violent and usually frontal headache, severe chill, fever (101°-102° F.), vomiting, pain in back and limbs, mental irritability, hyperesthesia. In children convulsions may occur. Very soon the muscles of the neck and back become stiff and painful, cervical retraction ensues, then tonic spasm, muscle cramp, opisthotonus, impairment of sight and hearing. There is photophobia, delirium, followed in bad cases by stupor and coma. There may be noticed strabismus, ptosis, irregularity of the pupils, and facial spasm. The fever is irregular and not characteristic, but usually below 103°, except when near dissolution, when it may rise very high. The pulse.

at first rapid, becomes slow as pressure advances, the respiration becomes shallow, sighing, and Cheyne-Stokes. The bowels are constipated, abdomen retracted or boat-shaped. The eruption is variable, not elevated, of a purple color, larger than that of measles and blotchy in character.

The diagnosis in many cases is not easy. It may be confounded with influenza, autointoxication, pneumonia, typhoid, and the different forms of meningitis. One may diagnose by exclusion or by the characteristic points of the disease.

Squire's Sign: is elicited in basilar meningitis by placing the head of the patient between the knees of the physician, face upward with body supported upon the bed; the side of the head is grasped with each hand and gradual and forcible extension of the head made upon the spinal column, when there will be dilatation of the pupils; upon flexion the pupils will contract.

Kernig's Sign: is elicited by placing the patient upon his back, the thigh is flexed to a right angle with the body, and the attempt made to extend the leg on a line with the thigh; if meningitis is present it will be difficult or impossible to accomplish this. This sign is present in eighty or ninety per cent. of all cases, and practically in all over two years of age. It is a differential sign of much value, as it is only exceptionally present in other diseases.

It is left for lumbar puncture, however, to bring us down to an accurate diagnosis. This is done by withdrawing a few drops of the cerebrospinal fluid from between the lumbar vertebræ and subjecting it to a microscopical examination for the diplococcus intracellularis, which, if present, confirms the diagnosis.

There are several manifestations of the disease. It may destroy the patient in twenty-four hours, or run a long chronic course terminating in recovery, with one of the many forms of paralysis. The nerves of special sense are especially liable to attack, the most common being the seventh, ninth, tenth and eleventh, as shown by twitching of the face, sardonic smile, difficulty in swallowing, phonation and articulation.

Para- or hemiplegia may also occur, due to destruction of centers in the brain or cord; joint involvement is not infrequent. The pathology shows the chief lesions to be in the cerebrospinal meninges, brain and cord. The results of the disease may also include changes in the blood, kidneys, heart, liver and muscle tissue generally.

The prognosis is bad, the mortality runs from 50 to 80 per cent., and those who recover are often permanently injured.

The treatment is general, ice-bag to the head and spine, warm baths during the stage of irritability, opium to control pain and produce rest, and iodide of soda. Liquid foods, and a dark, quiet room are also essential factors in the treatment.

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## EDITORIAL COMMENT.

### THE FIFTY-NINTH ANNUAL MEETING.

It affords us genuine satisfaction to chronicle and comment upon the events of the 59th Annual Meeting of the State Medical Society, recently held at La Crosse. While the attendance (about 150) was not so large as at some previous meetings, the enthusiasm of those present created an interest in the meeting which could hardly have been provoked to a greater degree by a larger attendance.

From many standpoints the meeting was most successful. The expeditiousness with which the business proceedings were transacted

again demonstrated the wisdom of the plan now in vogue and no disagreeable interruptions occurred to mar the evenness of the meetings devoted to the general sessions.

The most far reaching action taken by the House of Delegates is unquestionably the resolution admitting all reputable practicing physicians, irrespective of school, into fellowship with this Society, and on a footing of equality, even though they do not sever their affiliation with sectarian organizations.

The Society is honored in the election of Dr. John R. Currens of Two Rivers, as its President for the ensuing year. The service Dr. Currens has rendered the Society during long years of loyal support, and the still greater service he has rendered the profession of the state by reason of his activity as a member of the State Board of Medical Examiners during a period of eight years and its president five years, entitled him to the vote of confidence thus shown.

The program for the meeting of 1906 has been put into the hands of a committee composed of Dr. Arthur J. Patek of Milwaukee, chairman; Dr. F. T. Nye of Beloit, and Dr. Charles S. Sheldon of Madison.

The special features of the meeting were well taken in hand by the various committees. Few realized what a treat was in store for them in the address of Prof. Vaughan of Ann Arbor. The address—printed in the July issue of the *JOURNAL*—was of a popular character, and made a strong and favorable impression. Prof. Vaughan's arguments were so clearly and succinctly put that we may see in them a great and powerful lever in aid of the anti-tuberculosis propaganda that will doubtless soon sweep over our state.

Prof. Young's address will be presented to our readers in a future issue of the *JOURNAL* and will be embellished with numerous illustrations. The high reputation of the essayist made it a pleasure and privilege to hear him. The program committee is to be felicitated upon the selection of these two gentlemen for the presentation of the principal addresses.

As generous debate may be considered the index of success of the regular scientific program, this success was unquestionably assured. The discussions on most papers read, when time permitted it, proved that a lively interest was centered in them, and this is particularly gratifying inasmuch as fewer papers had been presented than at several previous annual gatherings.

Attention is elsewhere called to the Tuberculosis Exhibit of Prof. H. L. Russell of Madison, which was of surpassing merit. We feel that its disposition in the basement of the Hotel Stoddard did not accord this exhibit the prominence its excellence deserved.

Dr. Bardeen's excellent paper appears in this issue of the *JOURNAL* and is commented upon in another column.

And what of the social features of the meeting? The vote of thanks tendered the entertainment committee by the Society was indeed but small recognition of the labors of the committee headed by Dr. Edward Evans, and of the very great generosity of the members of the La Crosse County Medical Society. Long will we have occasion to remember the hospitality of these gentlemen, for throughout the days of the meeting their only thought and care was in devising plans for the enjoyment of the visitors, and in providing in most unprecedented, lavish fashion for their pleasure and comfort. The "Conversazione" at the Hotel Stoddard was an agreeable departure, and served to bring the visiting guests into closer contact with their hosts and the residents of La Crosse, who assisted in the entertaining. The social features of the program culminated in an evening boat ride on the Mississippi. Few know the wonderful picturesqueness of this mighty river, and when there is added to this the charm of a happy throng of merrymakers on board, little wonder that this, the grand finale among the festivities of the meeting, met with such expressive response. In again tendering our thanks to the physicians of La Crosse county for their cordiality, we know that we are voicing the sentiment of every one who participated as a recipient of kindnesses at their hands.

#### **THE STATE SOCIETY, THE STATE UNIVERSITY, AND STATE MEDICINE.**

We wish to direct particular attention to the paper of Dr. C. R. Bardeen of Madison, published in this issue of the *JOURNAL*. It is very unfortunate that, after a succession of delays, which, it seems, were difficult to avoid, it was impossible to give this paper a hearing on the regular program of the Annual Meeting. Its mission is so timely, the plan it points out so workable, the results to be achieved so eminently essential to our further progress in this state and our efforts to keep pace with medical teaching facilities elsewhere, that the pity that no action could be taken leading up to a solution of the problem, is all the greater. The gentlemen who have given this subject serious consideration and who intended taking part in the discussion, have kindly submitted their arguments in writing, and we append these to the paper so that they may become a part of the official records of the meeting. As they are quite exhaustive, further comment here is at present unnecessary.

**THE MEDICAL BILL.**

The medical bill, printed elsewhere in this issue, advocated by the Committee on Public Policy and Legislation of the State Medical Society, passed the Legislature and is now a law. It will be observed that Section 1 of the bill has been changed from the original draft as presented by the State Society, in that it vests the power of revoking the license in the Circuit Courts rather than in the State Board of Medical Examiners. Inasmuch as the bill provides that the complaint may be made by any person, and further provides that District Attorneys *shall* prosecute the action at the expense of the county and empowers the Court to appoint counsel to assist the District Attorney, thus in a measure relieving the State Board of Examiners of much labor and great expense, the bill would seem to be a satisfactory substitute for the original measure. It remains to be seen how well it will work and this depends upon the interest taken in its enforcement by the various County Societies. These bodies should appoint committees whose duty it shall be to use all legitimate and proper means to make the law effective. Attention of District Attorneys all over the state should be directed to the evils that the law is designed to suppress. It has been urged that the provision that any person may make the complaint might result in unfounded complaints being made against respectable and reputable physicians as a matter of spite or revenge, but there would seem to be but little danger of this in view of the provision that if the court determines that the complaint is "wilful and malicious and without probable cause, it shall enter judgment against the person making such complaint for the costs of the action, and payment of the same may be enforced by execution against the body of such complainant."

It is unnecessary at this time to dwell upon the features of this law which commend themselves to all honest physicians as well as to the honest and intelligent among the laity. Every doctor in the state should read the bill and become familiar with its provisions. You may rest assured that those whom it most affects are familiar with its features and that they will not hesitate to evade its provisions if possible.

The enactment of the bill was only accomplished by the expenditure of much time and no little money for necessary expenses by the profession of this state. The entire press of the state, with very few exceptions, joined with the humbugs and quacks of every variety and description in the fight against it, and the war continued from early in the legislative session to almost the end. The newspapers resorted to every known device of the obstructing lobbyist, wilfully and per-

sistently misrepresented every feature of the bill, and impugned the motives of the medical profession in advocating the measure. In employing attorneys and lobbyists, they resorted to the filthy money of the abortionist, the "stunted organ" developer, and the "lost manhood" fakir, and hobnobbed and consorted with these men whom privately the business managers and editors of the newspapers affect to abhor and despise. And why are the newspapers guilty of this abuse of their legitimate functions, this treason to the ethics of their profession? The answer is brief—dirty, dishonest money in return for dirtier and still more dishonest advertising. The newspapers not only lost this fight against a reasonable, wholesome, necessary law, but they lost influence, prestige and respect all over this state by their selfish attitude on this question.

The law is right, it is on the statute books, it will remain there, and it will be strengthened in the future if need be. The sooner the newspapers withdraw from their close alliance with the mountebanks and quacks and prune their advertisements to the limits of decency so as to conform to the law, the better it will be for the newspapers, and the less likely they are to stir up trouble and expense for themselves in the future.

#### **A UNITED PROFESSION.**

A change of sentiment has indeed come over the State Society in the past twelve months. At the 1904 meeting the stand was taken, which we then felt justified in criticising as unjust and unreasonable, that homeopathic and eclectic practitioners, in order to be acceptable to our State Society, should sever allegiance with their own societies. All honor to them for their refusal to accede to this demand. In holding that they break away from all their professional affiliations, that they relinquish at once all allegiance to their medical creed (it is purely a *materia medica* creed, and even this distinction is rapidly disappearing), that they sever the social ties that are the fruits of their professional gatherings, before they may be accepted into our councils, our State Society made a proposal that deserved rejection.

The change of sentiment as now demonstrated, shows that we have at last cast off the shackles of an unnatural prejudice. Reputable and ethical physicians are not confined to the ranks of the so-called "regulars." A unification of all honest doctors, irrespective of creed, will make our organization as well as our re-organization a success. If there is aught that is good in our society, the intelligent "irregular" will soon recognize it; if there is aught that is better in our society, the progressive, scientific "irregular" will learn to profit by it; if aught



opens his eyes to the narrowness of his own horizon, as we appreciate ours to have been, his affiliation with us will be permanent, and will tend to weaken his adherence to sectarianism.

County society secretaries may and should now make it their business to issue invitations to all reputable homeopathic and eclectic practitioners, and should not cease their efforts until they have corralled all the desirable doctors in their districts.

Thus will the mission of unification of the entire profession for the common good, an alliance for offensive and defensive support, be realized.

#### **THE COLORADO MEDICAL LAW.**

Success has crowned the efforts of the physicians of Colorado to pass a law that will in a manner accomplish what it proposes to do, viz: "Protect the Public Health and Regulate the Practice of Medicine." While the original bill was modified by various amendments, the statute as it now stands is sufficiently strong to ensure a feeling of security against the influx of disreputable practitioners, and against the perpetration of certain forms of frauds and criminal practices. The Board has the right "after investigation of an applicant's record and credentials, all of which must be taken into consideration in conducting examinations, to grant licenses without technical examination whenever they are convinced that an applicant possesses the standard of educational and moral qualifications they have decided upon as proper."

By a further provision "said board may at any time within two years from the refusal or revocation of a license or cancellation of registration under this section, by a majority vote, issue a new license, or grant a license, to the person affected, restoring or conferring all the rights and privileges of, and pertaining to, the practice of medicine as defined and regulated by this act."

We felicitate the Colorado Board and envy it its success in passing a law providing for the revocation of license for cause. This bill differs but little from that drafted for passage in this state, and includes condemnation of the publication of advertisements relative to diseases of the sexual organs.

#### **A BID FOR PATENT MEDICINES.**

The United States Consul stationed at Tuxpam, Mexico, complains that Mexico has not been sufficiently exploited as a dumping ground for patent medicines of American manufacture. He says:

“Patent medicines of American manufacture are in fairly good demand, and their sale could be greatly increased if proper methods were employed to bring their merits before the public in a striking and permanent manner instead of by the spasmodic efforts made now and then through English printed matter, which produces only negative results. Bright, attractive circulars and catalogues printed in Spanish, not too voluminous, and free of all traces of quackery, should be mailed to houses here, and it can be safely asserted that they will receive generous recognition, especially if followed up periodically by able salesmen, speaking Spanish, who will make a reasonable effort to study national and local requirements.”

While doubtless there are numerous meritorious preparations in general use here, and we should and do wish to see every encouragement given our reliable pharmaceutical houses in their exploitation of new territories for the greater sale of goods which we have found to be indispensable in our daily work, a request, such as is contained in this consular report, will, we fear, first of all invite preparations such as that of the late lamented Lydia Pinkham, Mr. Pierce's Compound, Munyon's Paw Paw, Peruna, and many disguised alcoholic beverages. It is safe to predict that attractive circulars, “free of all traces of quackery,” sent to dealers, will hardly yield the same result as will those that appeal to the people themselves.

What Barnum said of the gullibility of Americans doubtless includes our Mexican neighbors, and we may expect soon to learn from travelers that a knowledge of the existence of Lydia Pinkham and her brethren has been “indelibly lined on the tablets of the mind” of our Mexican friends.

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### ITEMS OF INTEREST.

**Appropriation Vetoed.**—The governor sent to the Senate a veto of the bill appropriating \$1,300 for the establishment of a health park for the treatment of tuberculous patients. He claimed that, although the purpose of the measure might be of the noblest and best, it was hardly the right or duty of the state to spend money in such a way. The bill appropriating \$90,000 for the establishment of a state sanitarium for the treatment of tuberculosis had been approved, he said, but it was not right to give assistance to a private organization engaged in this work, no matter how worthy it might be. The appropriation was made to save the offer of the late William Bradley of Tomahawk, who gave a certain tract of land on condition that a sum of money would be raised for cottages in which tuberculous patients could be treated. Subscriptions have been raised to meet the condition with the exception of \$1,300 and this balance the Legislature intended to make up.

**Prizes for Essays on Lead Poisoning.**—The Internationales Arbeitsamt, in Basel, Switzerland, has offered 27,000 marks (\$6,426) in prizes for essays on means of combatting lead poisoning. The various questions to be

considered by those competing are: The most practical method of eliminating the danger of lead poisoning during the process of handling lead ores, in lead-smelting works, in chemical and electrical works where lead is in use, in trades such as painting, enameling, in type foundries, printing establishments, etc.

The proposals made must give the possibility of elimination of the danger in such a manner that no objection can be made on technical, hygienic, or economic grounds. The dangers are to be given, so far as possible, in classes, in order to make it clear at what stage of the process or under what conditions there is greatest or least danger.

**Publishing House Found Guilty.**— Judge S. H. Bethea, in the federal court, of Chicago, has directed a verdict of guilty against Dr. Alice B. Stockham, 71 years old, and Edwin B. Beckwith, manager of the Stockham Publishing Company, charged with circulating improper literature by mails and express.

In deciding the case, Judge Bethea said: "When the laws were framed it was not believed the general discussion of the marriage relation was advisable. If these persons believe they are right in teaching these subjects so that the young may learn of them, they should have their doctrines interwoven in the laws of the land. What we have to do is to uphold the law as it stands."

**A New Journal.**— The Surgical Publishing Company of Chicago announce the appearance of a new magazine under the title Surgery, Gynecology and Obstetrics. Dr. Franklin H. Martin is to be the managing editor, and its editorial staff and list of collaborators comprise some of the most prominent operators in Chicago and other large cities of the country. This may serve as a sufficient guarantee of the high class of literature to be looked for. The journal is financed by a stock company of Chicago physicians.

**New Remedy for Tuberculosis.**— Professor Levi of Milan announces the discovery of a new cure for human tuberculosis. The remedy is said to consist largely of "allotropic iodine," and is administered hypodermically. Ten or fifteen injections are followed by increase in weight, and after 40 to 50 cicatrization of the tubercles takes place. According to the report submitted, 20 persons have thus far been treated, and the results are favorable. The experiments cover a period of two years.

**Fraud Orders Issued.**— The postoffice has issued fraud orders against numerous private medical advertising concerns engaged in the mail order business in various cities. As our city and state are also pest ridden, we trust the ban will soon be placed upon firms doing business here too. It is gratifying to find that the postal authorities are carrying into effect their expressed intention of last year to enforce the statute governing the sending of obscene and fraudulent literature through the mails.

**Yellow Fever at Panama.**— Gov. Magoon of the Isthmian canal zone has reported several additional cases of yellow fever. There seems to be a fear on the part of some that, for obvious reasons, the actual truth of the situation is being suppressed by the authorities.

**The Optometry Bill,** creating a State Board of Optometry, which was passed by the Wisconsin Assembly, was wisely and mercifully killed in the Senate. It was urged by some opticians and generally opposed by the medical profession.

**Hudson Sanitarium.**— Drs. E. B. Bradford and R. G. Sayle of Milwaukee have leased the sanitarium at Hudson, Wis. Dr. Bradford will be in charge of the sanitarium, which has been closed for some time.

**Graduate at Johns Hopkins.**—The following Wisconsin students received the degree of doctor of medicine at Johns Hopkins on June 14th: Clarence A. Baer, Milwaukee; Arthur W. Meyer, Cedarburg; Martin P. Rindlaup, Platteville.

**Dr. J. H. Campbell,** an old resident of Rock and Walworth counties, died on June 14th of apoplexy, at the age of 73 years. He was a native of New York.

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### THE MEDICAL BILL.

The "Medical Bill," changed from the original draft as previously published in the JOURNAL, has passed the Legislature and is now a law. The full text is as follows:

STATE OF WISCONSIN,  
IN ASSEMBLY.

SUB. FOR NO. 353A.

A BILL empowering and requiring the Wisconsin State Board of Medical Examiners to refuse to grant licenses or certificates of registration to persons guilty of immoral, dishonorable or unprofessional conduct, and empowering the courts to revoke and annul any license or certificate issued to any person guilty of immoral, dishonorable or unprofessional conduct, or fraud or perjury in connection with obtaining such license or certificate, or through error.

*The people of the State of Wisconsin, represented in Senate and Assembly, do enact as follows:*

SECTION 1. It is hereby made the duty of the Wisconsin State Board of Medical Examiners to refuse to license or grant a certificate of registration to any person guilty of immoral, dishonorable or unprofessional conduct. The circuit courts of this state are hereby vested with jurisdiction and power to revoke and annul any license or certificate of registration which has heretofore or which may be hereafter issued to any person to practice medicine or surgery, or osteopathy in this state, who is guilty of immoral, dishonorable or unprofessional conduct, after the passage of this act, or who has procured such license or certificate of registration by fraud or perjury, or where the same was obtained through error. Upon a verified complaint in writing being made by any person to the district attorney of any county charging any person holding such license or certificate with having, in said county been guilty of any immoral dishonorable or unprofessional conduct, as defined in this act, or with having procured such certificate or license by fraud or perjury, or through error, said district attorney shall commence and prosecute an action in the circuit court of said county against the person so complained against, to revoke and annul such license or certificate of such person. Such action shall be commenced and prosecuted as

a civil action in the name of the State of Wisconsin as plaintiff, and against such person complained against as defendant, and the rules of pleading, evidence and practice in civil actions in the circuit court shall be applicable thereto and either party may appeal from the circuit court to the supreme court as in other civil actions. Either party to said action may demand a jury trial and the defendant shall have the right to be represented by counsel and the court may permit counsel to assist the district attorney in the prosecution of such action. The costs of such prosecution shall be paid by the county in which said action is brought. If upon the trial of such action, the court finds or the jury returns a verdict in favor of the plaintiff, judgment shall be rendered revoking and annulling such license and certificate of the defendant, and the clerk of the circuit court shall forthwith cause a certified copy of such judgment to be sent to the secretary of the Wisconsin State Board of Medical Examiners to be filed for record in the office of said secretary. Any person whose license or certificate has been revoked under the provisions of this act, who shall thereafter practice or offer or attempt to practice medicine, surgery or osteopathy in this state, shall be punished as provided in Chapter 426 of the Laws of 1903. No person shall be excused or privileged from testifying fully under oath or producing evidence, documentary or otherwise, in any action, proceeding or examination brought under the provisions of this act; but no person shall be prosecuted or subjected to any penalty for or on account of any transaction, matter or thing, concerning which such person may so testify or produce evidence, documentary or otherwise, except for perjury committed in giving such testimony. If the court before which the trial is had shall determine that the complaint made to the district attorney was willful and malicious and without probable cause, it shall enter judgment against the person making such complaint for the costs of such action, and payment of the same may be enforced by execution against the body of such complainant as in tort actions.

SECTION 2. The words "immoral, dishonorable or unprofessional conduct," as used in Section 1 of this act are hereby declared to mean: First—Procuring, aiding or abetting a criminal abortion. Second—Advertising, either in his own name or in the name of another person, firm, association or corporation, in any newspaper, pamphlet or other written or printed paper or document in an obscene manner or in a manner derogatory to good morals, the curing of venereal diseases, the restoration of "lost manhood," or the advertising of any medicine or any means whereby the monthly periods of women can be regulated or the menses re-established, if suppressed, or being employed by or in the service of any person, firm, association or corporation so advertising. Third—The obtaining of any fee on the assurance that a manifestly incurable disease can be permanently cured. Fourth—Willfully betraying a professional secret. Fifth—Indulging in the drug habit. Sixth—Conviction of any offense involving moral turpitude.

SECTION 3. This act shall take effect and be in force from and after its passage and publication.

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## CORRESPONDENCE.

## COMMITMENT OF THE INSANE.

THE EDITOR OF THE WISCONSIN MEDICAL JOURNAL,

DEAR SIR: In a recent issue of your magazine I observed some remarks concerning the commitment of insane persons which were evidently founded on misapprehension. This is a subject of so much importance that a correction seems desirable. There were two statements in particular in these editorial notes to which attention should be called.

The first was to the effect that sheriffs detain persons adjudged insane in the county jails. Of course this may be so; but, if it is done, it is done in violation of law. Section 585c R. S. Wis. provides that commitments from other counties than this may be made to one of the state hospitals, and in this county may be made to either the Milwaukee Hospital for Insane or the Asylum for Chronic Insane. There is no provision for the detention of persons so committed in the county jail. Section 586, which covers the very important matter of the writ of temporary detention, contains the express provision, "that no such person shall be confined in a jail or lockup or other prison for the confinement of criminals \* \* \* \* unless it shall appear to the judge that confinement therein is essential to the safety of such person or some other person or persons or to the maintenance of the public peace and safety." The sheriff may have implied authority to make the county jail one of the stopping places on the journey, but certainly if he holds an insane patient there longer than the case absolutely necessitates, he is guilty of false imprisonment.

The second erroneous statement dealt with the writ of commitment which ordinarily, it is true, runs to the sheriff of the county. There is no provision requiring these commitments to be made out in this manner. The judge has authority to make them out to any person. I, myself, long ago told Dr. White, superintendent of the Milwaukee Hospital for Insane, that I was willing to make them out to him at any time when he could furnish attendants and an ambulance. I understand that there have been some financial difficulties in the way of this arrangement, but these, I trust, may soon be overcome, for I agree with you entirely that it is an anachronism to call in the sheriff in insane cases.

One other thing might be added. The editorial notes in question animadverted upon the right of the patient to demand a jury trial. It may be well to say that, while this provision looks very formidable

in theory, it is not so in practice. I have been judge of the county court of this county for over three years and have made a large number of commitments and in all cases, since the reform of the procedure, have seen the patients personally before the final commitment was signed. During the same time a number of patients have been committed by Judge Neelen of the district court. In all this time I have had but one jury trial. Most patients tell me that they do not care to go into court.

Yours respectfully,

PAUL D. CARPENTER.

(Judge Carpenter has taken great interest in the cases of insanity which have come before him. Thousands of insane people in this state have, unfortunately, been in jail before going to the hospitals. We are told that it is the almost universal usage for the sheriff to detain the insane person for a day or two, and that it has frequently happened that the insane person is so detained in order that the sheriff may take a convict to Waupun at the same time; he drops the insane person at the hospital, thus making one trip and obtaining double mileage.

It is a fact, as the Judge admits, that the writ of commitment has ordinarily gone to the sheriff, and the county judges of the state have, as a rule, favored the sheriff in sending patients to the hospitals. We are glad to note, however, that the judges of Milwaukee County have effected an arrangement with Dr. White of the Milwaukee Hospital for the Insane, whereby the commitment papers for this county are put in the hands of an agent of the hospital. With this precedent established, other county judges may find it feasible to withdraw this patronage from their sheriffs, more particularly inasmuch as the law, as quoted above, does not compel the order of commitment to be made out to these officers, and the judges are therefore privileged to exercise a free hand in the matter.—ED.)

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**Brain Hemorrhage.**—W. A. DICKEY, Toledo. (*Journal A. M. A.*, May 13), considers alcohol and syphilis the two most prominent causes of the arterial degeneration favoring brain hemorrhage; next to these comes chronic interstitial nephritis, and after these a multiplicity of other factors leading to arterial decay. Still another factor is required in all cases, namely, increased intracranial blood pressure, such as may be caused by muscular effort, indigestion, etc. Beside the prophylactic measures, such as quiet, avoidance of whatever may cause cerebral congestion, increased work of the heart, etc., he advises for the attack itself the use of powerful cardiac depressants, naming, in the order of their importance, aconite, in full doses, veratrum viride, gelsemium and venesection. Gelatin, he thinks, is too slow in its action and not always practicable. Cathartics should be avoided for the first few days, and he sees little utility in an icecap to the head. The patient should be kept absolutely quiet in bed for ten days or two weeks.

## THE STATE MEDICAL SOCIETY OF WISCONSIN.

ORGANIZED 1841.

### Officers 1905-1906.

J. R. CURRENS, Two Rivers, President.  
 A. W. GRAY, Milwaukee, 1st Vice-President. A. GUNDERSON, La Crosse, 2d Vice-President.  
 W. E. FAIRFIELD, Green Bay, 3rd Vice-President.  
 CHAS. S. SHELDON, Madison, Secretary. S. S. HALL, Ripon, Treasurer.  
 A. T. HOLBROOK, Milwaukee, Assistant Secretary.

### Councilors.

FOR ONE YEAR.		FOR FOUR YEARS.	
1st Dist., H. B. Sears, - - - - -	Beaver Dam	7th Dist., W. T. Sarles, - - - - -	Sparta
2nd Dist., G. Windesheim, - - - - -	Kenosha	8th Dist., T. J. Redellings, - - - - -	Marinette
FOR TWO YEARS.		FOR FIVE YEARS.	
3rd Dist., F. T. Nye, - - - - -	Beloit	9th Dist., D. L. Sauerhering, - - - - -	Wausau
4th Dist., C. A. Armstrong, - - - - -	Boscobel	10th Dist., E. L. Boothby, - - - - -	Hammond
FOR THREE YEARS.		FOR SIX YEARS.	
5th Dist., J. F. Pritchard, - - - - -	Manitowoc	11th Dist., J. M. Dodd, - - - - -	Ashland
6th Dist., J. S. Walbridge, - - - - -	Berlin	12th Dist., A. T. Holbrook, - - - - -	Milwaukee

NEXT ANNUAL SESSION, MILWAUKEE, JUNE, 1906.

The Wisconsin Medical Journal, Official Organ.

## SOCIETY PROCEEDINGS.

### THE ANNUAL MEETING.

One year ago, at the first meeting of the House of Delegates, the State Society was exceedingly happy to be able to announce that, as the result of the year's work, the whole state had been organized into 62 county medical societies. At the close of the year the statement that the 62 societies were all alive, and had all sent in annual reports, was almost equally gratifying. That fact alone was of great significance, and meant a great deal as to the vitality and permanence of the County Society plan. The further statement that 1,357 physicians had already paid the dues for 1905—a gain of 50 over a year ago—meant that the movement is going forward and not backward. It does *not* mean that the work of organization is accomplished and we can rest from our labors. It has hardly begun, and more hard work is ahead of us than has been done already. From the Annual County Reports, it appears that quite a number of the societies, especially in the smaller counties, have held no meetings for scientific work during the year, but have been empty paper organizations. These weak points in the line of battle must be strengthened if possible. In some cases,



where it is clearly impracticable to maintain an active working society, it may be advisable to "hyphenate" with some larger society. In other cases the Councilor must attempt the task of re-organization, and endeavor to infuse such an amount of the "medical society spirit" into the membership as shall insure regular meetings and satisfactory scientific work. On the whole, however, the annual reports from the county secretaries were very satisfactory. In a large majority of the 62 societies regular meetings and good scientific work have been the rule.

Taken altogether the meeting was certainly one of the most successful in our history and thoroughly enjoyable. The attendance was not as large as usual, but the falling off is fully accounted for by the location of the place of meeting and the serious interruption of travel caused by the recent floods. There is nothing to indicate that it signified any loss of interest in the Society or the cause of medical organization.

The scientific program was fully up to the standard, while the Addresses in Medicine and in Surgery were received with positive enthusiasm. The paper of Dr. Vaughan on Tuberculosis was a model for a popular audience; while it was intensely interesting, it was equally instructive and held the constant attention of every one in the audience. The Exhibit on Tuberculosis given by Dr. Russell of the State University, at the Hotel Stoddard, illustrated forcibly many of the points brought out in Dr. Vaughan's address.

Dr. Young's paper on the Surgery of the Prostate gave evidence not only of an extensive experience, filled full of practical expedients, but also of intense application and great ability. It fully sustained his great reputation as a specialist in this affection.

The local committee of arrangement had made admirable provisions for the meeting. The assembly room in the Court House was attractive and well adapted for its purpose. The exhibits were sufficiently remote from the place of meeting and so did not interfere with its orderly character. All this was to be expected, but what was especially in evidence, from first to last, was the hospitable and whole-souled spirit which animated, not only the local profession, but the whole town. It was no mere figure of speech in which we were assured that the town was ours. Citizens vied with the doctors to give us the heartiest kind of a welcome and do all in their power to make our stay enjoyable.

The reception at the Hotel Stoddard on Thursday evening was generally attended by the citizens of La Crosse and furnished a happy medium for a more intimate acquaintance with our hosts.

Nothing could be more charming than the boat ride on the

"Father of Waters" on Friday evening. All enjoyed the beautiful scenery, while entertainment, suited to every taste, was lavishly provided for all.

The coach ride given the visiting ladies on Friday, followed by the luncheon at the Country Club, was in keeping with the remainder of the entertainment and was fully appreciated by those who had the good fortune to take part in it. It is but just to add that all this entertainment was absolutely free to the members of the Society—the expense being met by the local committee.

The House of Delegates, as well as the Council, held daily meetings at which the business of the Society was transacted most satisfactorily. The account of their proceedings will appear in a later issue.—C. S. S.

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**SYNOPSIS OF PROCEEDINGS OF FIFTY-NINTH ANNUAL MEETING  
OF THE STATE MEDICAL SOCIETY OF WISCONSIN,  
AT LA CROSSE, JUNE 8, 9, 10, 1905.**

HOUSE OF DELEGATES.

The meeting was called to order June 7, 1905, at 8:15 P. M., by the President of the Council, Dr. W. T. Sarles. The Secretary called the roll and 12 delegates or alternates were present. President C. W. Oviatt took the chair.

Reports of councilors were received from the First, Third, Fourth, Seventh, Tenth and Twelfth Districts.

Dr. H. B. Sears, of the First District, thought every legalized practitioner should become a member. Meetings should be made interesting, and outside talent occasionally invited to participate. License reciprocity between states should be accomplished as speedily as possible. Insurance against malpractice suits might be desirable.

Dr. F. G. Nye, of the Third District, had met with some pessimistic opposition, but the outlook is bright. Outside physicians have difficulty in understanding why we have county medical societies. Earnest endeavor to get fully attended meetings is desirable.

Dr. T. S. Lawler, reporting for the Fourth District, said the general condition of the district was fairly good. The fee-bill is an important question. We hope to have four meetings a year, two of them social.

Dr. W. T. Sarles of the Fifth District, spoke of the importance of admitting to membership in the county society, those who are licensed by law to practice medicine, but who are affiliated with homeopathic

or eclectic societies, and said that the American Medical Association had held that this was according to the constitution. An annual business meeting of the county society should be held. Outside talent should occasionally be called upon. About four meetings a year is all the average county can stand.

Dr. Boothby, reporting for the Tenth District, said there was a slight gain in membership. An annual sanitary meeting to which prominent citizens, boards of health, etc., should be invited, would be desirable. The fee-bill might be considered by members unofficially, inviting non-members to participate.

Dr. A. T. Holbrook's report, read by the secretary, showed the conditions in Milwaukee county to be excellent.

Dr. A. W. Gray suggested the advisability of passing a resolution declaring eligible to membership in county societies, all who under the law are qualified to practice medicine.

After full discussion, Dr. W. H. Washburn presented the following resolution which was adopted:

*Resolved*, That it is the sense of the House of Delegates of the State Medical Society of Wisconsin, that eligibility to membership in county societies shall not require physicians to relinquish their membership in their sectarian local or state societies."

The Treasurer's report was then read and referred to the Council.

The Secretary then read his report which was accepted and referred to the Council. He said he had received reports from 62 secretaries, which he considered a promising indication: that there were grounds for belief in the ultimate success of the new plan; membership has increased, better work along scientific lines is being done, and the morale and esprit du corps of the profession are rapidly advancing to a higher plane.

**Thursday, June 8, 9:30 A. M.**

The roll was called, showing 21 delegates or alternates present.

Dr. W. H. Washburn, of Milwaukee, was elected as Delegate, and Dr. A. H. Levings, of Milwaukee, as Alternate, to the American Medical Association, for two years.

A committee of eleven to make nominations for officers and for councilors whose terms have expired, was elected. There was no nomination made for a member of the committee from the Fifth District.

A committee of three to name ten men from whom the Governor shall make selection of a member of the State Board of Medical Examiners, was appointed by the President.

A proposition and communication were submitted from the WISCONSIN MEDICAL JOURNAL, to renew contract for printing proceedings, at rate of \$1.20 per member.

This proposition was referred to the Council with recommendation that it be accepted and contract awarded at rates specified, if the finances of the society will permit it.

**Friday, June 9, 8:15 P. M.**

Roll call showing 17 present.

Reports from Second, Fourth, and Fifth Councilor Districts received.

List of 10 names presented from whom the Governor is to select a member of the State Board of Medical Examiners.

There being a balance of \$1,129.10 due for expenses of getting the medical quackery bill passed and for other legislation, a resolution was passed directing the Secretary to request aid from county societies in paying the amount.

Arrangements were afterward made looking to the immediate settlement of the indebtedness.

The report of the Nominating Committee was received and adopted, as follows:

Officers for ensuing year:

President, J. R. Currens, Two Rivers.

First Vice-President, A. W. Gray, Milwaukee.

Second Vice-President, A. Gunderson, La Crosse.

Third Vice-President, W. E. Fairfield, Green Bay.

Councilor, First District, H. B. Sears, Beaver Dam.

Councilor, Second District, G. Windesheim, Kenosha.

Program Committee: Arthur J. Patek, Milwaukee, chairman; Fred T. Nye, Beloit, the secretary, ex-officio.

Committee on Public Policy and Legislation: G. E. Seaman, Milwaukee; J. J. McGovern, Milwaukee; W. T. Sarles, Sparta.

Place of meeting: Milwaukee.

Dr. Byron M. Caples of Waukesha, was named as delegate to the American Medical Association meeting, as delegate and alternate elect could not go.

A congratulatory telegram was sent Drs. Dinsdale, Powell and Noble for their work in connection with medical legislation.

Adjourned *sine die*.

**General Session.**

The meeting was called to order June 8, 1905, by the President, Dr. C. W. Oviatt.

The morning session was devoted to preliminary matters, and the afternoon session was opened with the address of the President:

ON THE RESPONSIBILITY OF THE GENERAL PRACTITIONER IN RELATION TO SURGICAL DISEASES.

Its importance is not fully recognized. There should be a prompt recognition of cases which are strictly surgical, particularly acute surgical infections and malignant diseases. Appendicitis and cancer demand early operation. In cases of too long delay, the death should be charged to the procrastinating physician rather than to the surgeon. An early exploratory incision is often indicated in suspected cases of cancer of the stomach.

ECTOPIC PREGNANCY.

Dr. W. C. F. Witte, of Milwaukee, said: The subject has been carefully studied but the etiology is still in doubt. Gonorrhoeal inflammation is supposed to be a frequent cause. Tubal is the most frequent form of ectopic pregnancy, but many of the cases are atypical and difficult of diagnosis. To-day it is generally admitted that the proper treatment is surgical. The mortality rate should not be above 10 per cent. The secret of success lies in the management of the placenta. In operating, the abdominal route is generally preferable.

**Discussion.**

DR. C. H. LEMON, of Milwaukee: Differential diagnosis may be difficult as between appendicitis, other pelvic inflammations and recent abortion. Immediate surgical intervention in urgent cases and ultimate surgical interference in all cases is indicated.

DR. JOHN SPECHT, of Superior: Urgent early diagnosis and immediate operation are important.

DR. MALONE, of Milwaukee: The comparative rarity of the disease is the reason why it is sometimes incorrectly diagnosed, though its symptomatology is no more obscure than that of appendicitis. An exploratory incision is sometimes advisable.

DR. J. R. MINAHAN, of Green Bay: Get the history of the case. Do not use an anesthetic in diagnosing this condition. Where a woman has gone over her periods, has symptoms of miscarriage and is seized with severe pain in the abdomen, followed by shock and symptoms of internal hemorrhage, open the abdomen.

DR. O. THIENHAUS, of Milwaukee: An examination under narcosis is dangerous. If the physician has no surgical aid at hand, he can open the abdomen and check the bleeding by means of a clamp on each side of the broad ligament, and then await surgical aid.

DR. EDWARD EVANS, of La Crosse, exhibited specimens illustrating rare cases of true ovarian pregnancy and of incipient tubal abortion.

DR. R. G. SAYLE, of Milwaukee: It is impossible to make a differential diagnosis in all cases of ectopic pregnancy, from appendicitis. Severe examination either with or without anesthesia, is inadvisable. Nothing should delay operation.

DR. JULIUS NOER, of Stoughton, described two cases of mistaken diagnosis of ectopic pregnancy.

DR. WITTE (closing): Should advise repeated examination only in suspected unruptured cases. Abdominal incision (not vaginal) should be employed.

#### THE PERMISSIBILITY OF MEDICAL ABORTION.

This paper by Dr. W. E. Fairfield, of Green Bay, was really in answer to Dr. T. L. Harrington's paper of last year. Medical abortion is sometimes justifiable. It does not open the door to criminal abortion. If, as opponents admit, we are justified in removing the sac after abdominal section in extrauterine pregnancy, thus indirectly causing the death of the foetus, we would have the right to destroy the foetus when the mother is suffering from a malignant tumor of the uterus or pernicious vomiting.

In the discussion Dr. Harrington maintained his former position.

#### THE CLINICAL ASPECTS OF DIABETES.

Dr. C. J. Combs, of Oshkosh, presented cases illustrating interesting clinical features; where there is no reduction of weight, where the patient is apparently healthy, in spite of grave pathological changes, where there are diabetic coma and almost complete consolidation of lungs, without temperature; also diabetic dyscrasia without sugar.

#### THE PRESENT STATE OF SURGICAL TREATMENT OF UNDESCENDED TESTIS.

Dr. Chester M. Echols, of Appleton, said: All cryptorchids, if seen before puberty, should be operated on, thus avoiding hernia, strangulation, malignant disease and psychical disturbances. The most favorable age for operation is between 5 and 12 years. After puberty there is small hope of improving function. Orchidopexy is the operation of choice. More accurate observation of final results of surgical treatment are needed.

#### Discussion.

DR. A. H. LEVINGS, of Milwaukee: A majority of these cases favor malignancy, hernia, neurasthenia and sterility, and operation should be undertaken.

DR. T. L. SCANLAN, of Grant County: I have found epilepsy associated with this condition, which improved after operation.

## TUBERCULOSIS AND ITS PREVENTION.

Dr. V. C. Vaughan, of the University of Michigan, delivered the Annual Address in Medicine in the form of a public lecture on "Tuberculosis and its Prevention." The disease can be wiped out by destroying the infected discharges, through which alone it is spread. Education through antituberculosis societies and otherwise must be undertaken. Sanatoria, public or private, for all classes of cases must be established. Tuberculosis is not hereditary, and there is no known specific for it. Continued re-infection is one of the greatest sources of danger, even to the already infected. The disease is curable in its incipient stages. The best food in sufficient quantities is an aid in the treatment, and the government that allows such a thing as the beef trust to exist, aids and abets in the spread of tuberculosis. As a result of the establishment of hospitals for advanced cases of tuberculosis in London 20 years ago, statistics show that the death rate from this cause is only half what it is in cities of Europe of the same class. Civilized man has overdone his housing. Tuberculosis is a preventable disease, therefore let us prevent it.

## SQUINT.

Dr. H. V. Würdemann of Milwaukee, read a paper by himself and Dr. N. M. Black of Milwaukee on "Squint."

The writer claims that the majority of cross-eyed children can be cured without operation, if treatment be begun early enough—by correction of the refraction, systematic orthoptic exercise, and especially by the Worth amblyoscope. The latter is a stereoscope with movable tubes, and is used by the operator to stimulate vision in the amblyopic eye, if such be present, and to excite the development of the fusion center, the loss or poor development of which is due in the majority of cases to difference in refraction. The ordinary stereoscope, with colored pictures, for home use, is likewise used.

All cases of squint should be seen and treated by the physician early, i. e., at their development, which is usually between two and three years of age. Patients do not outgrow squint, but may be made to overcome it by proper refractive correction and orthoptic exercises, so that but a minor number need operation. All cases can be cured by some or all of these procedures.

**Discussion.**

DR. J. A. L. BRADFIELD, of La Crosse: It is criminal to tell a parent that a child will outgrow squint. This disease is caused in most cases by errors of refraction, which, if corrected, will in time correct the squint.

DR. G. E. SEAMAN, of Milwaukee: The real objection to the Worth method of developing the fusion faculty is the time and patience necessary to bring about good results. Amblyopia is the effect rather than the cause of squint, but in amblyopic cases operation is frequently necessary. Squint is almost never outgrown without treatment.

DR. F. T. NYE, of Beloit: I would advise the earliest possible treatment. Kindergarten work does not cause but discovers defective vision early and in time for correction. If the cases are not treated early operation may become necessary.

DR. WUERDEMANN (closing): The results of orthoptic treatment are encouraging. Half a dozen treatments are given at the office of the physician and the rest of the treatment is given at the home of the patient. It may require from three months to one or two years to effect a cure.

#### PLACENTA PREVIA.

Dr. G. A. Hipke, of Milwaukee, said that Caesarean section should always be performed where the child is alive in a case of placenta previa centralis, but that it should never be performed in cases of placenta previa lateralis or marginalis.

#### Discussion.

DR. T. L. HARRINGTON, of Milwaukee: Placenta previa is not on the increase. The diagnosis is usually easy. Modern practice has reduced the death rate of mothers from 30 per cent. down to 10 per cent., and the death rate of children considerably. Caesarean section should seldom be resorted to, even in placenta previa centralis.

DR. L. T. BENNETT, of Beloit: I protest against the rule of performing Caesarean section in placenta previa centralis. Great pains should be taken in these cases to avoid infection.

DR. WARREN B. HILL, of Milwaukee: The location of the patient is an important factor in the treatment. The expectant plan might be pursued in a good hospital, while under adverse surroundings and where the conditions are not favorable to immediate relief, premature labor should be brought about as quickly as possible.

DR. J. R. MINAHAN, of Green Bay, urged that the surgeon be called early, if at all, and not as a last resort.

#### ASEPTIC OBSTETRICS.

Dr. J. P. Cox, of Spooner, urged absolute surgical cleanliness. Nature tries to protect the patient, and it is only when in our own bungling unsanitary ministrations we overwhelm the guardian of the citadel with hostile germs that danger results.

#### Discussion.

DR. E. L. BOOTHBY, of Hammond: It is often too late to practice aseptic obstetrics in the country; but women under the conditions described seem to be immune from infection.

DR. J. M. DODD, of Ashland, said that absolute asepsis in obstetrics is impossible.



## THE PRESENT STATUS OF SURGERY OF THE PROSTATE.

Dr. Hugh H. Young, Associate Professor of Genito-Urinary Surgery at Johns Hopkins University, delivered the annual address in surgery, on "The Present Status of Surgery of the Prostate." He gave an outline of the functions and pathology of the gland, and described his own modified perineal operation, whereby he leaves the floor of the urethra, the veru montanum and the ejaculatory ducts, thus preserving full sexual power in almost every instance. The prostate is one of the most important of the sexual organs. No progress has been made in the treatment of tuberculosis of the prostate during the last ten years, and operation is contraindicated. The etiology of prostatic hypertrophy is not definitely settled. Paralysis of the bladder is not a usual complication. Cystoscopic examination should be employed. Carcinoma of the prostate occurs in from 10 to 15 per cent. of supposed benign hypertrophies. It is one of the most important of curable surgical conditions. Enlarged, hard and irregular prostate with tendency to grow towards the seminal vesicles indicates cancer. An early diagnosis and permanent cure are feasible.

## THE CAUSES AND SYMPTOMS OF CARDIAC INSUFFICIENCY.

Dr. J. D. Madison, of Milwaukee, called attention to the newer ideas in regard to the pathological significance of the fatty changes in the heart, and concluded that the bulk of the fat found in the heart muscle is imported, and does not represent broken down protoplasm. However, it is known that fat often accumulates in an injured cell. In many cases, where such fatty condition is present, the heart's capacity for work does not seem to be impaired, while in other cases it undoubtedly is impaired. At present we are unable to justly estimate the meaning of fatty changes in the heart muscle, and it would probably be best to consider that an increased amount of visible fat is, in many cases, an index of cell injury. Coronary sclerosis is the fundamental condition in many fatty hearts. We are much indebted to the recent researches of Krehl and Romberg, who have shown that disturbances of cardiac function so frequently depend upon demonstrable lesions of the heart muscle. Particular stress was laid upon the importance of recognizing the early symptoms of cardiac insufficiency. The early symptoms and signs to be especially noted are: Lack of nervous stability, loss of energy and strength, insomnia, some sense of distress or abnormal sensation in the cardiac region, gastric disturbances, slight shortness of breath on hurrying, and, sometimes, cough, with some swelling of the feet. The heart may or may not be enlarged. Arrhythmia and tachycardia are among the most important

early signs. The character of the heart sounds is also of much importance.

**Discussion.**

DR. W. H. WASHBURN, of Milwaukee: The earliest evidences of myocardial insufficiency should be recognized and treated. The new Oertel stethoscope was exhibited.

DR. A. J. PATEK, of Milwaukee, said that myocardiac conditions, if recognized early, are often amenable to treatment. Ayrhythmia is not a perfectly reliable test of myocardial degeneration, but may be due to gastro-intestinal or other reflex disturbance.

**INFANTILE SCURVY.**

Dr. A. W. Gray, of Milwaukee, stated that: Infantile scurvy is a common disease, but it is frequently unrecognized. It is most common among the well-to-do and in good hygienic surroundings. Its occurrence is generally to be blamed to the use of proprietary infant food. Hemorrhage is the pathology of the disease. Accumulations of blood around the bones and in the muscles have been mistaken for myelo-sarcoma, osteo-myelitis, tuberculous abscess, and phlegmon. Hematuria has been mistaken for hemophilia, nephritis, renal and vesical calculus, and vesical polypus. Subdural hematomata, and cortical and sub-cortical extravasations have too often been considered syphilitic, rather than scorbutic. Spongy gums have been mistaken for stomatitis due to local causes. Purpura is often diagnosticated instead of scurvy. Rheumatism, Potts' disease, hip disease, rickets, and traumatism are other mistaken diagnoses often made.

It is to be looked for especially between the 6th and 18th months. Early symptoms are tenderness, and symptoms dependent upon tenderness, hematuria, purpuric-like eruptions and spongy gums. Treatment consists of discontinuance of proprietary food, substitution of proper formula of raw milk, and 1 or 2 teaspoonfuls of orange juice three times a day.

**Discussion.**

DR. A. J. PATEK, of Milwaukee, said that physicians are very much at fault in not recognizing the disease promptly and treating it with proper diet.

**ARTERIO-SCLEROSIS.**

Dr. L. A. Potter, of West Superior, said that various instruments for measuring blood pressure are useful for the early detection of arterio-sclerosis. Truncceek's inorganic serum is valuable as a treatment. The old saying, that a man is as old as his arteries, is a true one.

**INJURIES OF THE STOMACH.**

Dr. Wilhelm Becker, of Milwaukee, reviewed past work, showing a marked neglect of consideration of the complications usually present with injuries of the stomach. He endeavored to produce some

non-complicated injuries of the stomach, some of which survived as long as three weeks. In three human post-mortem cases it was shown that the attended wounds of the stomach, *i. e.*, those that were sutured, had healed less readily than those left entirely alone. Stab wounds were found to be the most rapidly fatal. The gravest complication was injury of the pancreas. The treatment should be absolute exclusion of food from the stomach and introduction of rectal alimentation.

#### Discussion.

DR. WARREN B. HILL, of Milwaukee, spoke of the advantages of rectal feeding in such cases, but the feeding should be done by the physician in charge. Give the bowel ample time to rest between feedings.

#### THE DIAGNOSTIC VALUE OF CYSTOSCOPIC EXAMINATIONS.

Dr. W. A. Gordon, Jr., of Oshkosh, stated that cystoscopy is a conservative diagnostic procedure that renders unnecessary many exploratory operations. It is useful chiefly in the diagnosis of urinary tumors. It affords the best means of collecting urine from each kidney separately. It is valuable in prostatic disease, calculus, appendicitis, and bladder troubles generally. The instrument should be employed more freely than at present in the settlement of difficult diagnoses in urinary diseases.

#### BLOOD EXAMINATION AS AN AID TO DIAGNOSIS.

Dr. M. Dvorak, of La Crosse, read a paper showing methods used, the importance of the subject and great progress made.

#### Discussion.

DR. OTHO FIEDLER, of Milwaukee, said that work on the blood has heretofore been largely cellular, but now the plasma is receiving greater consideration. The test tube pathology of the present is to be differentiated from the microscopic pathology of the past.

The new President, J. R. Currens, of Two Rivers, took the chair.

The Secretary spoke very hopefully of the success of the society under the new plan, and said he believed that a membership of 2,000 would soon be attained, and the dues could be decreased. One of the things hoped for was that membership in the county, state and national bodies, including subscriptions to the organ of the state society and to the Journal of the A. M. A., the best medical journal published, could be offered for \$5.

A vote of thanks was extended to the medical profession of La Crosse for the royal manner in which the society had been entertained and the meeting was adjourned *sine die*.

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**JOHN R. CURRENS, M. D.**

PRESIDENT STATE MEDICAL SOCIETY OF WISCONSIN, 1905-1906.

Dr. John R. Currens, recently elected president of the State Medical Society, is so well known to the physicians of Wisconsin that it may be of some interest to give a brief account of the many honors that have come to him since his graduation at Rush Medical College, in February, 1878. Upon the 15th of April in the same year he located at Two Rivers, and has practiced there ever since. His first official position was that of Health Officer, which he retained over 20 years. From 1885 to 1887 he was president of the Manitowoc County Medical Society, and upon its re-organization in 1898 was again elected its presiding officer. When the first Board of Medical Examiners was organized in this state in 1897, he was appointed one of its members, and now, having served two full terms of four years each, he is about to retire by limitation. During the past five years he has been president of this Board and has proven himself a very efficient and capable officer. No sacrifice of time or comfort has been too great for him when bent on any mission that had for its object upholding the dignity of the profession and attendance upon matters of medical control in this state. Dr. Currens was one of the prime movers in the organization of the American Confederation of Reciprocating State Medical Examining and Licensing Boards and was its president for two terms. At present he is a member of the Legislative Council of the American Medical Association; one of the originators and charter members of the Joseph Mann Free Library Association, founded in Two Rivers in 1890, of which association's board of directors he has been president for the past eight years. In the Spring of this year he was elected mayor of Two Rivers, by an overwhelming majority.

Dr. Currens' response when assuming the presidential chair of the State Medical Society, was characteristically modest. He said: "I feel, as Dr. Evans said yesterday about a speaker he was about to introduce, that I am a man who is rich without money. The election to this office was wholly unexpected, but I can assure you it is none the less appreciated. I do not see how any man could not appreciate the election to the highest position in the gift of 1,500 of the leading physicians in Wisconsin.

"I always thought that my efforts and labors on the Board of Medical Examiners had been appreciated by the profession, but, after



J. R. Curran



the result of the election yesterday, there is no longer any doubt about the matter, for now I know it, and I can assure you no member of this State Society could appreciate the honor more than I do. I feel as though I could leave my posterity no greater legacy than the honor you have conferred upon me at this time. I will promise to do all in my power, though my administration may not be as brilliant nor my annual address as instructive and oratorical as others you have had before. Our next meeting will not be a failure on account of lack of effort on my part to make it one of the most successful in the history of the Society."

Knowing Dr. Currens as a man who is willing to put his shoulder to the wheel and not shirk any responsibility, we are safe in predicting that his efforts in behalf of the society will meet with the same success that has characterized his work elsewhere.

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### BOOK REVIEWS.

**Diseases of the Heart.**—Clinical Text-book for the Use of Students and Practitioners of Medicine. By EDMUND HENRY COLBECK, F. R. C. P. (London). Second edition. W. T. Keener & Company, 90 Wabash Avenue, Chicago, 1905. Price, \$2.50.

To Sir William H. Broadbent, "whose teaching has done so much to advance the clinical study of diseases of the heart," the author dedicates his book.

This, the second edition of Dr. Colbeck's book, covers the subject of heart affections very comprehensively. The author considers seriatim, the various valvular lesions, the heart muscle abnormalities and the functional disturbances, and in addition there are chapters on anatomy, physiology, pulse, etc.

It is unfortunate that "in order to keep the size of the book within reasonable limits, compression of the subject-matter was unavoidable," because there is manifest an unnecessary crowding of paragraphs. The type of headings and sub-headings is not always uniform, and this creates confusion in places. Now that the Schott treatment of heart disease has proven of great value it seems a pity that but cursory allusion to the treatment is made. A detailed statement of the methods employed at Nauheim would be appreciated, as well as the *modus operandi* of preparing these baths at home—a plan of treatment frequently followed out in this country, and with a considerable degree of success.

Aside from these matters that are easy of correction, the subject matter of the book is most excellently put together and well deserves the confidence of the physician and the student. For both it will prove a valuable guide. The classification is good, and the division of the subjects under numerous headings, makes the text very intelligible.

(A. J. P.)

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**A Laboratory Manual of Human Anatomy.** By L. F. BARKER, M. D., Prof. of Anatomy in the University of Chicago and Rush Medical College. Assisted by DEAN DEWITT LEWIS, A. B., M. D., and D. G. REVELL, A. B., M. D., Instructor in Anatomy in the University of Chicago. Illustrated. Pp. 583. Price \$5.00. (Philadelphia and London: J. B. Lippincott Co. 1904.)

This is by far the most complete and up-to-date laboratory manual of anatomy that has come to our notice. It is especially adapted for the student in the dissecting room, and will prove a most excellent guide if systematically followed. By its system of questions it compels the student to observe for himself, and the large number of references will stimulate him to consult other text-books and atlases. The time allotted in most of our medical schools to the study of anatomy hardly gives the student an opportunity to follow out details as planned in the Manual, and in such case the many excellent

The Manual contains about 300 illustrations which are of especial value because they have for the most part been taken from standard atlases, which, as a rule, the student is unable to procure for himself. Many of these illustrations are colored and are most satisfactory in every way. The nomenclature used is that which was formulated by the German Society of Anatomists and is being rapidly adopted in England and America. The Manual is a most excellent guide and may be recommended to every student of anatomy whose aim it is to realize profitably the time devoted to the dissecting room.

(C. A. E.)

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**A Treatise on Diseases of the Nervous System.** By L. HARRISON METTLER, A. M., M. D., (Cleveland Press, Chicago, 1905.)

This work of Dr. Mettler, though voluminous, is practical and full of merit. It departs from the strictly text-book feature in discussing debatable questions, in this respect reminding one of Gowers' masterwork, although in its scientific value it is far from speaking with the authority of that classic—indeed some of the statements expressing "opinions" that are far from convincing.

A laudable departure in the work is the classification of nervous diseases on the neuron theory, the arbitrary division of diseases into cerebral, spinal, and peripheral, being secondary. Diseases are treated as neuronie and non-neuronie or extra-neuronie, by which is made clear whether or not the disease in question affects the nerve structure directly or other structures, and through them secondarily the nerve structure—the author to this end treating the nervous system as a great net-work of neurones held together by another network of vascular and connective tissue.

Such physiological and pathological classification is surprisingly practical although it will always be true that the most illuminating and most delightful books, are those based on symptomatology—those on "diagnosis" in which the disease is approached by building up the symptoms synthetically imitating the office and bed-side method.

Much space is given to clinical anatomy and physiology of the nervous system, and some attention to modern psychology. Many of the illustrations are new.

The book is relieved of the dryness incidental to a strict text-book treatment of the subject, which at once makes it attractive to the practitioner and specialist.

(W. F. B.)

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# THE WISCONSIN MEDICAL JOURNAL

JULY, 1905

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## ADDRESS.

### THE PROBLEM OF TUBERCULOSIS.\*

THE ADDRESS IN MEDICINE.

BY VICTOR C. VAUGHAN, M. D.,

PROFESSOR OF HYGIENE, UNIVERSITY OF MICHIGAN.

ANN ARBOR, MICH.

MR. PRESIDENT, LADIES AND GENTLEMEN:

The civilized world is confronted with a great health problem for which a solution is demanded. The problem is that of the disease known as tuberculosis, or in its pulmonary form, as consumption. Let us investigate in a general way this problem and see what will be necessary for its practical solution.

About one-seventh of all people die of this disease. This means that of the 70,000,000 or more people living to-day in these United States, about 10,000,000, if nothing be done to restrict the disease, will die of tuberculosis. The population of the State of Wisconsin is somewhere near 2,100,000, 300,000 of whom, if we are to judge by the mortality records of the past, are to die of this disease, and they are dying at the rate of about 2,500 per year. Is not this condition of our race sufficient to demand our attention and to deserve our most strenuous effort? Moreover, the natural tendency, as the density of the population increases is for the disease to spread more rapidly. It is transmissible from the infected to the non-infected, and as serious as the problem is with us, it is still more grave in the older and more thickly populated countries of Europe, and investigations have shown that in some of our large and crowded cities there are blocks, especially in the tenement districts, in nearly every house of which this disease has claimed its victims. This has been shown to be true in Philadelphia

\*Delivered at the 59th Annual Meeting of the State Medical Society of Wisconsin, La Crosse, June 8, 1905.

by Dr. Flick, and in New York by Dr. Biggs. In these centers the germ of tuberculosis breeds and from them it gradually extends in every direction. Shall we in the face of this showing fold our hands and do nothing, or shall we utilize our brains, our energy and our money and eradicate this great foe to the happiness, health and life of our race?

There are those who say that some of us talk too much about this subject, that we frighten people and are creating a condition of tuberculophobia. Are we so cowardly as these critics imply? When was anything worth doing ever accomplished without effort? What is, or should be, the highest aim in life if it is not the betterment of the world in which we live and the improvement of the race of which we are a part? So long as man does not see the dangers that threaten him, he is by nature a coward and cringes from the blow that may fall upon him, he knows not from whence, but when the lurking place of the enemy has been pointed out the manly thing to do is to face the evil and remove it, tear it out, root and branch, and then the fear of it is gone. Thanks to the investigations of modern medicine, there have been placed in our hands the means necessary for the destruction of the hosts of bacilli that constitute the army of the great white plague, which for countless centuries has levied its fearful tribute on helpless man. To fail to perform a duty once recognized is indeed cowardly, more than that, it is criminal.

The history of medicine shows that for centuries past there have been occasional keen observers in the profession who have been convinced that tuberculosis is a transmissible disease, that it is likely to go through families and to spread to intimate associates without reference to blood relationship, and that certain houses have become infected with the virus of the disease. In the seventh decade of the 19th century a French physician, Villemin by name, inoculated animals with the sputum from tubercular patients and thus induced the disease. To some animals he fed the tubercular material, others he caused to inhale it, into others still he injected it, and by all of these avenues he succeeded in developing tuberculosis in previously healthy animals. These experiments fully established the fact that the sputum of the consumptive contains the seed of the disease and that these may be implanted on healthy animals. In 1882 Robert Koch demonstrated that the seeds of the disease in the sputum and other tubercular matter consist of microscopical rod-like organisms, now known as the bacilli of tuberculosis. This organism is found in all tubercular tissue; in other words there is no tuberculosis without it. It is the cause and

the sole cause of the disease. This bacillus is so small that 3,000 of them would have to be placed in a line, end to end, to extend one inch, and it is so light that it may be blown about in the dust and inhaled by its unsuspecting victim. This bacterium has been isolated and grown in pure culture in which condition it may be seen in any bacteriological laboratory. Animals have been inoculated with it, and the disease, tuberculosis, may be produced at will. We now know that the bacillus of tuberculosis may be handled by those who know how without danger, that it is easily destroyed when found outside the body, and that so long as we have it under proper conditions, there is no cause to be afraid of it. We know that this poison-producing, microscopical plant is present in all tubercular tissue and that it is cast off from the bodies of infected persons chiefly in the sputum of individuals suffering from pulmonary tuberculosis and in certain other discharges from the body when other tissues are involved in the tubercular affection. The serpent is no longer hidden in the grass by the pathway. It lies before us in the open. Shall we bruise its head or allow it to escape and again bite man's heel? Destroy all tubercular discharges and the spread of the disease is at once restricted, and when such discharges are universally destroyed, the disease, which now destroys one-seventh of our race, will afflict mankind no more. This is all we have to do in order to accomplish this great result. Is it not simple, and does not our race deserve extinction if it fails to accomplish a task so easily done?

However, this work, as simple as it is, cannot be done by a few or by any one class or by the medical profession alone. The intelligent co-operation of the people in general is necessary. It should be distinctly understood that in the eradication of this and other diseases the work must not be left wholly to the medical profession. Being engaged in the study of diseases medical men learn how they originate and by what agencies they are spread. Recognizing the dangers and the means of avoiding them, it is the duty of the medical man to point them out to the public and to advise for the public safety. Having done this, his concern is no greater than that of every other intelligent citizen. Medical men are, as it were, outlooks on the ship of life and when they point out the shoals and sunken rocks it becomes the duty of the men in command and who constitute the government to see that the warning is heeded. The medical profession, at least the intelligent part of it, is now conversant with the means necessary to avert this danger. Will the nation heed the warning, or will it drive recklessly on, wrecking lives needlessly?

Recently the National Association for the Study and Restriction of Tuberculosis has been formed and it wishes to enlist the co-operation of every intelligent man and woman in this country in the great work of emancipating our people from the fearful tyranny of the white plague. Is not this call worthy of your attention? What greater good can you do yourself and your fellow man? How is it proposed to accomplish this work? In the first place we want the facts made known to the people. We desire to carry on a campaign of education in regard to this matter, believing that as soon as the people generally see the necessity of taking hold of it they will do it in sufficient numbers and with energy enough to make it a success. We want intelligent men and women to instruct the people by talks and through books and pamphlets on the subject. We want the States to build and equip sanatoria in which those in the incipient stages of the disease may be cured and where all infected persons may be instructed in the care needed to be exercised in order that the disease may not be transmitted to others. We want to restrict the disease by teaching consumptives, and others as well, that they should not expectorate on the streets, on the floors of places of public assembly, in the cars and other vehicles of public conveyance, and, in short, anywhere and everywhere except in proper receptacles that may be burned with their dangerous contents.

Tuberculosis is so seldom transmitted from mother to child during intra-uterine life that we may say it is not hereditary; it is not due to colds; it does not confine its ravages to the poor or to the rich, to the weak or strong. It is no respecter of persons or position. Let no one say this is a matter in which he has no concern; it involves the welfare of the race. There is no absolute immunity to this disease inheritable from your ancestors or acquirable in any way by you. So long as you move among your fellow men, with no care given to the restriction of this disease, you may acquire it. There is for tuberculosis no preventive inoculation or vaccination for the individual, but there is the possibility of eradicating it from the race. This is a matter in which concerted action is necessary. There are in the United States to-day more than 250,000 people in the active stages of tuberculosis. Without education along lines of prevention each one of these becomes a center for the spread of the disease. With attention to the disinfection of his discharges there would be no danger of the spread of the disease. The consumptive, so long as he is ignorant or careless, is a source of danger to the public as well as to his immediate friends. When he becomes informed concerning the nature of his malady and the method of its restriction, he can go where he pleases as long as

he is able and do no one any harm. When all are educated in the methods of restriction and these are carried out, no harm can come to anyone. To-day residence in a hospital filled with consumptives is perfectly safe if the discharges be properly collected and disinfected. There is no reason why the tubercular individual should be shunned or isolated.

I have stated that there should be built special sanatoria for consumptives. What would be the function of these institutions? The most important objects are as follows: (1) Experience in sanatoria has shown that under proper management the disease can be arrested or cured in a large per cent. of incipient cases. One function would be the cure of curable cases. (2) Even in the incurable the progress of the disease may often be greatly retarded and on the average many years of comfortable living may be added to the lives of those who must ultimately die of this disease. This would be a second function of the sanatoria. (3) All the infected, both the curable and the incurable, could be so instructed in the methods of caring for themselves and destroying the infected discharges from their bodies that the disease would not be spread.

Who should build and equip these sanatoria? Each state certainly should build one or more institutions of this kind. I am glad to be able to say that ten states have made appropriations for this purpose—not including Wisconsin and Michigan, which have just made such appropriations—and the good work must go on until every state in the Union has done its duty along this line. In 1903 a commission was appointed in Wisconsin: "To investigate the prevalence of tuberculosis in the state and to report to the legislature of 1904 in regard to the desirability of establishing a sanatorium for the treatment of the disease with recommendation as to a site."

Every intelligent man and woman in the state should become directly and actively interested in this work. The physicians should always be on the alert to detect the disease in its earliest stages, for it is at this time that it yields such a large per cent. of cures. Only a few years ago the doctor was quite loath to tell his patient that he had consumption, because it often seemed equivalent to telling him that he must die. Moreover, even the most intelligent physician of that time did not possess the knowledge necessary to make an early diagnosis. Now, all of this is radically changed. The time has passed when the physician can make a careless examination and say "it is only bronchitis, or a continued cold" or something of that kind. The physician who does so today, when his patient really has tuberculosis, is

guilty of a highly negligent, I should say, a criminal act. An early diagnosis can be made in the great majority of cases and the physician can say plainly to his patient: "You have tuberculosis, but there is no other grave disease from which so many people recover if it be recognized in time and treated intelligently." The physician can speak positively and confidently. It has been my privilege for many years past to deal almost exclusively with tuberculous patients. Frequently a husband comes in to me and says, "I think my wife has tuberculosis; please examine her, but if she has the disease do not tell her." But I say, "I do not do that kind of work. If she has tuberculosis I will tell her so and tell her she must fight for her life," and lay down the rules on which this warfare is to be carried out. The day is past when the physician need see his patient helplessly drift into the last stages of the disease while he administers worthless placebos. When both physician and patient universally arrive at an intelligent understanding of this subject no one will reach the stage of exhaustion now so typical of this disease. The threatened one will seek aid early and his physician will be able to give him what he seeks. Every one who has any reason to suspect the implantation of tuberculosis should be examined at least twice a year even when he is apparently doing well, and the physician to whom he comes should make a most searching and scientific examination. So far as tuberculosis is concerned, at least, medicine is fast leaving the quicksands of uncertainty and planting itself on the solid earth of science.

There is another most beneficent and humane object to be accomplished by these state sanatoria for tuberculosis. As one whose practice has been largely with this disease for many years, I have had occasion frequently to realize that the arrest of tuberculosis is often a matter of dollars. The rich patient can procure the best food, he can rest from work and he can place himself under the most favorable surroundings. All of these things are denied the poor, but now the state is to provide for the poor even that which the rich could 25 years ago but partially secure. The State Sanatorium will be a great, a deserved and a wise charity. To support such an institution by public taxation is a legitimate method of taking from the rich and giving to the poor, and the rich should pay taxes for this purpose most willingly for two reasons. In the first place, he is thus diminishing the chance of becoming infected himself, and in the second place he is restoring the poor to a state of health in which he will be able to provide for himself.

I hope that the people of this great state with the good repute

for wisdom that they have, will take hold of this matter with the determination to rid themselves of this disease. You should begin by the formation of anti-tuberculosis societies in all of your cities, and why should not La Crosse lead the way? I wish you could have the enthusiasm that is now found in Germany concerning the restriction of tuberculosis. You hear it over there from the merchant, from the clerk, from the cabman that takes you to the depot, "Ein Deutschland ohne Tuberculose." Shall we not also have a United States of America without tuberculosis? There are in every city of this size some who are in the active stage of tuberculosis and who are ignorant of the fact that they are a menace to the lives of others. Some of these are poor and must work as long as they are able, and in the factories and work shops in the houses of business where these people are employed they are endangering the lives of their fellow-workers, employees and their customers. These people need to be shown that this is true and instructed in the methods of prevention and then, if able to do so, they can continue their work without being a source of danger to others. Three hundred years ago leprosy was as widely distributed in Europe as tuberculosis is today. But our hardheaded ancestors rid themselves of this disease. Three hundred years ago there were 1,900 leper hospitals in Western Europe. A leper could live only in one of these hospitals. If he traveled by day he must wear a distinctive garb, and at night a bell attached to his garments heralded his approach. Leprosy has disappeared from Europe. Shall we not do the same in a much more humane and civilized way with tuberculosis?

The exhaled air from the lungs of consumptives, even in the last stages of the disease, is germ free, and there is no danger of acquiring the disease by simply being in the presence of the consumptive. I have been greatly surprised in some places that people are afraid to have a hospital or sanatorium for the treatment of tuberculosis located among them.

I suppose if some one would tell you now that Hagenbeck's train had got wrecked in La Crosse and all the animals had escaped, the bravest here would hesitate about leaving the hall; but if Hagenbeck came here with the animals all caged you would be glad to go and see them perform. It is the same with the bacillus of tuberculosis; only you might see the lion and hear its roar, but the tubercular bacillus gets in its work without any such accompaniment. When the consumptive coughs germs are often thrown from the mouth in the spray from coughing, and a handkerchief or a Japanese napkin should

be held before the mouth in coughing. Then the matter coughed up from the lungs of the consumptive in the active stages contains the germs in great numbers. If this be thrown on the floor or sidewalk it dries and is blown about in the dust by the wind and may be inhaled by any one. Uninfected dust cannot cause tuberculosis. It is only when the bacilli of this disease are introduced into the dust of our streets and houses that there is danger of the spread of the disease in this way. When the consumptive expectorates on the pavement, the bacilli are scattered by the wind and adhere to our feet and clothing and are brought into our houses. Some one said to me not long ago, that these infectious diseases are a good thing for the human race. They kill off the people who ought to die, and in the long run the race is a great deal better for it. Now suppose a consumptive expectorates on the streets of La Crosse; do you suppose that only the vicious and the wicked are going to inhale the germs that are blown about in the air? You might just as well, with just as much sense, place two men blindfolded at each street intersection in La Crosse, and march every man, woman and child up and down the streets, and place in the hands of these blindfolded men repeating rifles and tell them to shoot into the crowd as it went by. Do you suppose that only the vicious, only the liars and the thieves would be killed? Have we, the intelligent people of the United States, not reached the stage when we should say to the bacillus tuberculosis, or the germ of any other disease, we will not trust to your intelligence in selecting those who should live and those who should die? Man has already accomplished great things in the restriction of the infectious diseases, many of which, such as the plague and typhus fever, which once greatly increased mortality, are now known to exist only in those nooks and corners of the world where the conditions of life on account of ignorance, superstition and poverty are most unfavorable. Within one hundred years the average of human life has been nearly or quite doubled, and yet the majority of deaths happen prematurely, and there is no reason why, if we only put to practical use the knowledge we already have, the average length of life should not again be doubled. Think what might be accomplished in a city like this if all your good citizens could be interested in the work. You would have a special hospital for the treatment and education of consumptives. Many would be cured and all would be instructed in the method of restricting the disease. You should have a dispensary where suspicious cases could be examined and the disease detected in its incipiency. A corps of trained nurses and physicians attached to this dispensary



would be in readiness to visit the infected homes, disinfect the premises, detect and abate any sanitary deficiencies, and teach the people how to avoid infection. Would it not be a wise move to embark in this work? What better service could you render yourselves, your fellow-citizens and your beautiful and growing city? But some are too busy, some are too indifferent and there remain only a few who are likely to be moved by motives of this kind. Let these few embark on a campaign of education, and others, seeing the good example, will surely follow.

This is not a crusade in behalf of the doctors. They have nothing to gain by this. In fact, we are impoverishing our own pockets by the crusade that we are preaching all over the country today. I am often reminded of a governor of our state, who, a few years ago, was called upon to preside over a convention where doctors were assembled from Maine to Texas, and from the Dakotas to the gulf, to instruct people as to how to prevent disease; and when he made his opening address the governor said: "If, during my term as governor, I should be called upon to preside at a meeting of lawyers met for the purpose of preventing litigation, I would say with Simeon of old: 'Lord, now lettest thou thy servant depart in peace, for mine eyes have seen thy salvation.'"

It is strange and disheartening when we see how slowly that knowledge which may be utilized for man's good diffuses through the masses, and how tardy people are in applying beneficial discoveries. We grow impatient, while people call us sanitary cranks and pay no heed to the teachings of science, but those of us who are not pessimists, and God pity those who are, must believe that the growth of the race is toward perfection and that it will not deteriorate.

What sanitary science can do is conclusively shown by the interference of the United States in Cuban affairs. When the historian of the future comes to write of the little war we had with Spain, he may be in doubt as to whether Sampson or Schley won the victory at Santiago; he may be in doubt whether Shafter was or was not too heavy to conduct the land campaign, but the most brilliant page in that history will be the work of Reed, who banished yellow fever from Havana, and the work of Gorgas, who made Havana a healthier city today than New York.

The knowledge that we have concerning the causation and spread of tuberculosis is not theoretical. It is positive and practical. If the dust of a room that has been occupied by a consumptive who has been ignorant and careless and has expectorated on the floor, be

swept up and injected into a guinea pig, the animal develops tuberculosis. On the other hand, the dust from rooms not infected, even if it be a hospital in which there are many tuberculous patients who have been intelligently practising the methods of restriction, when injected into like animals has no such effect. The bacilli are not given off from moist sputum. It is only after the expectoration has dried that its contained bacilli become diffusible in the air. Handkerchiefs and clothing soiled with infected sputum should be disinfected before the discharges dry and become transmissible through the air. While tuberculosis is not a hereditary disease, we know that it runs in families and that the children of consumptive parents have an increased susceptibility to the disease. Such people should take the utmost precautions against infection and should be carefully and thoroughly examined at least twice a year by a competent physician. Such a disease as tuberculosis furnishes a rich harvest for the medical pretender and quack, and numerous nostrums are advertised, and for these great and wonderful healing virtues are claimed. Sometimes it is said, "Why is it that the doctors want to get rid of quacks?" It is simply because the quacks are a disgrace to the profession. Every quack in the community increases the profits of the doctor, and I want to tell you confidentially—of course I would not have this get out at all—how my own personal profits have been recently increased through this means. A quack out in Michigan has been circulating an advertisement that there is a very simple way of telling whether you have tuberculosis or not. All you have to do is to take a glass of lime water and breathe through it and if it becomes cloudy you have tuberculosis; if it does not become cloudy you have not tuberculosis. A lot of school teachers have gotten their students together and had them blow through lime water. Of course the biggest and healthiest boys clouded the lime water most; and a number of these boys have been shipped to me for examination to see whether they had tuberculosis or not. To intelligent people it is hardly necessary to say that there is no known specific for the disease. A great deal has been said about climate, and its importance in tuberculosis. By statistics I could prove to you that the very best place for a tubercular patient is far inland; I could also prove equally well that he should live on an island; I could also prove by statistics that the best place for a consumptive is on the mountain tops; I could prove also by statistics that the best place for the consumptive is in the lowlands. We send our consumptives to the high altitudes of Colorado; the best physicians in Europe are sending their consumptives to the sea level of Egypt. The best place for a consumptive is

where consumption is rare; where there is much sunlight, where there is the least chance for reinfection. Among the most hopeful statistics of improvement and cure of this disease which have been gathered in sanatoria for the treatment of incipient tuberculosis, are those that come from one sanatorium situated on the Rhine at an elevation of less than 600 feet above the level of the sea; and still there are people who tell you that tuberculosis can be cured only in high altitudes.

I heard only last week quite a warm discussion concerning the relation of tuberculosis to climate, and a man that has had large experience, claimed he had better results in the slums of Philadelphia, by hanging his patients out on the fire escapes and giving them plenty of fresh air and good beefsteak, than he could get in Colorado, provided they did not have good beefsteak there. I cannot resist the temptation to say parenthetically that anything which cheapens food to the poor, places within the reach of the poor man the chance of getting the best food in sufficient quantity, is an aid in the treatment of tuberculosis; and I want to say on my own responsibility, that a government that allows such a thing as the beef trust to exist, aids and abets in the spread of tuberculosis, and is doing a criminal act. Rest, and abundance of good food, without, or with but little medication, suffice to lead incipient cases to recovery. The value of climate *per se* has been greatly overestimated and incipient cases can be as easily cured in Wisconsin as in Colorado. There can be no doubt that removal from infected localities and life in an equable climate, where the proportion of sunshine, nature's great disinfectant is greatest, are beneficial because continued reinfection is one of the greatest sources of danger even to the infected. But if the discharges from tubercular individuals be destroyed all chance of infection is done away with, and when this is done, Wisconsin will be free from this disease. Experience in sanatoria for the treatment of tuberculosis both in Europe and in this country has demonstrated that climate is not of prime importance. At the Phipps Institute in Philadelphia Dr. Flick states that the results compare favorably with those obtained in climates once regarded as essential to the cure of the disease.

I would not have you understand that the extinction of the bacillus tuberculosis is to be an easy task. It will require time, patience, and, above all, intelligence. If all the infected discharges from every tubercular individual could be immediately destroyed the disease would disappear in one generation. There would be no new implantations and with the death of the last infected person the dis-

case would disappear. But this possibility we must not hope to realize. The task before us, while plain, is a herculean one, and one which will require the best efforts of the race through more than one generation. We must provide sanatoria not only for incipient cases, but for the advanced ones as well, for it is from the latter largely, that the disease is spread. I cannot help calling attention to the fact that according to our present sanitary laws (and I have had something to do with the making of them in Michigan myself, so the criticism will reflect partially upon me) when a man dies with consumption, his body must be injected with some disinfectant and must be placed in a hermetically sealed metallic coffin before it can be shipped; but the same individual, while alive, may travel from Maine to California, expectorating here and there, and there is no one to say him nay. In the advanced stage the sputum is likely to be most abundant and richest in bacilli, and as the patient grows weaker he is less attentive to the disposition of his sputum, and he is likely to scatter the bacilli all about him; therefore there must be sanatoria for the care and treatment of persons in the late stages of tuberculosis. I would not have it understood that such institutions should be regarded as homes for incurables, and that scientific treatment should be disregarded. As long as the consumptive lives every possible aid should be given him and the number of apparently hopeless cases that improve is surprisingly large. As Dr. Flick has pointed out, much in the restriction of tuberculosis—by taking care of the dying consumptive—has been done in London. He says: "A little over fifty years ago the English people began to establish hospitals for consumptives in London as a matter of humanity. The work met with favor and the beds gradually increased until they numbered thousands. At that time the death rate from consumption in London was about the same as that in Paris and all the large cities in the world, namely, about four per thousand. No other preventive measure was introduced in London. At the end of fifty years, London, the largest city in the world, had the lowest death rate from consumption of all, about two per thousand, and Paris, where no consumptive hospitals had been established, still has its four deaths per thousand from the disease."

If tuberculosis goes on decreasing in such cities as Hamburg, where they have for the last ten or twelve years had sanatoria for the treatment of incipient tuberculosis, at the same rate, the century will not be far advanced before tuberculosis will be known only as a historical disease.

Consumption is largely due to in-door life, and the more crowded habitations are the greater is the prevalence of the disease. Statistics show that this disease prevails in direct proportion to the number of individuals occupying a room. This is the reason why it is so frequently seen among those who dwell in the poor and crowded tenements of the large cities in all parts of the world. It must not be inferred, however, that tuberculosis is wholly an urban disease. There are many farm houses in Wisconsin infected with its bacilli, and the farmer, who spends such a large part of his working hours in the open air, often sleeps in a small, unventilated bedroom, and the good effect of his life in the open air is vitiated by the conditions prevailing in his home, and his wife and children are more closely confined to the unsanitary habitation. I often think that civilized man has overdone his housing. In his desire to protect himself from beasts, his enemies, and the rigors of the weather, he has gone to an extreme and seems to think that he can eat, sleep and rest only under cover, when in truth we would be much healthier and happier if we spent more time out of doors. Even the well-to-do at great expense have large and beautiful lawns about their houses, but they do not live on them, they shut themselves in their houses, keep others out of their private parks, and only look at them themselves. The average American is so afraid of taking cold that he does not allow himself enough fresh air to breathe. I think that it is within the bounds of truth to say that more harm comes to the health of the average American from his senseless fear of taking cold than ever comes to him from exposure to inclemency of weather. We should live out of doors in nice summer weather, and we should sleep with open windows at all seasons.

The time is too short for me to discuss all the precautions necessary to avoid becoming infected with the bacillus of tuberculosis, or to get relief after infection. We know that this, the greatest scourge to our race, is a preventable disease; therefore let us prevent it. Let us inaugurate this great work, which, when it is fully done by our descendants, will be the greatest of human achievements. I hold that man has already reached a position of intelligence and responsibility in which he becomes a co-worker with the Creator in the betterment of himself and his brother. Our future lies largely in our own hands. Shall we move onward toward the promised land of human perfection, or shall we admit that life is a failure and that the race is without the opportunity of betterment? If we can make this world a fairer habitation for happier and better generations we should seek no nobler task and ask no higher reward.

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## ORIGINAL ARTICLES.

## ECTOPIC PREGNANCY.\*

BY W. C. F. WITTE, M. D.,  
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In choosing the subject of Ectopic Pregnancy for a paper to be read before the members of this Society, I was fully aware that it had received careful attention by many of the members. But in a disease that has a mortality rate of sixty-eight per cent. without operative interference (Schauta), one may be pardoned for reviewing the pathological conditions, which, owing to the great advance made in abdominal surgery, the increased experience of the older men in the profession, together with the better teachings in the medical colleges, make the disease appear to be on the increase. This apparent increase is in reality due to the more accurate diagnoses, and we are no longer satisfied with the statement of intestinal colic, pelvic hemocele, uterine colic, or ovarian neuralgia.

We now expect an early diagnosis, prompt surgical treatment and a consequent reduction of the high mortality rate of the affection.

The subject of ectopic pregnancy is not new, and the first case found in the literature is in the writings of Albucasis,<sup>1</sup> an Arabian physician of the eleventh century. In this case foetal bones were withdrawn through a suppurating wound at the umbilicus. No other cases were recorded until the fifteenth and sixteenth centuries, and these were then regarded as hernie of the uterus.

Alexander Benedictus<sup>2</sup>, in 1583, mentions a case similar to that of Albucasis.

In 1540, Christophorus Bainus<sup>3</sup>, a travelling surgeon, performed abdominal section publicly upon a woman who had an extra-uterine foetus. Later she gave birth to two more children. In 1545, Matthias Cornax<sup>4</sup>, a professor at Vienna, is said to have been the first physician who performed a successful laparotomy in a case of extra-uterine gestation.

During the year 1582, Johannes Albosius Haedus<sup>5</sup> described the first case of extra-uterine gestation ending in the formation of a lithopædion. The patient died after forty-eight years of married life, and twenty-eight years before death she manifested signs of pregnancy without results. She was sick and confined to her bed for three years before she died. An autopsy was made and a female extra-

\*Read at the 59th Annual Meeting of the State Medical Society of Wisconsin, La Crosse, June 8, 1905.

uterine foetus was found, which had partly undergone calcareous degeneration.

In 1591, Primerose<sup>6</sup> diagnosed ectopic oestation on the left side of the uterus. There was a sinus discharging through the abdomen; the sinus was enlarged and the child removed. Three years later, in 1594, signs of a similar occurrence followed on the right side of the uterus. This was removed by operation. Felix Platerius performed a laparotomy in 1597 for ectopic gestation, and in the same year the Fallopian tube in a cow was found to contain a foetus, and later instances are recorded in the case of sheep, bitches, and hares.

But the first time that the tube in a human being was said to contain a foetus was in 1604. Mauriceau<sup>7</sup> considered this condition a hernia of the uterus. Michael Doring<sup>8</sup>, in 1612, observed a rupture of the uterus with extra-uterine pregnancy, and the woman recovered. Riolanus, in 1640, recognized a tubal gestation in the abdomen of a laundress living in Austria, and in 1649 published an account of two more cases.<sup>9</sup>

G. Fabricius Hildanus<sup>10</sup> publishes, during the year 1646, the report of a case of extra-uterine gestation, in which Marcellus Donatus performed a successful Cæsarean operation. Bones of a decomposed foetus were found in the woman.

Jan Van der Haeven<sup>11</sup> quotes the following cases in which a lithopædion was found: In 1652, a woman became pregnant, had pains in the ninth month but no results. She suffered for twenty years, and then for a period of six years she was free from discomfort. She died in 1678, and an autopsy revealed an extra-uterine foetus in the form of a lithopædion.

In 1659 a woman committed suicide, and previous to her death she had complained of a heavy load in the stomach. She had never borne children. An autopsy showed that she had suffered from an extra-uterine pregnancy, then known as "Foetus Mussipontanus." It was attached by pseudo-membranes to the peritoneum, being about the size of a child's head, and on cross section proved to be a foetus about six months old in the process of petrification.

M. de St. Maurice observed in 1682 what is termed the first authentic case of ovarian gestation<sup>12</sup>. In 1708, Duverney<sup>13</sup> reported intra- et extra-uterine pregnancy in a patient aged twenty-one years, and in the third month of gestation. The case ended fatally as a result of rupture and hemorrhage. Calvo reported to the Academy of Royal Sciences at Paris in 1714, the first laparotomy for ectopic gestation in France, and the third successful operation on record up to that time.

However, it was only after the discovery of Regenerus de Graf<sup>14</sup> that the development of a foetus outside of the cavity of the uterus was understood and admitted. Bartholinus in his dissertation, written in 1740, "De insolitis partus humani viis dissertatio nova" states that he collected the histories of many cases in which the foetuses were found in the ovaries and tube. Gabriel King<sup>15</sup>, in 1742, observed two misplaced conceptions in the same woman with an interval of three years between them.

The first exact definition of an extra-uterine gestation was given by Levret<sup>16</sup> in Paris in 1750, and was termed by him as "an evil pregnancy" situated in the tubes, ovary, or in the abdominal cavity.

The first case of abdominal section in America, for the relief of an extra-uterine pregnancy, was described by John Bard<sup>17</sup> of New York in 1764. The foetus had been retained for more than a year beyond term, when it was successfully removed. The operation appears to have been performed several years previous to its publication, as this information was found to have been communicated in a letter to another practitioner in December, 1759.

Noel, of France<sup>18</sup>, saw a vaginal pregnancy at full term. The child was dead and was withdrawn by the feet. The mother died the following day. At the autopsy an abdominal tumor, discovered during life, was found to be the uterus which had undergone calcareous degeneration. The upper part of the vagina was found distended and gangrenous. In it the child was found. In 1767, Bononensi<sup>19</sup> performed a secondary laparotomy for extra-uterine pregnancy which had been retained seven weeks after death of the foetus. The gestation was located in the left tube. Campbell<sup>20</sup>, in 1785, reported a case of a woman who died at the age of seventy-five years, having retained her eighteenth conception for thirty-three years.

Baudelocque<sup>21</sup>, in 1786, contributed a remarkable description of ectopic pregnancy. He admitted the three varieties of Levret and gave rules concerning the treatment which at the time proved to be real advancement.

A double abdominal pregnancy, found post mortem in a woman aged seventy-four years, was described by Varnier and Mangin<sup>22</sup> in 1786. In 1791, Dr. Wm. Baynham performed the second successful operation for this condition in America.

Turnbull recorded in 1792 an instance of primary abdominal gestation found at autopsy of a woman who had gone to full term. No proper placenta was found, the foetus being nourished by blood derived from the vessels of the meso-colon. The corpus luteum was



found in the left ovary and the corresponding tube was occluded by a tumor.

In 1793 Marchi<sup>23</sup> performed a second operation for extra-uterine foetus retained three months after term. The mother died in thirty-eight days. Dr. Wm. Baynham, in 1799, performed another abdominal section for extra-uterine pregnancy, the patient recovering completely.

Schmidt of Vienna<sup>24</sup>, in 1801, recorded a case of interstitial tubo-uterine pregnancy.

Heim<sup>25</sup>, in 1807, performed a laparotomy in an instance of extra-uterine pregnancy, with extraction of a living foetus. The child died, as did also the mother before the expulsion of the placenta.

Dr. W. B. Smith, in 1810, reported that at the autopsy of a colored woman aged forty years, a foetus was found in each ovary<sup>26</sup>.

In 1811, Plaignard, Maslieurat et Dubois<sup>27</sup>, performed a laparotomy for a dead foetus which had been retained for sixteen days after its death, and during the same year Lachapelle<sup>28</sup> reports an instance of intra- et extra-uterine gestation in the seventh month, with death of the extra-uterine foetus.

In 1823, almost a quarter of a century since the last successful laparotomy for ectopic gestation performed in America, a case was recorded by Dr. Wishart.

Breschet<sup>29</sup>, in 1824, added a new variety of ectopic gestation known afterwards as Interstitial Pregnancy.

A case of double extra-uterine pregnancy was published by Trezevant in 1825<sup>30</sup>. The woman was in the sixth or seventh month of her gestation when she died.

Mitivie<sup>31</sup>, in 1829, published an account of a primary abdominal gestation in a woman who died at the age of seventy-seven years, having retained the dead foetus for many years. The sac and its contents were free from the uterus and appendages, but were attached to the mesentery and a loop of small intestine by bands of adhesions.

A case of ectopic gestation with positive signs of a primary abdominal foetation was described by Collins<sup>32</sup> in 1830.

During the same year Zais<sup>33</sup> reported a laparotomy for a dead extra-uterine foetus which had been retained for about eight weeks. The patient recovered and spontaneous expulsion of the placenta occurred sixteen days after the operation. Ten years later Veiel<sup>34</sup> recorded another laparotomy for a dead extra-uterine foetus, retained about two or three weeks. There was immediate delivery of the placenta accompanied by severe hemorrhage. The patient died on the sixteenth day.

In 1834 Granville gave a good description of a case of ovarian foetation.

In 1836 Davis<sup>35</sup> reported a case of repeated extra-uterine gestation. At an autopsy two cysts were found, each containing a well developed child, which had been carried for seven years.

Dezeimeris<sup>36</sup> published, during the year 1837, no less than ten varieties of extra-uterine pregnancy, *viz.*, Ovarian pregnancy, subperitoneo-pelvic pregnancy, tubo-ovarian pregnancy, tubo-abdominal pregnancy, tubal pregnancy, interstitial tubo-uterine pregnancy, utero-interstitial pregnancy, utero-tubal pregnancy, utero-tubo-abdominal pregnancy, abdominal pregnancy.

In the same year Galiay<sup>37</sup> recorded an instance of repeated ectopic gestation. In the interval between the two pregnancies the product of the first was evacuated through the rectum, after which the woman was in good health for five or six years, when she conceived in the same manner for the second time. This was likewise discharged through the bowel. Another case of vaginal pregnancy was recorded by Mackeprang<sup>38</sup>. A foetus of about seven months' development was removed, and the patient died two days later.

The sixth successful case operated upon in America was that of Dr. Whinnery<sup>39</sup> in 1845. The foetus had been retained for four years, when it was successfully removed through an abdominal incision.

Dr. A. H. Stevens of New York<sup>40</sup>, during the year 1846, performed a successful laparotomy for ectopic gestation.

An ectopic sac, attached to the upper anterior surface of the bladder and having no connection with the uterus or adnexa, was reported by Peters<sup>41</sup> in 1848.

In 1853, Dr. I. G. Porter<sup>42</sup> published a case of ovarian gestation, in a woman aged twenty-eight years, who died from rupture in the sixth or seventh week of pregnancy. At the autopsy the left tube was found floating free and pervious, but the left ovary, which contained the gravid sac, was as large as a hen's egg.

Hecker, in 1859, asserted that the most frequent of all varieties of ectopic gestation is the abdominal form<sup>43</sup>. He collected 222 cases of which sixty-four were tubal, twenty-six interstitial, and 132 abdominal pregnancies.

Kammerer<sup>44</sup>, in 1865, exhibited a specimen of ovarian pregnancy to the Pathological Society of New York.

Robert Barnes<sup>45</sup>, in 1874, first used the term "ectopic" for all gestations "proceeding in an abnormal locality which is unfit for the office imposed upon it," and Parry in 1876, in an extensive monograph on extra-uterine pregnancy, classified the different varieties into tubal, ovarian, and ventral or abdominal.

The author most frequently quoted by writers on the subject of

ectopic pregnancy is Lawson Tait, who in 1873 asserted that there are but two varieties of misplaced conception, the one being that when only the walls of the Fallopian tubes were ruptured and its peritoneal coverings left intact, the embryo being subsequently developed in the substance of the broad ligament; the second form is really only a variety of the first, and in this case the peritoneum as well as the tubal walls are lacerated and the ovum finds its way into the abdominal cavity<sup>36</sup>.

Again, in 1888, Lawson Tait contributed a very important monograph on ectopic pregnancy and pelvic hemocele with a report of a large number of cases. He then broadly asserted that "all ectopic gestations must, in their origin, be tubal, with one possible exception, which may be the impregnation of an ovum in its vesicle before it leaves the ovary."

The history from this period on is voluminous and cannot be given in the time allotted for this paper, but enough has been quoted to show that the subject of ectopic pregnancy has been carefully studied for many years back, and that the early writers have described all the possible combinations we recognize to-day. Many of the findings during operations and in the post mortem room, which we believed to be original, will upon careful research be found to have been reported many years ago.

The subject of the causes of extra-uterine pregnancy has been given a great deal of attention, and although discussed by the ablest of men there is to-day still a wide difference of opinion, and the etiology must always be in doubt until the point for the normal union of the semen and ovum has been demonstrated.

At the present time we may say that any condition producing a permanent arrest of a fertilized ovum in its passage from the point of conception to the uterus may cause ectopic gestation.

There is a wide divergence in opinion as to what these conditions are, many authors claiming that there is a congenital malformation of the tubes, preventing normal conception, and these congenital defects are especially cited in the cases in which the first pregnancy is an extra-uterine one. This point is admirably illustrated in Case I of the six I have reported: The patient had always been perfectly healthy and admitted only a single exposure, resulting in an extra-uterine pregnancy. At the time of operation a careful examination failed to reveal any evidences of a pre-existing inflammatory condition which might have produced a constriction, destroyed the peristaltic action of the tubes, or interfered with the action of the cilia.

Franz<sup>47</sup> considered inflammatory change in the tubes responsible for the occurrence of ectopic gestation, and found such changes in

eight per cent. of the cases in which sterile periods of from two to seventeen years had been noted.

Bandler<sup>48</sup> has come to the conclusion that during the so-called sterile period, gonorrhœal, tubercular, puerperal, and atrophic processes take place, and that the fertilized ovum cannot develop in a perfectly normal tube.

He cites the experiment of Mandt and Schmidt, which was made to determine whether simple obstruction of the tube without changes in the mucosa would result in tubal pregnancy. Negative results were obtained after ligating the uterine end of the tube. If, however, a part of the uterus was included in the ligature interstitial gestation took place.

A. Peterson<sup>49</sup> also defends the inflammatory origin of ectopic gestation. He refers to an experiment of Mandt and Schmidt, above quoted, and cites the result of the examination of fourteen cases. In twelve of these tubal disease was found. On the uterine side of the ovum a catarrhal process was present, which decreased in intensity from the uterus outward.

Of the inflammatory conditions mentioned as having a determining influence on the causation of ectopic gestation, gonorrhœa seems to play the most important part, although Zuntz<sup>50</sup> has reported one hundred cases of extra-uterine pregnancy in two-thirds of which antecedent inflammatory conditions in the genitalia had existed. However, gonorrhœa was by no means as common as puerperal infection.

Hitschmann of Vienna<sup>51</sup> states that the causal influences in the tubal implantation of the ovum upon catarrhal and more especially upon gonorrhœal processes is hardly disputed, but most authorities accuse chronic changes and suppose that acute gonorrhœa in the tube would prevent implantation. He cites a case which controverts this supposition. The mucous membrane of the tube exhibited signs of recent gonorrhœal inflammations and peri-mucous abscesses at the point where the fertilized ovum was arrested.

Against the inflammatory theory we have such men as Bland Sutton and Taylor, who have often failed to find evidences of old salpingitis in the tubes removed by operation.

According to Bland Sutton<sup>52</sup> a healthy tube is more likely to become pregnant than one that has been inflamed.

I. W. Taylor says the following factors play their part increasing the tendency towards a tubal pregnancy<sup>53</sup>: 1, Any want of development of the tube; 2, any permanent contraction of the tube; 3, any swelling of mucous membrane; 4, any abnormal length of the tube; 5, any extra weight or impaired mobility of the ovum, at its entrance to

the tube; 6, any interference with the peristaltic action of the tube, if this be needed for the propulsion of the ovum.

The same author reports three cases complicated with ovarian tumors, one a dermoid. In all, the tubes were fixed and distorted by the growths or accompanying adhesions.

S. W. Bandler gives external migration of the ovum from the opposite ovary as an etiological factor<sup>54</sup>. There have been many cases noted where either as a result of adhesions, distortion by tumor growths or the congenital deformity of the tube, migration, either through or external to the uterus must have occurred. That this is true has been proved by Leopold.

An interesting citation in this relation was made by Worral<sup>55</sup>. He publishes four cases in none of which was there any corpus luteum in the ovary of the same side as the pregnancy; in two instances the corpus luteum was found in the ovary on the opposite side, and in the other two it must be supposed to have been there, so that in every instance the ovum must have reached the tube by migration. In the last case of the four the fimbriated end of the tube corresponding to the corpus luteum was occluded, and the migration must have been extra-uterine.

Sappel believes the ovum becomes too large in migration to permit its passage through the lumen of the tube.

Whatever the cause or causes may be, it is evident that multiparæ are more subject to ectopic pregnancy, as ninety per cent. of the cases (Kuestner) have been multiparæ as compared with ten per cent. nulliparæ.

Webster<sup>56</sup> seems to have embodied in the following scheme the essential causes of this interesting condition:

I. Mechanical interference with passage of the ovum to the uterus, as constriction of the Fallopian tube by peritonic bands; polypi or tumors in the tube; abnormal foldings and diverticula; pressure by adjacent tumors.

II. Interference with the peristaltic action of the tubes, as adhesions and inflammatory thickening.

III. Destruction of the action of the cilia and lining of the cells of the mucosa, *i.e.*, endosalpingitis.

Whenever one or more of the etiological factors of ectopic gestation have produced conditions necessary to have a pregnancy result in an abnormal one, its ultimate disposition depends somewhat upon the location of the fertilized ovum.

It may become arrested at any point of its development and become inert as a result of mummification, adipoceration, the formation

of a lithopædion, by absorption either complete or partial, or decomposition and infection may take place and the foetus is discharged through a suppurating sinus. It may continue to develop until full term and a living child be successfully removed by surgical interference. Without operative interference the foetus always dies.

Many interesting cases of retention of the foetus have been recorded. They have been found during operation for some abdominal tumor; occasionally they have been diagnosed previous to operation, or have been disclosed during an autopsy.

The pathological changes taking place in a retained foetus and after its death, are a gradual disappearance of the liquor amnii, and an increase in the bulk of the placenta, owing to degenerative changes, and later its slow absorption until no trace of it can be found<sup>57</sup>.

Contraction of the sac takes place, and there may now occur a deposition of lime salts around the foetus, forming a lithopædion.

Very early mention of this condition is recorded, the first being in the year 1582, in which the lithopædion had been retained for about twenty-eight years.

Parkhurst<sup>58</sup>, among the many authors who have noted this condition, gives an account of a woman who became pregnant in 1802, foetal movements appearing at the usual time. Premature labor was begun at eight and one-half months as the result of a fright, but the pains gradually subsided and the patient was again comfortable. Death occurred in 1852 at the age of seventy-seven years, and at the autopsy a tumor, the external surface of which was smooth and composed of fibro-cartilage, was found. On cross-section there was discovered a true lithopædion which had been retained not quite fifty years.

Kelley<sup>59</sup> gives the following classification and the various secondary changes that can occur:

PRIMARY FORMS.	SECONDARY FORMS.
Ovarian—May become	Abdominal.
Interstitial—May become	Intra-uterine Abdominal Intra-ligamentary.
Tubal—May become	Mole Abortion Tubo-ovarian Tubo-abdominal Abdominal Intra-ligamentary.

The ovarian form was for a considerable length of time not believed to have occurred, and even now is doubted by some authorities. But as our knowledge and experience increase, we find that primary ovarian pregnancy does occur.

Calmann<sup>60</sup> exhibited to the Hamburg Medical Society, on January 24, 1905, a specimen of ovarian pregnancy not open to any objections whatever, neither tube, fimbriae nor infundibulo-pelvic ligament taking any part in the formation about the fertilized ovum in the ovary. He remarked about its rarity, and said thirty-four cases had been reported.

One of the most interesting cases occurred in the practice of Evans of La Crosse, and reported by J. C. Webster<sup>61</sup>.

Oskar Schaeffer<sup>62</sup> describes ovarian pregnancy as follows: First, it takes place in the follicle because the rupture is too small for the escape of the ovum. The chorion dips into the surrounding stroma, the decidua is contributed by the zona granulosa of the Graafian follicle, assisted by the ovarian stroma.

Second, the ovum becomes impregnated primarily in the follicle, and the gestation sac, embedded in masses of fibrin, projects into the abdomen forming an ovario-abdominal gestation.

Third, tubo-ovarian pregnancy results if a congenital or acquired ovarian tube is present (from salpingitis and kinking of the tube).

Fourth, the ovum is impregnated in a tubo-ovarian cyst. A small cyst from a partially degenerated ovary ruptures into a tube and hydrosalpinx results.

The interstitial form of ectopic gestation, while not so rare as the ovarian, is nevertheless found in only a small percentage of the cases. The fertilized ovum grows in the portion of the tube traversing the uterine tissue. Pregnancy rarely continues longer than the fourth month, when rupture occurs into the abdominal cavity, accompanied by severe hemorrhage.

Rupture may occur in the uterine cavity and the foetus go on to development<sup>63</sup>.

Rarely an intra-ligamentary rupture may occur and gestation terminate in one of the various ways already mentioned.

Most common of all extra-uterine pregnancies is the tubal, and to this class belong the cases reported in this paper. In tubal pregnancy, the blood vessels become very much thickened, the mucous membrane becomes swollen at the point where the ovum becomes arrested and a decidua serotina is formed<sup>64</sup>.

So far as is known a decidua never forms in the tubes or cervical canal.

The chorionic villi of the arrested ovum grow into and become attached to the swollen mucous membrane. The ovarian and uterine blood vessels increase in size, the growth of the ovum distends the tube, but instead of a compensatory hypertrophy of the tube itself, a progressive attenuation takes place due to the distension<sup>65</sup>.

The peritoneal margin near the ostium swells and forms a ring around the fimbriæ, folding over and thus closing in the tube<sup>66</sup>.

In many cases, however, the abdominal end remains open and the leakage from the open end is a frequent source of pelvic hæmatocele, or tubal abortion may occur with the expulsion of the foetus alone or with the placenta. When the foetus is expelled with its membrane intact, and the placental attachment is sufficient to nourish the foetus, the gestation may go on to full term; this is known as a tubo-abdominal pregnancy.

When pregnancy takes place in the tube a decidua is formed in the uterine cavity. The decidua may form a perfect cast of the uterus and is about two-fifths of an inch thick, fleshy, ovoid and vascular<sup>67</sup>. Death of the ovum or rupture of the tube is usually accompanied by shedding of the decidua, partial or complete, and there may have been cases where the decidua was retained many weeks after the rupture<sup>68</sup>.

In many cases a tubal mole is formed by the collecting of blood between the amnion and chorion from the circulation of the foetus. A mole resembles very much a firm blood clot. It is covered by the chorion, and villi can be demonstrated. The amniotic sac usually occurs to one side of the mole and is covered by a blood clot separating it from the chorion.

According to Ross<sup>69</sup>, rupture takes place earliest when the ovum is situated near the uterine end of the tube, as a consequence of the inability of the tube to dilate at that point. The hæmorrhage is also more severe in the rupture of an interstitial pregnancy. Rupture in the middle portion of the tube occurs later, as the tube at this point allows of greater distension. Rupture may occur at any point and may or may not be fatal to the mother and the foetus. Some authors claim it may occur as early as the fourth week (Tait) and perhaps earlier (Ross).

If early rupture does not take place pregnancy may go on, but rupture is sure to occur later, generally from the second to the fourth month. When the rupture takes place upwards (intra-peritoneal) a hæmatocele forms, gradually increasing in size, rarely encapsulated.

Rupture downwards (extra-peritoneal) only occurs at the middle portion of the tube. It is due to extension of the pregnancy between the layers of the broad ligament. A hæmatoma forms in the broad



ligament, and this may end the condition, the blood being slowly absorbed, or pregnancy may continue<sup>70</sup>. As the foetus grows, the placenta, being above, is a constant source of danger and the case ends in secondary rupture or the pelvic peritoneum is continually displaced by the growing foetus.

Among the many interesting pathological conditions that have been noted is the occurrence of multiple pregnancies. Of these the combined intra and extra-uterine pregnancies are most common. Simpson<sup>71</sup> collected 113 cases.

Schauta has collected nineteen cases in which two ova have developed in the same tube<sup>72</sup>, and in the same publication he reports Krestinus, Psaltoff and Frederick as having found instances where there was an ovum situated in each tube.

Sanger<sup>73</sup> records a most interesting case of ectopic gestation in which there was a twin interstitial pregnancy with a third ovum at the fimbriated end of the same tube. A similar case was communicated to the Philadelphia County Medical Society, October 26, 1901, by Wilmer Krusen<sup>74</sup>. There had been rupture of the tube and three foetuses in the second month of gestation had been expelled from the tube, the uterus not being involved.

The possibility of a recurrent extra-uterine gestation has been demonstrated many times, and Sens<sup>75</sup> states that in one out of four, when conception occurs after cure of ectopic gestation, the later pregnancy is also extra-uterine.

A more or less hurried review of the etiology and pathology is essential in order to make an intelligent diagnosis, and I believe the high mortality would be reduced if the diagnosis of this condition were made oftener before rupture occurs.

Given a typical case with all the classical symptoms, the diagnosis is comparatively easy, but many of the cases are atypical and we do not form our conclusions until a grave complication has set in.

The diagnosis in unruptured cases is the more difficult and the least often made. A case of ectopic gestation may occur and go on until time of rupture without any previous symptoms, but usually, on making a careful inquiry into the history of the case, there is found to have been some disturbance with the menstrual function. It is absent entirely or irregular, and accompanied by inconstant and severe colicky pain. There may be an expulsion of a decidua, either partial or complete. There may be present other signs of pregnancy, such as nausea, change in the breasts, frequent micturition, and peculiar sensations difficult for the patient to describe. Upon vaginal examination we may find a discoloration of the vagina and cervix. The uterus

is enlarged, the cervix soft and elongated. Upon palpation of the adnexa we find a tumor situated on the side of the uterus. Hofmier<sup>76</sup> states that a valuable sign in diagnosing ectopic gestation is that the pulsation on one side of the tumor is often observed to be greater than on the other. This sign is especially useful to indicate whether the foetus is alive or dead.

One of the most important precautions is to make repeated examinations, and if we can then determine that the tumor is growing rapidly, is painful on pressure, that it is independent of the uterus, as shown by the fact that when the cervix is grasped by a vulsellum forceps the uterus may be moved upwards or downwards without communicating the movement to the tumor. Ectopic gestation is the most probable cause of the condition.

Later in the gestation, there is a sharp pain accompanied by prolonged fainting spells: there may be foetal heart sounds, placental bruit, which would establish the diagnosis.

The diagnosis is rendered more difficult when it has to be made in the presence of pre-existing pathological condition of the adnexa, and it may be necessary to administer an anesthetic in order to determine the exact relations. Finally, a microscopical examination should be made of the decidua, and if placental tissue and chorionic villi are found the diagnosis is positive.

In the ruptured cases of ectopic pregnancy we have a series of symptoms which have been recognized for many years. The extreme, sudden pain in the pelvis, followed by an acute anemia and symptoms of collapse, faintness, a bloody discharge from the uterus; upon abdominal palpation tenderness is found. Immediately after rupture it will not be possible to feel the fluid blood in the cul-de-sac of Douglas, while a few hours later the space may be found bulging into the vagina, and palpation imparts a peculiar characteristic sensation. The rupture may not be followed directly by severe hemorrhage, but may recur at intervals, and this is a very good diagnostic sign.

Interstitial pregnancy is very difficult to diagnose, and Kelley<sup>77</sup> gives the following characteristics:

“That one apex or one-half of the uterus enlarges and softens without participation of the rest of the organ.

“That this is most marked in the early months, but observable as late as the fifth or sixth.

“That the pregnancy is painful, the patient often complaining of an amount of suffering never felt before during other normal pregnancies.”

The treatment of ectopic gestation must necessarily vary according to the length of time the gestation has existed.

Formerly it was the opinion of many of the authorities that the percentage of the recoveries was greater under the expectant plan of treatment than when an operation was performed for the relief of the condition. To-day it is generally admitted that the treatment is surgical. In all cases before viability of the foetus, operation should be performed as soon as the diagnosis is established, and the technic and principle does not differ from that which leads us to remove ovarian tumors or diseased tubes. In the hands of good operators the mortality rate should not be above ten per cent.

When rupture has occurred and there is free hemorrhage into the peritoneal cavity, abdominal section should be performed at once, and the technic will have to be modified according to conditions found. The two complications which are most frequently the cause of death are hemorrhage and sepsis, and the secret of success lies in the management of the placenta.

It is desirable to remove the placenta in all cases where possible, and the only contra-indications for so doing would seem to be where the danger to the patient would be increased owing to the firm adhesions to the intestines or the large blood vessels.

The attachment of the placenta should be carefully examined, and if it is decided to allow it to remain it should be walled off from the general peritoneal cavity as much as possible, by suturing it to the peritoneum or packing iodoform gauze around it.

The mortality rate for the mother increases rapidly as the term of gestation approaches its end; whether it is higher during the life of the foetus or after its death, is a question still under dispute.

When the foetus is viable and there are no indications demanding immediate operation, it is desirable to wait until eight and one-half months of the gestation have passed. In the last part of the gestation there is an absorption of the liquor amnii, allowing great pressure upon the foetus, adding to its already hampered existence.

The choice of the route for operation varies, and while there never will be a complete decision as to which is preferable, the abdominal opening or an incision into the cul-de-sac of Douglas, the number of surgeons who employ an abdominal section is steadily increasing. It would seem that the vaginal route could be of greater service only in cases where the rupture had occurred into the broad ligament, or had developed in the cul-de-sac, and in those cases where degeneration and infection had resulted in a pelvic abscess. Frequently after making

a vaginal section, complications are found which cannot be disposed of without resorting to a laparotomy, and this lengthens the time of operation and lessens the chance of the patient. In opening the abdomen we can make a more careful examination, both ocular and digital, the various complications can be handled with greater ease, and it would seem that in the majority of cases the abdominal route would be of the greater service.

CASE I. Miss S., aged 27 years, a well developed woman, who previous to her present illness had always enjoyed perfect health. Her menstrual periods began at the age of fifteen years, have always been regular and free from pain until her present illness.

About one week before her admission to the hospital she was seized with severe pains in the lower portion of her abdomen, was nauseated, and became very faint. She sent for her family physician, Dr. J. H. Wallis, who had her removed to the hospital.

I saw her in consultation, and found the following condition: The patient was confined to her bed, decidedly anemic in appearance, rapid pulse, slight rise in temperature. The abdomen was distended and there was an area of dullness in the right lower quadrant, extending from the pelvic region to McBurneys' point. She informed me that she had been entirely well previously, with the exception that she had noticed that her menstrual period had not been as profuse as usual. Upon vaginal examination there was found a bloody discharge from the cervix, which was softened. The cul-de-sac of Douglas was found to be occupied by a spongy mass and the uterus crowded forward. The patient was questioned regarding the possibility of being pregnant, but she denied any exposure, and a guarded diagnosis of intra-abdominal hemorrhage, due to a ruptured ovarian cyst was made.

An incision was made directly over the most prominent portion of the mass occupying the abdomen and as soon as the abdomen was opened dark blood escaped. The entire mass outlined by percussion was composed of a firm blood clot. The fundus of the uterus was grasped with a vulsellum forceps and a rapid examination of the left ovary was made and found to be normal. The hemorrhage from the broad ligament on the right side was controlled by means of a clamp, the clot of blood removed, and the ovary and tube exposed to view. The ovary was normal, while the tube was much enlarged, and about one-half inch from the ampullar end, a ragged laceration was seen showing the point of rupture. The foetus was not found, probably escaping with the blood clots, but judging from the size of the tube, a diagnosis of tubal pregnancy of about six weeks' standing was made. The abdomen was flushed with normal salt solution and closed with drainage. During an uneventful recovery the patient finally admitted a single exposure which had resulted in an extra-uterine pregnancy.

From the history and from the findings during the operation it would seem that this case could not have occurred as a result of any pre-existing inflammatory condition, and would have to be classed as being the result of a congenital defect.

CASE II. Mrs. G., aged 30, married and the mother of three children. Her menstrual periods have always been normal. Previous to the birth of her last child she had a miscarriage in the third month of gestation from which she recovered without infection. Six weeks before her admission to the hospital, she began to feel strangely, complaining of dizziness, nausea, and intermittent pains located in the pelvis. She consulted her physician, who relieved her of the nausea. Two days before the operation I saw the patient at her home and upon vaginal examination discovered a mass to the left of the uterus about the size of a lemon, apparently involving the Fallopian tube. The right ovary and tube could be outlined and were evidently normal. The uterus, right ovary and tube, as well as the mass on the left side were entirely movable. An extra-uterine pregnancy was suspected and the patient advised to remain very quiet. The following day I saw her again and was greatly surprised at the marked change in the appearance of the patient. There was extreme pallor and an anxious expression to the face, nausea, pain in the abdomen, and the distention was very marked. Vaginal examination revealed a complete change from the preceding day. The cul-de-sac of Douglas was bulging into the vagina and the left side was occupied by a large irregular mass. An immediate operation was advised and she was taken to the hospital, where, after the usual preparations, an incision three inches long was made in the median line; as the peritoneum was opened, bright red blood escaped. Further examination showed the presence of about a quart of clotted blood, which was removed, and as the hemorrhage again appeared, clamps were placed on the ovarian and uterine side of the tube, after which the tube and ovary were removed. The tube and ovary on the right side showed no evidences of any pathological conditions. On careful examination of the specimen removed there was found a foetus partially escaped from the ampullar portion of the body of the tube. The uterine end was slightly thickened and the canal leading to the uterus was opened. At the point of rupture the tube was greatly thinned and the laceration had occurred at the placental attachment. The abdominal wound was closed in layers without drainage and the patient recovered completely.

CASE III. Mrs. H., aged 31 years, married and has had two children. Her childhood was normal, menstruation began at the age of eleven years, regular and free from pain. Her labors were not difficult and there was no history of pelvic infection. During the early part of August she noticed that she did not feel as well as usual and her menstrual period was not the same. In the month of September she did not menstruate at all and there were signs of pregnancy as shown by the condition of her breasts and morning nausea. The patient believed herself to be pregnant and thought nothing of her discomfort as during the early part of former gestations she had complained of similar symptoms which had gradually disappeared. On October 2nd she began to flow and pieces of membrane were passed. Fearing a miscarriage she sent for her family physician, Dr. C. E. Richards, late in the evening, who quieted the condition and on the

following morning I saw her in consultation. The flowing had been profuse and the patient was exceedingly anemic, pulse rapid and weak, temperature subnormal, restless and almost constant retching. No area of dullness could be outlined on the abdomen which was greatly distended. A profuse flow came from the uterus which was enlarged to about the size of a three month's pregnancy. The pelvis seemed to be occupied by a fluid and the adnexa could not be outlined. A diagnosis of ectopic pregnancy with rupture of the sac was made, and as the hemorrhage seemed to be still active an immediate operation was performed. A median incision was made, and the intestines immediately bulged into the opening. They were pale, greatly distended and shiny in appearance. The abdominal cavity was filled with fluid blood together with a few clots. The uterus was grasped and a clamp placed on the uterine end of the tube on the right side, when after proper ligation the right tube and ovary were removed. On examination of the left side no adhesions were found, and, with the exception of an exceedingly long Fallopian tube, there was no abnormality. A considerable quantity of normal salt solution was left in the abdominal cavity, when the incision was closed with difficulty, owing to the great distention of the bowels. Further examination of the tube and ovary showed that the latter was normal while the tube was cone-shaped, the uterine end being but slightly thickened, gradually becoming larger until the point of the rupture was reached, where it was found to be pouched and greatly thinned. A foetus was found corresponding to a two-months' pregnancy. The vomiting which had been so severe previous to the operation continued, and in spite of all treatment the patient died of shock and anemia two days after the operation. If the patient had sought advice earlier and the diagnosis had been made before rupture occurred, the life of the woman could have been saved. This well illustrates the necessity of early diagnosis of this condition.

CASE IV. Mrs. S., aged 26, married and the mother of one child. Patient had always been healthy, and the menstrual periods regular though quite painful. She had no knowledge of her condition and there was an absence of all signs of pregnancy. On April 23, while performing some of the work in her household, she was seized with sudden, agonizing pain in her right side. The pain was so intense that the patient collapsed on the floor and was unable to rise without assistance. Her family physician, Dr. J. H. Wallis, was called and found her in a condition of collapse and at eleven o'clock she was seen by me in consultation. The pulse was rapid, pupils dilated, temperature slightly increased, breathing hurried, anxious expression of the face, and a decided anemia. The abdomen was distended and tympanitic. Vaginal examination showed an enlarged uterus, softened cervix, from which a slight bloody discharge escaped. The left ovary and tube could be outlined, while the right side was occupied by a mass the size of an orange. A diagnosis was made of intra-abdominal hemorrhage from a ruptured tubal pregnancy, and the patient was removed to the hospital where she was prepared for immediate operation. The abdominal route was chosen and an incision three inches long in the median line

was made; as soon as the peritoneal cavity was opened, bright red blood appeared free in the abdominal cavity. After grasping the fundus in the usual way, the right tube and ovary were at once brought into view, clamped, ligated and removed. The abdominal cavity was flushed with normal salt solution and the wound closed without drainage. The specimen removed showed a greatly enlarged tube, especially in its body, and the ovarian and uterine end were a little enlarged. On the upper surface of the enlargement, at the point of its greatest diameter, was a large hole; the placenta was attached near this opening, and the cavity was partially filled with fresh blood clots. The foetus was not found, having escaped at the time of the rupture, but judging from the size of the tube, the pregnancy was of about four to six weeks' standing.

CASE V. Mrs. A. N., aged 35, mother of three children. She has always complained of pelvic pains, especially during her menstrual periods. Menstruation began at the age of twelve years, was painful and irregular. Since her confinements she has flowed more profusely, and there has been more or less vaginal discharge for several years. Her confinements have been difficult and during the first one she was lacerated to a marked degree. The present illness dates from the middle of February, when she began to be troubled with dizziness, and the menstrual flow lessened in amount. A little later she began to feel nauseated in the morning, peculiar sensations were felt in the breasts, similar to those she had noticed during previous gestations. In March she did not flow until some time after her regular time, when there was an attack of sharp pain in the pelvis, followed by a gush of blood and the escape of large clots of blood from the vagina. The pain was of an intermittent character, and accompanied by considerable hemorrhage. She sent for her family physician, Dr. C. E. Richards, who, upon examination, found a mass protruding from the external os. The patient was chloroformed and the uterus curetted, irrigated and packed with iodoform gauze. The mass removed from the uterus was as large as a man's hand, and macroscopically corresponded to a placenta, with membranes attached. No microscopical examination was made, as at the time it was thought that the case was a simple miscarriage, and the tissue removed was thrown away. The foetus was not found, having escaped with the blood clots that were discharged before the curettement. The patient improved for a short time, the flow from the vagina ceased, and she was allowed to sit up, when the dizziness of which she had complained so greatly, returned, and she suffered from sensations peculiar and difficult for her to describe. The symptoms all increased in severity and she was no longer able to be up. Attacks of violent vomiting came on, and both her temperature and pulse were above normal. The case was seen in consultation on April 1st, when she presented an anemic appearance, quite restless, and complained of feeling very uncomfortable. The abdomen was slightly distended, painful on pressure, especially over the lower portion. The uterus was still enlarged and pushed upward under the symphysis pubes, and the cul-de-sac of Douglas was bulging into the

vagina. A diagnosis of pelvic abscess, the result of a mild infection, was made and vaginal drainage was advised. An incision one-half inch behind the cervix was made and by blunt dissection an opening into the recto-uterine space was formed. There was an immediate gush of blood and blood clots into the vagina. I could not feel the source of the hemorrhage as the entire region was occupied by the clotted blood. After packing the opening with iodoform gauze, a laparotomy was performed, and the abdominal cavity found to contain a considerable amount of dark fluid blood. The uterus was partially covered with the intestines which were bound to it by recent adhesions. These were quickly broken up and on the right side a mass involving the tube about the size of an orange was discovered. There were many recent adhesions, which yielded readily to manipulations. The hemorrhage was controlled by means of a clamp, and the tube and ovary removed. Vaginal and abdominal drainage was provided for and the abdomen was closed, after which the patient recovered without any untoward symptoms. No change in the ovary which had been removed could be seen, but the tube was greatly enlarged and near the ampullar end was a laceration, from which the severe hemorrhage had occurred. Upon microscopical examination it was found that the tube contained placental tissue, and that we were dealing with a case of ectopic pregnancy. The error in diagnosis was the result of the fact that it was not recognized that the case was one of intra- et extra-pregnancy, and this being so, the most logical conclusion was that an infection had occurred during the curettement previously performed. I am aware that it may be argued that the tissue discharged from the uterus may have been a decidua, which usually accompanies an extra-uterine pregnancy. Only a microscopical examination of the tissue could settle the question positively, but from the character of the tissue and the attachment of the membranes, I believe that it was a true pregnancy, and that miscarriage occurred as a result of the rupture of the ectopic gestation, which occurred at the time of the uterine pains and the discharge of the large clots of blood.

CASE VI. Mrs. S., aged 29 years, has given birth to three children, the youngest being three years of age. Her labors have been severe and protracted, and as a result of her first confinement she was lacerated, both in the perineum and cervix. On September 19th she consulted me in my office, stating she was not feeling well, and although she had menstruated regularly, she was of the opinion that she was pregnant. There was a history of nausea, darting pains in the breasts, frequent urination, and the menstrual flow was of a dark color. At times she suffered colicky pains in the pelvis. The uterus was subinvolved and retroverted. From the external os a bloody discharge escaped. Palpation of the left tube and ovary was comparatively easy, and no pathological changes could be detected. The right ovary was normal in size, while the tube was slightly enlarged, and painful on pressure. The history of the case did not disclose any acute inflammatory condition which might have caused the symptoms of which she complained, but as there had been at times considerable leucorrhœa, I



believed she was suffering from a mild form of metritis and salpingitis. She was given a tonic, advised to refrain from active work, and a tampon saturated in ten per cent. ichthyol was inserted into the vagina. In a week she returned somewhat improved. The Fallopian tube on the right side was larger, if anything, and the treatment was repeated. She did not return until October 17, as during the interval she had felt much improved, but on that day all her symptoms returned and pains in the pelvis were quite severe. On making a vaginal examination it was found that the flow had been re-established, and the swelling in the right tube was distinctly larger than when she was first examined on September 19th. After considering the symptoms and the physical findings, I made a diagnosis of ectopic pregnancy and advised an immediate operation. This was refused, and the patient and her husband left the office. On October 24th they returned and I again made a vaginal examination and found that the mass was steadily increasing in size. Operation was again advised and again refused, when I declined to further treat the case. During the thirty days that the swelling had been under observation it had doubled in size. On November 2nd, the husband called and asked me to come and see his wife who had been taken ill very suddenly. The patient was in bed, pale, breathing rapidly, pupils dilated, pulse rapid and not strong. She said she had been taken ill on the street car, while returning from the office of a notorious quack, who had guaranteed to cure her with electricity. He had given her one treatment at four o'clock, consisting of a series of electrical shocks, produced by introducing an electrode into the vagina and one placed on the abdomen. The condition in the pelvis was found to have undergone a complete change. The adnexa could no longer be outlined, the uterus was crowded upwards, and the space behind the cervix was bulging into the vagina. It was evident that the patient was suffering from severe hemorrhage, the result of a rupture of the tube on the right side. Operative procedure was urged, but the husband refused. The patient was given morphine and ergot in the hope of controlling the hemorrhage. During my absence from the house the husband sent for the quack who had given her the electrical treatment and he ordered whiskey and strychnine. Upon my arrival he quickly withdrew from the case. The hemorrhage had recurred and the patient was in collapse from which she did not recover. At half past ten o'clock, six hours after the rupture, she was dead. Upon my refusal to sign the death certificate, a post mortem was made by the late Dr. Dwight Mereness, who found the abdominal cavity flooded with blood. In the pelvis were large clots of blood, the left tube and ovary were in a normal condition. The right ovary was normal, while the tube was enlarged to the size of a man's fist. In it was found the foetus and placenta. Upon the upper surface near the placental attachment was found a small laceration from which the hemorrhage had taken place. The refusal to submit to proper surgical procedure cost the woman her life. It was a case clearly indicating immediate operation, before the fatal complication had occurred. With the symptoms of which she complained, and having had the case under observation for several

weeks during which there was a rapid increase in size of the swelling, one could hardly err in the diagnosis, and the operation performed before rupture would have been no more dangerous than the removal of an ordinary cystic ovary.

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#### Discussion.

DR. C. H. LEMON, of Milwaukee—In rising to open the discussion upon the subject of ectopic pregnancy, I desire first to compliment the author of such an interesting essay, bearing evidences of the most careful consideration and untiring investigation.

It is a fact that notwithstanding ectopic pregnancies have been recognized for some centuries it is but recently that the very great frequency of this condition as a clinical factor has been clearly recognized. Mistakes in diagnosis have been frequent owing to lack of clinical experience. Excepting in the most classical cases where the hemorrhage, shock and anemia are so profound that even a novice could make the diagnosis, there is no condition in which more frequently we should invoke the aid of an anesthetic for the purpose of arriving at a diagnosis.

It must be differentiated from all other pelvic inflammations, including appendicitis and recent abortion. I well remember the case of a young mar-

ried woman, seen by me for the first time early one morning, who presented classical symptoms of ectopic pregnancy with marked symptoms of shock and who the day previously had aborted after mechanical interference, but strenuously denied the existence of a recent pregnancy or of any interference with the contents of the uterus. The subsequent grumous discharge from the uterus elicited a tardy confession from the patient of the true facts in the case.

The essayist called attention to a fact of great importance, that profuse hemorrhage into the free peritoneal cavity is likely to occur in interstitial pregnancy at the horn of the uterus. These cases do not form an hematocele and are to be regarded as emergency cases demanding immediate operation. When a patient presents the signs of shock followed by profound anemia within a few hours, the only safety lies in immediate abdominal section, instead of waiting for the impossible to occur in this urgent class of cases.

There will never be a consensus of opinion as to the advisability of operation in recognized non-urgent cases of ectopic pregnancy. Objections have been urged by some, partly sentimental and partly moral, which will determine in the individual case what procedure is to be followed.

For myself, however, I claim the privilege of regarding a pregnancy outside of the cavity of the uterus as unnatural, as impossible of safe delivery without surgical intervention, and as so improbable even with these means of reaching a successful issue, that I would consider it my duty in a non-urgent case where I had made a correct diagnosis, fortified by that of a consultant, to open the abdomen and remove the foetus and membranes, if not viable.

Progressive surgery will not be hampered by either sentiment or codes of morals, but will perform its duty along well established surgical lines, regarding ectopic pregnancy as a source of danger to the patient from the possibility and probability of fatal intra-abdominal hemorrhage, and with foresight in this as other equally urgent conditions, will seek early to remove the cause.

Dr. JOHN SPECHT, of Superior.—My views on this matter are that as soon as you make your diagnosis, which should be as early as possible, surgical procedure should be adopted.

I remember one case where I waited to make a second examination. When I was first called the patient had had a fainting spell. I made an examination and was somewhat uncertain as to its being a tubal pregnancy, and postponed further examination three days to await developments, but before I had a chance to make a second examination the woman had another fainting spell and I operated as quickly as possible, and found the abdomen full of blood. I took away the clots as quickly as possible, sewed up the abdomen, and gave saline solutions; but the anemia was so acute that the patient did not rally. There is a limit to the amount of hemorrhage that can take place. This patient certainly died from hemorrhage.

I think the point is well brought out, that whenever we make a diagnosis of tubal pregnancy, we should immediately open up the abdomen and seek to remedy the condition.

Pain is an important point in diagnosis. I remember the case of a primipara in whom soon after marriage the menses went by for two weeks; then there was a dark, coffee colored discharge from the uterus. I gave the

patient an anesthetic in order to make a thorough diagnosis, and under the anesthetic (fortunately the patient was thin) I could diagnose the aborted mass in the abdominal cavity free, and as the hemorrhage apparently was not very great in the abdominal cavity, I watched the patient hourly for several days, and left this case to nature. Fortunately the mass became absorbed in the abdominal cavity without any untoward results.

I agree with the last speaker that the point is to make the diagnosis and then proceed surgically.

DR. W. F. MALONE, of Milwaukee—If we knew as much about ectopic pregnancy as we know about appendicitis, very many more of these cases would be discerned by the practitioner and operated upon by the surgeon. The very fact that we do not think of the existence of ectopic pregnancy, that it is recognized as such a rarity, is the reason why it is not more frequently diagnosed. The symptomatology of ectopic pregnancy is not any more obscure or difficult to discern than that of appendicitis. To-day every practitioner of medicine is on the alert to discern appendicitis; while comparatively few think of the possibility of ectopic pregnancy. I think that one point we must recognize. We cannot have this subject too frequently brought before medical societies.

One other thing has aided me in making a positive diagnosis, and consequently determining the technique of the operation, and that is the value of vaginal celiotomy as a diagnostic measure. We are often brought to a very sick patient, and the question is, is it pyosalpinx, a pelvic abscess, is it an obscure ovarian cyst, or is it ectopic pregnancy. I have known a number of those cases that are not so easy to determine. We are never quite positive, and I have found myself that it is a very convenient and safe measure to perform vaginal celiotomy, making an exploratory incision; if blood comes instead of pus, we have established a good drainage of the tract and are safe, and it will be easy for us to drain, and when we have made the diagnosis, positively, and opened the abdomen, we can pursue whatever course is advisable in the premises.

DR. J. R. MINAHAN, of Green Bay—I think the most important part is to get a clear history of the case. If we have a history of sterility for a certain length of time followed by a cessation of menstruation, then symptoms of miscarriage or abortion with severe pain or shock, denoting severe shock in the abdomen, it is easy to make a diagnosis.

I cannot agree with the doctor who says he gives an anesthetic for the purpose of making a diagnosis in these cases, because in the most severe forms there is nothing that you can do, as far as the hemorrhage that is destroying your patient is concerned, except to operate. In those cases in which you have repeated attacks of hemorrhage, there is not complete rupture. The hematoma forms in the tube or in the membranes and is housed off; but those cases in which the patient demands immediate aid or death will ensue, are the ones in which the hemorrhage takes place into the peritoneal cavity, and in these there is nothing you can discover with an anesthetic that you cannot discover without it.

If we have a typical case in a woman who has been sterile for several years, who though formerly regular, has gone over her menstruation, and is now seized with a sudden pain in the abdomen, followed probably by fainting or shock of any kind, the symptoms are clear enough to make our diagnosis.

Now, we may be mistaken in the rupture of a pyosalpinx or twisted ovarian tumor, but why give that patient an anesthetic for diagnostic purposes? Those are surgical conditions that demand the same treatment as extra-uterine pregnancy; and if you anesthetize her at all, do so when you are prepared to open the abdomen and relieve the patient.

The most severe, the most dangerous cases, and those with the greatest amount of shock, have been those in which a vaginal examination revealed nothing. In the cases that have existed a long time, where there is a large mass in the cul-de-sac and in the region of the tube, and the patient has attacks of pain, there is hemorrhage taking place from time to time, and the danger is not so great; but the woman who has gone over her period for a certain length of time, who has the symptoms of a miscarriage, who is seized with severe pain in the abdomen, followed by shock and all the symptoms of internal hemorrhage, presents a surgical picture that demands immediate opening of the abdomen.

DR. C. O. THIENHAUS, of Milwaukee—I would not advocate too thorough examination under narcosis in cases in which we suspect extrauterine pregnancy to be present. It has oftentimes happened that by such thorough examination an existing hematocele or a pregnant tube was ruptured and death followed immediately or a few hours after the examination, when an operation could not be performed immediately.

When you have a case in which you suspect an extrauterine pregnancy, and by careful examination without narcosis you find a tumor containing fluid in the neighborhood of the uterus, the nature of which is doubtful, vaginal exploratory puncture or celiotomy through the posterior cul-de-sac can oftentimes clear the situation and will demonstrate whether you have blood, pus, or serous fluid within the tumor.

In case you find blood you know that you have to deal with an hematocele, and it is a well known fact that 90 out of a 100 hematoceles originate from extrauterine pregnancy.

When I come to a patient who shows all the symptoms of internal hemorrhage, of which an extrauterine pregnancy is the cause, and by bi-manual examination an hematocele—that is, an encapsulation of the blood—cannot be demonstrated, I never advise to transport such a patient for operation. These patients have to be operated in the room in which they are found lying, immediately and quickly, because the absence of an hematocele shows that the hemorrhage is going on so profusely that nature has no time to form adhesions for the arrest of the bleeding.

In case no surgeon is at hand I believe the only way for the general practitioner, if he encounters a case in such a state, is to open the abdomen immediately under aseptic precautions and to put two artery clamps on the broad ligament of the affected side, one on the uterine end and the other on the lateral end of the affected tube. Thus the bleeding is stopped. Then after surrounding these clamps with sterile iodoform gauze he can await the arrival of a surgeon if he is not able to cope with the situation himself.

I agree with Dr. Lemon that every case of extrauterine pregnancy should be operated upon as soon as the diagnosis has been made, because it has been shown that Langerhans cell layers grow into and destroy the different layers of the tube, and therefore nobody can tell when the peritoneal surface has been reached and rupture may occur.

DR. E. EVANS, of La Crosse—I will impose on the time of the meeting for a moment because of the rarity of two specimens which I now exhibit.

The first one is the case reported in July of last year, by Webster, in "Obstetrics." Webster is an authority on extrauterine pregnancy, and he states that it is a case of true ovarian pregnancy. Heretofore he has consistently denied that we could have ovarian pregnancy, until I removed this specimen and sent it to him, because it seemed to be such a one, and he now acknowledges it to be a case of true ovarian pregnancy.

The other specimen I wish to show you, is a tumor removed the 20th of April. It is a beautiful specimen of tubal abortion, where the abortion is just occurring, but has not happened. In this case the diagnosis was made by my assistant, Dr. Dvorak, at a time when only slight hemorrhage had taken place into the abdominal cavity; the tube shows beautifully, the membrane coming from the fimbriated end. Before the specimen was prepared the foetus could be felt in the larger tumor in the tube.

There are perhaps just two things to be said about extrauterine pregnancy in a gathering like this. The duty of the general practitioner begins and ends when he has made the diagnosis; then, if he is a surgeon he goes on and operates, and if he is not he is morally bound to turn the case over at once to the surgeon, because the case is surgical and can be saved only by surgical interference. There is no place I know of where the lesson holds better than the education of the finger tip and the gray matter is of great importance to the medical student, after he graduates as well as before, than in these cases. Much more is involved than the skillful use of instruments. The careful history taking in the diagnosis of extrauterine pregnancy is, I think, the most important thing. If we will take a careful history we are very apt not to make a mistake in diagnosis.

DR. R. G. SAYLE, of Milwaukee—I wish to say a word about that class of ectopic pregnancy wherein it is impossible to make a diagnosis. I do not agree that it is possible to make a diagnosis in all cases of ectopic pregnancy. I have in mind three cases of my own experience and knowledge within the last two years, where the discriminating diagnosis between appendicitis of mild order and the early symptoms of irritation or rupture from tubal pregnancy arose, and they arose before some of the best men that we have in Milwaukee. There were two other physicians besides myself in consultation in these cases, so I do not refer to myself.

In every case the most painstaking discriminating diagnosis was attempted, and except in one the balance was in favor of the diagnosis of appendicitis. In one case unfortunately it was thought to be not entirely unwarranted to wait a length of time, because of the inconvenience of night, I take it. This patient developed during the night a slow hemorrhage, almost imperceptible, but it became so serious that in the morning it was impossible to save her. What was thought to be a case of appendicitis was a tubal pregnancy near the horn of the uterus, and hemorrhage took place continuously and so filled the abdomen and blanched the patient, that death occurred, although the operation was very simple.

In another case, although it was evening, the operation was immediately done, in spite of the fact that the diagnosis was in favor of appendicitis. The appendix was found normal, but a bloody fluid was escaping from the

abdomen. A small median incision was made, tubal pregnancy found and dealt with, with favorable results.

The other case was diagnosed in favor of tubal pregnancy, a median incision was made and the diagnosis proved to be correct, though we had not felt positive about it.

I think the president referred to the necessity for early operation for appendicitis, but with no more reason than in these cases of ectopic pregnancy.

I object to very severe examination with or without anesthesia. In one case that I saw I am sure it would have been very easy to dislodge a clot and possibly serious hemorrhage might have resulted, just as when we remove clots after vessels have ceased to bleed in operation, and fresh bleeding is likely to take place; and I oppose violent examination for that reason.

In the cases I have mentioned the patients were intelligent people, who called for medical assistance at the earliest moment, when the first sharp pain in the abdomen was felt. There was very slight temperature, absolutely no irregularity in menstruation, such as would lead you to a diagnosis of ectopic pregnancy from the menstrual history. As I said, these were intelligent women, who kept accurate record of menstrual dates, and they menstruated regularly. The sensitiveness in one case was high, and appeared to be in the appendix rather than the tube, and an examination *per vaginam* also made us think that this was the case. But these early symptoms, whether of appendicitis or tubal pregnancy, can be dealt with in the same way. I feel very much impressed with the need of a most careful consideration of these cases and a most timely attention to them. Nothing should delay opening the abdomen when a diagnosis lies between tubal pregnancy and appendicitis.

DR. JULIUS NOER, of Stoughton—A great number of cases of ectopic pregnancy are easy of diagnosis, and there can be no question about the procedure when diagnosis is made. Where there is evidence of hemorrhage, severe shock, pain and irregular menstruation, of course the diagnosis becomes easy. Two cases came under my observation recently, in which the diagnosis of extra-uterine pregnancy was made, and where the diagnosis was found to be incorrect. One was certainly made by very competent men. I saw the patient before and during operation. The case occurred in the clinic of Prof. Dr. Chrobak, in Vienna, the patient being in charge of Dr. H. Peham. It proved to be a case of acute pyosalpinx. When men of this kind can make mistakes, I think the ordinary practitioner may be excused for occasional lapses.

The other was a recent case. The patient was brought to the hospital; she was in great pain and had irregular menstruation, and was found by the attending physician in a condition of severe pain and hemorrhage, with apparently considerable shock and other symptoms that made him believe it was a case of ectopic pregnancy. A surgeon of large experience was called and laparotomy was performed: instead of an ectopic pregnancy it was found to be a not very unusual case of uterine abortion.

DR. W. C. F. WITTE (closing)—I am pleased with the generous discussion this paper has received, but I fear I have not made myself clear to all the members of the Society. The paper is somewhat longer than could be read in the time allotted, and as a result some of the points may not have been made sufficiently clear in the portions that I have read.



I did not mean to convey the idea that repeated examinations should be made in the cases where rupture has taken place, but in the unruptured cases during the early part of gestation we can determine by frequent examination the rapid increase in the size of the tumor; this taken together with the other symptoms and signs obtained by getting a careful history of the case will aid us in making the diagnosis of ectopic pregnancy oftener, before rupture occurs.

When a patient presents herself for examination and complains of symptoms, so well described by the doctor in the discussion, if there is any doubt in our minds as to the exact condition present, repeated examinations, and if necessary, the use of an anesthetic will lead us to make an accurate diagnosis before rupture takes place.

We should ever be on the alert and have this condition in mind, when patients complain of cessation of menstruation, together with other symptoms which might be present in an ectopic gestation.

All the cases I have seen, with one exception, have been treated by the general practitioner, and were not seen by me until rupture had occurred. In the only case where the diagnosis was made before rupture, the patient was under my observation for thirty days. At the first examination the swelling was so small I could not come to a satisfactory conclusion, and I had her return at stated intervals. During this time the swelling doubled in size, and all the symptoms of an ectopic gestation became aggravated. I made a positive diagnosis and advised immediate operation which was refused, and I then declined to treat the case. She was guaranteed a cure by a notorious quack of our city, by the use of electricity. Two hours after her first treatment I was asked to call at the house, and found her in a condition of shock from severe hemorrhage. All operative procedure was refused until it was too late and at 11 o'clock of the same day the patient was dead. An autopsy revealed a ruptured tubal pregnancy.

This brings us to the point of hemorrhage in these cases. It occurs in one of two ways; either it comes on suddenly and there is such a severe loss of blood that it cannot be mistaken for any other pathological condition, or there are repeated hemorrhages occurring at intervals of shorter or longer duration. By a careful history of the case, observation of the symptoms, frequent examination, together with repeated examinations of the blood, we can make the diagnosis of intra-abdominal hemorrhage and exclude other pathological conditions frequently mistaken for ectopic pregnancy.

In regard to vaginal puncture to assist us in making the diagnosis, I cannot fully concur, as I am a firm believer in an abdominal operation in these cases. First making a vaginal puncture and then resorting to abdominal incision would lengthen the time of operation and lessen the chance of recovery. Vaginal incision is only indicated in those cases where the rupture has occurred in the broad ligament or developed in the cul-de-sac, and secondary infection has resulted in a pelvic abscess.

In the majority of cases, by selecting the abdominal route, we can make a more careful examination, and the various complications can be handled with greater ease.

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## HEMORRHAGIC DISEASES OF THE NEWLY BORN.\*

BY CHARLES FLETT, M. D.,  
WATERFORD, WIS.

The rather rare condition of hemorrhage in the new-born child may be due to a variety of causes, may be so small in amount as to be insignificant, or so severe as to cause death in a short space of time. The conditions which may give rise to it are as follows: (a) There may be hemorrhages from some of the viscera due to pressure at birth. (b) There may be acute fatty degeneration of the newly born. This condition is rare though described by Buhl, and by some is claimed to be no definite disease. (c) A condition of hemophilia may be present. (d) There may be abrasions in the mother's nipples or some lesion in the child's mouth or nose, either of which may produce bloody stool. (e) Congenital syphilis.

These conditions of hemorrhages are not common and are met with more frequently in institutions than in private practice. In 5,225 births in the Boston lying-in asylum, Townsend reports 32 cases of hemorrhages, or 0.6 per cent. In the lying-in asylum of Prague, Ritter observed 190 cases in 13,000 births, or 1.4 per cent. In the Foundling Asylum of Prague, Epstein reports 8 per cent. in 740 infants.

From the evidence at hand it seems clear that not nearly all cases are of the same origin. Some observers, notably Gaertner, have attempted to show that there is a bacterial origin of the disease, and in two cases studied by him there was found in the blood after death a short bacillus somewhat resembling the bacterium coli commune but differing in particulars. This bacillus, injected into the peritoneal cavity of new born animals, produced a disease characterized by hemorrhages. Some future investigations will be needed to confirm these reports.

While these hemorrhages may be from any mucous membrane and into any cavity of the body, the usual sites are the umbilicus, the mucous membrane of stomach or intestines, or beneath the skin. In Townsend's 50 cases the location of the bleeding was as follows: Intestines 20; stomach 14; mouth 14; nose 12; umbilicus 18, (umbilicus alone 3); subcutaneous ecchymoses 21; abrasion of skin 1; meninges 4; cephalhematoma 3; abdomen 2; pleura, lungs, and thymus, 1 each.

In many cases the hemorrhage comes on suddenly with no previous symptoms to suggest any disturbance of the system. The bleed-

\*Read before the Racine County Medical Society, April 6, 1905.

ing may be but small in amount, but there may be continuous oozing. The temperature may be high, low or subnormal. In cases going on to recovery the duration is but a few days, and in those ending in death rarely more than three days, often less than one. Death usually results from gradual failure of the vital forces, rather than from a rapid loss of blood.

The diagnosis is generally easy as the hemorrhages are usually readily detected. In case the principal bleeding is from the nasal mucous membrane, syphilis should be suspected.

In whatever form the hemorrhages occur the prognosis is bad. Of 709 cases collected by Townsend, the mortality was 79 per cent. Recovery may take place in seemingly hopeless cases.

The case I have to report presents no special deviation from the usual symptoms in these cases, but is reported in the hope that the discussion may be of mutual benefit.

March 3d, 1905, the mother was delivered of a plump nine pound baby girl after a rather easy natural labor. The child was normal in every way, bowels and kidneys acting in a perfectly natural manner. On the third day, at 6 A. M., the nurse sent me a message to call, as the baby was passing blood in the stool. By the time I reached the house another large movement had occurred which consisted of masses of dark clotted blood mixed of course with some faeces. During the day seven movements occurred, each containing a large percentage of blood, though the movement was not large in every case. Stypticin gr. 1-30 in solution was given every two hours, and albumen water with brandy was given quite freely. Temperature at 10 A. M. was 102°, pulse 120; at 8:30 P. M., temperature 99.4°, pulse 122. Before each bowel movement the child was restless and screamed with pain.

Artificial heat was constantly applied for three days, the temperature meanwhile ranging from subnormal to one or two degrees above normal. After the first day the blood in the stools gradually diminished in amount, and on the third day the passages assumed a normal appearance. The stypticin was gradually withdrawn. Though the child was extremely anemic and lost several pounds in weight during the first ten days of life, the recovery was perfect and no bad symptoms whatever have since developed.

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## EDITORIAL COMMENT.

## THE ANTI-TUBERCULOSIS MOVEMENT IN WISCONSIN.

The matter of tuberculosis has engrossed the attention of the public to such a degree that, did one not know the fickleness of human endeavor, it might be thought presumptuous to harp on this question. However, the public, though it has heard much of this subject and knows that agitation is going on the world over, has not yet taken these teachings sufficiently to heart. Physicians, too, are guilty of gross and, in some cases, even criminal carelessness, not by failure to diagnose the disease early, but by neglecting to apprise the patient

and his family of the existence of the disease when its presence is known to them: they are therefore not only unmindful of the patient's welfare, but deprive those who need protection from safeguarding themselves against contagion. For these reasons agitation must continue, and the support of the physicians must be claimed no less than that of the public in stamping out this eradicable disease.

In this issue of the *JOURNAL* we publish the address of Dr. V. C. Vaughan, delivered at La Crosse at our recent annual meeting. No better arguments, for public dissemination, are needed than those presented by this essayist. They are telling in their directness, forceful and clear in diction, logical, and intelligible to every lay mind. Interest in the subject ought to be roused by this address, and there is every reason to believe that the anti-tuberculosis crusade which will soon be launched in Wisconsin, will find this clear exposition of the whole field most excellent campaign literature. The appropriation of \$90,000, made by the Legislature for a State Sanitarium, is splendid recognition of the needs of the situation in this state, and is in itself a fine achievement—one upon which those who have kept their interest in this matter alive may justly take much pride.

A tuberculosis exhibit, such as was that prepared by Dr. H. L. Russell, of the University of Wisconsin, and presented at the La Crosse meeting, is another most excellent argument for campaign purposes. Charts were shown demonstrating tuberculosis endemics and epidemics in various localities; there were culture media and colonies of bacilli developing on Petri dishes as a result of exposure in rooms and to the cough of consumptives; sputum cups, tents, and other kindred exhibits were found interesting. Exhibits of this character are very valuable adjuncts to lectures and give clearer comprehension to many of a subject they may not otherwise easily grasp.

Now is the time to act. We have our state appropriation. Compulsory notification, a strong lever and potent argument where such are needed, will aid us in locating our consumptives, so let us give them the benefit of our knowledge, our experience, and that of others. These are most excellent campaign documents and results must follow the good use to which they can be put. Enthusiasm now is needed. Publicity, and lots of it, will compel a hearing. From every lecture platform there should be launched a preachment. Every pulpit orator should be an emissary interested in this cause, which is his cause, as it is ours and our neighbor's. And need it be said that every physician must consider himself a minister extraordinary, with pleni-potentiary powers, basing his arguments upon incontrovertible facts, and demanding action in accordance therewith?

And if these powers work in harmony for the common good, then will that greatest friend of the tubercle bacillus—the dingy, cheerless home and habitation—to sunlight and fresh air unknown—be as hostile to the propagation of this iniquitous germ as is the untainted ozone of the mountain top.

#### THE ETIOLOGY OF SYPHILIS.

The search for the causal agent of syphilis has of late extended into new territory. Hitherto bacteriology has been the chosen field of investigators, and at various times as many as 25 kinds of microbes have been announced as the producers of syphilis, each of which had its little day and then lapsed into oblivion.

The almost unexplored world of the protozoan is now being invaded and offers a large field for "discovery." The work of MacCallum, Celli and San Felici, Schaudinn and others on blood parasites (hematozoa) in birds, extending over a number of years, has but shown the possibilities in this field of investigation. The study of malaria, relapsing fever, and yellow fever is especially affected by this work.

Quite recently, Schaudinn, a recognized authority on the subject of protozoa, working with Hoffmann in the protozoen laboratory of the Imperial Board of Health in Berlin, announced (*Deut. med. Wochenschr.*, May 4, 1905) the detection of a protozoan organism, a spirochæte, in syphilitic lesions—recent papules, smears from the interior of chancres and lymphglands, condylomata, and in blood obtained by splenic puncture. The organism varies from 4 to 10 microns in length and is of almost unmeasurable thinness; it is actively motile, poorly refractile, and of corkscrew shape with from 3 to 12 bends. It is very difficult to see in the fresh state and requires special methods of staining for its demonstration in fixed preparations, which probably accounts for the failure of its earlier detection. Control experiments were made with non-syphilitic genital lesions (chancroid, venereal warts, balanitis, etc.) and a second spirochæte was found, differing in size and tinctorial relations from that found only in the syphilitic products. For the latter Schaudinn proposes the name *Spirochæte pallida* and for the former *spirochæte refringens*.

Soon after the results of Schaudinn and Hoffmann's work were announced, Bursche and Fischer found a similar organism in a child with hereditary syphilis, as did Levaditi of the Pasteur Institute. Metschnikoff and Roux found an identical organism in four of six apes which had been inoculated with syphilis, and also in secondary papules in man in four instances. Flexner and Noguchi (*Medical News*, June

17, 1905), investigating a series of six cases, found the spirochæte pallida three times in four cases of syphilitic lesions, while in the two cases of non-syphilitic lesions studied, the organism could not be found. Many other investigators confirm Schaudinn's findings, and at the meeting of the Gesellschaft der Aerzte in Wien, held May 26th, the statement by R. Kraus "that in all likelihood the spirochæte pallida is the cause of syphilis" was concurred in generally.

Attempts to obtain cultures of any of the spirochæte—as those found in recurring fever and in spirillosis of birds—have thus far been unsuccessful, and such will, for a time at least, be the result of attempts to artificially grow the spirochæte pallida. Nevertheless the results of Schaudinn and Hoffmann's work, and the corroboration of their findings by men of recognized ability, are strong arguments in support of the statement that syphilis is a disease of protozoan origin—a chronic spirillosis—due to the spirochæte pallida.

A sufficient number of control examinations have not been completed to establish the possible saprophytic character of the organism, but with the many enthusiasts no doubt already engaged in the work of research, further important announcements may be looked for in the near future. Recent advances in the study of syphilis are of such far-reaching character that an ultimate serum therapy is within the bounds of probability.

#### THE DECHLORIDATION TREATMENT OF NEPHRITIC EDEMA.

Why parenchymatous nephritis should, in a large per cent. of cases, be accompanied by subcutaneous edema, is a question that has been voluminously discussed, and various have been the theories advanced in explanation of the phenomenon. There have been the theories of Bright—hydreemia, of Bartels—hydreemic plethora, and that of Cohnheim, which attributes edema to abnormal permeability of the subcutaneous vessels, besides others too numerous to mention.

According to observations made during the past two or three years, especially by Widal, Lemière, and Javal of Paris, it would appear that impermeability of the kidneys to sodium chloride is an important, if not the determining, factor in the production of subcutaneous edema.

Their observations and clinical experiments have shown that as sodium chloride retention occurs in a given case edema appears, and that as it is eliminated in excess of the intake edema disappears. They have been enabled in cases detailed to produce and dissipate edema at will. They have proven that the degree of sodium chloride in different

cases varies widely and that edema occurs in direct ratio to the retention of this salt.

Zambelli and Massalonge believe that sodium chloride is an etiologic factor in edema, and deduce as a therapeutic measure a salt-free diet. As a result of the application of this treatment, the dropsy, ascites, and albuminuria of nephritis decrease. In cardiac edema a similar result followed. In ascites of hepatic cirrhosis this diet in connection with theocin caused very great improvement. Good results also followed the diet in ascites due to peritoneal tuberculosis. They found that in the presence of a febrile temperature benefit did not follow.

Castaigne and Rathery were able to produce lesions in the kidneys of rabbits which they immersed in a solution of sodium chloride.

A. O. J. Kelly and C. A. Fife reported, at the last meeting of the Association of American Physicians, a number of cases treated by the dechloridation method: There was marked improvement in one case, moderate improvement in one and no effect in the third. In the discussion of these cases, Drs. J. L. Miller of Chicago and Alfred Stengel of Philadelphia brought out additional points, and Dr. Joseph Collins of New York stated that 25 hospital epileptics had been put upon a diet containing a minimum of sodium chloride, with the result that the frequency of the epileptic seizures was reduced 38 per cent., and that in four out of five dispensary cases the attacks were reduced 50 per cent.

Senator used diuretin to aid in the elimination of salt and Vidal used theobromin for a similar purpose with encouraging results.

It would seem that we have here pathologic and therapeutic considerations of the most striking importance, and that the treatment by dechloridation of the body tissues bids fair to afford marked relief in cases hitherto very resistant to other methods of management. The developments along these lines in the future will be watched with much interest.

#### **"CRIMINAL ALLIANCES WITH FRAUD AND POISON."**

Thus does *Collier's Weekly* introduce the first of a number of articles to be written by Norman Hapgood, the well known contributor to current literature.

It would seem as if, in the evolution of man's moral code from one of *laissez faire* to that of holding to more strict account the misdeeds of his fellowman, the conscious disregard of things that only



indirectly concern him is giving way to an active and conscious regard of these very things. The knowledge is taking root that that which concerns the masses must also concern the individual, and the remote consequences of crimes of various kinds are being accorded closer investigation. Thus, we find the beef trust undergoing rigid inquiry; railroads are being coerced into granting equal rights to all; insurance companies and other large corporations are being investigated as to the methods used in caring for the funds of their depositors; the fight for good government and rooting out of the graft evil is being actively waged. And we may point with pride to the fact that the honest physician is receiving better treatment at the public's hands than the dishonest fakir: state medical boards have been granted power to give and to take away licenses to practice, and the United States postal authorities are beginning to make it difficult for advertising medical concerns to ply their fraudulent trade by mail.

It is only in very recent years that the war so impotently waged by the medical profession against quackery, has been taken out of its hands and been championed by men who speak through the pages of magazines of large circulation. Physicians are so often charged with selfish and sordid motives when they strive actively to abrogate some forms of quackery, that—whether they act as individuals or in a body—the newspapers that foster and nourish these fraudulent concerns are—for well known reasons, disinclined to see in such action aught but motives of self gain. Therefore must we hail with greater delight the action of such papers as *Collier's Weekly* and the *Ladies' Home Journal*, and certain New York and Boston dailies, whose enormous circulation makes them a factor in determining the opinions of people, and whose action, while decreasing materially their revenues, redounds to their everlasting credit. The gratitude of the whole world must be theirs—not that of the physicians—for they are not users of Peruna, Swamp Root, Lydia Pinkham's Compound, and Wine of Cardui, nor do they patronize the quacks.

*Collier's Weekly* announces its intention of exposing the frauds many of the advertising quacks and the nostrum manufacturers are perpetrating through unholy alliance with the newspapers. Only the most unselfish of motives, and a desire to force these fake concerns out of existence through public clamor, after the thorough exposure of their methods, actuate this publication in its crusade.

We recommend to all the reading of this magazine, beginning with the issue of July 8th, and predict that articles of great interest will be forthcoming.

**MENTAL PHENOMENA CONNECTED WITH ANESTHESIA.**

In easting about for material for the study of the under-consciousness—that part of our mind in which we so very largely “live and move and have our being,” Prof. Jastrow has very happily hit upon a rich field. Experiments are being made daily in this domain of consciousness by the administration of anesthetics, and it is the part of wisdom that Dr. Jastrow should seek to avail himself of the boundless and hitherto neglected data which they can easily furnish.

That the surgeons and anesthetists will aid this inquiry in so far as it does not conflict with the patient's welfare, must be assumed as a part of that ready co-operation and mutual courtesy that happily exists between workers in correlated sciences. Medicine here can assist psychology—as it has done from the days of the illustrious Charcot in the Salpêtrière—to be in turn benefited by the ultimate returns of such co-operation. Many hospitals have printed anesthetic records on which are entered such data as the amount of the anesthetic, the time of induction of anesthesia, condition of patient, etc. To these could easily be added other headings under which are entered, the suggestibility, automatic conduct and speech, the order of submergence of the mental activity and their appearance, and such other facts pertinent to the inquiry and set forth more fully in Prof. Jastrow's prospectus on page 111 of this issue of the *JOURNAL*.

These observations are made both in the “going under” and “coming out” stage—the waning and waxing consciousness. Supplementing such data it were desirable to have intelligent patients write out their subjective experience under the anesthetic, or dictate them to a nurse with the amplest detail, interpreting at the same time such phenomena as were observed by others, in their relation to former states of unconsciousness to hypnotic states, to dreams, to intoxicated states, multiple personality, etc.

As physicians interested in a sister science we should promise Dr. Jastrow the largest possible participation in such an inquiry. He will appreciate any interest and will be glad to enter into communication with surgeons or anesthetizers and value any suggestion which may be sent him to the Department of Psychology, University of Wisconsin, at Madison.

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## ITEMS OF INTEREST.

**Healers Obligated to Report Contagious Diseases.**—The Minneapolis city council has recently passed an ordinance requiring all kinds of healers, osteopaths, faith-healers, chiropractors, and Christian scientists, to report all contagious or preventable diseases. The list includes tuberculosis, typhoid, pneumonia, and the various exanthematous diseases. The ordinance implies that all those who treat disease must be able to diagnose properly the conditions they come in contact with. It also implies that healers must be qualified physicians or, if not able to recognize or diagnose contagious diseases, or in any way are reckless or careless and allow contagion to occur they must suffer a penalty for the violation of laws which guard the public health. It is presumed that local boards of health may legally require the observance of the ordinance.—(*Northwestern Lancet*.)

**Dr. A. P. Ohlmacher**, recently of Gallipolis, Ohio, has been appointed Director of the Biologic Laboratories of Frederick Stearns & Co., of Detroit. Dr. Ohlmacher is a scientist of recognized ability; he was one of this country's pioneers in the preparation of antitoxic serums. Serum therapy has become an important influence in the progress of scientific medicine, and it is gratifying to note that the large American pharmaceutical houses, to whom we must look for our supplies, are bringing their laboratories up to a standard of great excellence by putting them in charge of able and scientific investigators.

**Dr. John S. Bobbs**, of Indianapolis, the Father of Cholecystotomy, has been memorialized by the Indiana Medical Journal in its July issue. In addition to biographical contributions the Journal prints Dr. Bobbs' original paper on "A Case of Lithotomy of the Gall Bladder," which has not been republished since it first appeared in the Indiana Society Transactions of 1868. The subject of this operation is still alive, and was taken by the Medical College of Indiana to the Portland meeting of the American Medical Association, constituting a part of the historical exposition in the scientific section.

**Dr. James Harvey Campbell**, of Allen's Grove, Wis., died at his home in that village, June 12, 1905, aged 72 years. Dr. Campbell was a graduate of the Bennett Medical College of Chicago and had been in active practice at Allen's Grove for twenty-five years. His was the life of the average country practitioner, long rides over rough roads, out in all kinds of weather, suffering often from exposure and broken rest, his kindness of heart would allow him to refuse nobody, and his life pays the penalty for breaking those laws he tried to teach others to observe.

**Fighting Tuberculosis in Paris.**—The fight against tuberculosis is waged in a very energetic and systematic manner by the commission appointed for that purpose by the prefecture of the Seine. The commission has undertaken the task of cleaning the dwellings suspected of being infected and of freeing the walls of the bacilli remaining there. It has a list of 1,000 houses under suspicion of harboring tuberculosis and 4,000 more houses are to be added to this list. The commission expects to render all the houses in Paris free of tubercle bacilli.

**The Milwaukee County Hospital.**—The visiting and consulting staff of the Milwaukee County Hospital have formed an organization for the purpose of promoting the interests of the hospital and of putting to profit the large mass of clinical material to be found there. Dr. G. A. Kletzsch has been elected president of the society, and Dr. W. B. Hill, secretary. The work outlined has been put into the hands of various committees, of all of which Dr. E. C. Grosskopf, the superintendent, will be a member in an advisory capacity.

**Wisconsin State Tuberculosis Sanitarium.**—The governor has appointed four members of the Advisory Board of the State Tuberculosis Sanitarium as follows: Dr. H. L. Russell of the state university, for the term ending July 1, 1910; Dr. Gustav Schmidt, of Milwaukee, for the term ending July 1, 1909; Dr. C. A. Harper, of Madison, for the term ending July 1, 1908; Dr. J. C. Coulter, of Marinette, for the term ending July 1, 1906.

**Insanity in Great Britain.**—Out of a population of 40,000,000 there are 145,000 persons (England 108,000, Scotland 16,000, Ireland 21,000) who are insane, giving an average of one insane person to every 276 of the population. It is, moreover, asserted that for every certified insane person there is probably another one who is suffering from a threatened attack or who may be harmless and yet insane.

**Ubert Lee Holford, M. D.**, of Cassville, Wis., died of tuberculosis June 13, aged 33. Dr. Holford was graduated from Rush Medical College in 1892. For a number of years he was president of the village board of Cassville.

**William Comerford, M. D.**, a graduate of Rush Medical College in 1890, died at Appleton, Wis., June 27, after ten years of ill health.

**Trustees Appointed.**—The Milwaukee County Board of Supervisors have appointed the board of five Trustees to manage the County Hospital, County Almshouse, and Department of Out-door Relief, in accordance with the law passed by the last Legislature.

**The Portland Meeting** of the American Medical Association has been a marked success. The attendance was about 2,000. Dr. William J. Mayo, of Rochester, Minn., was elected president for the ensuing year. The next session will be held at Boston.

**Dr. J. F. Corbett**, located for the past 25 years at Weyauwega, Wis., has disposed of his practice to Dr. S. M. Kyes, of Grand Rapids, Wis. Dr. and Mrs. Corbett will spend the coming winter in California.

**Railroad Physicians** are entitled to use free transportation in Wisconsin while making trips in the actual discharge of their duties as such, is an opinion rendered by Attorney General Sturdevant.

**Dr. Beffel resigns.**—Dr. John M. Beffel, Professor of Pathology at the Wisconsin College of Physicians and Surgeons for the past five years, has resigned. Dr. Bassett will succeed him.

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**AN INQUIRY IN REGARD TO MENTAL PHENOMENA CONNECTED  
WITH ANESTHESIA.**

While in the deeper stages of anesthesia mental processes are usually so entirely submerged as to fall beyond the possibility of record, in the lighter stages and in the period of approach to, and most favorably of all, in the period of recovery from more complete anesthesia, the power of response to outward stimuli is sufficient to afford ample opportunity for a series of observations which furnish the motive to the present inquiry. The co-operation of surgeons and anæsthetisers is invited to secure data that bear upon any of the questions summarized below, or upon the general problem thus suggested. Special attention is directed to the importance of tracing relations between the phenomena recorded during anesthesia and the normal, waking, mental traits of the subject. Indeed the former can in many cases be interpreted only in the light of the latter; and observations become of value in proportion as the subject is able to account for the mental experiences of the unusual state by references to the normal source and trend of his mental processes. To determine these, skillful questioning controlled, where possible, by ingenious tests, will be the most effective instrument of inquiry.

(1.) *Analogies Between the Lighter States of Anesthesia and Hypnosis.*—Of these the chief trait is *increased suggestibility*: will the patient carry out automatically with enfeebled consciousness suggestions given by the operator to do thus and so, to feel or neglect certain sensations, to follow a train of thought, to carry out a code of signals between subject and operator? Is obedience to such suggestions apparent by facial expressions, involuntary cries, nods, etc., after more controlled forms of reaction have disappeared? Is there evidence that patients respond to similar suggestions not directly addressed to them? Do they react to the conversation of the attendants, to a vague knowledge of their surroundings, to interpretations, correct or incorrect, of what is actually going on? Are there any of these responses that reflect the normal habits, idiosyncrasies, etc., of the waking condition? Do they belong to the experiences immediately preceding or to a more remote past?

Next in importance are the *automatic activities*. Illustrations are desired of automatic talking, mechanical acts, and simple tricks of manner, of the type so common in sleeping persons who walk and talk in their sleep, answer questions without awakening, make movements as of knitting, counting money, etc., or other betrayal of their subconscious thought. In very favorable instances, it may be possible to place a pencil in the patient's hand and secure by questioning a subconscious answer or scribble or drawing that throws interesting light upon what is going on in the mind, even when there is but partial consciousness of surroundings or direction of mental processes. Such observations have especial value and should be accompanied by the actual records.

(2.) *Analogies Between the Lighter States of Anesthesia and Dream Life.*—If the patient be questioned as to what occupied his

mind up to the moment of losing consciousness and again during the regaining of full consciousness, there will inevitably result a valuable collection of data regarding the waning and waxing states of consciousness. Many of these phenomena will be dream-like, and should like dreams be recorded with ample detail to make them intelligible. The nature of the impressions, whether visual or auditory, acted or felt, and most of all the connections between the dreams and the recent or remote experiences of waking are important items. Just as ordinary dreams become interesting when they are connected with normal experiences, so in the dreams of anesthesia the patient alone can give adequate personal detail to give significance to the narrative.

(3.) *Other Points of Interest.*—The specific points enumerated are intended to make the matter definite rather than to limit the scope of the inquiry. Evidence is desired that bears in any degree of pertinence upon the general problem thus suggested. As additional points of interest may be mentioned the following: In cases of repeated anesthesia after rather brief intervals, is it possible to elicit evidence that in the approaching or receding consciousness, details are remembered (or recallable by suggestion) which though beyond the control of the waking consciousness, are thus shown to connect one state of abnormal consciousness with another similarly caused. The analogous fact is that in hypnosis the subject will tell in a second hypnotization what happened while he was formerly hypnotized, but cannot recall in the waking interval; or again, in changes of personality the relapse into the altered personality will bring with it the control of memories of the last states of abnormal personality, which were not recallable in the normal state. Dreams and the actions of drugs show similar phenomena. Where records of this kind are available through anesthesia, they should be recorded in detail, and a conclusive set of questionings and tests be made to elicit how far the two states are connected.

A further point of interest is the correlation of different types of mental states with different degrees of anesthesia. For this purpose it is desirable that some physiological sign of the degree of anesthesia be recorded as evidence in general of the depth of anesthesia during which the mental phenomena were observed. The variations of susceptibility to an anesthetic are such as to make it important to estimate the susceptibility in each case, as well as to give such general data as the age, sex, occupation, condition in life, physical state, temperament, purpose for which the anesthetic was administered, length of period under its influence, degree of nervous shock accompanying the same, and so on.

The general use to which the data will be placed will be that of formulating a consistent account and interpretation of the range of subconscious mental states, including simple states of distraction, absentmindedness, reverie, trance, hypnosis, dreams, the actions of drugs, alterations of personality, lapses of memory, states of confusion, and the reactions to anesthetics. It is hoped that a sufficient series of data will be elicited by the present inquiry to throw important light upon processes as yet imperfectly understood, and the analogies of

which to such artificially induced states as those accompanying anesthesia are of especial importance. The psychologist has naturally but little opportunity to observe these phenomena and must thus appeal to those who are professionally engaged in their production, to step aside from their main interests to supply in a spirit of co-operation the data so valuable to students of a different and yet not unrelated science.

Full credit will be given to all contributions, and no direct or personal use will be made thereof in print without distinct permission. Those to whom this circular letter is addressed are hereby invited to send records of such observations and to further the purposes of this inquiry in such ways as may lie in their power. The undersigned will appreciate, both personally and professionally, favorable action upon this request.

JOSEPH JASTROW,  
MADISON, WIS.

*The University of Wisconsin: Department of Psychology.*

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#### THE POPULARIZATION OF A PUBLIC BATH HOUSE.

Under the above title Mr. Frank E. Wing tells in *Charities*, April 29, 1905, of the difficulties experienced in obtaining recognition in the "Little Italy" quarter of New York City, of a public bath-house. This, the largest bath-house in Greater New York, containing 122 showers and seven tubs, with the most modern heating apparatus, interior of beautiful marble, built at a cost of \$133,000, was able to attract only 150 people during the first week. The attendance increased to the same number per day, but even this was but a small fraction of what it should be in that district.

Through the personal effort of a young man who devoted his time to soliciting the aid of teachers, factory employers and shop keepers, much greater success has been encountered, attendance now averaging from 4,000 to 5,000 per week. This experience proves the diffidence of the poorer class to measures of hygiene that are instituted for their relief and benefit, but also testifies to the willingness with which many of these measures are responded to once that the confidence of such a community has been secured.

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A paper on "*Iritis*," by Dr. S. S. Hall, of Ripon. Dr. Hall spoke first of the structure and anatomical relations of the iris, and of the causes of iritis, 50 per cent. being ascribed to specific disease, 30 per cent. to rheumatism, and the remainder to various causes, including trauma. The subjective and objective symptoms were mentioned and then came treatment—atropine 1 per cent. sol. dropped in eye every three hours or oftener if necessary to keep pupils dilated. Applications of heat, adrenalin chloride, and the use of mercury, especially after formation of lymph, salines to unload the bowels, and a non-nitrogenous diet.

Dr. G. F. Scheib in discussion said that in all eye troubles he excluded iritis by testing the dilatation and contraction of pupils by darkness and light. He believed in large doses of salicylates in the rheumatic cases and iodide of potassium in the specific cases.

"*Gonorrhoea in the Male and Female—Prognosis*" was the subject of a paper given by Dr. P. J. Calvy of North Fond du Lac. He spoke of those cases which seemed cured, then of those which seemed to be cured symptomatically, but subsequent events showed that the disease had been latent, and of those cases where we found signs and symptoms of extension of the disease. In his prognosis he would not be as radical as some, neither would he be too conservative. This paper was discussed by Drs. Connell of Fond du Lac and Thienhaus of Milwaukee.

Dr. F. L. Foster spoke on "*Infant Feeding*." In artificial feeding of infants he would use cow's milk modified by Holt's percentage system, he would have the milk bottled at the dairy and cooled at once. The pasteurization to be done at the home, since none of the milk companies in town properly pasteurized the milk.

Dr. Thienhaus of Milwaukee, being present, was invited by Dr. Mears to speak to the Society and responded with a talk upon "Fractures of the Forearm" and his method of treating them. Dr. Hall invited the Society to hold the July meeting at Green Lake.

F. A. READ, M. D., *Secretary*.

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#### GRANT COUNTY MEDICAL SOCIETY.

The regular meeting of the Grant County Medical Society was held at Bloomington, May 11, 1905. Owing to the severe storms, many were prevented from reaching the place of meeting, and the attendance was small. The following program was presented:

"Importance of the Early Diagnosis and Treatment of Extra-Uterine Pregnancy; with report of three cases," by Dr. J. C. Hancock, of Dubuque, Ia.

"Medicine in Shakespeare," by Dr. George Menges, of Dubuque, Ia.

"Pneumonia," by Dr. P. L. Scanlan.

Dr. Hancock exhibited pathological specimens illustrating the cases mentioned in his paper.

Drs. U. S. Lewis, J. C. Hancock, George Menges and J. J. Brownson, of Dubuque, Ia., were guests of the Society, and contributed in a large measure to making an interesting and profitable meeting.

Dr. M. B. Glasier was elected alternate delegate to the State meeting in June.

At noon a banquet, given by the local members to the visitors, was served.

M. B. GLASIER, M. D., *Secretary*.

**OUTAGAMIE COUNTY MEDICAL SOCIETY.**

The meeting of the Outagamie County Medical Society which was to have taken place at Seymour on June 6, was postponed to the 20th on account of bad weather. The attendance was small, but we had a fine meeting. The vice-president, Dr. Fuller, presided in the absence of the president.

Clinical cases were presented as follows: A case of *separation of the ligamentum patellæ*, by Dr. Fuller; and a case sent in by Dr. Campbell, of Black Creek, for diagnosis; the diagnosis lay between *Neuritis and Hysteria*.

The following papers were read:

*Diarrheas in Children*, Dr. C. D. Boyd, Kaukauna.

*Convulsions in Children*, Dr. J. S. Sorensen, Shiocton.

*Constipation in Children*, Dr. N. D. Fuller, Seymour.

The next meeting will be held at Appleton, September 5.

M. J. SANDBORN, M. D., *Secretary*.

**WALWORTH COUNTY MEDICAL SOCIETY.**

The June meeting of the Walworth County Medical Society was held in the parlors of the Walworth Hotel, Whitewater, June 26. The following program was given:

Parotitis, Dr. A. E. Henby, Sharon; discussion opened by Dr. A. M. Leland, Whitewater.

Measles, Dr. Chas. H. Meyst, East Troy; discussion opened by Dr. Wm. E. White, Lyons.

Small-pox, Dr. B. J. Bills, Genoa Junct.; discussion opened by Dr. J. F. Rood, Darien.

Typhoid Fever, Dr. H. C. Miller, Whitewater; discussion opened by Dr. O. S. Carnwright, East Troy.

Dinner at Walworth Hotel at 2:00 P. M.

Toast, "The State Society," Dr. J. C. Reynolds, Lake Geneva.

Toast, "The County Society," Dr. Edward Kinney, Elkhorn.

Toast, "The Fellow Outside," (How to get him in and how to treat him if he refuses to come), Dr. Wm. E. White, Lyons.

Three new members were added to the Society—Dr. A. M. Leland, Dr. H. C. Miller, and Dr. F. R. Hyslop, all of Whitewater.

Some very interesting and instructive points were brought out during the discussion of the various papers, especially in regard to the care and quarantining of cases of contagious diseases by the various health officers present. The excellent dinner provided by the Walworth Hotel people was thoroughly enjoyed by all. The next meeting will be held at Elkhorn in September.

M. V. DEWIRE, M. D., *Secretary*.

**WAUKESHA COUNTY MEDICAL SOCIETY.**

The Waukesha County Medical Society met Saturday, July 1st, at the Fountain House, Waukesha, where Dr. Hodgson entertained the society at dinner.

Dr. Philler read an instructive review of the legislation relative to tuberculosis and emphasized the important points of treatment. The following resolution was adopted:

*Whereas*, Tuberculosis is directly or indirectly responsible for one-fifth of all the deaths the world over, and for nearly one-half of those occurring between the ages of twenty and forty years, the period of greatest usefulness and activity of our life, according to our confrere Dr. William Osler, and

*Whereas*, It is an established fact that sanatorium treatment is an important factor in curing and preventing the spread of this disease, and

*Whereas*, It is impossible for each municipality to establish and maintain (as is done in the Dominion of Canada) a municipal sanatorium for its own people, be it therefore and it is hereby

*Resolved*, That the thanks of the Waukesha County Medical Society are due to our Legislative Bodies, in recent biennial session assembled, for their liberal appropriation of moneys for the erection, equipment, and maintenance of a State Sanatorium for consumptives.

M. M. PARK, M. D., *Secretary*.

### MILWAUKEE MEDICAL SOCIETY.

Meeting of April 25, 1905.

Present, 28 members; President Hitz in the chair.

Dr. Philip Rogers exhibited a specimen of *carcinoma of the liver*. The case had given rise to considerable difficulty in diagnosis; on postmortem the liver was found to be considerably enlarged, and on cut section showed a large number of nodules. The carcinoma was believed to be metastatic. In discussion Dr. Stoddard suggested that the condition was probably secondary to carcinomatous disease of the stomach.

Dr. H. V. Würdemann spoke upon the use of *absorbents in treatment of eye diseases*. The topic was discussed by Drs. Zimmermann, Bach, and Barth, and closed by Dr. Würdemann.

Dr. Hipke read his paper under the title of "*Lacerations of the Pelvic Floor*." He discussed the subject fully, first from the general aspect and then from personal experience, giving statistics of frequency, cause, nature of tear, and ultimate results after treatment. The results of secondary operations he thinks are not particularly good.

Dr. Hipke's own cases show a larger percentage of lacerations than is commonly reported, and he suggests that probably a large number are carelessly overlooked, making the proportion in reality greater than is reported in the text-books. The author has found that a large percentage of the lacerations in his cases have been due to delivery of the shoulders, and suggests that an improved technic should be devised.

Discussion: Dr. Gray also has found that many severe lacerations are caused by the shoulder.

Dr. T. L. Harrington agrees with Dr. Hipke's statement about the number of lacerations, and personally sutures all tears regardless of their extent.

Dr. Stoddard stated that the adoption of the Walcher position has been of great value in preventing lacerations.

Dr. Hipke, in closing, questioned Dr. Stoddard's statement and believes that the lithotomy position increases the dimensions of the outlet, while dimensions of the brim are increased by the Walcher position.

**Meeting of May 23, 1905.**

Present, 30 members. Vice-President Thorndike in chair.

Dr. G. F. Mason was elected to membership in the Society.

Dr. Schiller read a paper entitled *Remarks on the Treatment of Scabies*. He reviewed the condition, giving special attention to the diagnosis and treatment. He called attention to the liability of reinfection through garments and bedding, etc., and said that this danger must be guarded against. He detailed his methods of treatment, citing remedies that had given best results in his experience. The paper was discussed by Drs. Foerster, Mishoff, Seaman, Burgess and Nolte.

Dr. Myers gave a *Report of a Case of Urinary Hyperacidity in an Infant*. The child experienced great pain at night, which Dr. Myers observed was coincident with micturition. Upon examination the urine was found to be exceedingly hyperacid. Alkalinizing the urine resulted in prompt relief of all symptoms.

Discussion by Drs. Gray, Boorse, Neilson, Patek and Comfort.

Dr. L. G. Nolte read a paper entitled *Indications for Gall Stone Operations*. He reviewed the history of the accepted and advocated procedures in the treatment of this condition, and said that the proper procedure probably lay midway between the extreme medical and extreme surgical views.

He gave as indications for surgical intervention: 1. Failure of medical treatment to give relief; 2. Cases abruptly starting with very severe symptoms; 3. When the regular life of the patient is being interfered with by the occurrence of the malady.

The paper was discussed by Drs. Reincking, Jobse, Walbridge, and Neilson.

**Meeting of June 13, 1905.**

Present, 22 members; Vice-President Thorndike in the chair.

Drs. A. M. Borden, Julius Kleinboehl, J. H. Sure and G. C. Ruhland were elected to membership.

Dr. Myers exhibited a peculiar *specimen of fecal washing*. Similar specimens have caused considerable difficulty in diagnosis until it was determined that the worm-like threads were banana fibre.

Discussion by Drs. Stoddard and Philip Rogers.

Dr. Patek reported two cases of *Basedow's Disease*, which had been treated and apparently cured by exhibition of Parke Davis & Co.'s Thyroidectine.

Dr. Washburn, in discussion, said that he had had very good results in treatment of exophthalmic goitre by the use of salicylates. He is unable to rationalize the treatment except on the ground that increased elimination may bring about the improvement. Replying to a question of Dr. Rogers, he said that he had found no improvement in simple goitre under salicylates.

Dr. Seaman said that in some cases Syr. Hydriodic acid had yielded good results, while in other cases no improvement is noticeable.

Dr. Wingate had had good results in simple goitre by the administration of thyroid extract.

Dr. Reincking reported the case of a young girl in whom the administration of thyroid extract had caused marked emaciation.

Dr. Bartlett said that goitre seemed more prevalent in early days and often appeared to be coincident with malaria. The treatment which yielded the best results was iodide of iron internally and iodine externally.

Dr. Patek, discussing Dr. Reineking's report, said that thyroid extract formed the active principle of many of the anti-fat preparations on the market. He exhibited a post-mortem specimen of *acute thyroiditis* which had been caused by local application of iodine.

Dr. Patek also exhibited a post-mortem specimen of hypertrophic gastritis.

Dr. Jenner reported a case, from a Vienna clinic, of a dermatitis in a gardener which had been diagnosed as of tubercular origin. After a number of years treatment under this diagnosis, the lesion was found to be due to injury by the hair of a caterpillar.

Dr. Foerster, in discussion of Dr. Patek's case, said that genuine Basedow's disease or thyroidism has often followed a course of iodide treatment, as iodine-glycerine treatment in diseases of the nose, or after a course of the iodine mineral waters. Potassium iodide can cause a sudden decrease in the size of the thyroid gland, and requires caution in its administration to young girls or elderly people with goitre because Basedow's disease may follow. Breuer of Nothnagel's clinic has called attention to the danger of thyroiditis after iodine applications, and this was what suggested an investigation of Dr. Patek's case.

Dr. Foerster demonstrated a microscopic preparation of a section of skin, showing foreign body tuberculosis due to a caterpillar hair, in illustration of Dr. Jenner's report.

Dr. Fiedler reported a case of a tumor following a wound of the scrotum, which on examination proved to be a mass of vaseline introduced at the time of the injury.

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#### JOHNS HOPKINS HOSPITAL MEDICAL SOCIETY.

At the meeting held on May 1, 1905, at the Johns Hopkins Hospital, Dr. Baer spoke on *Painful Heel Due to Gonorrhcal Exostosis*.

Painful heel is known to be due to a variety of causes, such as flat-foot, neuritis, tuberculosis of the os calcis, bursitis and other conditions. It is not to these types that Dr. Baer called attention, but to a series of five cases in which the painful heel was due to a gonorrhcal exostosis.

CASE 1. Male, gonorrhea six months ago. For last two months has been unable to walk on heel. No pain at night. On palpation over the point of attachment of plantar fascia to the os calcis a slight swelling is made out. This point is very painful to pressure. X-ray shows exostosis. Operation. Removal of exostosis. No culture taken. Result perfect. No pain. Is again able to do his work.

CASE 2. Male, aged 18. Complains of pain in heel and ankle. Gonorrhea nineteen months ago. Six months after discharge noticed pain in heel. No acute trouble. Unable to work and hard to walk. Painful on direct pressure, and also at point of attachment of plantar fascia to os calcis in stretching plantar fascia. X-ray shows exostosis at attachment of plantar fascia to os calcis. Refused operation.

Case 3. Male, 26. Complains of pain in heel and also in back. Gonorrhea three times, last attack fifteen months ago. Twelve months ago there began a soreness in both heels which has slightly increased since then. Of late has noticed pain also in back. Patient has lost fifteen pounds. Right foot thickened over os calcis at attachment of plantar fascia. Left foot similar to right. Spine shows slight scoliosis. Hyperextension is impossible. X-ray shows exostosis on both os calcis and of lumbar spine. Operation. Removal

of exostoses. Cultures negative. Biscuit shaped diplococci found in tissue. Result, can walk on heel without slightest pain.

CASE 4. Male, 30. Denies gonorrhoea; had suppurating gland in groin two years ago. Sixteen months ago first noticed pain in right heel. Thirteen months ago noticed some sort of pain in left heel. Pain in back for last twelve months. Pain worse at night. Pain in heel on stretching plantar fascia and in pressure over attachment of fascia to os calcis. X-ray shows exostoses in same place as above cited—on both heels—and of lumbar spine. Operation. Removal of exostosis. Gonococci found in cultures taken at operation. Result, complete relief from pain in walking.

CASE 5. Male, 22. Urethritis. Bilateral tenderness of heels. X-ray shows exostosis at attachment of plantar fascia in both feet. Operation. Removal of exostosis. Cultures negative. Result, complete recovery.

Painful heel due to gonorrhoeal exostosis occurs in males between the ages of 18 and 30. It is generally bilateral. Pathologically there is an acute inflammation, and the plantar fascia and muscles are hard and firm. Exostosis seen with the X-ray looks thicker at distal than at end of attachment to os calcis. Looks as though process started in fascia and grew to bone. Exostosis is generally at attachment of plantar fascia.

ETIOLOGY. In these five cases the gonococcus was the etiological factor. Cultures positive in three cases. Trauma and exposure seem to play no part. No other joint involvement.

SYMPTOMS. Pain is the chief symptom. It is referred to the attachment of the plantar fascia, and on pressure is definitely circumscribed to an area about 2 cm. in diameter over this point. The swelling is due to thickening of the periosteum. No fluctuation, nor are there any signs of acute inflammation. No limitation of movement.

GAIT. The patient walks on the ball of the foot, as though he had a pebble in his shoe. The gait is slow and careful. The pain in the back gives all the signs of an osteoarthritis. Gonococci were found in both cases in spinal exostoses.

DIAGNOSIS. Is readily made. (1) Age, 16-30. (2) History of gonorrhoea. (3) Six months to one year later bilaterally painful heel. (4) Gait. (5) Pain in stretching plantar fascia. (6) Thickening over os calcis. (7) X-ray.

TREATMENT. Operative treatment is the only one to produce any results. An incision is made parallel to the plantar fascia and exostosis chiselled off.

RESULTS. Complete cure for the four cases treated.

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## CURRENT LITERATURE.

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**Graves' Disease and Parathyroid Therapy.**—JAMES J. WALSH (*American Medicine*, May 20, 1905) contributes an article on this subject. He reviews the history of organotherapy in this disease. First came the use of thyroid extract by an Englishman named Jones. He reported favorable results but when it was tried by others the cases were all aggravated. It later developed that Jones had been using thymus gland instead of thyroid through a mistake of the butcher who furnished the material. When the mistake became known, however, the enthusiasm continued unabated with regard to extract of thymus gland. But it soon became evident that the substance was inert. Then came the suggestion in 1903 by McCallum that the disease might not be due to

hyperthyroidation as had been almost accepted before, but rather to absence or atrophy of the parathyroid. McCallum was able to obtain rapid pulse and fever with some projection of the eyes and death following extirpation of these glands in dogs. This result suggested the use of parathyroid glands as a remedy in Graves' Disease. Dr. Walsh first tried it in a couple of cases in which the symptoms had been intermittent. These two cases were mild—lacking one or more of the classical symptoms. Improvement was very marked and rapid after the use of the parathyroid extract and the cases went out from observation. When it was tried in severe cases, however, there was no improvement and in some even an exaggeration of the symptoms. Walsh thinks that perhaps the extract was not pure, that it probably contained some thyroid substance thus accounting for the aggravation of the symptoms. Still he thinks that the parathyroid extract is worthless in Graves' Disease.—  
(Robert G. Washburn.)

**The Fat Question in its Relation to the Production and Cure of Infantile Marasmus.**—STERN (*Archives of Pediatrics*, June, 1905) calls attention to the fact that the fat of cow's milk contains a much greater percentage of the volatile fatty acids than does human milk. The proportion of butyric acid, the mother substance of the acetone bodies, is conspicuously large. The volatile fatty acids as furnished by the fat of cow's milk are decided irritants of the delicate intestinal mucosa of the infant. Ingestion of these acids is the primary cause of many instances of gastro-intestinal irritation followed by under-nutrition, bodily retrogression, and marasmus.

Withdrawal of milk-fat in these cases results in cessation of the local disturbance, but an infant cannot long exist without fatty food of some kind. Simple reduction of the proportion of cream reduces but does not eliminate the irritant. Vegetable oils and animal fats having a high melting point are not satisfactory, but in the yolk of the hen's egg the ideal fat for chronic gastro-intestinal disturbances, together with latent or even pronounced marasmus, is found.

The yolk-fat must be fresh and must completely replace the milk-fat. The amount of yolk-fat must be adequate to the nutritive demands of the organism. It must not be subjected to cooking or sterilization which changes its physical condition.

The author advises the addition of a quarter-teaspoonful of the yolk to each feeding of a modified skim-milk at the beginning, increasing this amount gradually.—(A. W. Myers.)

**The Role of the Typhoid Bacillus in the Pulmonary Complications of Typhoid Fever.**—G. CANBY ROBINSON (*Journal of Infectious Diseases*, June, 1905) concludes that:

"The typhoid bacillus not infrequently invades the lung during typhoid fever. It may invade areas of the lung already the seat of hemorrhagic infarction and then produce abscess formation and gangrene. The organism may cause bronchopneumonia.

Lobar pneumonia as a complication of typhoid fever is usually due to the pneumococcus. This organism may be present as a general infection in the circulating blood simultaneously with *B. typhosus*. It is probable that both *B. typhosus* and *B. paratyphosus*, type B, can produce a massive pneumonia, lobar in type. When these organisms are the causative factors, the pneumonia is of a peculiar hemorrhagic character, which may be recognized clinically

from the bloody nature of the sputum. The typhoid bacillus is not infrequently found in the sputum of typhoid fever patients with pulmonary complications. This fact should be emphasized in order that spread of the disease by this means may be prevented."—(U. O. B. Wingate.)

**Two cases of bilateral exophthalmus and a case of chorea cured by removal of adenoid vegetations.**—HOLZ (*Berlin. Klin. Woch.*, No. 4, 1905, p. 91), reports these cases with the following conclusions: 1. Exophthalmus, if not due to mechanical causes, justifies the diagnosis of Graves' disease, even if the two other symptoms of the well known trias are lacking. 2. Graves' disease is an intoxication of the central nervous system by abnormal interior secretion. 3. Graves' disease, as well as epilepsy and chorea, may be evoked by adenoid vegetations. 4. These three diseases may be cured by removal of adenoid vegetations. H. advises in these diseases, to search for adenoid vegetations and to remove them, even if they do not impede breathing.—(C. Z.)

**Protracted Acute Middle Ear Suppuration.**—ALFRED WIENER (*Archives for Otolology*, June, Vol. XXXIV, No. 3), discusses the relative merits of radical and conservative methods in the treatment of acute purulent middle ear disease complicating influenza, scarlet fever, diphtheria, measles, etc. This study is based upon the observation of 22 cases. He asks (1st) "Under what conditions can we pursue conservative measures without endangering the life of the patient?" (2) "Does early operative interference prevent the occurrence of serious complications in this class of cases?" He believes that "conservatism practiced under strict precautions," "constant and competent observation," is practically devoid of danger. As soon as convinced of the futility of this plan of treatment radical measures should be at once resorted to. The presence of an urgent symptom, such for example as a suddenly developed temperature (say in a child two years old), of 104 degrees, pain on pressure over the mastoid antrum or process, with bulging of the posterior superior wall of the meatus and discharge of pus from the middle ear, he would operate. He sums up by saying that these cases are not attended by any more serious complications than if interference were practiced at once. (H. B. Hitz.)

**Ethyl Chloride in the Treatment of Zoster.**—HOWARD MORROW (*Jour. of Cutaneous Diseases*, April, 1905), speaks highly of the effectiveness of ethyl chloride in controlling and mitigating the pain due to Herpes Zoster. Ten cases are mentioned, which, after receiving the ordinary treatment of anti-pyrrin, menthol, cocain, lead and opium without benefit, were relieved by repeated spraying of ethyl chloride. The treatment relieves the pain for a day or two, in others only for a few hours. (L. F. Frank.)

**Joint Affections.**—C. R. GRANDY, Norfolk, Va. (*Journal A. M. A.*, May 6), comments on the confusion in the popular mind as to what constitutes rheumatism, and enumerates and describes the various disorders often called by this name. He advises against the indiscriminate treatment of joint affections with salicylates or the prescription of a lithemic diet. He advises differentiating the various joint affections. The results of the popular routine treatment have been notoriously bad, as might be expected from the small percentage of cases to which it was suited.



**Neurotic Heart.**—BEVERLEY ROBINSON (*Am. Journal Med. Sc.*, June, 1905) reviews this subject. He divides the cases into four groups. 1. Those where there are general evidences of neurasthenia or hysteria or other well defined nervous diseases. 2. Those with manifest cardiac or vascular lesions. 3. Those where there is present a disease of stomach, bowels, pelvic organs, etc., of which the cardiac disorder is an apparent reflex. 4. Those cases in which the causes of neurotic heart are various, often not perfectly clear and those also where the concomitant trouble is as much effect, probably, as cause of neurotic heart. The paper deals particularly with the latter class.

After giving a few clinical histories the author takes up the subject of treatment. This is often very unsatisfactory and the patients frequently continue as confirmed invalids in spite of all that can be done. General treatment is of course essential. The bowels must be regulated and the diet restricted, sugars and starches being reduced to a minimum. Massage is recommended. As to drugs, he thinks that coca has no equal in the control of the neurotic heart. Unfortunately this drug is difficult to obtain. Either the leaf is not gathered at the proper season or does not contain much of the tonic alkaloids. The crude drug deteriorates during transportation so we are compelled to depend on some proprietary preparation of it or on some other remedies. Of these he considers strophanthus the best. He claims that digitalis in these cases is useless. He concludes the paper by calling special attention to the following points: 1. That there is an apparent or evident slight cardiac enlargement with or without dilatation and it may be slight hypertrophy, occasioned by or proceeding directly from a cardiac neurosis. 2. That a condition of secondary anemia occurs in these cases which remains stationary for a long time in spite of appropriate treatment. 3. That digitalis is useless unless the heart muscle is involved and even in those cases strophanthus is much better. 4. That slight cardiac dilatation is caused by impaired nutrition of the muscular walls dependent on diminished nervous energy, and that subsequently under judicious treatment it remains stationary as to the amount and becomes functionally compensated.—(Robert G. Washburn.)

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**Acquisition of Syphilis Professionally by Medical Men.**—D. W. MONTGOMERY (*Jour. of Cutaneous Diseases*, April, 1905), draws attention to the handling of syphilitic cases by surgeons, obstetricians and gynecologists. A list of seven cases is cited, in two of which the virus was inoculated in cuts received while operating on patients suffering from syphilis. In the seven cases cited one of the chancres was situated on the lower lip, the other six were on or near the hands where one would expect to find them. Of the latter, three occurred near the index finger, on the dorsal surface or lateral aspect. The author alludes to the dangers of strong antiseptic solutions by causing eczema and fissures, exposing to the risk of infection, likewise to the transmission of the virus through sputum from syphilitic patients and the danger of infection through genito-urinary and obstetric cases and post-mortem examinations. Contrary to the belief current at one time that syphilis acquired extragenitally, was particularly severe in its subsequent manifestations, the development of the cases cited appeared to differ in no way from ordinary cases.

(L. F. Frank.)

**General Paralysis and Tabes Dorsalis.**—II, A. COTTON (*Journal of Insanity*) remarks that the intimate relationship existing between General Paralysis of the Insane and Tabes Dorsalis is now generally accepted, and some authors claim that the two processes are identical, from the association of clinical symptoms and from an anatomical standpoint. In reaching this conclusion he refers to Nageotte, whose opinion is the same and based on the following:

1st. The frequent occurrence of tabes in general paralysis, showing that general paralysis is accompanied by tabes in two-thirds of the cases, and that all forms of general paralysis and tabes may intermingle.

2nd. That frequently in the earliest stages of tabes, general paralysis appears, in which cases the primary disease becomes general paralysis in its course.

3rd. In the brains of tabetics that did not show marked signs of general paralysis during life, changes were found in the cortex, which were identical with those of general paralysis.

4th. Cases of general paralysis, that often become tabetic in time, in which case tabes is masked by the cerebral affection. However, both diseases may appear at the same time and run a parallel course.

5th. In all cases it can be shown microscopically that genuine tabes and genuine general paralysis existed.

Fournier concludes: (1) Multiplicity of symptoms common to the two diseases. (2) Possible combinations of the morbid types. (3) Identity of causes. (4) Similarity of evolution and termination of the two processes. (5) Anatomical analogies.

Cotton then states that the above two diseases usually occur in one of three forms: 1st. Cases that begin as tabes and later become general paralysis. 2nd. Cases of general paralysis that later become tabetic. 3rd. Cases in which both diseases occur at the same time and run a parallel course.

He then discusses in detail symptomatology and pathological anatomy illustrating with twelve cases. His final conclusions are as follows:

1st. That clinically tabes and general paralysis present many analogies in etiology, symptomatology and course.

2nd. That their occurrence in the same individual is more than a coincidence.

3rd. That in these cases of tabo-paralysis the symptoms presented are identical with the symptoms of general paralysis and tabes when seen apart, only differing in degree, according to the extent of the anatomical lesion.

4th. That the clinical symptoms of tabo-paralysis have the same anatomical basis as in the separate diseases.

5th. That anatomically the affection of the posterior columns of the cord as seen in tabo-paralysis does not differ from the picture presented in pure tabes. The same systems are affected and the segmental character of the process is the same; also that the process in the cortex is identical with that of general paralysis.

6th. While the above facts show the intimate relation between general paralysis and tabes dorsalis, the unsettled status of their pathogenesis at present, prevents their identity being absolutely established on an anatomical basis. (A. W. Rogers.)

# THE WISCONSIN MEDICAL JOURNAL

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## ORIGINAL ARTICLES.

### THE DIAGNOSIS OF RUPTURE OF THE MIDDLE MENINGEAL ARTERY.\*

BY CHARLES H. LEMON, M. D.

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The surgery of the middle meningeal artery is frequently misinterpreted. It would seem to those who have studied these cases, or who have had the privilege of examining them at the post mortem table, that many opportunities for attaining brilliant results are lost through timidity, or lack of a well defined conception of the importance of early and radical surgical interference. That many lives are lost yearly through lack of knowledge of this most important subject a perusal of the daily papers makes sufficiently clear.

The confusion which existed twenty-five years ago in the minds of the profession as to the etiology and treatment of inflammation in the region of the cecum finds its counterpart to-day in the confusion of thought concerning injuries to the head. If all other injuries to the skull were eliminated from our textbooks except that of rupture of the middle meningeal artery, and that subject alone were treated as clearly and its symptomatology as thoroughly understood by the average member of our profession as are the symptoms of appendicitis, many lives would be saved by an operation which in severity or danger to the life of the patient cannot be compared to the risks incurred in operating for appendicitis.

The fact that the brain and its coverings are enveloped in a bony capsule I am convinced is the reason that these patients are often allowed to die because of the fear of making a possible mistake. The more potent reason, however, is that the profession as a whole has not yet come to a realization of the comparative uniformity of symp-

\*Read before the Medical Society of Milwaukee County, April 14, 1905.

toms which characterize rupture of the middle meningeal artery, and until these symptoms are more clearly understood we can hardly hope for any improvement in the treatment.

The artery itself has been carefully studied by anatomists and the variations of its origin carefully noted. These have proved interesting and should be instructive. But after all, the chief good to be derived from these studies is, that again and again the profession has brought to its attention the fact, that at the anterior inferior angle of the parietal bone there is an artery of considerable size, which frequently tunnels the bone itself, and that, following violence to the lateral aspect of the skull it is not unreasonable to infer that the artery itself may have been torn across, although no evidence is present of a fracture of the skull.

Of the main trunk of this artery as it emerges from the foramen spinosum, there is no surgical treatment other than an occasional use of the tampon. In the great majority of skulls it is too short and too deeply situated for direct ligation. Our interest attaches to its branches and as suggested already their division into two principal trunks, an anterior and posterior, each of which further subdivides into numerous smaller branches, is so well known and their localization so uniformly established by Steiner's rule, that it is difficult to understand why confusion should arise when this important vessel is injured, or why men of good surgical address and competent in other operative fields of surgical procedure should hesitate to act, when the indications for operation are so clear and imperative.

Experiments made by Kocher and his pupils on animals have demonstrated that when the circulation of the brain is interfered with by intracranial pressure a rise of blood pressure occurs. This rise of blood pressure is occasioned by a reflex stimulation of the vasomotor center so that the extravascular tension is equalled or exceeded by the intravascular tension. This reflex stimulation will go on until the cerebral compression exceeds the force of the intravascular pressure when a fatal bulbar anemia occurs.

In a paper read before the State Medical Society a year ago the writer called attention to the danger from cerebral compression caused by edema of the brain, in cases of contusion of the brain, citing an illustrative case which came under observation, in which for some days the symptoms were those of rupture of the middle meningeal artery; in fact, this case was operated on *in extremis*, believing that pressure from a clot existed, and we were astonished to find edema of the brain with marked contusion of the cortical tissue.

The study of hemorrhage of the brain prior to Kocher's demon-

stration was elementary, and many of the conclusions arrived at, while in the main correct, were essentially empirical. They lacked a broad application and were often conflicting and misleading. It will be shown that even the classical symptoms of rupture of the middle meningeal artery as described by all authorities—dividing them into a group of three main symptoms, unconsciousness, followed by a period of consciousness of greater or less length, and again followed by unconsciousness,—while characteristic of meningeal hemorrhage, are sometimes met with, though in a less clearly marked degree, in other hemorrhages of the brain.

The first step in the line of progress was made when the mind of the profession became educated to the fact, that in injuries to the skull the question of the existence of a fracture was the least important factor, the only question of moment being whether or not the underlying brain tissue or its coverings or vessels had been injured. Other things being equal a depressed fracture of the skull in itself is not a serious condition. No considerable amount of cerebral compression will occur from a fracture limited in extent. If, however, the site of the fracture is a region supplied with blood vessels, venous or arterial, the question of compression becomes important because of the possibility of hemorrhage and the uncertainty which is ever present, as to the extent of the extravasation.

If then we would advance a step further and consider the question of intracranial tension as the basic factor in injuries to the skull, we will find a rational explanation of many conflicting symptoms observed at different periods in the same case, and we will start in our analysis where too often we have ended, basing our conclusions as to the extent of the damage inflicted and the probability of its relief or repair, by observing the rapid or slow rise and fall in the blood pressure. The integrity of the brain is only safeguarded by the prevention of excessive extravascular intracranial tension.

Frazier (*Progressive Medicine*, March, 1904) sums up Kocher's experimental work on these lines as follows:

"Kocher, it may be remembered, divided into several stages or periods the clinical phenomena of cerebral compression:

"**STAGE I.** The stage in which the encroachment upon the intracranial space is so slight that it can be compensated for by the escape of a cerebrospinal fluid and the narrowing of venous channels. In this stage the symptoms are in the main insignificant.

"**STAGE II.** The second stage in which there is a condition of dysdiamyrrhosis, an obstruction of the venous outflow of blood. The symptoms of this stage are choked disk and such phenomena of cere-

bral irritation as headache, vertigo, restlessness, delirium, tinnitus, etc.

“STAGE III. The stage of adiamyrrhosis, in which the compression of the vessels is so great that the brain becomes anemic, giving rise to certain functional disturbances. If this anemia is limited to a circumscribed area of the brain the symptoms will be those of local compression. If, however, the compression is so far-reaching as to involve the medulla the symptoms will be those of general compression. This is the period of vasomotor regulation with its characteristic rise of blood pressure which compensates for the increased intracranial tension and reestablishes the circulation of the brain. As the intracranial pressure is increased anemia or adiamyrrhosis again develops until there is a corresponding increase in the blood pressure; thus, for a time, at least, we have a condition of adiamyrrhosis alternating with dysdiamyrrhosis. The alterations between these two conditions accounts for the rhythmic characteristics of the clinical manifestations of this stage, such as the alterations in the size of the pupil, rhythmic respiratory disturbances, the varying degrees of stupor and other evidences of cerebral irritation or depression.

“STAGE IV. The final stage is that in which the increased intracranial tension can no longer be compensated for, and is characterized by a rapid fall in blood pressure. The condition of the brain is one of continuous cerebral anemia, which gives rise to general functional inhibition.”

With careful observation of the rise of blood pressure in a given case or its maintenance at a relatively high point for a considerable period of time as the basis of our reasoning, it will be seen that the advice given by some surgeons of considerable experience, that in injury to the brain or its coverings we are not justified in operating unless clearly defined localized symptoms manifest themselves, is erroneous and disastrous. It will happen, as it frequently has happened, and been demonstrated in the post mortem room, that considerable quantities of blood causing fatal compression will be found in the skull which caused no focal symptoms and which were easily accessible. If we are to wait for focal symptoms we will have a large mortality, because when collapse occurs in some of these cases it takes place so rapidly that there is not time left to relieve the pressure until the possibility of reaction has passed. If the probable location of the hemorrhage is not indicated by the symptom-complex, with the rapid or persistent rise in the blood pressure, it were better to raise a large osteoplastic flap over one or the other hemisphere with a view to relieving the tension and in the hope of finding the source

of the hemorrhage, than to split hairs reasoning about cerebral localization, when it is clearly manifest a fatal issue will follow long continued pressure.

A case came under my observation some years ago in which the greater part of the left side of the head was blown away by a shotgun. The floor of the middle fossa of the skull could be seen and because of a very great bony defect, permitting expansion of the inflamed brain tissue, the man lived five days after the accident. This case with a maximum amount of injury contrasted with the case of brain contusion above cited, in which neither fracture nor hemorrhage existed, presents a striking antithesis. From the one may be learned what was indicated in the other.

If then, contusion of the brain after the lapse of a few days can be followed by such serious compression, how much more dangerous is hemorrhage from a vessel such as one of the main branches of the middle meningeal artery, with the force of the arterial tension behind it augmenting with every heart beat the intracranial tension, and this tension from time to time further increased by reflex stimulation of the vaso-motor center. Truly a great service was rendered when the signs of rupture of the middle meningeal artery were clearly understood by surgeons, but it yet remains for the rank and file of the profession not only to rise to a realization of the importance of recognizing early these dangerous symptoms, but to make a conscientious study of these symptoms that the stigma of ignorance may not be laid at our door and that many valuable lives which are lost through lack of appreciation of the importance of these symptoms may be saved by timely surgical intervention.

The results following operation for hemorrhage of the middle meningeal have been most brilliant. The temporizing non-surgical treatment of these cases, from a statistical standpoint, forms one of the darkest chapters of medical annals.

A fear exists of meddling with the dura. A fear based upon observation that some of these cases have been followed by meningitis and death. The peritoneum, which is far more susceptible to infection than the meninges of the brain, is opened fearlessly for the treatment of appendicitis for no other reason than that the diagnosis of the one is becoming daily more easy on account of accumulated clinical experience, while in the other we fear to penetrate the skull lest perchance we may make an error in diagnosis. No better illustration could be adduced than the temporizing treatment on the part of a young surgeon of my acquaintance, who, called upon to treat a man with a compound depressed fracture of the lateral aspect of the

skull, contented himself with elevation of the depressed fragments when a hemiplegia of the opposite side was present in the case; leaving a large clot to absorb or drain away or suppurate, when a few minutes' bold work with the chisel would have insured a complete and rapid recovery.

Injury to the middle meningeal may occur in one of various ways as the result of a direct blow in the temporal region by a sharp instrument such as a pick, a hatchet or chisel. The instrument may penetrate the skull and directly sever the artery. The bone itself may be crushed in by a blunt object striking the skull with considerable force, the comminuted portions of the bone tearing the vessels as they penetrate the meninges. It may also be torn by the elastic contraction of the skull, the lateral diameter being suddenly decreased without fracture, causing a tear of the artery which is incapable of overstretching owing to its firm imbedment in certain skulls by attachments to the bony furrow. The skull assumes its normal shape and the hemorrhage begins at once. Fissuring of the skull at the base may occur, crossing the great wing of the sphenoid bone and cutting the main trunk of the artery, or this fissuring may extend to the lateral aspect of the skull and cut a principal branch of the artery. The force causing the rupture may be so slight that no injury of the scalp or other soft structures is observed.

In compound fractures the initial hemorrhage is sometimes very severe on account of the severing also of branches of the temporal artery. In this class of cases shock is prolonged on account of the loss of blood and the patient will recover more slowly from the initial shock, thereby prolonging the first stage. In the absence of any clinical evidence to the contrary, it is safe to assume that hemorrhage always follows a wound of the middle meningeal artery. It does not follow, however, that the hemorrhage will show itself at once or even after a few hours. The writer has seen a case in which the hemorrhage came on ten hours after the reception of the injury, and there are numerous cases in the literature in which the hemorrhage did not show itself for a number of days. This is not difficult to understand if the source of the hemorrhage is the posterior branch of the middle meningeal which is smaller in size than the anterior. We may also have shock so severe in character that before reaction is established a thrombus forms in the torn artery. This after a few days, following some physical effort or mental excitement, gives way and hemorrhage occurs.

In a compound fracture the blood makes its exit freely and no hematoma occurs. After ligating the vessels in the scalp in a com-



pound fracture arterial blood will be seen coming from beneath the fractured bone, or if the fragments are raised the bleeding point itself will be seen. This is the class of cases that have been most frequently operated upon successfully, when they have fallen into intelligent hands. In a simple fracture with laceration of the artery the diagnosis is much more difficult. In a classical case the hemorrhage may be so free that a large hematoma will form, so that the hemiplegia develops in advance of the second loss of consciousness. Again, the coincident concussion of the brain may be of such severity that no free interval occurs, the hematoma reaching a sufficient size to cause severe cerebral compression and make a return to consciousness impossible. There are many factors which determine the extent of the hematoma and it is admitted that in some cases it is impossible to tell from the clinical picture, whether we have severe concussion combined with the pressure of a hematoma or whether the pressure symptoms are due alone to hemorrhage at the base. There is this to be said, however, that in concussion of the brain the pulse is more apt to be small and rapid on account of shock, while in hemorrhage from the middle meningeal and in extensive hematomas of the brain tissue itself at the base, the contrary is the rule. Where the focal symptoms appear early during the free interval followed by a rapid loss of consciousness, it is safe to assume that a large hematoma is forming, or at least that a large branch of the artery has been torn.

Not infrequently also contusion of the brain tissue in the region of the fracture occurs. In one of my cases aphasia was present when the case came under observation and several weeks elapsed before complete recovery in this respect took place. My experience, however, is that in the majority of cases the dura remains untornd and the brain itself uninjured, except by pressure from the hematoma.

A large number of cases die yearly from injury to the head under the diagnosis of concussion of the brain. These cases are not reported in the medical journals but are recorded in the daily press. It is fair to assume that a definite proportion of these are due to hemorrhage of the middle meningeal, because not infrequently cases present themselves which recover from extradural hemorrhage without operation with marked paralytic symptoms referable to localized pressure in the brain.

In these cases treated expectantly either no free interval occurred, or the history of previous loss of consciousness is not sought for, and the secondary loss of consciousness is attributed to other causes than hemorrhage. It will be seen, therefore, that so far as the free interval is concerned there will be great variations in individual cases, but

where it is present, it is one of the most characteristic symptoms of intracranial hemorrhage.

The pulse and respiration in hemorrhage of the middle meningeal have no characteristics which distinguish them from other intracranial hemorrhage. A slow, hard and tense pulse, slow and laborious breathing, are found in all cases of slowly increasing intracranial hemorrhage at or near the beginning of the hemorrhage. Motor disturbances are far more characteristic and in well marked hemiplegias as suggested before, characteristic of middle meningeal hemorrhage.

Investigations by many authorities show that little reliance can be placed upon the character of the pupil, and it would seem that the experimental work of Kocher along this line clearly indicates that at various times, in the same case even, there will be a variation of the pupils corresponding with the variations which occur from time to time in the intracranial tension. It is safe to affirm that in itself the contraction or dilatation of the pupil on the same side or opposite the suspected hemorrhage is no index as to the site of the hemorrhage.

The cardinal symptoms upon which a diagnosis of intracranial hemorrhage from rupture of the middle meningeal artery may be based are, in the words of Von Bergmann, as follows:

"I. *The free interval*, especially if it be of short duration and regardless whether distinct concussion has preceded it or not. Depressed fractures produce pressure-symptoms immediately after injury, and can be easily discovered by palpation. If pressure symptoms arise several days later, they may still be the result of hemorrhage; at the same time one suspects the presence of products of inflammation, and this is all the more probable the longer the time that has elapsed since the injury. Should there not have been an opportunity for observing the free interval, or if it cannot be positively confirmed by the history, the increase of pressure-symptoms permits the conclusion that hemorrhage is present.

"II. *The pressure-pulse*, especially if it follows a slightly rapid and small pulse. If, again, a hard slow pulse be followed by marked increase in frequency, the terminal stage of vagus paralysis has set in, and there is imminent danger of a fatal termination.

"III. *Stertorous respiration*, of great importance in differential diagnosis, as contrasted with the superficial respiration of cerebral concussion.

"IV. *The gradual development of hemiplegia*, especially if preceded by convulsions on the side of the body later paralyzed. Destruction of the cortical motor centers is also followed by contralateral paralysis; the latter, however, follow immediately after injury. Mod-

erate contusions and irritation from penetrating fragments of bone produce convulsions of the opposite side in most cases. If, in addition to these rational symptoms, there are local manifestations at the site of injury, either a compound or a subcutaneous fracture, or even a slight abrasion of the skin, the diagnosis of rupture of the middle meningeal artery can be made with almost absolute certainty."

A brilliant chapter remains to be added to surgical achievement and the sooner we take to heart the great responsibility that rests upon us when called to treat this class of cases, the sooner will we accumulate a mass of clinical experience that will teach us all the principles which underlie the surgery of traumatic injury to the skull.

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## THE PERMISSIBILITY OF MEDICAL ABORTION\*.

BY W. E. FAIRFIELD, M. D.,  
GREEN BAY, WIS.

The question as to whether the physician is ever justified in the performance of medical or surgical abortion is usually determined by the point of view assumed by the observer. This fact has been forcibly brought to my attention by an investigation of the literature of this subject and by practical experience, in which perhaps I have been singularly unfortunate by reason of the fact that I seem to have had more than a fair share of those vicious cases which appeared to demand something more than passive treatment at my hands.

I am not concerning myself with the criminal phase of the question, which I will dismiss with the expression of a hope that ere long the general public will join with the medical profession in such a moral awakening as will destroy this cankering enemy of our great republic. But I am concerned with the question of the right of the conscientious and upright physician to adopt the means of treatment which, in his judgment, is best calculated to save and preserve the lives of useful members of society. I am not unmindful of the rights of any individual, born or unborn, perfect or imperfect—nor yet of the prerogatives of the ecclesiastic whose duty it is to save souls even at the expense of the bodies. I dismiss as unworthy of our consideration any argument that purports to prove the life of the mother to be more valuable than that of the child. I deny the right of any one to contend that because a large proportion of children never reach maturity, the rights of the

\*Read at the 59th Annual Meeting of the State Medical Society of Wisconsin, La Crosse, June 8, 1905.

child, when compared with those of the adult, resolve themselves into a mathematical problem. I dismiss as selfish and unworthy the dictum of those who claim that questions of capacity for support and education should weigh in the determination of any individual's right to existence, but I also deny the right of any one to become a censor of my actions to the extent that he will prevent me from making an attempt to save the most humble individual from certain and horrible death by the only means offering any chances of success.

As previously stated in my opening remarks, the point of view has been the determining factor in the solution of this question. If the writer is an ecclesiastic he answers the question as to whether abortion is ever justifiable, with a firm "No." This fact was forcibly demonstrated in a very able paper read before this Society at its last meeting. The "No" was emphatic, for the arguments presented were largely those of the ecclesiastic as voiced by the Rev. Van Oppenraay in a book called "The Right to Life of the Unborn Child." These arguments are extremely ingenious and they appeal to a body of right-minded men in a very forcible manner, but if one will read this very admirable book in a judicial spirit one must be impressed also with the answering arguments of Prof. Hector Treub. The discussion which followed the reading of this paper developed a wide diversity of opinion, and with profound apologies to the writer of that essay I wish to call your attention to the position then taken by quoting two of his axiomatic propositions. I quote: "Is the physician justified in producing an abortion if he believes it necessary to save the life of the mother? I answer unhesitatingly, 'No.'" Later, in speaking of extra-uterine pregnancy, he says: "We are justified in removing the sac after an abdominal section, though in doing so we permit, or indirectly cause, the death of the foetus."

This, gentlemen, is the ecclesiastical position. You are not to destroy a child under any circumstances, but you may "permit it to die" or you may "indirectly" cause its death by removal of the sac. What kind of reasoning is this that asks you to close your eyes to the so-called rights of the foetus in the one case and denies to the mother the same rights when she is suffering from—say, a malignant tumor of the uterus, demanding hysterectomy. Perhaps these men will say that we have the undeniable right to remove the uterus even though we thereby "indirectly permit" the death of the foetus. Perhaps these logicians will say that we may empty the uterus in pernicious vomiting and thus "indirectly permit" the destruction of the foetus. Perhaps we may follow the same course in some forms of kidney lesion when it is evident that such a procedure is the only course open by

which we may save the mother's life. Of course we would be expected to put on a sanctimonious expression and admit the possibility of our having "indirectly permitted" the death of the foetus. Some of our great humorists are said to be unconscious of their wit. They write and say droll things as the result of an inherent idiosyncrasy. Is it not possible that writers of this type belong to this class of genius? Their logic is of the kind that proves the rule by the exception, for you will note that they prove that one must *never* perform an abortion by citing a single case in which one *may* do it.

THE YACHT MIGNONNETTE.

Literature and arts have their periods of brilliancy and of decay, and the brilliant periods have been given names to designate them or to separate them from times of mediocrity. Thus we have the literature of the age of Pericles of Greece, Augustus of Rome, Elizabeth of England, the Pre-anesthetic age of Surgery, and the Antiseptic age. So in the literature of this particular subject under discussion we have an incident which is referred to by all of the writers who have invaded this field since 1884, and I may be pardoned for calling this the age of the Yacht Mignonnette in abortion literature. In 1884 the Yacht Mignonnette was lost at sea and the survivors of the crew were left in open boats with little means of sustenance. After seventeen days without food and five days without water, two of the crew deliberately cut the throat of a third and lived on his flesh for four more days, when they were rescued. They were convicted and Lord Chief Justice Coleridge held them guilty of murder and sentenced them to be hanged.

This is the celebrated incident, gentlemen, which was used no later than last year to prove to you that the destruction of a foetus for the preservation of the mother is murder, and in your discussion you appear to have accepted the false conclusion as the logical sequence of a correct interpretation of justice. Where is the analogy between the two incidents? Does the mother ask that she may kill and eat her unborn offspring? Does the physician destroy the foetus for the purpose of saving his own life? Is the mother, who is not only willing but anxious to save the foetus' life, to be accused of murder, who, finding that both must perish, saves herself only when she finds she cannot save both? Two men are floating upon the water, utterly exhausted and ready to perish. A man approaches with a boat, so frail indeed that he can take but one passenger beside himself. Shall he leave both to perish, arguing that he has not the right to select one for life and the other for death? We will go further in our reasoning. Both drowning men grasp the edge of the boat and the rescuer sees that both will perish if one is not pushed off. Has he to suffer the penalty for

murder should he elect to do this act? Is this not a better analogy than that offered in this time-worn tale of the Yacht *Mignonnette*? No one questions the right to life of the unborn child. No one denies that the child is in the uterus through no act of its own. If by leaving the case to nature alone it were possible to say that in any given case the child would be saved even at the expense of the mother's life, it might be argued that the physician had not the right to decide which should live, but Cæsarean section under modern aseptic conditions has removed this class of cases from the field of controversy.

We have left only those cases in which there exist such conditions as would warrant an educated and conscientious physician to conclude that both mother and child would perish if left to themselves. In such cases I deny the right of any one to say that I shall not save or make an attempt to save the only one whose case permits of salvation. And I refuse to close my eyes to the step I am about to take. I do not claim that it is possible that I have "indirectly permitted" the death of the foetus in my attempt to save the mother, but I admit that I have performed an abortion for the purpose of saving a life. I may be taking a position opposed to that of orthodox theologians, ( a point I do not admit) but I am following the dictates of my conscience, and that is my consolation. Theologians who opposed the use of anesthetics have seen their mistakes, just as have theologians who proclaimed it a heresy to teach that the earth was round. The fatalist—the man who argues that what is to be will be—is fast disappearing. We are shaping our actions by the rule that what is to be will be if it is right. If it is wrong we will try to change it. If it is correct to argue that the foetus has an inherent right to remain in utero even at the expense of the mother's life as well as its own, then it is certainly sound reasoning to say that it is the mother's right to be given a physique capable of withstanding the assaults of childbearing.

Men will argue that no condition can arise where the physician can positively say that a woman will die without intervention. That argument was made a strong one before this Society last year. One or two went so far as to say that there were no deaths from pernicious vomiting of pregnancy, and cited a case where abortion had been advised, refused, and the gestation went on to term without the loss of either mother or child. Show me one case of this kind and I will show you several of the other. Because a certain physician said that an abortion was necessary and it proved to be unnecessary, this does not prove that the principle is wrong—it only proves that this man was mistaken. It does not prove that interference is wrong in conditions where an abortion will save one life and the failure to produce one will

sacrifice two lives. We know that operations for strangulated hernia are sometimes fatal, and that some cases left to Nature will liberate themselves by the production of a fecal fistula or otherwise, but that does not prove that the operation is never commendable. We all know that Jonah when thrown overboard was swallowed by the whale and was later rescued by being cast upon the shore. Yet any member of this Society in a like predicament would be willing to admit that he was taking some long chances in thus being left to Nature. A single swallow does not make a summer, but a single idea born of a narrow mind may be fraught with danger when that idea is wrong.

That the admission that abortion is ever justifiable would open the door to the criminal abortionist is not true. The law admits it to be justifiable under certain circumstances, but it punishes, (or fails to punish) the criminal abortionist much as the community in which the crime occurs feels toward the criminal. It lies in the power of the manly physician to do wonders in the way of inculcating a proper appreciation of the gravity of the crime of abortion. I do not find women callous to argument. It is only necessary to show them the enormity of the offense contemplated to awaken an answering response from their better selves. The maternal instinct lives in the prostitute when all other feelings fail. She loves a child when she hates all else. When such love ever occupies the heart of one in whom we expect all the finer qualities to be extinct, who will say that it may not be appealed to in a spirit of confidence? I believe our position upon this point will determine largely in the community where we reside the question of the amount of respect and esteem in which we are held, and rightly so. And on the other hand, when it becomes necessary to perform an abortion for the sake of saving life, no one will question our motives and an all-wise Being will surely look upon us with pity but not with anger.

It is a terrible responsibility to assume to be the arbiter of life and death in any case, but being careful and conscientious, surrounding and fortifying our actions with the skill and experience of our fellow practitioners, observing the case with a thought single to the saving of life instead of its destruction, may we not reasonably hope that even in the event of a mistaken intervention the absence of intention will condone our seeming fault?

#### Discussion.

DR. T. L. HARRINGTON, of Milwaukee—When I saw this subject on the program I did not intend to enter into the discussion, because I precipitated such an extended discussion of the same subject at the meeting last year. But as Dr. Fairfield's paper is a direct attack on my paper of a year ago, I must answer him or admit that my position was not tenable.

I have given much thought to this subject, and I have read whatever literature I could read since that time, because it is a subject in which I am vitally interested; and I have as yet no reason to believe that my position is wrong either from a scientific or moral standpoint.

At the same time I wish to say to the gentleman who read this paper that I have the greatest respect for the physician who honestly and conscientiously differs from me in this matter, and who governs his actions according to honest convictions. I realize that at this time the minority of the members of the medical profession stand with me.

I wish now to direct your attention to the history of the growth of medicine and to the development of our knowledge of human embryology. It is not so many years since we learned that at the moment of conception a new being came into existence. Aristotle taught that the fetus did not attain life till the fortieth day after the fruitful coition, and that teaching, modified more or less by various individuals, influenced the thoughts and actions of the profession for centuries. And so members of the profession and the laity believed for many years that an abortion in the early months of pregnancy did not mean the destruction of a human being. We now know that the life of the child begins with the impregnation of the ovum, and it is folly to argue that the time of its destruction lessens the offence. It matters not whether it is the third week or the third month or the third year of its existence, nor whether it is without or within the womb.

A year ago I laid down the principle that you cannot directly destroy the life of an innocent person and be justified. Now I shall state another principle which is as self evident. The first duty of the state is to properly protect the lives of her children. When a court at law consigns an individual to death, there is a jury of twelve men to sit on his case, there is an attorney to aid him in his defence, there is a judge to set aside the decision of the jury if in his judgment and wisdom the decision is wrong; and finally there is a Supreme Court that may grant the condemned man a new trial if the lower court has been in error.

What is the condition when the life of the child is in question? There is no jury, there is no judge, there is no attorney to argue for the rights of the unborn child; there are two physicians to decide its fate, and unfortunately sometimes only one. And, gentlemen, you realize as well as I do the incompetency of many of the physicians practicing medicine, and—worse than this incompetency—the utter lack of conscience and moral stamina found only too often, and yet two of the most incompetent and conscienceless physicians in the State of Wisconsin have the right to go into the home of the man who does not know whether they are doing right or not, and say “we must destroy the life within the womb.” I say to you, gentlemen, that child is not receiving the same protection and the same consideration from the state as the individual who has been born into this world, and his rights are not safeguarded in the same manner as we safeguard the rights of other human beings.

The essayist brought to your attention the story of the Yacht Mignonette, and says it does not apply to the case. It may not apply to the question of medical abortion, but it does apply to the broader question as to whether you as physicians have the right to take human life. The question before Justice Coleridge was, did these men in the boat have the right, in order to save their lives, to take the life of the helpless boy who would have died within a



few hours, and feed on his flesh? The greatest Chief Justice that England ever had decided that they had no such right, and that they were murderers, and must hang for their crime. That was the point and the application which I made. Shall I state it in another form? You have no right to directly take the life of an innocent person, even though you do it to save the life of another.

The essayist presents another example: He says two men are floating upon the water, utterly exhausted and ready to perish. A man approaches with a boat so frail that he can take but one besides himself. Shall he leave them both to perish, arguing that he has not the right to select one for life and the other for death? The doctor should have gone farther and said that in order to save one it is necessary to crush in the skull of the other, if he wishes to make his case parallel to a craniotomy or an abortion. Clearly, the man in the boat has the right, and it is his duty to save one, but he must not do it by attacking the life of the other. Then he said, we will go farther in our reasoning: both drowning men grasp the edge of the boat, and the rescuer sees that both will perish if one is not pushed off. Has he to suffer the penalty of murder for this? The essayist fails to see that he now introduces the factor of the unjust aggressor. If the two drowning men grasp the edge of the boat which will carry but two persons, it is clear at once that they jeopardize the life of the man in the boat, and he has a right to defend his life, even if he must take the life of the aggressor in doing so. The essayist says that he is not concerned with the criminal phase of this question. I want to say to you, gentlemen, that you cannot separate the two. It is inevitable that the criminal phase of the question will force itself upon us whether we concern ourselves with it or not. Admit for once the right of the physician to directly take human life, and the criminal abortionist will come with his reasons and his pretexts, and the community is at his mercy. Admit for once the permissibility of medical abortion and you have given to the criminal abortionist the shield that will protect him from the arm of the law in his despicable business. I prefer for myself—and I believe that the number of physicians who stand on this ground is increasing year by year—I say I prefer to stand with Deaver (*Jour. A. M. A.*, April 30th, 1904), when he says: "A weighty objection to this is the fact that neither the surgeon nor the accoucheur is a legal executioner, even were he competent to judge between the intrinsic value of the two lives, each of which is equally under his care." I prefer to stand with the great Pinard of Paris (*Annales de Gynecologie*, January, 1900), when he says: "The right over the child's life and death belongs neither to the father nor the mother, nor the physician. . . . To discuss from an economical or social viewpoint the difference in the value of the life of the mother and that of the child is simply monstrous." In a series of years the physician who takes the position I advocate will save more lives than the one who follows the advice of the essayist, and he will have the further satisfaction of putting up a defence against the criminal abortionist, such as can be raised in no other way.

DR. W. E. FAIRFIELD, of Green Bay—The gentleman who has just attempted to answer the paper, is arguing from a professedly moral standpoint, but I want him to say to this society, and I want him to say now, whether he has changed or not the position he took last year, viz., that in cases of extra-

uterine pregnancy one is permitted to open the abdomen, remove the sac, and destroy the foetus.

DR. T. L. HARRINGTON, of Milwaukee—I certainly meant to answer that when I spoke. According to my views you are permitted to open the abdomen and remove the sac, and in so doing you do not directly attack the life of the child. What is the offending organ in that case? Does the child bleed to death? Does the mother bleed to death through the child? Never. Does the child rupture? No. The sac is the offending organ and you attack the sac. You remove the sac and in so doing you permit the death of the child. It is scientific, it is moral and it is theological.

Let me illustrate the principle. Suppose there is a great conflagration in the city, and if the fire reaches a certain building it will cut off the escape of hundreds of people and their lives will be lost. You know that in certain cases the chief of the fire department will place dynamite under a building and blow that building up. Suppose too, that way up on the 10th story of this building is a woman who cannot escape. The chief has a right—yes, not only a right but it is his duty, to put dynamite under that building and blow it up in order to save the lives beyond though in doing so he permits the death of the unfortunate being in the building—and there is the difference—you have not studied theology. No judge and no jury, and no moralist would hold that fire chief guilty of directly taking a human life.

DR. W. E. FAIRFIELD, of Green Bay—That is just the point—I have not studied theology, but I have tried to study common sense. An extra-uterine gestation has been known to go on to term, and the child has been delivered alive from the abdomen. Let us reason the thing out. We must argue that an extra-uterine gestation may result in a viable foetus, and the delivery of a child that has the right to live. That is proposition number one.

Proposition number two is this: Neither you nor anyone else can determine when you have come to a case where a child will die in the abdomen; or whether it is a child that will become viable and live. Can you see the deduction to be drawn from that? You have no more right to destroy a child extra-uterine than you have one intra-uterine. If you admit that you have a right to destroy the extra-uterine life when it threatens the life of the mother, you have got to admit that you have under like circumstances, the right to destroy the intra-uterine life.

I have not in this paper questioned the rights of the child at all. I have stated distinctly through my paper that the child has undeniable rights, but I approach this subject from this position: I say, "Have I a right under certain circumstances to attempt to save the life of a mother, even if by so doing I destroy the life of the offspring?" I approach an abortion as a life saving measure; my opponent in this argument approaches an abortion as a life destroying measure. There is a vast difference between our points of view.

There is no question in my mind about my position. My conscience would not trouble me in the least did I decide to do an abortion. I may have something wrong with it, but at the same time my position is clear to myself, and that is my consolation.

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## THE PRESENT STATUS OF THE SURGICAL TREATMENT OF UNDESCENDED TESTIS.—REPORT OF CASES.\*

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At the outset we may as well admit that it is not our purpose to attempt to add any strictly original contribution to our knowledge of the pathology and causes of undescended testis, nor to propose any operative treatment that is entirely new or revolutionary in character. On the contrary it shall be our aim to review the work already done on this subject by numerous surgeons and anatomists, add a few personal observations, and draw therefrom certain more or less useful deductions.

The selection of "Undescended Testis" as the subject for a paper is all the more justifiable because our textbooks have so little to say about it, and because many of the leading surgeons do not by any means agree upon the indications for operation, much less upon the character of the operation to be done. Indeed, there are but few other surgical conditions about which hangs as much hazy uncertainty in the minds of the profession. Now that nearly all parts of the human body have been successfully invaded by the operator, surgical opinion has crystallized into fairly definite form as regards most procedures, so that for a given condition one may observe, with slight variations, the same surgical treatment in New York or San Francisco or New Orleans.

Not so with undescended testis. The profession as a whole seems inclined to place the operations for this condition in the same category with trephining for Jacksonian epilepsy or excision of the cervical sympathetic ganglia for Graves' Disease; that is to say, they are looked upon as of doubtful efficacy and as not having yet won for themselves a permanent place in our repertory of legitimate operations. And when all is said and done, it must be admitted that they are not so far removed from the experimental stage as could be desired.

DEFINITION.—It is desirable that certain definitions of terms be made clear before proceeding with this discussion. The term "testicle" includes both the testis and epididymis. These are not inseparable and, as we shall see, one may descend without the other. Hence the word "testis" is generally used in this paper. Monorchism (or

\*Read at the 59th Annual Meeting of the State Medical Society of Wisconsin, La Crosse, June 8, 1905.

monorchidism) is often incorrectly used to designate the failure of descent of one testis, whereas it really means the congenital absence of one of these organs. Cryptorchism (or cryptorchidism) is a general term used by many writers to designate the failure of descent of one or both testes. If we wish to be more accurate we may say unilateral or bilateral cryptorchism.

FREQUENCY OF OCCURRENCE.—Concerning the frequency of occurrence of undescended testis adequate statistics are unfortunately not obtainable. This is partly due to the fact that most cryptorchids are sensitive on the subject of their deformity and often conceal it. They do not always consult the physician or surgeon unless distressing symptoms arise. Doubtless most of my hearers have treated patients thus afflicted without ever discovering the fact. Life insurance records furnish us no information on this subject, for in most routine insurance examinations the genitals are not inspected. It is from the reports of military and naval recruiting officers that we derive our most trustworthy statistics. Reports of the number of cryptorchids among the army and navy recruits of the United States and Great Britain, where the service is voluntary, are apt to be misleading for the reason that many prospective recruits, knowing the exacting character of the physical requirements, are probably deterred by their deformities from applying for enlistment. More than 30 years ago Dr. Marshall<sup>1</sup> in an examination of 10,800 British recruits, found five in whom the right and six in whom the left testis was not apparent, while one had retention of both, giving an approximate ratio of one cryptorchid for every 900 recruits. In the continental armies where service is compulsory the few statistics on the subject that are available perhaps come nearer the truth in giving the true ratio. Thus, in the Austrian army it is said that one case of arrested testicle was found in every 500 recruits in a certain series of reported cases. Rennes (quoted by Keyes)<sup>2</sup> found in 3,600 French recruits six cases of retained testis, or one case for every 600 men. The above statistics are of course compiled from adults. It has long been known that the percentage of undescended testicles in the new-born and in young children is enormously larger. In the 18th century Wisberg<sup>3</sup> examined 103 male infants and found that only 73 had both testes in the scrotum, but at the end of the first month he found nearly all the arrested organs in normal position. In an examination of 143 male infants from one to four months old Sach found that 14 per cent. of

(1) Hints to Young Medical Officers in the Army, p. 83.

(2) Genito-Urinary Diseases, p. 708, 1904.

(3) Curling: Diseases of the Testis, 1878.

them had imperfect descent of one or both testes. Numerous other observers report similar findings but all are agreed that the chances of descent of a retained testis diminishes as age increases. Indeed, it is rare for descent to occur after the first year of life without concomitant rupture, for, as Curling has stated, "the causes which operate at this late period tend as much to promote the formation of hernia as the transition of a testicle."

It is worthy of note that the right testis has failed of descent much oftener than the left in the cases reported in the literature.

POSITION OF THE ARRESTED TESTIS.—The undescended organ is found, (1) within the abdominal cavity, (2) somewhere in the inguinal canal, or (3) entirely outside the external ring. After the descending testis has completed its transit through the inguinal canal, instead of entering the scrotum it may, from causes to be mentioned presently, be drawn or pushed aside so that it finally comes to rest in a sub-cutaneous position (a) in Scarpa's triangle, (b) over the perineum just behind the scrotum, or (c) elsewhere in the neighborhood of the external ring. *Ectopia* is the term applied by Eccles<sup>4</sup> to this subcutaneous position of the displaced testis in contra-distinction to *arrest* of the organ at some point in the route of its normal descent. Of all the varieties of retention the inguinal is by far the most common, that is, the organ is found at some point in the inguinal canal.

EMBRYOLOGIC AND ANATOMIC CONSIDERATIONS.—Familiarity with certain phases of the evolution of the testicle and with the anatomy of the region involved is a *sine qua non* not only for a proper conception of the causes of cryptorchism but also for its rational surgical treatment. A brief review, therefore, of some of the salient developmental and anatomical facts will not be out of place.

The testes are developed from the mesoderm on either side of the future lumbar vertebræ. In the early months of foetal life they are to be found in front and a little below the kidneys and behind the peritoneum. If the foetus be examined at the fourth month a peculiar cordlike structure, termed by Hunter the *gubernaculum*, is found extending from the testicle to the internal abdominal ring. Later the gubernaculum may be traced through the inguinal canal where it divides, one bundle of fibres passing to the bottom of the scrotum where it attaches itself to the dartos and assists in directing the testicle into the scrotum. Not all of the fibres of the gubernaculum pass into the scrotum. Some of them are attached to Poupart's ligament while another bundle passes to the os pubis and base of the penis. These lateral fibres are of considerable practical importance because

(<sup>4</sup>) Eccles: Hunterian Lectures. Brit. Med. Jour. Mch. 1, 1902.

by their traction on the descending testicle they are supposed to produce those forms of ectopia already referred to in which the organ occupies a subcutaneous position in Scarpa's triangle, or in the pubic or perineal region. Notwithstanding that the gubernaculum contains a few plain and striped muscle fibres it is generally admitted that its rôle is chiefly a passive one in the descent of the testis. Being firmly attached below it prevents the gland from ascending as the lumbar region of the growing foetus increases in length. Thus the gubernaculum passively, and possibly also by a small degree of actual shortening, draws the gland toward the inguinal canal.

A common misapprehension is that the testis in its descent drags a process of the peritoneum with it into the scrotum. On the contrary the vaginal process of peritoneum always precedes the testis; and in all cases operated upon for cryptorchidism, so far as the records show, the vaginal process is always found extending at least into the inguinal canal if not into the upper part of the scrotum.

W. McAdam Eccles, who in the Hunterian Lectures of 1902 has given us the most exhaustive resumé of cryptorchism since Curling wrote his classic work in 1878 (*loc. cit.*), gives so complete a statement of the causes of retention of the testis that we quote his list of causes in full:

(A)—Conditions associated with the mesorchium: (1) The mesorchium too long, the testis would then hang too freely in the abdominal cavity, and would thus be prevented from engaging the ostium of the processus vaginalis; (2) adhesions between the peritoneum forming the mesorchium and the adjacent portions of the serous membrane, generally the outcome of intrauterine foetal peritonitis; (3) abnormal persistence of the plica vascularis.

(B)—Conditions associated with the testis and its component parts: (1) the spermatic vessels too short; (2) the vas deferens of insufficient length; (3) the epididymis abnormal in size; (4) fusion of the two testes—synorchism; (5) certain forms of hermaphroditism.

(C)—Conditions associated with the gubernaculum testis: (1) absence of the upper normal attachments of the gubernaculum; (2) deficiency of its muscular fibres; (3) deficiency or absence of its scrotal attachments.

(D)—Conditions associated with the cremaster: (1) Retraction of the testis after it has descended to its usual habitat in the scrotum; (2) want of action of the internal fibres of the cremaster before the testis has reached the inguinal canal.

(E)—Conditions associated with the route: (1) Ill-develop-

ment of the inguinal canal; (2) ill-development of the superficial abdominal ring; (3) ill-development of one-half of the scrotum.

(F)—Other conditions, such as the wearing of a truss preventing the onward passage of the organ into the scrotum.

The influence of heredity is conjectural, although Godard gives several instances of father and son who were subjects of this anomaly. He also quotes a case of Gosselin's, a man with one testis in the inguinal ring, whose father and son were similarly afflicted.<sup>5</sup> Hunter first taught that the testis fails to descend because it is imperfectly developed rather than that its failure of development is due to its retention.<sup>6</sup> This theory if true—and it has never been absolutely disproved—has the utmost practical bearing on the question of surgical treatment, as we shall presently see. Pohlman,<sup>7</sup> of the University of Indiana, has recently supplemented Hunter's theory by claiming that persistence of the Müllerian duct is responsible for many cases of retention, but the pursuit of his arguments would lead us beyond the scope of this paper. When one considers the lengthy course which the testis must traverse in its passage to the scrotum, the resistance it must overcome in transit, and that, with the foetus in utero, it ascends against gravity, and is unaided by respiratory movements, the wonder grows that retention is not commoner than it is. Indeed, it is easy to believe that there may have been a time in the evolution of the race when this deformity was less rare than at present; for although abnormal position of the sex glands may have nothing to do with the survival of the individual, yet it is highly inimical to the propagation of offspring. Hence these cases tend to become self-eliminating.

It is unnecessary to give a detailed description of the minute anatomy of the undescended testis, a most excellent resumé of which may be found in Odierne and Simmon's<sup>8</sup> recent report of 77 cases of cryptorchism. Briefly it may be stated that the seminiferous tubules are relatively fewer, smaller, and more widely separated by loose connective tissue than in the normally placed organ. In most cases, though not in all, neither spermatoblasts nor spermatozoa can be demonstrated in the tubules. A striking feature of the microscopic section is the presence of numerous interstitial cells with prominent deeply staining nuclei. Cells of this type are normally present in children but they disappear partly or entirely at puberty. Their

(<sup>5</sup>) *Etudes sur les Monorchides et les Cryptorchides chez l'Homme*, p. 16.

(<sup>6</sup>) Hunter: *Human Physiology*, 3rd edit, p. 411.

(<sup>7</sup>) Pohlman: *Has Persistence of the Mullerian Ducts Any Relation to the Condition of Cryptorchidism?* *Amer. Medicine*, Dec. 10, 1904.

(<sup>8</sup>) *Undescended Testicle*. *Annals of Surgery*, Dec. 1904.

function is still problematical, but it is generally believed that they are concerned in the so-called internal secretion of the gland and the development of the secondary sexual characteristics.

It has long been known that the function of the testis is a dual one, viz., the production of spermatozoa and the elaboration of an obscure internal secretion which exerts a remarkable influence upon the body in developing the attributes of masculinity. A familiar illustration of the result of depriving animals of this internal secretion is seen in the castration of young horses and bullocks. In consideration of these facts Halstead and others insist upon the importance of preserving even an atrophic and apparently worthless undescended gland when it is encountered in the course of an operation for inguinal hernia, where it is not infrequently found.

The question of the sterility of double cryptorchids has been hotly debated. For many years it was taught and believed that they were all sterile. Half a century ago Prof. Goubaux<sup>9</sup>, an eminent French veterinary surgeon, first called attention to the fact that undescended testes in horses are smaller and softer than normal and that the vesiculæ seminales of the corresponding side are destitute of spermatozoa. A little later Godard, Curling, and others reported numerous observations all tending to show that cryptorchids are invariably sterile; Griffiths,<sup>10</sup> as late as 1893, expressed doubt that there has ever been an authentic case of spermatogenesis in an undescended testis. Much of the clinical evidence to the contrary which we occasionally see reported in medical journals must be accepted with some reserve owing to the uncertainty in some cases as to whether cryptorchids are the fathers of the children attributed to them. Fortunately we have some evidence of a less doubtful character. Biegel<sup>11</sup> in 1867 found numerous spermatozoa in the semen of a double cryptorchid. Valette in 1869, and Hutchinson in 1876 (quoted by Curling) each found spermatozoa in an undescended testis after its removal.

Odiorne and Simmons relate the case of a double cryptorchid who was married at the age of twenty, and became the father of a boy ten months later. When seen four years afterwards he said he was leading an active sexual life but his wife had never again been pregnant. These and other authentic examples recorded in the literature seem to justify the conclusion that exceptions to the long accepted dictum that cryptorchids are sterile, are much more common than was

(<sup>9</sup>) Sur la Cryptorchidie chez l'Homme et les Principaux Animaux Domestiques, 1856.

(<sup>10</sup>) Jour. of Anat. & Physiol., 1893, Vol. XXVII.

(<sup>11</sup>) Virchow's Archiv. Vol. 38, p. 144.



formerly believed. In this connection it should be noted that practically all double cryptorchids to whom children have been attributed, have been young men. Indeed I do not know of a single recorded case of a man with double retention who is even alleged to have become a father after passing the age of thirty years. Bellingham-Smith<sup>12</sup> calls attention to this early decadence of fecundity and maintains the theory which has the support of some other writers, that while an undescended testis may for a time after puberty have the power of producing spermatozoa to a limited extent, it is in no case able to maintain this function longer than a comparatively few years, when the organ suffers further atrophy. This theory appears to have many facts in its support and few, if any, to contradict it.

Why should the testis descend into the scrotum at all? It would certainly seem better protected from trauma were it to remain within the abdominal cavity near the point of its development, or in a position corresponding to that of the ovaries. Indeed in certain mammalia, such as the cetaceans, the elephant, rhinoceros, civet cat, and the monotremes, the testes are not normally found in the scrotum. Curling suggests that in man the sex glands are so frequently affected by venereal diseases and by parotitis, that their presence in the abdomen would be a menace to the life of the individual. This argument seems rather far fetched. Another question which has been, and still is the subject of much speculation, is, Why do anomalies of position of the male sex glands interfere with their spermatogenic function? We know that not only in man but also in various domestic animals on which observations have been made the abnormally placed testis is practically always incapable of producing spermatozoa. Griffiths, in a series of operations on young dogs, replaced the testes within the abdominal cavity and found that the animals invariably became sterile. The sterility in man cannot be said to be due to an imperfect blood supply for the retained gland is often more vascular than the normally placed one. There seems to be at work in these cases of cryptorchism some subtle physiologic influence whose nature is but little understood.

**SYMPTOMS AND COMPLICATIONS.**—If the testis does not descend as far as the internal ring but remains entirely within the abdominal cavity it usually causes no physical discomfort. On the contrary it is less liable to traumatic inflammation than the normally placed organ. But, as previously stated, the abdominal position is far less common than the inguinal. Now, when the retained gland is in the inguinal position, as it is in the majority of cases, it is relatively immobile

(<sup>12</sup>) Guy's Hosp. Reports, p. 896, L. 215.

and is peculiarly liable to damage from trauma, from compression of the abdominal muscles in excessive coughing, straining, lifting, and the like. The undescended testis, even when atrophic and sterile, does not appear to be more exempt from inflammations secondary to venereal diseases and parotitis than the normally descended gland.

Cryptorchism is occasionally complicated by sarcoma and carcinoma with the preponderance of cases in favor of the former. The frequency of occurrence of malignant complication is exceedingly difficult to determine for there is much conflicting testimony on this point. Throughout last century Winters proclaimed with scarcely a dissenting voice that incomplete descent of the testis predisposed strongly to malignancy. Indeed, up to the present time nearly all advocates of surgical interference have adduced this alleged predisposition as one of their strongest arguments in favor of operation. More recently, however, Corner and others have maintained that the imperfectly descended testis is no more liable to undergo malignant change than the fully descended and developed one; and Eccles (*loc. cit.*), from a study of nearly 60,000 male patients admitted to a London hospital during a period of 15 years, has arrived at substantially the same conclusion. The literature abounds in reports of isolated cases of cryptorchism complicated by malignancy, but even the approximate percentage of this complication is still a matter of conjecture. The report from the Massachusetts General Hospital (Odiorne and Simmons) of 54 cases of malignant diseases of the testicle, of which six, that is 11 per cent., were imperfectly descended, and a similar report (Schädel) from a large London hospital, of 41 cases of which five, or 12 per cent., were imperfectly descended, tend to support the contention of the older writers.

While we must be guarded in our statements upon so mooted a question as this, yet we may say, pending further evidence, that the weight of testimony appears decidedly in favor of regarding malposition of the organ as a pre-disposition to malignancy.

Inguinal hernia is perhaps the commonest of all the serious complications of cryptorchism. The reason for this is manifest when we recall the anatomical conditions present. As already stated, whether the gland is arrested in the inguinal canal or whether it remains entirely within the abdominal cavity, the vaginal process of peritoneum descends into if not entirely through the canal. Moreover the vaginal process does not as a rule become constricted but remains in free communication with the general peritoneal cavity.

Thus we have present all the conditions for a potential if not an actual congenital inguinal hernia. The records of the Hospital for

Ruptured and Crippled of New York show that out of 49,859 cases of hernia there were 400 cases of hernia with undescended testis. Out of 48,000 cases of hernia collected by Eccles there were 854 imperfectly descended testes. According to Eccles hernia occurs as a complication of more than 50 per cent. of all cases of cryptorchism. Other writers estimate the proportion as high as 70 per cent. Owing to the persistence of the patulous processus vaginalis and certain other causes there is a strong predisposition to hernial protrusion in nearly all cases where it is not actually present. Just why strangulation should occur more frequently in hernia complicated by arrest of the testis is not positively known, but it has been suggested that the retained organ acts as a ball valve in preventing reduction of the hernia.

Curling, Coley, and other surgeons have noted a peculiar anomaly sometimes encountered in the course of operation, namely, that the vas deferens may be found coiled up like a bunch of worms in the lower end of the vaginal process, while the testis may be found two or three inches above this point. This is easily explained when we recall that the upper attachment of the vas is near the neck of the bladder, and it is therefore not as a rule the portion of the cord which is shortened. Occasionally, also, the epididymis makes its descent while the testis remains in the canal or abdomen.

Torsion of the spermatic cord with consequent gangrene of the testicle or at least a severe orchitis, is a distressing accident which is peculiarly liable to occur when the gland is imperfectly descended. Seudder<sup>13</sup> in his exhaustive study of the subject of torsion of the cord, found that in 47 per cent. of the cases he was able to collect the testis was undescended.

In addition to the pain and discomfort often caused by malposition of the testis, certain psychical disturbances must not be lost sight of. Cryptorchids are often sexual neurasthenics. Then again, such a defect in the genitals often excites suspicion of impotency. As illustrating the extent of the mental depression thus produced Curling relates the case of a pupil of Sir Astley Cooper who committed suicide because afflicted with this infirmity.

The failure of development of manly characteristics, both mental and physical, has been noted in a few double cryptorchids, but this lack of development is the exception rather than the rule.

TREATMENT.—It is not an easy matter to describe the present status of the surgical treatment of cryptorchism when surgeons disagree so radically as to what constitutes the indications for operative interference. There is likewise no unanimity of opinion as to what

(13) *Annals of Surgery* 1901, Vol. XXXIV, p. 234.

is the most favorable age for operation nor upon the technic to be employed when operation is once decided upon. When a cryptorchid is brought to the surgeon for advice and treatment the following points should be carefully considered: 1. Age of the patient. 2. Whether the deformity is unilateral or bilateral. 3. Whether pain or distressing psychical symptoms are present. 4. Presence or absence of complications such as concomitant hernia, hydrocele, and neoplasm, or torsion of the cord. 5. The position and degree of atrophy of the undescended testis.

The non-operative treatment of cryptorchism consists of massage and manipulation, suggested by Langenbeck, with a view to bringing an inguinal testis into the scrotum, or of the application of some form of truss above the gland to force or hold it down. This palliative treatment has been generally abandoned in favor of more radical procedures. The operations employed are of three kinds: (1) Orchidopexy (or orchidorrhaphy) which consists of bringing the testis down into the scrotum and fixing it there; (2) Orchidectomy; and (3) Replacement of the testis within the abdomen (Orchido-coelioplasty).

We have already seen that a large proportion of testes which are imperfectly descended at birth complete their descent within a few weeks or months thereafter. But as age advances the prospects for spontaneous descent become progressively less. Most surgeons who oppose operative interference before the age of twelve or fourteen years—and there are many who do—fall back upon the argument that there is always hope that the arrested organ will complete its evolution of its own accord before puberty. Too much weight should not be attached to this argument, for an examination of cases reported in the literature shows that the number of retained testes that descend unaided after the sixth or seventh year without a simultaneous rupture is almost a negligible quantity.

Another fact sometimes adduced in favor of non-interference during childhood is that during this period the sex glands are comparatively undeveloped and functionally inactive. Moreover, they are devoid of that peculiar sensitiveness to pressure known as the testicular sense which develops as puberty approaches. Consequently up to the age of eleven or twelve years there is rarely, in uncomplicated cases, any pain or abnormality referable to the mal-position of the organ. It is generally admitted, however, that the normal changes in the testis incident to puberty are, in some way not fully understood, markedly interfered with by its failure of descent. Hence, most advocates of orchidopexy who have placed themselves on record on this question, consider the last year or two preceding puberty as the most

favorable time for operation. Bevan and others, disregarding the slight prospects of spontaneous descent, advocate operation at a period several years earlier, believing that it is better to have the gland in the scrotum some time before the onset of the changes incident to puberty.

Bilateral cryptorchism certainly calls more urgently for operative interference than the single deformity, for here we have a condition which makes sterility almost inevitable. Furthermore, there are several cases on record in which double cryptorchids fail to develop manly characteristics. True, the results of operative treatment have not been all that could be hoped for, but the patient should be given the benefit of the chance. Serious complications such as hernia, torsion of the cord, or malignancy, usually demand operation regardless of age, with the exception perhaps of hernia in infancy and early childhood. Excision of the testis is rarely justifiable except in cases of malignancy, or gangrene from torsion of the cord. The proper disposition of an undescended testis when encountered in the course of an operation for inguinal hernia is a question which has confronted almost every surgeon of wide experience. Assuredly the gland should not be thoughtlessly sacrificed, as it sometimes is, with the statement that "the cord was too short to allow it to be placed in the scrotum, and besides the organ was functionless." How can the operator know it is functionless, since size of the gland is not always an index to function? The literature is replete with reports of isolated cases in which one or both glands have been excised for no other reason than the one above given. Halstead emphasizes the importance of the undeveloped testes in the male economy and urges that they be preserved. At the Vienna clinics even the atrophic testes are never removed as "experience has taught that if they are fixed in the scrotum before puberty they may yet develop to the normal state." In 38 operations for hernia accompanied by undescended testis Coley<sup>14</sup> found it necessary to excise the gland but once. Increased experience and improved technic will probably demonstrate that replacement of the testis in the abdomen is preferable to excision; and also that many spermatic cords which at first seem too short, can, with proper dissection, be made long enough.

Replacement of the arrested testis within the abdomen is seldom done in America, although it is not an uncommon practice among certain British and continental surgeons.

Corner<sup>15</sup> of London, who has operated upon 30 cryptorchids, is an ardent advocate of replacing the testis within the abdomen as op-

(<sup>14</sup>) *Annals of Surg.*, June, 1903.

(<sup>15</sup>) *British Med. Journal*, June 4, 1904, p. 1306.

posed to orchidopexy, or fixing it in the scrotum. He presents his view of the question so well that we herewith reproduce some of his arguments:

1—An undescended testis is nearly always physiologically and anatomically malformed and there is practically no hope of making it spermatogenic by fixing it in the scrotum.

2—The operation for orchidopexy necessitates considerable dissection for freeing the cord which frequently interferes with the blood supply and subsequent nutrition of the testis, whereas the gland may be returned to the abdomen without such interference.

3—An abdominal testis seldom causes trouble from pain and there is no conclusive evidence that it is more prone to malignancy than the normally placed organ.

4—Return of the gland to the abdomen permits complete closure of the inguinal canal for the permanent cure of accompanying hernia.

5—As a rule retrograde changes in the gland follow orchidopexy. He examined microscopically a testis 2 years after its fixation in the scrotum and found scarcely a trace of glandular structure left. And as for the psychical effect he adds that an intelligent patient's mind can scarcely be soothed "by the presence of a small hard mass on one side of the scrotum in striking contrast to the healthy testis on the other side."

Corner admits, however, that in those exceptional cases where the testis can be brought down without traction, orchidopexy is permissible.

The above arguments are presented because they represent one view of treatment of cryptorchism which is not commonly accepted and often not even considered in America. Most American, German, and French surgeons consider orchidopexy the operation of choice for the vast majority of cases, though there is considerable difference of opinion as to the most favorable age for operation, and as to the operative technic.

In cases uncomplicated by hernia the operation is usually done as follows: An incision is made as for inguinal hernia and the inguinal canal is laid open for its entire length. The processus vaginalis is usually found patulous and communicating freely with the belly cavity. If the testis is not already exposed to view, a little search will generally disclose the remains of the gubernaculum, gentle traction on which readily brings the gland within reach of the operator. Now comes the most difficult part of the operation—that of freeing the spermatic cord from its attachments and adhesions so as to give it sufficient length to permit the testis to rest in the bottom of the scrotum without traction. Bevan insists that it be sufficiently detached so

that the gland may be brought down on the thigh at least three inches below the external ring. To the neglect of this precaution he believes are ascribable many of the recurrences and bad results following the operation. In older patients the serotum may be greatly atrophied on the empty side. But two fingers thrust forcibly into it from above will usually make a sufficiently large nidus for the testis. The vaginal process of peritoneum is divided above the testis and the proximal end treated as a hernial sac. Most operators suture the distal portion in such a way as to make a new tunica vaginalis. Opinions differ as to whether the testis should be anchored in the serotum by suture. Some operators sew it to the dartos, others to the skin at the bottom of the serotum, and still others object to any retention suture.

Ruff<sup>16</sup> modifies Katenstein's technic by suturing the canal in such a way as to produce slight pressure on the cord. The resulting edema of the testis increases its weight and offsets the tendency to retraction. Ordinarily the incision should be closed as in the Bassini operation for hernia.

As already stated the freeing of the cord from adhesions and attachments so as to give it sufficient length is the most difficult part of the operation. So great is this difficulty that it has led some surgeons to abandon the operation as impracticable. For the small class of cases in which the cord cannot by any amount of dissecting be given sufficient length, Bevan<sup>17</sup> has devised an operative procedure for which he claims originality, which consists of dividing between ligatures all the spermatic veins and the spermatic artery. This leaves only the vas deferens and the small artery of the vas.

Now, as the vas deferens is practically never the part of the cord which is too short, this division of the spermatic artery and veins readily permits the testis to be brought down as low as is necessary.

This raises the important question as to the fate of the testis after the spermatic artery has been divided. In one of my first operations for varicocele I had the misfortune to cut the spermatic artery and was ill at ease for a few hours thereafter, until, after considerable reading, I learned that gangrene almost never occurs after such an accident. The reason is that the small artery of the vas, which is a branch of the inferior or middle vesical, is sufficient to supply the epididymis and to a limited extent the testis also. Ten years ago Joseph Griffiths<sup>18</sup> ligated the spermatic arteries of a series of dogs without

(<sup>16</sup>) Ein Vorschlag zur Operation des Kryptorchismus, Centralblatt für Chirurgie XXXI, No. 40.

(<sup>17</sup>) Jour. Amer. Med. Ass'n., Sept. 23, 1899.

(<sup>18</sup>) Jour. of Anat. & Physiol. 1895, Vol. 30.

resulting gangrene in any case. As early as 1878 Mifflet,<sup>19</sup> at the suggestion of Langenbeck, made a similar series of experiments on dogs, and while he did not produce gangrene in any case, he found that hemorrhagic infarcts were always formed in the testis and the nutrition of the gland was impaired. Bevan<sup>20</sup> reports over 100 operations of varicocele in which he divided the spermatic artery and veins without gangrene in a single case, and also without any apparent interference with nutrition. Corner (*loc. cit.*) believes that if such cases were examined long enough after operation atrophy would be found in practically all of them.

Dr. C. H. Mayo informs me that he does not hesitate to divide all the structures of the cord except the vas in those cases where it is necessary to give the cord greater length. Until numerous observations have been made to determine the ultimate results of this procedure, months and years after operation, it will still be a subject of controversy.

In justification of orchidopexy as a routine operation for young cryptorchids no set of statistics speaks more strongly than Broca's.<sup>21</sup> He operated on 138 cases, all of them children, and was able to observe the results in seventy-nine one year after operation. In 31 of these the testis was normal in size and position; 30 were of normal size but placed high in the scrotum; only 13 were atrophied. Bevan claims for his more limited series equally good results.

Before closing I desire to make a brief report of two cases operated upon recently at Appleton by my associate, Dr. V. F. Marshall, and myself.

CASE 1.—Harry M., aged 14; left testis had failed to descend but could be palpated in the upper part of the inguinal canal. There were no symptoms referable to mal-position of the organ until about two years ago when the gland became sensitive and sometimes painful, especially when the patient coughed or exercised vigorously. On several occasions the boy had to leave school on account of the pain thus produced. During this period nocturnal enuresis was quite troublesome. Operation March 6th, 1905, at St. Elizabeth's Hospital. An incision  $3\frac{1}{2}$  inches long was made over the inguinal canal extending downward as far as the upper border of the scrotum. The canal was slit open and the empty processus vaginalis of the peritoneum exposed and divided. The proximal end of the divided processus vaginalis was ligated and returned to the abdominal cavity, while the distal portion was used to make a tunica vaginalis testis.

(<sup>19</sup>) Langenbeck's *Archiv.* Band XXIV, p. 23, also *Archiv. of Clin. Chirurgie* 1879, Band XXIV, p. 399.

(<sup>20</sup>) *Jour. Amer. Med. Ass'n.*, Sept. 19, 1903.

(<sup>21</sup>) *Gaz. Hebdom.*, 1899, Vol. IV, p. 289.



After freeing the spermatic cord from adhesions, the testicle which appeared normal in size, was brought down with little difficulty and sutured to the dartos at the bottom of the scrotum. The incision was closed as in the Bassini operation for hernia.

*Results of operation.*—At the last examination several weeks ago, the testicle was a little higher in the scrotum than its fellow but was normal in size and entirely free from pain and tenderness. The enuresis has disappeared.

CASE 2.—Harold L., aged 9 years. Right testis arrested in upper part of inguinal canal. It never caused trouble till May 7th, 1905, when a strangulated hernia made its appearance on the same side. The hernial protrusion receded spontaneously, however, after a few hours. Operation, May 8th, 1905, at St. Elizabeth's Hospital. The technic was in every way similar to that in the preceding case except that the testicle was sutured to the bottom of the scrotum by means of a silkworm gut suture passing through the skin. The retained testicle in this patient was somewhat smaller than normal.

*Results of operation.*—The hernia is apparently cured and the testicle is in the scrotum. There is no pain. In both these cases it is too early to state the end results of the operation so far as the effect upon function is concerned.

CONCLUSIONS: 1.—Practically all cryptorchids, if seen before puberty, should be operated upon whether symptoms referable to the deformity are present or not. This conclusion seems justifiable when we consider (a) that a potential if not an actual hernia is always present; (b) that hernial strangulation and torsion of the spermatic cord are strongly predisposed to by this condition; (c) that an inguinal testis is peculiarly liable to trauma from external violence and from muscular exertion; (d) that imperfectly descended testes appear to be affected by malignant neoplasms oftener than when in their normal habitat in the scrotum; (e) that psychical disturbances in the patient may arise later; (f) that, even should operation fail to lead to further development of the gland, it will usually do no harm by way of disturbance of function, for it has been shown that practically all misplaced testes lack the spermatogenic function anyhow, and (g) that many able surgeons tell us that their results in these cases have been such as to warrant the foregoing conclusion.

2.—The most favorable age for operation is from 5 or 6 to 12 years. After puberty the hope of improving the function and development of the testis by operation is very slight.

3.—Orchidopexy, or fixing the testis in the scrotum, is the operation of choice. Removal of one testis is rarely justifiable and castration *never*, unless the gravest complications demand it.

4.—My personal opinion is that many of the reports of cases appearing in the literature are worse than worthless because the ultimate

results of operation have not been observed with sufficient care. What is needed is more accurate observation of the end results of surgical treatment and then absolute honesty in reporting the truth.

#### Discussion.

DR. W. E. FAIRFIELD, of Green Bay—Dr. Echols criticises the application of the terms monorchid and cryptorchid to cases where the testicle is not present in the serotum, and yet is present in the body. I think it would be as well to allow that nomenclature to stand, because we ordinarily speak of a condition in which the man is without a testicle in the body as being one of *anorchism*, and not cryptorchism.

Again, in the description of cases of undescended testicle, he classifies those that are found in the perineum as undescended. Perhaps they would be better described as displaced, because they really have descended. A testicle which has descended too far could not well be called "undescended."

Dr. Levings will discuss the treatment of this condition and as I have occupied your attention this afternoon for some time, I will make way for him.

DR. A. H. LEVINGS, of Milwaukee—I desire to congratulate the doctor upon his very scholarly address, showing as it does great research.

I think the subject of undescended testis has not received the attention which its importance deserves, in that retention of the testis favors malignancy, favors hernia, and neurasthenia. It favors sterility in that the gland, primarily somewhat atrophied, undergoes further atrophy if allowed to remain in or near the inguinal canal. This atrophy is usually due to an overgrowth of the connective tissue or to fatty degeneration. If the gland is placed normally within the scrotum, this degeneration probably does not occur, and the function of the organ is preserved. There can be no doubt in the minds of pathologists at least that an atrophied gland retained in the inguinal canal where it is subjected to so much traumatism by muscular action, coughing, straining, lifting, and as the result of blows and injuries, is predisposed to malignancy. That is the general and accepted idea.

I believe further that in consequence of this non-descent, a great many, perhaps the majority of these patients become excessively nervous; they suffer from melancholia and neurasthenia; and they also suffer a great deal of pain, which is another reason why operation should be undertaken.

And then a hernia is present in more than 50 per cent. of these cases.

What are the indications for operation? The most favorable time seems to be, as has been stated by the essayist, from the 6th to the 12th year, before puberty, before, perhaps, the processes leading up to puberty have commenced; and when the condition is complicated by a hernia, an operation is always indicated. When the condition is giving mental or physical distress, when the gland is palpable, when it can be felt, or when it can be seen within or near the inguinal canal, operation should be undertaken.

Now, the operation was, I believe, a difficult one until within the last two or three years, because the technic was imperfect. It was found very difficult in many cases to place the gland at the bottom of the serotum and retain it there; it has been demonstrated to my mind conclusively, in my operations at least, that the reason why the gland did not descend in the majority of cases and why it could not be brought down, was that it had contracted adhesions to the parietal peritoneum; it was fixed there, you could not drag it

down with any reasonable force, and you cannot in the great majority of cases, until you have divided all of its peritoneal attachments—(what the doctor speaks of as the *processus vaginalis*). You must free absolutely, perfectly and completely, all of its peritoneal attachments, and then in the great majority of cases, at least in my experience, you can bring down the gland to the bottom of the scrotum, where it will remain without any effort.

I think the plan suggested by Dr. Bevan and spoken of by the essayist in cases in which you cannot bring the gland down, to divide the vessels of the cord, excepting the vessel of the vas and the vas itself, is a good one. I cannot believe that the division of the cord in these cases is of any serious moment, because in at least some hundreds of operations for varicocele I have always made it the rule to divide all the structures of the cord excepting the vas and its immediate vessel, resected one, two or more inches of the cord and all of its structures, uniting them again with catgut, and in only one case have I seen atrophy or other disturbance, and that was due to infection. So in the very rare exceptional cases in which you cannot bring the gland down after dividing all the peritoneal attachments, I think you should divide the spermatic vessels, artery and vein, and resect them, and you will be justified in so doing.

DR. P. L. SCANLAN, of Prairie du Chien—In one case I found epilepsy was associated with that condition, and after operation the epilepsy became less, and I believe the number of fits, as we say, has been not more than one-third those that were present before. Also in this case the father and each of the brothers in the family have had inguinal hernia. Inasmuch as no speakers have mentioned epilepsy in connection with this particular condition, I think perhaps it is worthy of mention.

DR. ECHOLS—I am well satisfied with the discussion and have little to add. Dr. Fairfield's point regarding the use of the word "undescended" I think well taken. That is a word used in our older nomenclature, and the use of the expression "imperfectly descended" is certainly preferable. For a gland that has descended through the canal and that has been pushed or drawn to one side, is descended but it is imperfectly descended.

The vas is almost never too short. The spermatic artery, you will remember, comes off rather high, near the point of development of the testis, whereas the vas deferens descends during fetal life, so that its upper attachment is near the neck of the bladder. Therefore the vas is not only long enough to permit the testis to be brought down into the scrotum, but is usually longer than is necessary. In a number of operations on cryptorchids it has been found coiled up like a bunch of worms in the *processus vaginalis*.

As a word of warning, or rather of caution, to those operators who are inclined to be overenthusiastic about the results of their operations, I want to reiterate one or two points made in the paper: first, that we are not yet certain that Hunter was wrong when he said that the gland fails to descend because it is already physiologically and anatomically imperfect. If he was right, of course our chances of improving the function of the gland by operation are not so good as we could hope for.

Another point is that it is difficult to determine whether we have actually improved the function of the gland by operation or not. I have not been able to find a record of a single case in the literature where it has been proven positively that a gland which was already sterile has been made spermato-

genic by operation. We believe that such has been the case, although it is very difficult to prove it positively.

A third point of caution is, that many operators are inclined to rush into print too early in giving the results of their operations on this condition. The cases are sometimes examined a few weeks or months after operation, while the edema from operation still persists, and finding the gland as large if not a little larger than its fellow, they give out the report that the gland has not suffered any atrophy, while perhaps if they examine the same case a year or two afterwards, when the edema is all gone, and secondary atrophy has set in, they might be obliged to report the cases somewhat differently. Nevertheless, for reasons already assigned, I am in favor of operation in practically every case, especially if the patient is seen before puberty.

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### THE CLINICAL ASPECTS OF DIABETES.\*

BY CLARENDON J. COMBS, M. D.

OSHKOSH, WIS.

A great deal of study and investigation has been done upon the pathology and treatment of diabetes mellitus, but as yet the correlation of these isolated facts into a working basis is far from perfect. With all of this work accomplished, the clinician has still to be satisfied with the fact that diabetes mellitus is a disease in which sugar is excreted in the urine in excess. We say in excess, because it has been shown that sugar may be excreted in the urine in proportions as high as 2 per cent. in a perfectly normal condition. Simply the presence of sugar in the urine should not be taken as sufficient evidence to make a diagnosis of diabetes, except when associated with some of the other symptoms, as polyuria, polydipsia, gangrene, etc.

The copper test should never be relied upon as furnishing conclusive evidence, but should be controlled by the fermentation test.

There are to be considered two forms of diabetes, acute and chronic. The chronic may exist for an indefinite time with or without acute exacerbations. The acute form of the disease is seen more particularly in children and those below forty years of age. Numerous cases have been reported where diabetes was not suspected until a few hours before death. It is impossible in these cases to say how long the disease had existed, as evidence of coma may be the first symptom noted.

That there should be a great variation in the symptoms, is not to be wondered at, when we consider the great variety of pathologi-

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cal changes associated with it. It is hard to determine whether these changes are secondary to the diabetic condition or are the cause of the disease. Many without doubt are secondary, as those of the kidney and heart (probably due to the excessive work placed upon them by this disease), and of the lungs, which invite infection on account of the lowered vitality of the individual; while those of the pancreas, liver, and nervous system, and perhaps changes in the internal secretion of the suprarenal and thyroid glands, may be primary causes of the disease.

A consideration of the symptomatology of the disease must of necessity deal very largely with the complications, as they are almost invariably present and modify the course of the diabetic condition, and the complicating diseases are modified by it.

The cases reported below illustrate several interesting clinical features.

The points are as follows:

1. That there is not necessarily any noticeable reduction in weight even after a long period of the disease.

2. That a patient, apparently enjoying perfect health, may be the subject of very grave pathological changes usually associated with diabetes.

3. That in a condition of diabetic coma there may be an almost complete consolidation of both lungs without temperature, pain, cough, or expectoration.

4. That unless a complete diagnosis is made at a post mortem, or if only a portion of the diagnosis is made public, it may work incalculable harm to the physician making the clinical diagnosis.

5. A condition alluded to by Starks as an anomalous type of the disease, where there is a diabetic dyscrasia without the presence of sugar.

CASE 1. R. A. McC., traveling man, aged 40, married, height 6 feet, weight 225 pounds.

Patient came to my office on December 17th, 1904, suffering from an abscess in palm of left hand which he said he had injured by striking the corner of a car seat in an effort to prevent a fall as the train was rounding a curve. Upon inquiry he assured me that he was enjoying his usual good health. I have since learned from a physician in the northern part of the state that the patient had complained to him three years before of symptoms which the physician thought were due to diabetes, but no examination of the urine was made.

An incision was made and a hot dressing applied, with instructions to continue the same. The next day he stepped into my office to assure me that he was all right.

On the 19th I was called to the house, as he was having considerable pain. I found the wound closed, and under a local anesthetic the opening was enlarged. Temperature at this time was 101°. Pulse accelerated.

On the 20th he reported a restless night and that he felt nervous, but that the pain was less; temperature normal; abscess draining well.

On the 21st he reported that he was still very nervous and was constipated. I gave him calomel and left codeine to be taken to lessen pain and quiet him, which later developments showed was better treatment than I then knew. Temperature at this time was subnormal and continued so to the end. Wound draining well.

On the 22nd there was a dark gangrenous area around the wound. He was very restless and complained of nausea and anorexia. Upon closer inquiry it was found that he drank large quantities of water and that when about had a ravenous appetite, but he did not place any weight upon this as it had been a habit for years. He was then informed of his probable condition; but as it was impossible at the time to get a specimen of urine, examination of it was postponed until the following day. This information did not seem to surprise him in the least. I advised the continuation of the codeine.

On the 23d a specimen of urine was obtained and the suspicion of diabetes confirmed. That this was not the result of the ingestion of sugar was quite certain from the fact that his diet had been very limited for at least forty-eight hours before, and had not to my knowledge contained any starch or sugar. The urine also contained albumen, and hyaline and granular casts; specific gravity 1035. Unfortunately a quantitative estimation was not made.

As the nervousness was increasing and there was considerable nausea, weak, rapid pulse and other symptoms portentous of oncoming coma, the friends were informed of the danger and a consultant called in.

On the 24th there was much the same condition somewhat exaggerated. Examination of the lungs at this time showed beginning consolidation over the lower lobes with moist râles over the entire lungs, which, as there was neither cough, chill, pain, expectoration, or rise in temperature, and was associated with a very weak heart action, was considered to be of hypostatic origin.

From this time on until his death forty-eight hours later, there was a steady progress, ending in a comatose condition.

No specific history could be elicited in this case.

Clinical diagnosis: primary disease, diabetes mellitus; secondary cause of death, diabetic coma; complicating conditions, gangrene of palm of left hand, chronic nephritis, hypostatic pneumonia.

The pathological report, which was made as the result of an autopsy four weeks after death (performed in the hope that there would be some evidence produced entitling the widow of the deceased to the benefits of an accident policy carried by the deceased) is incomplete, only the gross anatomy being given.

I am indebted to Dr. C. M. Taylor for what knowledge I have of the post mortem, which I was not invited to attend because of my refusal to give any encouragement to the idea that the alleged injury had any connection with the cause of death.

Pathological report: Well nourished man, height 6 feet, weight about 225 pounds.

Base of palm of left hand, evidences of abscess cavity. Incision over this one inch long, no evidences of swelling. Removed V shaped piece for examination. Gangrenous condition extends laterally one inch and forward into the hand one inch. Veins and arteries in arm, to and including axilla, show no evidence of disease. Likewise the glands of the same area are normal. No evidence of infection in arm or axilla. Brain normal throughout, also membranes and vessels. Diaphragm pushed to level of lower border of third rib. Omentum tucked in between liver and chest wall. Peritoneum normal. Bladder contracted, normal and empty. Liver enlarged one-half and extending upward to third rib, and down two inches below the costal border. Hard, showing sclerosis. Gall bladder, no stone, contains bile. Heart very much enlarged, one-half larger than normal. Walls of both auricle and ventricle thin, and cavities dilated. Mitral valves smooth. Aortic valves normal. Coronary arteries normal. Lower lobes of both lungs and base of middle lobe consolidated. All of the lungs except both apices consolidated. Recent interlobular infiltration, with thin fibrous bands between lobes. Pancreas and spleen enormously large. Kidneys both enlarged, so-called large white kidney.

Diagnosis: Immediate cause of death, double lobar pneumonia.

This case illustrates the first four of the points above given: That the patient, although evidently suffering from diabetes for years, never lost weight; although having grave pathological changes he assured me within a week of his death that he felt well; there was almost complete consolidation of both lungs during the coma, without pain,

cough, temperature or expectoration; also the apparent discrepancy (to the laity at least) between the clinical and pathological diagnosis.

The second case to be reported illustrates the fifth point, viz., diabetic dyscrasia, without the presence of sugar.

W. H. B., aged 42, married, male, saloon keeper, formerly a locomotive engineer, weight formerly 265 pounds but at present only 225 pounds, height five feet five inches.

Present trouble dates back over a period of fifteen years, previous to which he had been perfectly well except for an attack of typhoid fever when about fourteen years of age.

Family history shows nothing except that he comes from a family of plethoric people.

About fifteen years ago he began to develop abscesses in various parts of his body. Some of these were connected with the bone and were operated upon. Others were superficial and developed in the abdominal wall, fleshy part of the arm, thigh, etc. There is little pain in connection with them except what might be explained by pressure when a particularly large collection of pus developed, as there sometimes did, containing as high as a quart of pus before they gave any trouble. There is seldom any temperature and very rarely does it exceed 102° F.

He has been under my observation for five years. The pus when evacuated has at first a yellow color, which soon changes to a condition resembling a thick tomato soup. The abscess drains for a week or two when it closes without giving any further trouble, except that the site of a previous abscess predisposes that part to a future infection.

With this history of abscess formation, he also gave a history of a voracious appetite, great thirst, and the passage of large quantities of urine. Repeated examinations of the urine, however, failed to show the presence of sugar. This continued for about four years when he commenced to lose flesh, and, as the urine had not been examined for some months, it was now examined, and was found to contain 3 per cent. of sugar.

Upon the adherence to a strict diet his general condition began to improve and the sugar disappeared. He was given arsenic and morphine. It had been previously noted that when it became necessary to give him morphine for the relief of pain it required a large amount to have any effect.

In this last case the only explanation I could ever make of it was that it was one of those cases of diabetic dyscrasia in which the sugar did not occur in the urine for a long time.



**Discussion.**

DR. C. O. THIENHAUS, of Milwaukee: From a surgical standpoint, the question which anesthetic is to be employed in diabetics in ease of operation, is of paramount importance. It has been shown decisively that chloroform is a most dangerous anesthetic to be used with patients suffering from diabetes. Local anesthesia is preferable and desirable if practicable, but where general anesthesia is required, ether is the proper agent to be employed.

Another precaution has to be taken in all operations on diabetics, and that is, the patient should be given large doses of alkali, such as bi-carbonate of soda, either by mouth, rectum or subcutaneously before operation, up to the point of alkaline reaction of the urine.

The surgeon who does not take such precautions before and during operation on diabetics must not be surprised at sudden deaths following operation.

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**THE ACUTE DIARRHEAS OF CHILDREN.\***

C. D. BOYD, M. D.

KAUKAUNA, WIS.

The difficulty in arriving at a satisfactory classification of diarrheas in children is apparent when one finds classifications as varied as there are writers upon the subject. The object, in classifying diseases, is to convey some idea of the etiological factor or the pathological condition, thereby affording a suggestion for a more intelligent treatment. The pathology of the diarrheas is often variable, frequently being out of proportion to the symptoms: most intense symptoms are many times associated with slight pathological changes, and a grave pathological condition as often gives rise to only slight disturbances. Our present knowledge of the cause of these diseases appears to be incomplete. The future will probably enlighten us in this respect and supply us with the information for a more definite nomenclature. At present there appears to be no satisfactory basis upon which we may intelligently classify the diarrheal diseases. The general impression conveyed by the literature on this subject, is that usually diarrheas in their earlier stages are irritative and non-inflammatory, becoming, if continued, in a few days inflammatory, and also the belief that cholera infantum and ileo-colitis are distinct diseases and due to a special micro-organism.

THE COURSE.—Mechanical and chemical irritants, as medicines, improper and indigestible food, toxic substances, nervous agencies as dentition, fright, infections and sudden changes in body temperature, excite an increased secretion and peristaltic action resulting in

\*Read before the Outagamie County Medical Society, June 6, 1905.

loose evacuations or a non-inflammatory diarrhea. If the above causes are continued and the condition is allowed to persist, pathological changes occur as a result of decomposition of the bowel contents, the accompanying condition favoring the multiplication and activity of bacteria; thus we have the inflammatory or ordinary catarrhal form. In this way any of the more severe forms may be engrafted upon one of the milder cases. A *predisposition* to attacks is furnished by anything operating to weaken the resisting power of patients, such as syphilitic, tubercular and other dyscrasia, age (four-fifths of all cases occur between the ages of six and eighteen months), and summer heat. The idea that has been prevalent regarding summer heat as a predisposing factor has been attributed to constitutional depression, the effects of foul gases. The view held at present is that it is only a greater evidence of the infective nature of diarrheas. The greater development and distribution of bacteria during warm weather offer more sources of contamination of the food through handling by water used in washing utensils or in the preparation of food and milk—the chief article of diet in these cases, containing in summer enormous numbers of bacteria which increase rapidly at high temperatures.

*The Active Cause* in these diseases is believed to be primarily indigestion, the undigested food in the stomach and bowels being particularly susceptible to fermentative changes and the resulting medium favorable to the operation of bacteria. It is generally conceded that ileo-colitis is due to the Shiga bacillus, except the tropical form which is of amoebic origin. Shiga of Japan first demonstrated this and has been sustained by Flexner and Strong and also by Krause of Germany. The bacillus is transmitted by dust, flies, hands, very rarely by water. No definite conclusions have been reached regarding the microbial cause of cholera infantum although the sentiment prevails that a specific cause will be found. Escherich (*Medical News*, 1904) believes that streptococci are the invaders. The course of the disease does not seem to bear out this idea. Bookes thinks the proteus group are the offenders. It being more closely connected with impure milk than any of the other forms of diarrhea it has been thought that it may be due to a poison developing in the milk previous to its ingestion. Considerable investigation has been carried on to determine a bacterial cause of the inflammatory or ordinary summer diarrhea. The Rockefeller Institute of Medical Research, in their report of 1904, record finding the Shiga bacillus in 63 per cent. of 412 cases examined. As many as forty different varieties of bacilli have been found in a single case. Besides the infection from without it is thought possible that poisonous substances may be produced chemically in the food during diges-

tion. There are others who believe that some of the saprophytic bacteria in the bowels may under favorable conditions become pathogenic. No definite conclusions have as yet been reached. There are no pathological changes found in the gastro-intestinal tract in the acute mechanical or non-inflammatory forms. In the inflammatory type catarrh is the prevailing lesion and varies in intensity; usually it is in patches rather than general; the colon, lower ileum and stomach are the most affected; the duodenum and jejunum are usually only slightly involved; ulceration rarely occurs. In most cases of cholera infantum the whole lining of the digestive tract has a pale appearance, the epithelium is detached in places and bacilli are found in the submucous coat. The essential lesion is a degeneration of the epithelial lining of the bowel. In about half of the cases of ileo-colitis the colon is alone involved, and in the remainder the disease extends into the ileum. In the milder cases there is infiltration of the epithelial layer, in the more severe cases the submucous layer is involved and frequently results in ulcerative processes.

*The diagnosis* of the irritative non-inflammatory from the ordinary inflammatory type may be difficult, and for all practical purposes it is unnecessary; the fever in the former is lower and temporary, while it is high and more prolonged in the latter. Passages are much more offensive, constitutional depression and nervous phenomena are more pronounced in the inflammatory form. Ileo-colitis is distinguished by a greater amount of pain, bloody stools and tenesmus. Cholera infantum is a rare disease and is characterized by its sudden onset, severe constitutional effects and the number and inoffensiveness of the passages.

*Prophylaxis* in all forms of diarrhea is practically the same. To afford the greatest resistance to the invasion of the causative factors of these diseases, the maximum healthy development of body and digestive function by proper quantity and quality of food should be sought. This is exemplified in a baby intelligently nursed by a healthy mother under good hygienic surroundings. As most of these cases are fed artificially, and the primary cause is indigestion, the prophylaxis hinges on infant feeding. The subject is too large to go into extensively at this time. However, some points are too important to pass, and the old maxim: "Imitate mothers' milk as near as possible," still stands.

Considerable information on infant feeding has been given us recently, and with our present understanding I believe I may say that none of us are justified in prescribing any of the proprietary baby foods. It has long been known that the proteids in cows' milk

was the principal element in causing digestive troubles, and in the effort to suitably modify or dilute that element the other constituents of the milk were thrown out of proportion. The reason for the failure of infants to easily digest the proteids of cows' milk has been made plain by learning the fact that the proteid constituents, namely caseinogen and lactalbumin, were present in widely different proportions than in human milk, caseinogen, the most indigestible element, being five times greater in cows' milk and the lactalbumin somewhat less in amount. In the making of whey, by curdling cows' milk with rennet or pepsin and removing the curd, we eliminate the caseinogen and retain the lactalbumin. As a consequence we are now enabled to so modify each important constituent of cows' milk that an almost perfect artificial food may be produced. Again, mothers' milk is sterile, and this gives us a clue, as it has been demonstrated that milk containing a certain number of bacteria per cc. invariably causes digestive disturbances and diarrhea. The trend of the present day is for cleanliness, bordering on asepsis in the dairy and in the handling of milk. Sterilization and pasteurization are an improvement over raw, unclean milk, but there is a possibility that it may produce some undesirable changes in the milk. C. Kerley, A. H. Griesher and G. T. Meyers say that mothers' milk is acid; they claim that litmus paper is unreliable and that wrong conclusions may be reached from its use. They are of the opinion that the addition of lime water or soda to milk to produce alkalinity is erroneous.

TREATMENT.—The first indication for treatment in all cases of diarrhea, except cholera infantum, is to clear out the intestinal tract; this should be done early and thoroughly. For this purpose I prefer repeated small doses of calomel, and this should be repeated during the course of the disease if indicated by high fever and offensive scanty stools. After the bowels have been thoroughly evacuated it is policy to refrain from giving any food that will leave a residue in the stomach or bowels. Milk is absolutely contraindicated. Whey, albumin water, meat juice and broths with the grease removed, may be given with discretion. Many times it is advantageous to keep everything in the line of nutriment out of the stomach for twelve to twenty hours, gradually beginning with some of the above and carefully adding rice or barley water and later cautiously returning to milk. In the non-inflammatory form the above procedure is usually all that is necessary. In the inflammatory, in addition, the tendency lately is in favor of gastric lavage and colonic flushing. Gastric lavage can be performed easily in a child under two years of age and is of great benefit, particularly when there is persistent vomiting. For colonic

flushing a weak saline solution should be used two or three times a day. Bismuth in large doses, I believe, does all that any other drug will do in these cases. Opium should never be given before the preliminary purge nor where there is a high fever. There is some question whether it is ever indicated. When stimulants are needed brandy is the best. Normal saline solution may be used subcutaneously with benefit in a weak depleted condition. It is generally advised that ileo-colitis should receive the same treatment as the above. Personally I have never been disappointed with results from the old calomel and ipecac treatment. The treatment of cholera infantum demands a special reference as vomiting is usually persistent. Washing out of the stomach is especially indicated as also is colonic flushing with cold water. If thought best it should be practiced frequently. Small doses of morphine and atropine hypodermatically are strongly recommended by Holt. Brandy is used freely as a stimulant and the subcutaneous injection of salt solution will be of material assistance in restoring the loss of water that occurs with this disease.

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#### TUBERCULOSIS IN THE GOAT.

The United States Department of Agriculture has recently issued a brochure that is of much interest. While goats' milk, as an article of food, is not in great demand in this country, there are certain peoples who use this product as freely as we do the milk of the cow. Our special interest attaches to the reputed immunity of the goat to tuberculosis. Now that the theory so long held that tuberculosis is hereditary is fast losing ground, and the disease is gradually being recognized as purely an acquired infection, analogous reasoning leads us to ascribe to the same cause the infection in animals. And so, while knowing the actual rarity of this disease among goats, the knowledge that it does exist among them, though it is uncommon (in Prussia, in 1899, 47,705 goats were killed, of which 148 or 0.41 per cent. were infected; while in Kiel, in 1896, 45.82 per cent. of all cows were tuberculous) would seem to justify the suggestion of Mr. Thompson, the author of this treatise (*Information concerning the Milch Goats. Bulletin No. 68. Bureau of Animal Industry*) that the comparative freedom from tuberculosis enjoyed by the goat is due to the feed, the climate of the places in which the animal is found, and the exercise obtained in running over the mountain sides: "in other words, its freedom may be due to environment rather than to physiological immunity."

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### EDITORIAL COMMENT.

#### UNITY, PEACE AND CONCORD.

In taking his departure from the United States, Dr. Osler preached a sermon on the text "Unity, Peace and Concord."

If the subject matter of this farewell address could be graven on the mind of every medical practitioner and student, and result in a line of conduct accordingly, the medical millennium would be here.

There are upwards of one hundred thousand medical men in the United States. Their characters have been but little if any changed by the circumstance that they became students and later practitioners of medicine. They would have been what they are, or worse, had they become preachers, lawyers, dentists, pharmacists, or business men in any other calling.

The most virulent and acrimonious quarrels in medicine have been over questions concerning which no positive knowledge existed. When it was announced that seven-eighths of all internal diseases were "caused by the itch driven in," no one could produce any evidence to the contrary, and it *might* possibly be true. A most desperate war was waged over this opinion. Now that we know that the assertion is idiotic drivel no one argues the point. And thus, as discovery after discovery is made, it develops that the only points of difference among physicians, especially as to therapeutics and etiology, are in matters concerning which we have no positive evidence. Why therefore quarrel? Let each be persuaded in his own mind and act accordingly, as he is in duty bound to do.

Intelligent and honest men in the practice of medicine deprecate the existence of "schools of practice" even in name, and look forward to the not distant day when there will be no such thing as "Sectarian" medicine. Every reputable and legal practitioner of medicine is now invited to join the county, state and national medical societies without regard to whether he bases his practice, or part of his practice, upon exclusive dogmas or not, and it is our earnest hope that in the near future there will be but one medical organization in this state and nation.

Another point, concord, is specially to be insisted upon. Doctors of medicine are as good as other men, and on an average better than any other class. They are as intelligent as any other class of men, and on an average more so.

If physicians could be induced to recognize these facts—and frequent contact with one another would convince them that they are facts—and would refuse absolutely to believe the malicious slanders concerning others communicated to them by their patients, concord would be the inevitable result.

The recent reorganization of the medical profession in America has already accomplished much and is destined to accomplish more, until Unity, Peace, and Concord shall prevail throughout the realm of medical practice.

#### **A THERAPEUTIC ADVANCE.**

Those who have kept en courant with the literature of the past few years, will have noticed that there has been a gradual but decided tendency to emancipation from set notions in the medical and dietetic treatment of the sick. The impression is gaining ground that many organic diseases are merely local manifestations of systemic affections,

and the narrow view calling for active treatment that was formerly directed solely at the diseased organ, completely neglecting the system that suffered in sympathy, has given way to a rational, broad conception of disease as it affects the whole body aside from a mere local manifestation or intensity of symptoms. It seemed contrary to sacred tradition to replace the milk diet of typhoid fever with an equally—if not more easily digestible and more liberal diet, thereby conserving the invalid's strength rather than reducing it by an illjudged process of starvation.

Latterly a great share of attention has been bestowed upon the subject of nephritis, with special reference to its diagnosis and treatment. We note with pleasure that work in this line was crystallized at the recent meeting of the American Medical Association, in the symposium on 'nephritis.' It was emphasized that the presence of albumen and casts is not the only essential necessary for a diagnosis of nephritis, in fact, that they may be absent in nephritis, and present without justifying a diagnosis of nephritis. It is the general condition, including the state of heart and arteries, that makes a diagnosis possible. "Interstitial nephritis is a local manifestation of arteriosclerosis rather than an example of true nephritis." This newer conception allows us to deduce the treatment, which is well summarized in the *Medical News*, July 15, 1905:

"With reference to treatment, two different elements were considered most important. In chronic nephritis the patient's nutrition must be maintained and too much liquor must not be advised, as this only overworks the heart without compensating advantage. In acute nephritis, starvation is the indication, as it gives the kidney as nearly a complete rest as possible; in the acute exacerbations of chronic nephritis the same rule must hold as far as the patient's strength will permit. Here great care is required. Undoubtedly more harm than good has been done in the past by too great a limitation of the diet.

The emaciation so commonly seen in nephritis is more often the result of too strict diet than effect of the kidney lesion. It was emphasized that the dietetic distinction between red and white meats usually made has no justification in their respective effects, and that the maxim of exclusive milk diet for kidney disease has done more to lower resistive vitality than to save the kidney from irritation."

Our patients will welcome a change of heart on our part in the treatment of nephritis as well as of typhoid fever, for no one who has not experienced it, can possibly know how loathsome the sight of milk becomes, and nauseating its taste, to the sufferer, who, by his physician's misguided effort to reduce to a minimum the irritation of food, has been subjected to an absolute milk regime. Added hereto is the



fact that the efficacy of this treatment is of doubtful, even harmful character.

The publication of the articles composing this symposium will be awaited by physicians with great interest, and the adoption of this newer conception of the disease, and the treatment suggested, will prove a turning point in the mode of caring for nephritics, and will in itself indicate a distinct therapeutic achievement.

#### NOTIFICATION OF INFECTIOUS DISEASES.

In a circular letter issued by the Health Department of Milwaukee, attention is called to the fact that after August 1st, 1905, Chapter 192 of the laws of Wisconsin, 1905, entitled "An Act Prescribing the Duties of Physicians and Others Relative to Infectious Diseases," will be strictly enforced.

In reviewing this act, it will be noticed that practically all of the communicable diseases are hereafter to be reported to the local health boards. The new list embraces typhoid fever, tuberculosis, erysipelas, chicken pox, whooping cough, plague, yellow fever and cerebro-spinal-meningitis, all diseases which were heretofore not included.

The necessity of reporting chicken pox rests not so much upon the importance of the disease *per se* as upon the liability of a mistake in diagnosis between chicken pox and a light form of variola.

The records of the local health department show that this has occurred repeatedly during the past two years, and in a few instances has been the direct cause of an extended outbreak of smallpox in certain localities. The same conditions apply to röteln and measles. Typhoid fever is another disease that requires close observation by the health authorities. In many instances epidemics of this disease have been cut short by prompt action in locating and removing the cause; but unless all cases are regularly reported by physicians, health boards will be greatly handicapped in their efforts in combating this disease. To illustrate a case in point: Some weeks ago Milwaukee's water supply showed unmistakable signs of pollution, incidentally accompanied by a slight increase in the number of reported cases of typhoid fever. The department called attention to this fact through the daily press with the result that within the next few days a great many cases were reported: this seemed, to all intents, the beginning of a typhoid fever epidemic, but during the following week the number of cases again fell to normal. This incident demonstrated that physicians were

not reporting their cases promptly, but were roused to do so only through the medium of the press, thus probably including all cases that came to their notice during the previous two or three weeks. Thus there is clearly demonstrated a need for the co-operation of all physicians, so that local health boards may improve upon existing conditions and guard against serious outbreaks of any of the preventable diseases.

The propriety of including tuberculosis in the list of reportable diseases cannot now, nor will it ever again, be seriously questioned. The opposition it met with some years ago was based on a mistaken conception of the correct relationship of health authorities to the medical profession, and the public at large. The object in view in including tuberculosis in the list is to prevent its extension and to promote the recoveries of those already stricken.

Tuberculosis is a dangerous, communicable disease, but fortunately, both preventable and curable. With our present knowledge of its mode of propagation and the necessary factors conducive to its spread, it becomes the imperative duty of every physician, when called upon to attend a case, to immediately inform both patient and relatives of the true condition, so that proper precautionary measures may be adopted to guard against the infection of other members of the family. As long as the consumptive remains in ignorance of his actual condition, he will be a continual source of danger to himself as well as to the rest of the community.

We sincerely hope that the physicians of this state will recognize the importance of this measure, and will give their hearty co-operation in enforcing its provisions.

#### **TROPICAL ANEMIA.**

Quite in line with the most excellent work done in Cuba after American occupation, in stamping out yellow fever, and in putting the island in a sanitary condition, are the efforts recently made to rid Puerto Rico of its "uncinariasis" or "tropical anemia."

This disease has long been indigenous to this island, and in epidemic existence among the natives. The Commission for the Study and Treatment of Anemia in Puerto Rico, appointed by the Government, has submitted its report to the Hon. Beekman Winthrop, Governor of the Island. This report, issued in December 1904, deals elaborately with all phases of the investigation and indicates a most thoroughly performed task.

It had previously been established that tropical anemia was caused by the presence of a small worm (uncinaria or ankylostoma) in the intestines of the patient, and this was corroborated by the thousands of examinations of feces made by the members of the commission. The disease is characterized by a profound anemia, which is frequently fatal, and it is estimated that 90 per cent. of the rural population in all parts of the island, are affected. It is known, too, that the disease is usually contracted by the penetration of larvæ (which live in the soil, being deposited in the human excreta) through the skin, and this is easily accomplished because the natives walk barefooted. Therefore the prevention of soil-pollution by the building of simple latrines and educating the natives to their use, or by urging the burial of human excreta, will prevent the spread of the disease.

The treatment employed met with most satisfactory results, thymol being the vermifuge almost entirely relied upon. The only other medication employed consisted in the administration of iron, in the form of Peptomangan (Gude), or Bland's, Vallet's, or Blancard's pills. The success attained is measured by the following records: Of a total of 5,490 cases treated, 2,244 were cured, 377 practically cured, 1,727 improved, and the balance unrecorded.

With the adoption of the recommendations of this Commission, we may in time hope to see "tropical anemia" classed as a disease purely of historic interest.

#### THE NEW YORK BOARD OF HEALTH.

It may not be generally known that there is at least one city in this country whose health board has the courage to act upon its convictions. Long ago the health officers of the city of New York recognized the communicability of tuberculosis. After this knowledge had been sufficiently grounded, they succeeded in having consumption declared a notifiable disease. Then began a crusade that had for its object the prevention of contagion by the only means at hand—disinfection, isolation, better hygienic surroundings, and instruction of the sick. But this was found insufficient, for it was soon discovered that the poor consumptive either could not or would not surround himself with measures to safeguard the health of others, and as the patient was branded as bearing a communicable disease, it became a logical conclusion that the municipality must care for such a one just as it protects the public against smallpox and other infectious diseases. Following this line of argument, several buildings on North Brother Island have

during the past eighteen months been devoted to the care and treatment of the city's consumptives, and a plan is now under way to erect a large pavilion in addition to accommodate almost one hundred patients.

With this means at hand the health department will have the facilities to enforce its right to compel the removal of consumptives, who, by refusing to undergo hospital or other care, prove a menace to their surroundings. These may seem drastic measures, but they are not more so than are similar measures in the municipal control of other contagious diseases. It is in line with our present progress to vouchsafe the prediction that before long other health boards will enforce their prerogatives as conservators of the public's health, and other municipalities will make provision similar to those so ably begun by the New York Department of Health.

#### PROGRESS IN DISINFECTION.

It has been an open secret that the methods of disinfection in common use are not always as efficacious as is the general belief, and certainly one in whose home one or more rooms have undergone formalin disinfection will not speak with enthusiasm of the disagreeable after effects and persistency of this chemical.

A contributor to a German journal of chemistry demands that a disinfectant, in order to be acceptable and practical, have the following properties: It must destroy bacteria without injuring the fabrics disinfected; it must have no bad odor; it must not be expensive. For disinfecting barbers' tools, it is now recommended to use a 50% solution of alcohol. The handling of bristles and skins is an important problem. Exposure to light and drying, according to von Esmarch, destroys germs, but salting hides favors the preservation of anthrax bacilli. A 1:1000 solution of corrosive sublimate or a one per cent. solution of formalin vapor will destroy these germs.

Greater interest attaches to the statement that "the inspector of the disinfection office of Turin has instituted an innovation in destroying germs in dwellings. He uses a 1 per cent solution of sal soda for cleansing floors, whereby the bacilli of diphtheritis and typhus are killed within one minute. The use of poisonous corrosive sublimate does not remove the dirt in which living bacilli are still found after disinfection."

If further experiment proves these claims to be facts—and the determination of this is a simple matter—we have added materially to

our armamentarium. It will, at any rate, dispel the fallacious idea that when a floor or article of furniture has been washed with a bichloride solution, all germ life has been destroyed. *H. L. T. C.*

### PROTECTION AGAINST DRUG POISONING.

We quote, without further comment, the following paragraph from the United States Consular Reports, as indicating the extraordinary power wisely vested in the pharmaceutical society of Great Britain. Unquestionably, a poison such as carbolic acid, which may here be obtained for the asking and is so frequent a cause for suicide, falls under the ban by some other provision of the same law.

"The general pharmacy act of 1868 vested some special privileges in the council of the pharmaceutical society of Great Britain, which at its April meeting resolved that each of the following articles should be deemed a poison within the meaning of the general act: Cocaine and its salts, picrotoxin, acetanilide, preparations of cocaine, digitalis and its preparations, mercuric iodide, mercuric sulphocyanide, soluble salts of oxalic acid, strophanthus and its preparations and sulphonal. The resolution also directed that picrotoxin and cocaine and its salts should be deemed poisons in the first part of Schedule A of the act.

"When the resolution has received the formal approval of the privy council it will have the force of law, and the effects of it will be: (1) That the drugs named, when sold, must be labeled with the word 'Poison,' and the name and address of the seller; (2) that in the case of liquids, they must be sold only in bottles readily distinguishable by touch from ordinary medicine bottles; (3) that they may be sold by registered chemists and druggists only. In the case of cocaine and its salts and picrotoxin, it will be necessary, in addition to the observance of the precautions stated, that the purchaser be personally known or introduced to the seller, and that his name be signed in the chemist's poison register."

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**A New Hospital in Manila.**—The foundation of a new nonsectarian hospital is announced in the city of Manila under the direction of the Sisters of St. Paul of Chartres. A training school for nurses will be added to "give selected Filipinas an opportunity to secure the training and the useful and profitable occupation such as may be had in the United States." There will be a free dispensary, and nothing emphasizes the need of this more than the fact that the infant mortality in Manila is over 60 per cent. The building to be occupied for the present is said to be the largest and handsomest building in Manila, and was originally intended as a theological seminary. It will be rearranged and refitted with all modern hospital equipments and will have a capacity of 250 to 300 beds. Dr. John R. McDill, formerly of Milwaukee, is the president of the medical board and the surgeon-in-chief, and Dr. Wm. E. Musgrove, the physician-in-chief.

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NEXT ANNUAL SESSION, MILWAUKEE, JUNE, 1906.

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## SOCIETY PROCEEDINGS.

### THE PORTLAND MEETING.

The opinion seems quite unanimous that, all in all, the Portland meeting of the American Medical Association was one of the very best, if not the best, in its history. Portland is a long way off from most of the membership—thousands of miles—yet the actual registration was 1,714—which is larger than that of any previous meeting before 1900. Not only was the attendance large, under the circumstances, but the whole meeting reached a high-water mark. The annual orations were of superior excellence. The section work was never better. The work of the House of Delegates, as to quantity and quality and harmony of action, was admirable, and an abundant vindication of its existence, while the social features and entertainment were beyond praise. Without doubt this very favorable opportunity of seeing the grand scenery of the West was a strong inducement to attend the meeting.

So it turns out, with our experiences behind us, and at home once more, we are all ready to affirm, with enthusiasm, that it was verily,

“the trip of our lives.” This was especially true of those who were so fortunate as to be one of the party which made up the complement of the “Wisconsin-Minnesota Special.” This was a special train made up at St. Paul, and consisted of four Pullman sleepers, two of which were filled with Wisconsin physicians, quite generally accompanied by their wives, and the other two with members of the profession from Minnesota and the Dakotas. Later two more Pullmans were added, filled with representatives from Missouri, Iowa and Nebraska—making a train of six sleepers, with about 125 passengers, all under the efficient charge of Mr. C. C. Trott of Milwaukee, the District Passenger Agent of the Northern Pacific railroad, who gained the heartfelt gratitude of all on board for his watchful care for our comfort and welfare and his gentlemanly demeanor.

The Wisconsin contingent consisted of Drs. A. H. Levings and wife, W. H. Neilson and W. A. Batchelor of Milwaukee; B. M. Caples and wife of Waukesha; A. A. Trevitt and wife of Wausau; Edward Evans, wife, daughter, and niece of La Crosse; J. M. Evans and wife of Evansville; E. H. Grannis of Menominee; H. Gasser and wife of Platteville; C. A. Hayes and wife of Chippewa Falls; L. A. Larsen of Colfax; J. F. Pember and wife and E. F. Woods and wife of Janesville; L. A. Potter and wife of Superior; C. S. Smith and wife of Elroy; R. R. Chase of Eau Claire, and C. S. Sheldon and wife of Madison. Of these, Drs. Edward Evans, Caples and Sheldon were the delegates from our State Society. Our route from St. Paul was via the Northern Pacific, with five and one-half days in the Yellowstone, by the way. To say that the makeup of this party of doctors and their wives was *congenial* entirely fails to express the good fellowship which prevailed from the very first, or the delightful friendships which were formed in the close association which such a trip affords. The memory of those days will be to us a joy forever.

There is no time to tell of the other things on the journey—of the joyous and wonderful week in the Yellowstone, culminating in the indescribable beauty and sublimity of the Grand Canon—of the cordial reception and entertainment by the physicians of Spokane, Seattle and Tacoma, and of our arrival at Portland, happy, and not so very tired. The fortnight or so which most of the party spent in Portland was filled to the utmost in attendance on the sessions of the Association, a glimpse at the Lewis and Clark Exposition, entertainments and trips in various directions, including a day or two at Seaside, on the shores of the Pacific. The special train was here left and all were at liberty to choose their route homeward. So there was a scattering to Alaska, and California, and even to the Sandwich Islands;

but most of us chose to come back by the Canadian Pacific. This included a delightful day-trip up through Puget's Sound from Seattle to Victoria, and another from Victoria to Vancouver, with a day's visit to each of these most interesting Canadian cities. From Vancouver our faces turned eastward, and, as we climbed up and over the Canadian Rockies, we found there had been reserved for us visions even grander and more impressive than we had seen before. Hereafter, "Glacier," "Saygon," "Banff," "Lake Louise" and "Lake Agnes" will be not names or places merely, but delightful memories. So we came home, all firmly convinced that it makes the very best sort of a vacation for a lot of well-behaved doctors and their wives to go together to the meeting of the A. M. A. Already some are planning the trip to Boston and back next year.

A word as to the business of the meeting:

The addresses of the president and the orators, in medicine and surgery and state medicine, were all on a high plane and will repay careful perusal. The Oration on Medicine, by Dr. Stockton of Buffalo, on "The Delay of Old Age, and the Alleviation of Senility," was admirable, both in form and matter. The subject chosen was exceptional and was treated in a most skilful and entertaining manner.

The oration on surgery, by Dr. J. Collins Warren of Boston, dealt with the Relations of the Surgeon to the Pathologist—especially as regards benign tumors of the breast—and was an exceedingly valuable contribution to one of the most important surgical questions of the day. The oration on State Medicine by Dr. Blumer of San Francisco, was very timely just at the present time, and treated of the influence the acquisition of tropical territory is exercising on American Medicine.

Much important business was transacted by the House of Delegates, the proceedings of which were characterized by directness, good-feeling and harmony.

The amendment was adopted whereby, hereafter, the arrangements of the Annual Meeting shall be placed in the hands of the Trustees and the cost be defrayed by the Association, thus relieving the local physicians, at place of meeting, of that burden. It also places the responsibility as to the character of the mercantile exhibits where it should be—with the Trustees.

It was decided that the Association should publish a complete directory of all licensed physicians (similar to Polk's) and that the Trustees be permitted to purchase Engelhard's Standard Directory as an aid to the work, if thought desirable.

The nostrum evil, and the advertising of nostrums in the Journal



of the A. M. A. received considerable attention. A resolution was adopted whereby the Trustees are instructed to abide by the rule announced in 1900, requiring printed formulæ with all advertisements of medical mixtures.

The Association honored itself, and set its seal of approval upon one of the ablest and cleanest men in the profession, in selecting Dr. Wm. J. Mayo of Minnesota as President-elect. It also wisely re-elected Dr. Simmons as Secretary.

The next meeting will be held on the other ocean—at Boston, date not yet announced. The Oration on Medicine will be delivered by Dr. F. B. Shattuck of Boston; on Surgery by Dr. Joseph D. Bryant of New York, and on State Medicine by Dr. Wm. H. Sanders of Alabama.—(C. S. S.)

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#### CALUMET COUNTY MEDICAL SOCIETY.

The regular meeting of the Calumet County Medical Society was held at Stockbridge, June 22, 1905.

Dr. J. E. Luce presented a paper on the subject of *Medical Ethics*.

After the society meeting a picnic dinner was served in a beautiful grove on the east shore of Lake Winnebago, and was participated in by many of the members of the society, their families, and a few invited guests. After this a yacht was chartered and all spent a couple of hours on "Old Winnebago." The outing was much enjoyed by all who were present.

G. P. MCKENNEY, M. D., *Secretary*.

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#### DUNN COUNTY MEDICAL SOCIETY.

The Dunn County Medical Society held its regular monthly meeting at Menomonie, Aug. 15, 1905.

A case of prostatitis and enteritis was reported by Dr. Butler and generally discussed. Dr. Gramis gave a brief report of his experience at the meeting of the American Medical Association held at Portland in July. Motion made and carried that the Secretary be requested to explain matter of examination for Fraternal Orders to one of our deluded members.

Upon discussion it was decided that the next meeting should be purely social, in the form of a basket picnic for the members and their wives, to be held at Colfax, Sept. 12.

B. J. STEVES, M. D., *Secretary*.

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#### GREEN LAKE-WAUSHARA AND FOND DU LAC COUNTY MEDICAL SOCIETIES,—JOINT MEETING.

A joint meeting of the Green Lake-Waushara Medical Society and the Fond du Lac County Medical Society was held at the Oakwoods, Green Lake, August 9th. The Sheboygan County Society was invited but sent their regrets.

The meeting was called to order about 11:30 A. M. in Amusement Hall with a fairly good attendance from both societies. Dr. G. V. Mears, president of the Fond du Lac County Society, presided.

Without any preliminaries the president proceeded to the program, the first number of which was an informal talk by Dr. Otho Fiedler, of Milwaukee, on *Laboratory Methods in Diagnosis*. Dr. Fiedler spoke of the various methods for examining the more commonly known germs. He said that tuberculosis was to be suspected if there is continued rapid pulse with little or no temperature, and the bacilli looked for; occasionally tubercle bacilli are not found even when the disease has advanced to cavity formation in the lungs. Pus from psoas abscess and suppurating glands usually gives negative results on examination for tubercle bacilli. In acute cases of gonorrhoea the germs are easily recognized, in chronic cases not so easily. Growth should be tested on plain or blood agar and the results of decolorizing by Gram's method observed.

The next paper was by Dr. L. P. Hinn, of Fond du Lac, on the subject of *Anesthetics*. He said in twenty years of practice he had administered anesthetics 1,800 times. In 100 cases A. C. E. mixture was given, in 100 cases ether was given, and the rest were given chloroform, though some few were changed from chloroform to ether. Dr. Hinn then confined his remarks to chloroform as an anesthetic. The physiological action of chloroform, and the indications and contra-indications for its use were enumerated. He found that women bear chloroform better than men, that frail people bear it better than more robust subjects, and children and old people better than middle aged. Dr. Hinn has had no deaths from anesthesia.

The meeting then adjourned to the dining room.

F. A. READ, M. D., *Secretary*.

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## BOOK REVIEWS.

**Manual of Psychiatry.** By I. ROGUES DE FURSAC, M. D., formerly Chief of Clinic at the Medical Faculty of Paris. Translated from the French by A. J. ROSANOFF, M. D., Junior Ass't. Physician L. I. State Hospital, King's Park, N. Y. Edited by JOSEPH COLLINS, M. D., Prof. Dis. of the Mind and Nervous System in the N. Y. Post-Graduate Medical School, etc. 352 pp. Cloth, \$2.50. (John Wiley & Sons, New York, 1905.)

While this excellent manual cannot take the place of other more full and extensive English works, it could not fail to be of advantage to any student, practitioner, or even alienist specialist who will give it an attentive reading.

De Fursac follows Kraepelin's lead in classification and yet gives much most useful and instructive summation of the French literature of Psychiatry—the fruit of wide knowledge and reading.

The chapter on etiology does not do much more than illustrate our ignorance. Great stress is justly laid on predisposition, but in speaking of it as "latent or apparent, congenital or acquired" we are given but a loose conception, and to say that "psychoses of the *cerebrum validum* do not exist" is a truism. It is interesting to know that the maximum of incidence of insanity occurs in June and the minimum in January; also that "While in France itself the number of suicides in the army is 29 per 100,000, in Africa it rises to 69, and in the English army it is 23 in the British Isles and 48 in India."

The greater frequency of insanity among railroad employees is noted and attributed to jarring of the train and heavy responsibility; to these should be added, in our opinion, the greater amount of excesses in venery and venereal disease—the legitimate result of greater exposure and opportunities, rather than any greater natural immorality. But we might give pages to the chapter on etiology alone. Space is only available, however, for one or two additional remarks.

In the chapter on practice or therapeutics we think undue prominence is given to chloral hydrate and the doses recommended are rather massive.

In the classification of Kraepelin which de Fursac follows, Kraepelin's earlier, and, as we think, more practical plan, is followed of placing paranoia among "Psychoses without a well determined etiology—apparently based upon a morbid predisposition," and "dementia præcox" is mentioned under "Psychoses of autointoxication" which Kraepelin later set up as a generic title with "hebephrenic," "katatonic," and "paranoid" species, thereby adding to the confusion which was already great enough. It is noteworthy that infectious toxic causes and autointoxication play a most extensive rôle in this as in all present classifications.

The discussions of alcoholism and of syphilis as to its causation of general paralysis are especially interesting, and we recommend highly the usefulness of this book in which the work of the translator and of the editor have been well performed. (R. D.)

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**Handbook of Human Physiology.**—W. NAGEL, Berlin, in conjunction with many collaborators. Vol. III. Physiology of the Sensory Organs. 806 pp. with 134 illustrations in the text and two plates. (Braunschweig, F. Vieweg and Sohn, 1905. 22M. \$5.50.)

Since the appearance of the great handbook by L. Hermann, 25 years ago, the views on many points in physiology have changed, new methods of investigation have been devised, and entirely new fields of research have been explored, so that a modern book like that of Nagel, of which thus far the third volume is published, will be extremely welcome. Not only the physiologist, but the zoologist, anatomist, pathologist, psychologist, ophthalmologist, aurist, etc., and not least the general physician who are constantly confronted with physiological questions will derive special benefit from such a more exhaustive work. The chief object of the book is the physiology of man and the physiology of animals has only so far been drawn upon, as the latter serve in experiments as substitutes for man. A greater space is given to those chapters which are of most interest to the physician.

The third volume commences with a general introduction to the physiology of the sensory organs, and contains a very clear and critical discussion of the doctrine of the specific energies of the senses by Nagel and an essay on psychology of the senses by J. von Kries. The physiology of the visual organ is divided into dioptrics and accommodation by F. Schenck, the action of light on the retina by W. Nagel, visual sensations by J. von Kries, ocular movements and visual perceptions by O. Zoth, nutrition and circulation of the eye by O. Weiss. The physiology of the hearing organ is by K. L. Schaefer, smell and taste, perceptions of position, motion and resistance by W. Nagel, physiology of the perception of pressure, temperature and pain by Thumberg.

As will be seen from this enumeration, the single chapters have been allotted to competent investigators who by their original research have become famous in their respective fields. They are written in a very clear, attractive style with due consideration of historical development, as well as the questions of the day, judiciously criticizing the various opposing views. Numerous illustrations help to elucidate the text. The external appearance of the work, print and paper are in accordance with the well known superiority characteristic of the publications of this renowned firm. (C. Z.)

**Die Wirkungen von Arzneimitteln und Giften auf das Auge.—Handbuch fuer die Gesammte aertzliche Praxis.—**(The Action of Drugs and Poisons on the Eye.) By PROF. L. LEWIN, Berlin, and H. GUILLERY, Oberstabsarzt, Coeln. Vol. 2, 1046 pp., with fourteen figures in the text. August Hirschwald, Berlin, 1905. (26 M. \$6.50.)

The first volume of this admirable work was reviewed in the February issue (p. 542) of the JOURNAL. The larger part of the second volume, 750 pages, is devoted to the fungi pathogenic to the eye and represents a complete bacteriology of the eye. It is preceded by a very lucid introduction setting forth the authors' views on the action of fungi, which materially differ from those in vogue, and, like a dominant motive pervade the special chapters. Three groups of morbid changes of the visual organ which may be brought into etiological connection with the action of germs are distinguished: (1) Those due to a local infection. (2) Those due not only to local, but also to a general infection of the body and secondary absorptive processes. (3) Those due to the latter only, excluding ectogenous infection. Of the chronic and acute infectious diseases merely those are considered, the causes of which are attributed to certain micro-organisms. The so-called toxins are mixtures of very indefinite chemical character of bacterial poisons with culture soils, and are, in the authors' opinion, albuminous and of enzymatic character. The possibility is not to be doubted that certain fungi may produce poisons which may prove detrimental to the eye or other organs. They create diseases of the tissues and secondary, frequently powerful, poisons. The latter, also of enzymatic nature, may independently spread and set up further morbid changes, even without the presence of the original toxic agents. An illustrative example is the complete absence of bacilli in tubercles of the iris. Since the development of the toxic substance depends on the cultural soil it is wrong to vindicate to every fungus a distinct poison for the diseases caused by it. Therefore, the authors assert that there are no specific diseases peculiar to the various micro-organisms which may create inflammations of the eye. Consequently a specific action of curative sera is not admitted. Diphtheria antitoxin, *e. g.*, is considered as a derivative of albumen with certain chemical energies on the living tissue, which perhaps produces inflammations, loosening pseudomembranes and changing existing inflammations. This counter irritation may give a stimulus to the life of the cell. But it has nothing to do with the neutralization of the diphtheritic poison.

In the seventh chapter poisons of inflammatory and escharotic action are discussed, as products derived from certain plants, anorganic and synthetic substances, acids, metals, alkalies, etc. Guillery found that corneal opacities caused by lime hydrate of sodium and potash, may be materially cleared by

eye baths of chloride of ammonium. Then follow chapters on the effect of antipyretics, antiseptics and anthelmintics on the visual organ.

The literature is extensively and critically utilized, and an abundance of abstracts of recorded clinical histories is added to each section. Ample space is also given to the treatment, thus enhancing the practical usefulness of the book. A very carefully prepared index of subjects and of authors completes the volume. It is a very conscientious work, the most exhaustive of its kind, and of the greatest value not only to the ophthalmologist, but to every physician. (C. Z.)

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**Essentials of the Practice of Medicine.**—By WILLIAM R. WILLIAMS, A. M., M. D. (W. B. Saunders & Company, Philadelphia and London.) Price, \$1.75 net.

The enormous sale (over 250,000 copies) of the Saunders Question-Compend is the best evidence of the popularity of these "self-helps to students and physicians." This volume, a double-number of 450 pages, treats of the diseases of various organs, arranged in accordance with the usual classifications current in most larger text-books. After the abbreviated description of each disease under the sub-headings Etiology, Lesions, Symptoms, Complications, Varieties, Prognosis, Diagnosis and Treatment, there is a series of leading questions that enable the student to review the section satisfactorily.

While this manual cannot replace our newer text-books of medicine, it has, with others of its class, a well deserved place upon our shelves for purposes of ready reference. Though no claim to originality is made by the author, this book is a most excellent one of its kind, and is built on not nearly so condensed and fragmentary a plan as were some of the earlier ones of this series. We can safely recommend the purchase of Dr. Williams' "Practice of Medicine" to those who desire their larger text-books supplemented by a smaller, reliable, ready reference book. (A. J. P.)

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## CURRENT LITERATURE.

**Prophylaxis and Treatment of Gonorrheal Salpingitis.**—EDWIN RICKETTS (*Lancet-Clinic*, Aug. 12, 1905) discusses under this title the ever interesting subject of gonorrhea in the female. After touching upon the moral and legal responsibility of men with a latent gonorrhea contemplating marriage, he outlines his method of treatment.

With a gonorrheal urethritis in the female the patient should be put to bed and treated as considerately as though she had a gonorrheal ophthalmia. Cleansing of the parts should be resorted to twice daily, followed by medical applications. The cervix should be protected with especial care, first by local applications, to be followed by being "hooded" twice daily with a good sized tampon that has been saturated with Bals. Peruv. or other remedy of choice.

In cases where the infection has spread to the endometrium, dilatation, gradual or rapid (with anesthesia), should be practiced with an application of pure carbolic acid followed immediately by alcohol, leaving a strip of gauze for drainage. Curettment should never be employed in acute cases.

For the prevention of pyosalpinx, cold douches, where tolerated, yield the best result.

Pus tubes should be dealt with conservatively and operative interference generally delayed until the acute symptoms have subsided. (G. C. Ruhland.)

**Excision of the Thyroid Gland and Roentgen Therapy in Graves' Disease.**—CARL BECK (*Berlin. Klin. Woch.*, 1905, No. 20, p. 593), observed striking improvement of tachycardia and nervous condition after a few sittings with X-rays in two women, in whom he had removed one-half of the thyroid gland 13 and 18 months previously. A third case is reported in detail, in which exophthalmus and tachycardia completely subsided under X-rays, applied immediately after wound healing. He attributes these favorable results to the specific influence of Roentgen rays on the walls of the blood vessels in Graves' disease, which is characterized by abundant vascularization. He advocates in lighter cases general treatment combined with energetic Roentgen therapy, preceded by extirpation of one-half of the thyroid gland in the more severe. (C. ZIMMERMANN.)

**Appendicitis in Children.**—R. C. DUN (*Glasgow Med. Jour.*, June, 1905), thinks that the text-books do not adequately describe this subject. Most of his cases were in children between the ages of ten and fifteen, due to errors of diet, constipation, and strains, which are more frequent predisposing causes in children of this age, than in those of an earlier age. His youngest patient was twelve months, while in the medical literature there was one case recorded only seven weeks old. Abscess is more frequent in children than in adults, as a result of the early and mild attacks of appendicitis in children being overlooked and not treated properly.

Diagnosis is more difficult in children than in adults, especially in the first attacks, which are usually slight, also because of the similarity of symptoms to simple gastro-intestinal troubles incident to childhood.

Symptoms usually present are as follows: 1. Pain in abdomen referred to umbilicus. 2. Tenderness on pressure in right iliac region. 3. Nausea with vomiting; latter more frequent in these mild attacks in children than in the equally severe types of the disease in adults. 4. Flatulence. 5. Tenesmus. 6. Diarrhea; (latter most frequent symptom in children, corresponding to the constipation in adults). 7. Child is peevish, temperature normal, and pulse rate is but slightly increased.

These symptoms may disappear in a few hours. Such a combination of symptoms, especially if of frequent recurrence without any clear exciting cause should make one think of appendicitis.

In addition to the above, the more severe types present the following symptoms: slight rise of temperature, 97° to 103° F.; the abdominal muscles over right iliac region are "on guard"; while in rare cases one may palpate the enlarged appendix. To eliminate colic and acute indigestion the following should be of assistance: in colic, pain is not so severe, or localized; there is no tenderness, or fever, and attacks do not last as long as in appendicitis.

From indigestion diagnosis may be impossible at first. In indigestion pain is not usually localized, is less severe, fever may be present, there is no tenderness over right iliac fossa. Children subject to colic and indigestion, have factors present that tend to appendicitis.

Diagnosis is not so difficult if there is a localized plastic peritonitis. In such cases diarrhea is present instead of constipation, muscular rigidity well marked, local resistance to palpation with dullness is present, and greater general constitutional disturbance. Right thigh not always flexed; depends on inflammation involving psoas muscle. Bladder irritation, either painful and frequent micturition, or retention is common.

Bimanual examination, one hand on abdomen, and finger in rectum often aids the diagnosis. Fecal accumulation feels "doughy," is movable, with no pain, and rarely any temperature, and often felt on left side as well as right.

Is it a plastic, or a purulent inflammation? answer to this affects both prognosis and treatment. If it is the suppurative variety, the following will help us:

When acute symptoms last four days despite all treatment, it usually means abscess. Again, if all other symptoms subside, but temperature remains up, or if temperature falls to normal, and afterwards becomes irregular, there is probably an abscess. Rigors are rare in children. If local swelling persists, after all other symptoms disappear pus has formed. Examination per rectum, and may reveal fluctuation.

The leucocyte count may help; if pus is present, one will have more than 15,000 per cu. mm.

From chronic abscesses no difficulty in diagnosis exists, if hip, spine, and sacro-iliac joints are examined carefully.

It is more difficult to eliminate a breaking down mesenteric, or retro-peritoneal gland. A thorough abdominal examination under an anesthetic may be necessary, and then one may find multiple glandular enlargements.

Gangrenous appendicitis, with perforation, and general peritonitis may be found in children. Symptoms of general peritoneal infection mask those of appendicitis. Cause may be elicited from history of case.

It is not difficult to differentiate these appendicitis cases from those of acute intestinal obstruction, intussusception, hernia, etc.

Treatment.—Even if mild attack patient should be kept in bed for several days after all symptoms have disappeared. While vomiting lasts give sips of hot water. Do not give opium; pain can be relieved by hot fomentations. No purgatives should be used; if constipated give enemata. If child has gone through two or three typical attacks of appendicitis, remove appendix.

Attacks of pain suggesting appendicitis do not warrant a laparotomy.

When localized peritonitis is present, wait till acute symptoms subside, then operate; treatment should be similar to mild cases, except that belladonna can be used both internally and externally with hot fomentations for pain.

While waiting for this "quiescent period," if pus forms, operate at once, and if appendix is lying free remove it. If firmly adherent do not disturb it. Simply drain, and if symptoms follow later after abscess cavity has closed, it will be easy to remove. When perforation, with general peritonitis occurs, operate immediately. Remove appendix, and insert large drainage tube at place of usual incision, along with three other tubes, introduced through incisions in either flank, and in middle line in front, just above pubis. Irrigation with saline solution through all four tubes is then employed. (A. W. AKERLEY.)

**Carcinoma of the Chorioid.**—MARBE (*Deut. Med. Woch.*, 1905, No. 27, p. 1076), details the case of a woman, in the forties, who complained of visual disturbances in the right eye, 5 months after removal of an adenoma of the mamma and the axillary glands. There was a bluish-grey protuberance upwards and inwards of the disc with detachment of the retina. A month later she complained of the sight failing in the left eye, which also showed a tumor, of light pink color, upwards and inwards of the disc, surrounded by pigment spots. Then metastases in the bones of the pelvis and intestines developed, to which the patient succumbed.

Thus far, 46 cases have been described, one-third of which were bilateral. As a rule, the patients did not live longer than a year after the ocular metastasis was observed.

(C. ZIMMERMANN.)

**Abortions.**—HALL (*Lanct-Clinic*, Aug. 12, 1905,) states that the treatment of abortion varies according as the abortion is (1) threatened, (2) progressive, (3) delayed, (4) incomplete, or (5) recurrent.

In threatened abortion where there is a slight degree of hemorrhage, little if any pain, and the cervix undilated, rest in bed with absolute mental and bodily quiet, and the administration of sedatives to relieve the pain and contractions, frequently averts the danger.

When the pains are persistent and the cervix expanding, or where there is a free or frequently recurring hemorrhage from the uterus without apparent effort of the same, the abortion may be considered inevitable. The treatment should be directed to promote uterine activity, control hemorrhage, and secure complete evacuation of the uterine cavity. A bichloride douche at 110°-120° F., lasting for at least half an hour is most efficient.

If the uterus cannot be easily and rapidly emptied the hemorrhage should be controlled by the use of gauze packing, first packing the gauze well up behind the cervix and then filling the vagina. This will also serve to stimulate contraction and cause dilatation of the external os. The packing should not be left longer than twelve hours. If now with the rupturing the membranes the ovum is not expelled, this should be immediately removed by the finger, following this manipulation by a hot antiseptic douche.

Cases in which a continuing or recurring hemorrhage indicates an incomplete abortion, and septic cases, demand prompt evacuation of the uterine cavity, preferably by the aid of placental forceps or curette, together with a generous intrauterine antiseptic douche of 1:6000 bichloride solution, followed by an application of 50% Churchill's solution. A strip of gauze is placed for drainage, which should be removed after twelve hours.

(G. C. Ruhland.)

**Influence of Psychological Affects on the Origin of Acute Glaucoma.**—WICHERKIEWICZ (*Post. Ok.*, 1905, No. 3), says that bad news, losses in playing cards or on the stock exchange, theatrical performances, antiglaucomatous iridectomy of one eye, may elicit an acute attack of glaucoma, of which he gives instances from his practice. The connection lies in the emotional mydriasis. He describes a glaucomatous attack in an elderly woman on the eve of an intended cataract operation. It was cured by miotics with lasting deterioration of perception of light and projection. The cataract was not extracted on account of the danger of chorioidal hemorrhage. W. ascribes the attack to the great excitement, on account of the contemplated operation, without ignoring the intumescence of the cataract as a possible adjuvant. (C. ZIMMERMANN.)



# THE WISCONSIN MEDICAL JOURNAL

SEPTEMBER, 1905

## ORIGINAL ARTICLES.

### SQUINT.\*

BY NELSON MILES BLACK, M. D.,\*

MILWAUKEE.

It is now a well established fact that the large majority of cross-eyed children can be cured of their squint without resorting to operative procedures, provided treatment is begun early enough, or as soon as the condition makes itself manifest.

The advice which has been so universally given in the past by the general practitioner, when the parents bring a squinting child to him, i. e., "Don't do anything for him now, he will probably outgrow it," and cite a number of instances where such has been the case, should be stamped as criminal ignorance.

"Vision<sup>1</sup> is the mental interpretation of an impulse conducted from the rods and cones of the retina through the optic nerve and tracts to the visual areas of the brain." Man being a binocular animal must, in his normal condition, receive two sets of sensations from any luminous object; these are transmitted to the visual areas of the brain; from there they must, in the normal state, be transmitted to a coordinating center, where they are blended by the fusion faculty; here binocular vision becomes binocular single vision. In order to allow of a blending or a fusing of these two sets of sensations, identically corresponding portions of the retinae of the two eyes must be influenced by the pencil of light; this requires binocular fixation.

To perform the normal function of seeing, then, we must have:

1. A normal perceptive apparatus, i. e., emmetropic eyes.
2. Perfectly balanced extrinsic muscles.
3. Normal transmitting apparatus.
4. Perfect receptive apparatus.
5. A fully developed fusion faculty.

\*In the absence of the author this paper was read by Dr. H. V. Würdemann at the 59th Annual Meeting of the State Medical Society of Wisconsin, La Crosse, June 8, 1905.

From this center must emanate all the efferent impulses to the various subsidiary centers for all changes in the accommodation, direction of the visual axes and positions of the head and body that are required to bring corresponding retinal points into focus; hence, when the development of this center, or its function after development, is in any way disturbed or interfered with, we have as a result those deviations of the visual axes known as heterophoria and heterotropia, or strabismus, not due to abnormalities in the anatomic relations of the orbit and muscles and paralyzes of the same.

Outside of the cases of squint due to malformation of the orbit or extrinsic muscles of the eye, those due to paralysis or resulting from the vision of one eye being lost from disease, injury or inflammation, all cases of convergent strabismus may be considered as resulting from four factors, each being more or less dependent on the other. These factors are in order of their prominence:

1. Absence of or non-development of the fusion faculty.
2. Refractive errors and eyes with unequal vision.
3. Abnormal transmitting apparatus.
4. Faulty receiving center.

The fusion faculty may be entirely wanting; it may be in a rudimentary state, due to non-use from various external causes, or by being rudely interfered with in its developmental period by fright or some prolonged or severe illness.

Absence of the fusion faculty is evidenced in those not rare cases of true alternating strabismus, which, even after all methods of treatment have been tried, can never obtain binocular single vision, and some not even binocular vision. Though the visual axes may appear perfectly parallel, the vision in each eye, normal or made so with correction, they can never fuse, but rapidly fix, first with one eye and then the other.

The following conditions interfere with the development of the fusion faculty:

1. Refractive errors.
2. Inequality in the sight of the two eyes.
3. Faulty perceptive, transmitting or receptive apparatus.

Refractive errors interfere with the development of the fusion faculty by the unequal relation between accommodation and convergence; the function of each separately has some latitude of movement, but there is a limit beyond which neither can operate alone; "thus a hyperope of 6 D. would require an accommodation of 6 D. to neutralize it, the visual lines being parallel, the point of convergence is then nearer than the point accommodated for."<sup>22</sup> The images carried to the

brain from both eyes being blurred, that of one is disregarded by the fusion faculty as a clearer image is thus obtained, exactly "as<sup>3</sup> we disregard the image formed by its fellow when we use the microscope with both eyes open," and the eye thus left without a point of fixation turns in, that being its direction in attempting to keep up the relationship between accommodation and convergence; this is the beginning esophoria which eventuates into continuous esotropia. In myopia, in contrast to this, when deviation does occur, it is usually divergent strabismus.

Because the sensation sent by the eye to the fusion faculty cannot compete in distinctness with that sent by the fellow eye, in anisometropia (even if slight), congenital amblyopia, opacities of the media or faulty conductive and receptive apparatus of one eye, it is disregarded, the faculty is not developed, and the eye receiving no return impulse has no fixation, and consequently the visual axes deviate; if, however, the faculty has been developed before these factors appear, habit usually holds the visual axes straight afterward.

Wood<sup>4</sup> says of amblyopia ex anopsia: "Whatever be the origin of the defect in sight, it is probably the main cause of the heterophoria." In my opinion, amblyopia ex anopsia is not a cause of the non-development of the fusion faculty, but, on the contrary, a result largely of its non-development. Because of the disregard of the sensation sent by the eye to the fusion center, it does not fix, is not used, and becomes amblyopic; the amblyopia generally does not correspond to any ophthalmoscopic defect, although the visual field is frequently contracted; the error of refraction of the amblyopic eye is often much the same as that of the fixing eye, so that the ametropia cannot account for the lowered visual acuity.

Anatomic abnormalities of the orbit and extrinsic muscles or paralysis of one of them, of course, prevent the development of the fusion faculty because of the impossibility of binocular fixation, but nature may try to help out the fusion faculty in bringing about binocular single vision, even here, by specializing other cells to form a new fovea.

Those cases of strabismus which are due to the fusion faculty being interfered with during the developmental stage, usually give a history of a deviation following some severe illness, convulsions, or during an attack of whooping cough, or after a severe fright; it is usually periodical at first and finally becomes constant. The eyes are usually found emmetropic or nearly so, the separate muscular movements are perfect, fixation with either eye; but only the lowest grade of binocular vision exists, or perhaps none at all. The illness or

fright has interfered with the development of the fusion faculty for the time being, and a deviation, periodical at first, appears and may remain so, not being in evidence unless the child is ill, tired or excited; or it may become constant, each visual area remaining intact and a comitant, alternating strabismus results. These cases usually respond readily to orthoptic treatment.

Development of the fusion faculty by orthoptic exercise is by no means a new feature in the treatment of strabismus, but many of the various forms of stereoscopes used for this purpose have been faulty, in that binocular vision could not be obtained. Sufficient time and patience in many cases were lacking, and an amblyopic eye was not considered worth working with when a tenotomy, advancement, or combination of the two, would produce at least a cosmetic result at once. Landolt<sup>5</sup> says: "The principle of any stereoscope useful for the treatment of strabismus is that the instrument employed places the eyes in the conditions which are most favorable to the fusion of their retinal images." Worth's<sup>6</sup> new stereoscope, or amblyoscope, as he calls it, has overcome the first stumbling block.

"This instrument consists of two halves joined by a hinge, each half is made up of a very short tube joined to a longer one at an angle of 120 degrees; a mirror being placed at the cord subtending the arc of this angle; an object glass is placed at the free end of the longer tube: at the free end of the shorter tube is a lens, the focal length of which equals the distance of the reflected image of the object glass at the end of the longer tube. The two halves of the instrument can be brought together to suit a convergence of the visual axes up to 60 degrees, or separated to suit a divergence of as much as 30 degrees."

The writer has added to Worth's model an additional movement in a vertical direction, in order to obtain fusion when the lateral deviation is complicated by a vertical deviation.

With this instrument the fusion faculty may be exercised and developed during the existence of the squint. The fact that parents are bringing their children for treatment for strabismus at an earlier age and demanding that something be tried before an operation is resorted to, makes us take more time and use more patience; and finally, the fact that the vision of a large majority of amblyopic eyes may be improved by proper treatment has replaced immediate and indiscriminate operating and given this department of surgery its proper place, that of producing parallelism of the visual axes after the fusion center has been sufficiently restored to maintain binocular single vision by the use of the stereoscope, and no noticeable diminution in the degree of deviation from a continuance of the treatment.

The existing conditions in a case of strabismus naturally determine the method of procedure in attempting to develop the fusion center. The first thing, however, is to determine the visual acuity of each eye. This may be accomplished in children under 3 or 4 years of age after Worth's<sup>6</sup> method by means of five marbles or ivory balls, varying in diameter from one-half to one and one-half inches; if at five or six meters distance the youngster with one eye occluded can go directly to the smallest ball thrown on the floor by the operator, it is safe to say his visual acuity is practically normal; at least, the vision of the two eyes can be compared in this manner and the question of an amblyopic eye determined. The amount of deviation of the strabismus is then determined in order to see, as the treatment progresses, if there is any diminution in its degree; this is accomplished with the perimeter or some of the various strabometers, or it is quickly demonstrated by the writer's<sup>7</sup> modification of Worth's apparatus, which is an easy and different application of the perimeter method. The ability of the various extrinsic muscles to rotate the eye is tested individually to determine whether the strabismus is the result of their over- or under-development, innervation or anatomic abnormality.

The next step is to determine whether binocular vision exists. This may be accomplished in many ways, but with greatest ease, especially in children, by the use of the amblyoscope. The eyes are then subjected to complete cycloplegia, the errors of refraction (if any) determined, and correcting glasses ordered.

When an amblyopic eye exists, it is actively brought into use to determine whether its vision can be improved; this is done by instilling a mydriatic into the better member, if that is sufficient to allow the vision of the poorer eye to compete with it; if not, the better eye is occluded by a blinder or a bandage and the amblyopic eye is depended on for vision entirely. That a large majority of so-called amblyopic eyes can be improved in vision by requiring the possessor to depend entirely on them for seeing, is certainly proven by the many reported cases<sup>8, 9</sup>; in those cases in which no improvement is noted, if a visual field can be obtained, defects not visible with the ophthalmoscope may be determined, which will lead one to classify the eye as congenitally amblyopic; improvement in the vision of such an eye is almost beyond hope, still we should not give up trying until sufficient time has elapsed, with the better eye occluded, so as to absolutely prove that there has been no gain in the vision of the amblyopic eye.

The development and exercise of the fusion faculty with the amblyoscope is commenced immediately. For this purpose three sets of object slides are used: the first are two dissimilar objects, as a bird

and a cage, a mouse and a trap, etc.; these require only binocular vision. A set requiring binocular single vision or fusion has part of the subject on each slide, and must be fused to make a complete picture. The third set consists of stereoscopic pictures, which, when combined, give an impression of perspective or depth perception.

The amblyoscope is used in the following manner: "The child with his correction on is held on the surgeon's knee and the amblyoscope roughly adapted to his degree of deviation; it is then held before the child's eyes and an electric lamp is put in the axis of each tube about four feet away. By a simple mechanical arrangement each lamp is easily brought nearer to, or put farther away from, the tube which it illuminates. A slide showing a cage, for instance, is put in the tube before the child's fixing eye, and a bird in that before the squinting eye, and the child is told what to look for. At first he sees only the cage. The lamp before the fixing eye is then taken farther away and that before the squinting eye is brought nearer until the child sees the bird. By this time he has lost sight of the cage. The intensities of the illuminations are then adjusted until the child sees both the bird and the cage. The child is then allowed to grasp the instrument and assisted by the hands of the surgeon is taught to vary the angle of the instrument so as to make the bird go in and out of the cage. Many other similar pairs of slides are shown. The average child of  $3\frac{1}{2}$  or 4 years of age takes a very keen interest in the game, which he imagines has been devised merely for his amusement. Slides which require a true blending of the images are then shown. After a time it is often found that the angle of the instrument may be altered to a very considerable extent, either in convergence or divergence, while the eyes follow the objects and maintain fusion of the pictures. One often gets a powerful "desire" for binocular vision in these young subjects with surprising facility. The next step is to equalize the intensities of the lights. This may usually be done at this stage without a return of suppression. In many cases one is able to deviate the two halves of the amblyoscope more and more at each visit until parallelism of the visual axes is obtained."

As the visual axes are brought nearer parallelism, the use of an ordinary stereoscope with the Kroll's, Würdemann's, Wells' or Hale's charts will serve as the most practical method of exercising the fusion faculty, as they can be used with an inexpensive stereoscope for daily exercise by the patient at home.

Some cases, however, will undoubtedly require operation to bring about complete parallelism of the visual axes, but if the desire for fusion has been established—and Worth<sup>6</sup> asserts it can only be acquired in early childhood, it being almost impossible to develop it after the age of 7—it is only necessary to bring the visual axes approximately straight, because a desire for fusion, which has been acquired by the use of the amblyoscope, will then place and hold the eyes in such posi-

tion that identically corresponding portions of the two retinae are affected.

The objections to the method are the time required to effect the result and the possibility of having to resort to operative measures in the end, this with the assurance, however, of binocular single vision being maintained and no relapse of the condition; the trouble of impressing the parents with the importance of coming at the time indicated for consultation and the expense of the treatment, which amounts to as much or more than an operation, and in case of an amblyopic eye, of keeping the better eye occluded for a sufficient length of time to obtain a result, are the main obstacles to overcome. These objections, however, I consider of minor importance when compared with the truly remarkable results obtained.

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#### Discussion.

DR. BRADFIELD, of La Crosse: Dr. Würdemann and Dr. Black have given us a very concise paper, with which I fully agree, and I will have but a few remarks to make.

I wish to call your attention especially to what they say about it being criminal to tell the parents to let the child wait and outgrow the trouble. Today that is criminal—10 or 15 years ago it was not.

There are certain eyes on which we must operate. In cases of amblyopia, where vision is hopelessly lost by atrophy, or some injury to the eye, we must operate for cosmetic effect. In these cases the nervous tonicity of the muscle is lost, which allows the amblyopic eye to take the position which is easiest, and that is nearly always extropic or turning out, in which case the eye must be operated on, and we must not only do tenotomy, but make an advancement of the opposite muscle.

There is a class of cases of exanopsia which are not well understood. If it is true that we have a cerebral lesion causing it (which is not often the case), it would have to meet with the same treatment as we give cases of exanopsia after the fusion center has passed.

Then there are those cases of anatomical error in which the muscles are so located, or the orbits so organized, that it is impossible to bring the two eyes in proper position without great strain of the tonic muscle. Those cases should be operated upon.

The majority of cases in my experience of squint are caused by errors in refraction, which, if corrected and corrected in time, will give perfect results.

Only this week I had a case of esotropia or internal squint, of years' standing, and all that was necessary was to correct a three diopter of mixed astigmatism and the eyes straightened immediately.

Then we have cases of hypermetropia that require proper correction to re-establish the natural balance between the force required in accommodation and convergence.

I think that in all of these eyes where there are serious errors of refraction, the errors should be corrected first; and last but not least to be considered, is the education of the fusion center, which has been ably demonstrated by Dr. Würdemann this morning.

DR. G. E. SEAMAN, of Milwaukee: Dr. Black kindly furnished me with a copy of this paper for discussion. Papers of this kind, technical, mathematical and optical, as they are, are very apt not to be of the greatest interest to the average medical man, but yet papers of this kind are of value and contain many thoughts which, if disassociated from the mathematics and the optics, are of interest to every physician.

This paper very properly deals largely with squint in children, because it is in the years of childhood that we see most of these cases of squint, and it is in these years that the best results come from treatment.

The author very properly condemns the advice that these children outgrow the difficulty. Nearly every case of squint after the age of 7 or 8 years, that comes to the oculist, comes with the history that some physician had been consulted who said the patient would outgrow the difficulty. Now, as a matter of fact, this is practically never the case. These cases always require treatment. As Dr. Bradfield says, they generally require careful refraction, and in addition to that the other measures of treatment that are necessary.

I hardly think, however, that the advice that they outgrow the difficulty could be used as a basis for a malpractice suit, and especially since such advice is, as the author says, almost universally given. A practice that is in conformity with the universal opinion of the medical profession could hardly be made the basis of a malpractice suit, and it is too bad that this is—I will not say the universal opinion—but too common opinion in the medical profession.

An emmetropic eye is not necessarily an eye with a normal perceptive apparatus. In cases of squint with amblyopia there is no doubt of the force and effectiveness of shutting off the fixing eye, the normal eye or the better eye. I have seen what I believe to have been instances where that simple measure was followed by a considerable increase in the vision of the squinting eye.

I still think that in the majority of instances in practice, the time and patience that are necessary to bring about good results by the use of the so-called Worth methods of developing the fusion faculty, constitute a real difficulty, and always will constitute a real difficulty and a real objection to this method of treatment. You do get results from the method, and it can be carried out in some instances, but in the majority of instances it cannot, and we will still have to resort to careful correction of the errors of refraction and



the use of the stereoscope at home, and the various hygienic measures; in many instances we will still resort to the necessary operative procedures.

A great many of these cases are amblyopic. The author of the paper says that amblyopia is the cause of a great many cases, and again says that it is not the cause. That is a point of controversy. I believe that the amblyopia is rather an effect than a cause, excepting in those cases where there is some congenital defect interfering with the vision.

I think while the vision of the fixing eye is more acute and better than that of the squinting eye, the better eye will always do the work and neither the squint nor the amblyopia will be cured without operation.

The most important point in this paper is, I believe, the point that physicians generally should be interested in, and that is that they have been doing wrong in giving the advice that children will outgrow these muscular defects. It is contrary to the teachings of ophthalmology for many years past, and it is contrary to fact, and there is no more reason why these patients should outgrow these defects than there is why they should outgrow any other disease or deformity, without proper treatment.

DR. F. T. NYE, of Beloit—Dr. Black's excellent paper has covered the subject very carefully in a scientific way. I wish to bear strongly on one point, and that is the age question. All physicians thoroughly understand that the question is one of discovering the visual defect as long before the present estimate age limit of seven years elapses as possible. This can be ably assisted by the family doctor, thus relieving the mother of the responsibility of looking for defects in her offspring, though she must also be willing to aid in the removal of any that may be discovered by her medical friend and adviser.

The State has also proved a valuable assistant in the discovery of ocular defects in children by the establishment of the kindergarten system, thereby bringing children from 4 to 6 years of age under the observation of a carefully trained teacher, and not, as has been exploited, injuring their eyes while in attendance at kindergarten.

DR. WURDEMAN—All cases of squint *can* be cured. The majority of people who have squinting eyes could have been completely cured in early childhood without resort to operative measures. The other cases may be made cosmetically perfect, or nearly so, by operative procedures which should be, as Dr. Bradfield has said, advancement and not simply a cutting of the tendon of the muscle and letting it slide back wherever it cares to go.

Squint is of economic importance, because a cross-eyed girl cannot get married as readily as one having good, straight, pretty eyes; a cross-eyed boy trying to get a job will be passed over in favor of another boy who has straight eyes. A physician who cannot look his patient straight in the eyes will not get as much work to do as another man with normal eyes.

Regarding the results of the modern treatment of squint, Dr. Black and I have had about 75 cases under treatment during the last year and a half, of which only 15 have been operated upon. Probably 80 per cent of them are now cured. Of the others that are now under orthoptic treatment, the majority are getting better, and probably not more than 15 per cent. will be operated upon. Out of this number of approximately 75 cases (speaking of the difficulty of treating the child and continuing the patient under the treatment), only 3 cases have not come back, and they probably have gone to other physicians, having gotten tired of the treatment.

As to the length of time required for this orthoptic treatment, as a rule, only half a dozen visits to the office of the physician are needed; then the treatment may be taken up at home. But the family must be intelligent! The use of the stereoscope must be regular—morning and night. Half an hour twice a day must be devoted to the child's eyes for the period of some three months to one or two years. Even if we accomplish no other results, and if we do not have any effect upon the strabismus, in the majority of cases we save the sight of the squinting eye, and an ultimate operation will produce as nearly perfect working eyes as we could expect with these anatomic deviations after the refraction has been properly corrected.

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## URINARY HYPERACIDITY IN INFANCY.\*

### REPORT OF CASE.

BY A. W. MYERS, M. D.,

MILWAUKEE.

The title of this paper is its most pretentious feature, for it is not proposed to discuss the subject from all its aspects. It is merely to report a case exhibiting some points which were instructive to me and which, I hope, may not be entirely uninteresting to you.

The patient, J. M., was a healthy, well-developed boy, 18 months of age, with 12 teeth, who had not been gaining in weight for over a month. I was called to see him one evening and learned that his rest had been much disturbed for several nights. During the daytime he had been bright and active, apparently perfectly comfortable, without any elevation of temperature or evidence of digestive disturbance. At about 7 P. M. he would go to sleep as usual but between eight and nine he would awaken crying violently as though in sharp pain. After twenty or thirty minutes he would seem to be relieved and would play naturally and eventually go to sleep only to awaken again after perhaps an hour and repeat the entire performance, continuing this throughout the night. There was no belching of gas from the stomach and no expulsion of flatus from the bowels; the stools were said to be perfectly normal in character. His parents were positive that the attacks of pain had no connection with his urination or defecation, although they thought they had noticed that pressure on his perineum brought some relief during the attacks. He was thought by his family to have worms and his parents had given him a quassia injection; as this brought no relief an infusion of garlic was injected so thoroughly

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that the father assured me he could smell it on the baby's breath for three days. Yet this caused no improvement.

When I saw him at about 7 P. M. he was in fine spirits, playing and laughing, the temperature, pulse and respiration were normal. On examination I found that the upper canine teeth were nearly ready to appear, but the gums did not seem tense or injected; otherwise the examination of the head, ears and neck was negative. The chest was clear, the heart normal, the abdomen not distended, no tenderness anywhere. The bladder was rather full, but not over distended, penis normal, prepuce easily retracted, scrotum and anus normal. There was no tenderness or swelling of the limbs.

While I was cleaning my hands preparatory to making a rectal examination, he suddenly began to cry sharply and began rolling around in the bed as though in great pain. I noticed that the spot where he had been sitting was slightly moistened. After 15 or 20 minutes he quieted down and I made a rectal examination, but found nothing abnormal. A short time after this examination he had a bowel movement accompanied by the passage of a considerable quantity of urine and again he screamed with pain. The stool was perfectly normal in character, but the urine when tested with litmus gave an intensely acid reaction.

I ordered for him potassium citrate, gr. 5 every 2 hours, until the reaction was neutral and asked to have a specimen of the urine at the earliest opportunity. Unfortunately they were unable to obtain one for me until after one or two doses of the alkali had been given, but the degree of acidity was still very high, 10 cc. of the urine requiring 7.1 cc. of deci-normal sodium hydrate solution to neutralize the acidity, whereas under normal conditions in children of this age 1—3 cc. is sufficient. The potassium citrate acted very quickly, and after four or five doses the urine was faintly alkaline, so I think that the original acidity may safely be estimated as requiring 8—10 cc. of the deci-normal soda solution. In other respects the urine was perfectly normal.

The child had several more crying attacks during the night, but by morning the urine was neutral and from that time forward the attacks of pain ceased.

In searching for the cause of this condition of course one would naturally look into the diet. This child was carefully fed and received only articles which would ordinarily be classed as perfectly harmless; he had some well cooked farina with his milk in the morning, a baked potato or rice with milk at noon, but between times he took with his

milk or without it considerable quantities of bread or latterly of zwieback. He occasionally took a soft boiled egg or some beef juice, but never any meat. In addition it is worth noting that he drank very little water.

It will be seen that there was no excess of meat which is apt to be blamed for hyperacidity of the urine; in this case the high acidity must be referred to an excess of carbohydrates undoubtedly undergoing lactic fermentation.

In his work on "Clinical Diagnosis" Simon says "the old method of titrating a certain amount of urine with a deci-normal solution of sodium hydrate has been abandoned," and proceeds to give an extremely complicated method for determining the degree of acidity of the urine entirely too cumbersome for clinical use. For practical purposes the titration with deci-normal soda solution is entirely satisfactory. Our knowledge of how the acidity of the urine results is so limited that the titration method gives us all the information we can use at present, although the more complicated but more accurate methods may become necessary when the questions now unsettled have been more fully answered. But while our knowledge of the factors controlling the acidity of the urine is still elemental, the information obtained from a study of the varying degrees of acidity of the urine under certain conditions gives one many useful therapeutic hints.

The late Dr. Christopher of Chicago was convinced that there is a condition in new-born babies, entirely apart from sepsis, characterized by vomiting, cardiac depression, sometimes cyanosis, weak and irregular respiration, convulsions in severe cases, frequent green stools containing mucus, and sometimes a slight pustular eruption on the skin, which is in its nature a genuine acid autotoxemia. This condition is associated with the passage of a small amount of urine, highly acid, and containing a percentage of urea apparently high but really low when considered in relation to the acidity. In some of these cases the degree of acidity is quite low, but in them the urea excretion sinks to an excessively low point and is only brought up to the normal by the administration of alkalis. And it is curious and interesting to note that in these cases the alkalis given do not seem to affect the degree of acidity until they have brought up to the normal the excretion of urea. Croftan has suggested "that the organism is so jealous of its alkalinity and guards it so carefully that when fixed alkalis are wanting it uses ammonia molecules that would otherwise be built up into urea, thus cutting down the urea formation." Perhaps that occurs in these cases.

In older children this acid toxemia may be manifested by nervousness, irritability, pallor, stationary weight, recurring slight digestive disturbances, a tendency to bronchitis and to slight skin eruptions or to canker sores in the mouth. Periods of malaise with loss of appetite, coated tongue, and marked languor, commonly called bilious attacks, are not infrequent. Slight elevation of temperature is often seen. In extreme cases intense headache, persistent vomiting, or even convulsions may occur.

In the present case the constitutional symptoms were limited to possibly increased restlessness and a stationary weight, neither of which would be in any way characteristic. While cases of painful micturition are not uncommon, the fact that there was apparently no pain on urination during the day had prevented the parents from discovering the cause of his painful seizure. If I had not been there at the time of one of the attacks I think I should have been very apt to attribute them to disturbed dentition as there was no sign of gastrointestinal disturbance. An examination of the urine without a determination of the acidity might easily have thrown one off the track, for except in this particular it seemed perfectly normal.

A case like this would naturally suggest the thought of a stone in the bladder, but the character of the urine and the quick relief of the symptoms rules out this possibility.

Filatov reports a similar case in an older child where circumcision was performed in the hope of relief, with absolutely no benefit, until, after several months, the hyperacidity of the urine was discovered and corrected, whereupon the symptoms immediately disappeared.

In its minor manifestations this condition or hyperacidity of the urine is probably with us more often than we realize, and by a careful watching for it we may be able to unravel some of the puzzles in the disturbances of nutrition of infancy and childhood. The severe types are no doubt quite rare, but it may help us in some hour of perplexity to remember that they do exist and if taken early are quite amenable to treatment.

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## ASEPTIC OBSTETRICS.\*

BY J. P. COX, M. D.,

SPOONER, WIS.

It is the custom to apologize for introducing a hackneyed subject for discussion before a medical society, but on the present occasion I shall waive the usual introduction and merely state that I have intentionally chosen a familiar theme in order to emphasize the fact that in our anxiety to improve upon existing methods of procedure, we are apt to undervalue those which have stood the test of experience. We have become so accustomed to speak of the *wonders* which have been accomplished by asepsis and antisepsis, in the domain of *surgery*, that there is danger we may overlook another field in which aseptic practice has produced results only less brilliant because less conspicuous. With almost complete unconcern the surgeon now opens the abdominal cavity, knowing that the danger is not in the *opening*, but in what he may have to do when once inside. He exposes the brain, invades the thoracic cavity, even puts stitches in a wounded heart, all with success and without for the most part a drop of suppuration. Wonderful indeed have been these results, and the changes which have occurred before the eyes of many of the older members of this society, have been such as to inspire the wonder, What next? But when we make the subject of Obstetrics a matter of inquiry, we shall find that while not so evidently perceptible, an equally important service has been rendered. Not *all* of us must undergo surgical operation, but everyone must be born, and to continue this chain of human experience, there evidently must be mothers. If we permit them to be prematurely sacrificed with their first or second attempt at motherhood, one of the principal links in the perpetuation of the human race is broken, and can only be replaced by the sometimes tedious and expensive process of a new one.

The older members of this society will easily remember how frequently that much to be dreaded "child-bed fever" occurred, and how distressingly fatal it was. In the hands of the prudent and careful obstetrician of to-day it *never* occurs except as the result of some accident beyond his power to prevent. It is to an extent known in a few other instances, a preventable disease, and should it occur through

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the neglect of the physician to observe the well known laws of asepsis, it should constitute good grounds for a suit of malpractice.

Occasionally a case like the following may occur: About a year ago I attended a woman in her first confinement: she was nursed by her mother, a woman of at least average ability, and who supposed she knew as well as any one what to do. A slight perineal laceration was properly sutured, and for five days all went on prosperously and happily. Then a chill occurred, followed by high temperature, and an examination of the perineum disclosed a rapidly sloughing condition there. Vigorous antiseptic treatment limited the local destruction, but the system had become so thoroughly infected that the woman hovered between life and death for over six weeks, with a temperature ranging from 102 to 106 degrees, but fortunately at last recovered. On the sixth day the cord dropped from the child and the next day an erysipelatous inflammation of the child's abdomen began which ended only with the death of the child.

Before this, however, it had developed that the kind mother, to make her daughter more comfortable, had smeared the perineum very generously with "Armour's Butterine." I remonstrated with her and took exception to her technic, and expressed the opinion that while "Armour's Butterine" might be a very good substitute for unguentum Jersey, still I deprecated its use as a surgical, post-obstetrical, or gynecological dressing (of course I talked English to *her*). At this the matronly temperature arose to about 400 degrees Fahrenheit. Her exophthalmic goitre pulsated and vibrated strenuously under her amber beads as she replied: "Why, Doctor! How can you accuse me of putting anything dirty on that woman. That butterine is just as clean as the victuals you eat, why not good enough then to put on a sore?" When the cord was removed, more of the same article went on the tender stump. The result we have seen.

And yet, in the years that are past, how many of us, when called upon to make an obstetrical examination, have had brought to us a little dish on which was a supply of hog's lard, with which to anoint the examining finger. The lard, or the hog from which it was rendered, may have been thoroughly sterilized, but of course this is only a matter of conjecture. If the lard was *not* sterilized, that wise providence that looks after the small boy when he goes fishing or swimming, cared for and protected the mother. It was none of our fault that she survived.

I have been told that it is absolutely impossible to do a thoroughly aseptic obstetrical operation outside of a well equipped hospital. I must take exception to this assertion, as I believe we can keep as aseptic

tic in a clean room in a well appointed house, as we can in the maternity wards of a crowded hospital, where the danger of infection is tenfold greater than it is in the ordinary American village or town home. The great trouble with many of us is that we hesitate in enforcing our own ideas of cleanliness.

When called upon to attend a case of confinement, if time and circumstances permit, we should see to it that the obstetric room is made as aseptic as possible. All carpets and heavy draperies should be removed, and all furniture washed in a strong solution of bi-chloride and lysol. If possible, insist on new mattresses and bedding, and fire that abomination, so frequently met with in the homes of many foreigners—the feather bed. Strong lye and formaldehyde will very effectively sterilize the ordinary house floor. A common potato sprayer will carry the same solution to the walls and ceilings. If possible, the spraying should be done daily for several days prior to the accouchement. The use of the powerful antiseptics has almost entirely annihilated puerperal fever, which we know is frequently caused by the entrance, through some wound or abrasion, of some poisonous material into the blood. In the simplest and most natural labors slight tears are apt to exist, involving either the cervix uteri or perineum. Dirty hands, dirty fingernails, unclean napkins, soiled clothing or bedding, may be the cause of grave trouble.

We should not only be clean ourselves, but if we wish to reduce our death record from septicemia, we must insist on both patient and nurse being as clean as we are ourselves. A nurse should not be allowed to touch the genitalia of a patient without first thoroughly disinfecting her hands in a strong solution of formaldehyde or alcohol. Fingernails should be trimmed closely, and the stumps soaked in some strong germicidal solution. It seems hard to make the ordinary nurse understand that antiseptic means 'against sepsis,' or putrefaction.

The genital organs of the woman should be made aseptic, or as clean as possible at the commencement of labor. Shaving the genitals is a good but not imperative practice. Any clothing that may come in contact with her should at least be washed in boiling water and ironed. The complete sterilization of *all* clothing is practical even outside of hospital life. The hands of the obstetrician *must* be thoroughly cleansed. It is not at all impracticable for us to carry in our obstetric outfits, carbolic acid, lysol, permanganate of potassium and bi-chloride. These, with formaldehyde and absolute alcohol, should be sufficient to make safe sterilization and disinfection in every case possible.

You are now thinking of the absolute impossibility of making *all*



cases, especially emergency ones, aseptic, and the query is: Can *every* case be made aseptic? I have the audacity to answer—Yes—in a measure. You say, what are you going to do if called into a case during the last stage of labor, when, just as you approach the bed you are greeted by the lusty yell of perhaps a future president or other mighty potentate? A drunken husband who is already celebrating the event informs you that you are too late. The kid is born and his name is Dennis. On examination you find that the woman is resting (?) on a dirty bunk surrounded by vermin and filth. Inquiry and diligent search reveal not even a clean cloth, washdish or towel. The bed is soaked and saturated not only in the precious blood of the mother, but urine, leucorrhœal and fecal matter add to the intensity of this most deplorable condition. Stop! Is the picture overdrawn? Gentlemen, you and I have met with these identical conditions, many and many a time.

Now then, can this woman be made aseptic? She must be. Fire, hot water, and the contents of a large obstetric bag come to our relief. The woman is washed and her person is at least made clean. If possible remove all bedding and clothing; should the case be in an isolated locality where other material cannot be obtained, and if there is a straw stack near, replace the soiled mattress with a clean bed of straw, and if there is no straw stack near, then start the happy father after hay, cedar or hemlock boughs. Use your wits and mother nature will assist you in finding *some way* to provide a clean bed for this woman.

This done, get out your bi-chloride, lysol, carbolic acid, and formaldehyde, and make this woman surgically clean. Wash the genitalia and surrounding parts with a strong solution of lysol or creolin dissolved in boiling water, then use plenty of bi-chloride gauze packing, bearing always in mind that infection in all probability will be carried from without rather than established from within. Should you see the case later and suspect from the temperature that infection has already taken place, don't be too hasty in curetting; remember that a very thorough uterine and vaginal swabbing of a preparation consisting of equal parts of pure alcohol, pure carbolic acid crystals, and resublimed iodine, will in 90 per cent. of all cases arrest the trouble, and prevent an aggravated case of general puerperal septicemia.

As a general lubricant I have found sterilized carbolized white petrolatum to be safe. Ordinary soap is not sterile and is apt to create trouble. Of course, we know that thousands of women are confined without the many attentions and precautions spoken of. We also know that hundreds have died and in some rare cases do now die, from infection, producing puerperal sepsis. Every one of those who

died should have been saved, and could have been saved, if we had only known and taken the proper precautions. Gentlemen, shall we dare take the chances? Is it not wiser, though a little more troublesome, to make use of every available preventative?

Next, what shall we do during the puerperium? Shall we use frequent vaginal douches? This is one of the most important questions, and should not be answered in a prefatory manner. In post-obstetrical work we all agree that cleanliness again is most desirable. A vagina saturated more or less profusely with a putrid or decaying lochial discharge, is not pleasant to contemplate, and should not exist. It constitutes a menace to the welfare of our patient, but circumstances alter cases. We are not always permitted to fully control the means by which cleanliness is supposed to be secured.

In some localities, a nurse, trained to the habits of thorough surgical cleanliness, is the exception. The rule is that some wise woman does not hesitate to do the things that no doctor in his right mind would *dare* do. Frequently it is not considered by her a very clean job anyway. Any old greasy washdish is good enough in which to prepare the water for the douche. A syringe, which in its years of service has possibly never received a cleansing more than to be hung up to drain after using, is the vehicle through which a contaminated wash finds its way to a vagina, which really is the cleanest object under consideration. Next we find, in spite of all our most strenuous efforts at cleanliness and asepsis, that a puerperal inflammation is lighted up.

Many a professional mid-wife prides herself no little on her mysterious obstetrical bag, which she says is "Just like the Doctor's." This she carries sagely about with her, containing the syringe I have described; but a more unspeakable horror yet is found—two or three sponges which have done active service on and about every perineum she has for years been called upon to treat. That these dangers are not fancied my own experience will bear witness.

Some time since, a woman in a neighboring village, disappointed in getting her family physician, employed one of those semi-professional midwives to attend her. After the accouchement she visited her every day. She seemed to be deeply impressed with the gospel of cleanliness, and brought with her to carry it out, her automobile syringe, and used it freely. In a few days the woman developed (as our old friend Prof. Senn would say) a most beautiful case of gonorrhoea, which, as it progressed, invaded one of the Fallopian tubes, and resulted in a pyo-salpinx which for several months regularly filled and discharged an ounce or two of pus through the uterus. At last, much to the delight of the patient and the surprise of yours truly, it volun-

tarily ceased activity. Fortunately, to-day every town of any consequence possesses several thoroughly up to date and clean nurses.

The clean trained nurse is the aseptic doctor's right hand bower. On her rests a large part of the success or failure of the physician in the treatment of obstetrical cases.

Metal and glass catheters should be thoroughly sterilized before and after using, and in the intervals of use should be kept in a solution of formaldehyde and carbolic acid. Speaking of catheterization reminds me of a recent experience. Some days ago I had occasion to order the catheterization of a patient by a nurse who claimed that she was thoroughly familiar with the procedure. I, supposing that she was armed with the proper sterile silver or glass catheter, allowed her to proceed. She drew the urine all right, but you can imagine my surprise when she asked me if the use of this same rubber catheter would injure her husband who was suffering from a chronic cystitis (which I have good reason to believe was of specific origin). She informed me that the catheter she had just used was an exceptionally good one, as it had done good service for her husband during the past six weeks.

But multiplication of these matters will only make this paper too long to be interesting. Individualization is unnecessary. It may all be summed up in a few words: Observe in every case absolute cleanliness, surgical cleanliness. It pays. When there exists the slightest possibility that the hands of the obstetrician may be infected, or that the genital organs of the woman may conceal local germs of infection, then redouble all efforts at sterilization. The healthy, ordinary secretions of the vagina are in their effects antiseptic. Nature has here, as in many other places, interposed conservatively for the welfare of the patient. It is only when in our own bungling unsanitary ministrations, we overwhelm the guardian of the citadel with hostile germs, that danger results. With this natural safeguard, then, if we allow the parturient woman to become infected *through our neglect*, it is little short of a crime.

Gentlemen, I sincerely hope that the time may come when a puerperal infection brought on by the neglect of the doctor to enforce asepsis will be considered as good grounds for a suit of malpractice, as a deformity resulting from a fractured bone.

It may be absolutely impossible to carry out in all cases a thoroughly aseptic procedure. Still, I feel that we have frequently overlooked many of these precautions which are of paramount importance in saving the lives of patients.

**Discussion.**

DR. E. L. BOOTHBY, of Hammond—It is an old, and I believe true saying, that cleanliness is next to godliness, and if that is so, good green sterilized soap in a collapsible tube, is a means of grace; and I have no doubt our friend Dr. Cox is trying to enter the happy hunting ground with his friend and confrère the Chippewa surgeon, who assisted him in treating a fracture a year ago. He, being according to his own statement and acknowledgment to me, an ungodly man, therefore is trying to make good and enter that happy hunting ground through cleanliness. It is commendable, for I've no doubt he needs it.

I have very little objection to make or criticism to offer upon the doctor's paper. Still, however, I do not think it is possible in practical every day life in the country to have all ideal conditions present in every ease of labor, or, in fact, in hardly any case, that we might wish we did have. The picture that he draws for us of a future president lying in bed in a mass of filth is one with which I think every general practitioner is more or less familiar (except that none of mine have as yet become so strenuous).

It has not been my custom in such cases as the one the Doctor has so graphically described, to attempt very much in the way of aseptic treatment. It should have been done before the beginning of labor; now when I reach a case of labor that has already terminated under such conditions as the doctor pictures, I do very little interfering. Had you had present, previous to the labor, a trained nurse who could put that patient in an aseptic condition, then you could talk about asepsis, but after conditions such as pictured by the essayist, asepticism is impracticable.

And I have yet to see the case of septic infection in a condition such as Dr. Cox pictures, and I have seen my share of labor cases in the past 30 years. I do not think there are many cases of real septic infection in those cases where we find dirty beds, dirty skin and dirty clothes. In the country there is certainly an immunity among mothers that we must take into consideration—I think it is a strong factor in their favor.

I have been asked to be very brief in my discussion, and as the hour is late, and we are already behind in our papers, I will not attempt anything like a discussion of this subject, although the subject is worthy of it; but I will forbear.

DR. J. M. DODD, of Ashland—The subject seems to have been covered by Dr. Cox very thoroughly, and his native eloquence has added much to his logic. As has been said by the gentleman who preceded me, we are behind time and I will not take the time of the society other than to make a few remarks.

The theme of the doctor's paper has doubtless appealed to us many times. Aseptic obstetrics is truly ideal but it is not absolutely practicable, which we must conclude when we remember how universal is the presence of germs, and how impossible is complete sterilization of the human body. That principle which we call immunity, which is due to organic antagonism, may account for the absence of auto-infection, thus protecting the parturient woman. We are taught, and have good reason to believe, that infection which causes puerperal septicemia is introduced from without by the attendant physician or nurse; but we cannot say with absolute assurance that this is correct, for when we consider the parturient canal and its liability to become the habitat of various germs, and the difficulty of removing these organisms, especially from the

mucous membrane, it must be evident to us that we are assuming a good deal when we speak of aseptic obstetrics. I maintain that absolute asepsis in obstetrics is impossible. The universal presence of germs is well known; and in a region such as the genital tract of the female, with its liability to infection from without, pathogenic bacteria are very liable to be present. While I have not demonstrated it by culture experiments, I believe the pregnant uterine body is free from germs, but not so the vagina. I believe that if the mucous membrane of the parturient canal can be kept intact, infection will not occur if ordinary antiseptic precautions are taken. We know that the mucous membrane prevents, to a remarkable extent, the penetration of bacteria into the deeper structures. For that reason labor should be allowed to proceed slowly so that the parts may adapt themselves to the distention required, the pains being relieved in the meantime by morphine, etc. The cries of the suffering woman for relief often lead to frequent examinations and forcible dilatations of the os, and other means to assist progress of labor. I have attended obstetrical cases under almost every possible condition, from the dirtiest hovel where a dirty washdish, a grimy towel and a piece of laundry soap were the only visible means of cleanliness, to the aseptic hospital where every modern means conducive to asepsis was at hand, and my results have been surprising in both cases. In the first instance I have been surprised at the absence of sepsis under the former conditions, and also surprised at its occasional occurrence under the latter conditions.

Prolonged labor requires the more liberal use of antiseptics, and while our results may not always be ideal, I believe that they may be made nearly so by the methods suggested in the doctor's paper.

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**Medical Statistics in Prussia.** The memorial of the Prussian statistical bureau, issued in connection with its one hundredth anniversary, contains a detailed statement of the mortality on account of tuberculosis and cancer since 1876. It appears that the tuberculosis mortality in Prussia reached its highest in 1886, with 88,283 deaths, and since then has constantly decreased. In 1902 and 1903 the number of deaths from tuberculosis was 67,445 and 66,726, respectively. A very gratifying feature is found in the fact that in the larger cities, where statistics are most reliable, the decrease is especially great. In 1886 in all cities over 100,000 inhabitants the death rate on account of tuberculosis was 37.36, and in 1902 only 22, per 10,000 inhabitants. Unfortunately the mortality from cancer indicates a notable increase of that disease. In 1901 and 1902, 21,488 and 21,876 persons died of cancer in Prussia, against 10,919 in 1886. City communities suffered most from the increase. In 1886 the mortality from cancer in all Prussian cities was 5.71, against 8.75 in 1902, and in rural communities 2.75 in 1886, against 4.35 in 1902, per 10,000 inhabitants.

## WISCONSIN MEDICAL JOURNAL.

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### EDITORIAL COMMENT.

#### "THE LAST BATTLE OF A HUNDRED YEARS' WAR."

"One female stegomyia, with an old oyster can in your back yard, with a little water in it, can hatch out 200,000,000 mosquitoes in one year. Clean out your cans, your broken bottles and your tubs!"

Thus—(we quote from "Charities")—did one of the numerous speakers to the New Orleans populace address his auditors, and convince them of the needs of the hour. Without doubt New Orleans' culpability is great because of the criminal neglect of sanitation exhibited there. But we must marvel at what has actually been accomplished since the need for action was shown in this plague stricken city. It is but two years since a system of modern, sanitary sewage disposal was inaugurated in that city, nor has it as yet neared com-

pletion. Open street gutters, often turned into big filthy pools in the low-lying parts of the town where drainage was difficult, and un-screened cisterns, were to be found, and were abundantly in evidence in "Little Palermo"—one of the districts in which the scourge later developed with such great intensity.

But New Orleans has risen to the emergency. By means of lectures, stereopticon demonstrations, proclamations, exhortation from the pulpit and press, the people—one and all—have been made to realize how eradicable is the disease now raging with such virulence in their midst, and how unnecessary its spread. The theory that the mosquito is the bearer of the yellow fever contagion has been so generally adopted, that every effort is now directed to the destruction of all possible breeding places, and in a brief time, the good results of this municipal house-cleaning has been made evident.

Ward meetings have been held, and thorough organization effected. These volunteer ward organizations hold weekly conferences and are doing yeoman service in oiling and screening cisterns (60,000 of these mosquito breeding places are being guarded and kept under inspection—surely a monumental task), and disinfecting stagnant pools and gutters. They have put themselves at the disposal of Dr. White, of the Marine Hospital Service, and so useful are they to him that he has found a continuance of the labors of this volunteer organization desirable.

The campaign of education against filth is now being actively waged, and with the completion of a modern sanitary, and effective sewage system, and a good water supply, the stegomyia ought to be dislodged for all time. When this is accomplished, "the last battle of a hundred years' war" will have been successfully fought, and the science of sanitation will have achieved a wonderful victory.

#### THE BRITISH MEDICAL ASSOCIATION.

The prospective meeting of the British Medical Association in Toronto, in 1906, will be far reaching in effect. Once before, in 1897, a large number of the prominent members of the English profession crossed the ocean in recognition of the medical labors of their Canadian countrymen. The interests of the Dominion are so closely allied with those of our own country—in fact are so much a part of our own—that we may be privileged to entertain a feeling of pride in the selection of Toronto for the British Association's next meeting place.

Unquestionably, the visiting foreigners will take the opportunity presented to visit our medical centers, and there will result a generous

interchange of ideas, and the means will be given for a closer personal acquaintanceship among men who are known to one another only by reason of their literary labors in the field of medicine.

#### AN INSURANCE DISCLOSURE.

The Armstrong Legislative Committee, in the course of its inquiries into the financial transactions of large insurance organizations, has, according to late reports, uncovered criminal collusion between examining physicians and insurance agents. Although all large insurance companies employ certain means of inspecting their risks prior to the issuing of policies, still this is by no means so thoroughly done in all cases as to make impossible the recommendation of a poor risk provided the medical examiner is blind to his duty, and unmindful of his trust, and the agent similarly dishonest.

It is, we presume, a hopeless task to reform some men, and unquestionably there are those in the ranks of our profession as in all other walks of life, against whose knavery a long term in prison would be the community's only safeguard.

We trust that all insurance companies will find it to their profit to enter into the most scrutinizing investigation of all risks upon their books, and quickly rid themselves of their dishonest agents, and their dishonest and dishonored medical examiners—if such there be. Criminal alliances of this kind are offenses which, we hope, are within the jurisdiction of the courts, and there could be no more salutary lesson than the detection and punishment of these despicable offenders.

#### “HIS EYES POPPED OUT OF HIS HEAD.”

The dear public was recently treated to the following bit of interesting medical news:

##### BERLIN MAN'S EYES FALL OUT.

Berlin, Sept. 2.—An extraordinary case of a man whose eyes drop out, has been brought before the Berlin Medical Association. He is 26 years of age. Waking up suddenly one night in excruciating pain, he found his left eye lying on the pillow, but with the aid of relatives, he was able to replace it, his sight not being in any way affected. If he leans forward his eye will drop out, and he lives in constant terror. Sometimes it is the right eye, sometimes the left, which falls out.

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## ITEMS OF INTEREST.

**State Board Journal of America** is the title of a monthly magazine which has just issued its first number. It is "devoted to the mutual interest of Boards, Students and Colleges of Medicine, Dentistry and Pharmacy," and seeks to become the organ of these in "a form in which the rights and opinions of all parties concerned shall be impartially presented and fully discussed." The Journal proposes to publish laws adopted in various states, and everything related to examinations, etc. This issue contains examination questions asked by several state boards, and a digest of information concerning requirements, names of officers, etc., in each state.

We are informed that it is published by the State Board Publishing Co., of Washington, D. C., and cannot discover the names of editor or publisher. Why this secrecy, we do not understand.

**J. Franklin Ford, M. D.**, of Omro, died August 28th, aged 50 years. He was graduated from Rush Medical College in 1887 and was one of the best-known physicians in the Fox River Valley. He was prominent in all the meetings of the Fox River Valley Medical Society, often appearing on the programs. Last January, Dr. Ford went to Cuba for his health, but was obliged to return in June.

**New York Municipal Tuberculosis Sanatorium**, The New York Board of Estimate and Apportionment has appropriated \$250,000 for the purchase of 1,200 acres, including forty farms, at Mount Hope, Orange County, as a site for a municipal tuberculosis sanatorium. The site is 1,000 feet above tide-water in the Catskills and is twenty-five miles from the Hudson River back from West Point.

**The Oshkosh Common Council** has refused to grant the petition of physicians of the city, asking permission to ride bicycles on the sidewalks of unimproved streets or to drive over bridges faster than a walk in answering "hurry up" calls.

**The Physicians' Business Association** of Racine has made out a list of people who engage physicians and refuse to pay for the service. No delinquent can secure services without payment in advance.

**Indiana Medical College**, The School of Medicine of Purdue University, is the title given the Medical College of Indiana at its consolidation with Purdue University, Sept. 1st, 1905.

**James E. Smith, M. D.**, of Mauston, a graduate of the Medical College of Ohio in 1870, died Sept. 12th. Dr. Smith was a member of the Juneau County Medical Society.

**Henry L. Day, M. D.**, of Eau Claire, a graduate in 1860 of the Medical Department of the University of Buffalo, and at one time mayor of Eau Claire, died Sept. 17th.

**Dr. U. O. B. Wingate** will deliver an address on "The Tuberculosis Problem," before the State Teachers' Association, at Stevens Point, on October 14.

## THE STATE MEDICAL SOCIETY OF WISCONSIN.

ORGANIZED 1841.

### Officers 1905-1906.

J. R. CURRENS, Two Rivers, President.

A. W. GRAY, Milwaukee,  
1st Vice-President.

A. GUNDERSON, La Crosse,  
2d Vice-President.

W. E. FAIRFIELD, Green Bay, 3rd Vice-President.

CHAS. S. SHELDON, Madison, Secretary. S. S. HALL, Ripon, Treasurer.

A. T. HOLBROOK, Milwaukee, Assistant Secretary.

### Councilors.

#### FOR ONE YEAR.

1st Dist., H. E. Sears, - - Beaver Dam  
2nd Dist., G. Windesheim, - - Kenosha

#### FOR TWO YEARS.

3rd Dist., F. T. Nye, - - - Beloit  
4th Dist., C. A. Armstrong, - - Boscobel

#### FOR THREE YEARS.

5th Dist., J. F. Pritchard, - - Manitowoc  
6th Dist., J. S. Walbridge, - - Berlin

#### FOR FOUR YEARS.

7th Dist., W. T. Sarles, - - Sparta  
8th Dist., T. J. Redelings, - - Marinette

#### FOR FIVE YEARS.

9th Dist., D. L. Sauerhering, - Wausau  
10th Dist., E. L. Boothby, - - Hammond

#### FOR SIX YEARS.

11th Dist., J. M. Dodd, - - Ashland  
12th Dist., A. T. Holbrook, - - Milwaukee

NEXT ANNUAL SESSION, MILWAUKEE, JUNE, 1906.

The Wisconsin Medical Journal, Official Organ.

## SOCIETY PROCEEDINGS.

### PROCEEDINGS OF THE COUNCIL.

THURSDAY, JUNE 8TH, 3 P. M.

The Council was called to order by the President.

There were present Drs. Sauerhering, Armstrong, Dodd, Sears, Sarles, Boothby, Nye and Sheldon.

On motion of Dr. Sears, the resolution adopted in the House of Delegates, recommending the renewal of the contract with the Wisconsin Medical Journal at \$1.20 per member, was approved.

On motion of Dr. Sauerhering, the Councilors were authorized to send to the State Secretary the names of non-members, to be sent extra copies of the Journal as an inducement to join the Society, to be paid for by the State Society.

The following resolution was adopted and referred to the House of Delegates:

*Resolved*, That the Wisconsin Medical Journal, having been adopted as this Society's official organ, be hereby so considered, and be accorded all the privileges belonging to the official Annual Transactions, including the right of first publication of all papers presented at the Annual Meetings as per Section 2, Chapter X, of the Constitution.

Dr. Boothby suggested a plan by which the best paper presented in each County Society meeting should be read at the meeting of the District Society and that the best paper in each District Society should be offered to the Program Committee of the State Society. On motion the plan was adopted and referred to the House of Delegates.

As to Door County Medical Society, asked to be disbanded by its president, it was recommended that the Councilor, Dr. Redelings, be requested to see if it cannot be united to Kewaunee County. The situation in the sparsely settled counties, where great difficulty is experienced in attending meetings, was discussed. It was the sense of the Council that in many cases county lines be disregarded, and the members in these localities be allowed to select that County Society which they can most conveniently attend and with which they wish to affiliate.

In furtherance of this idea the following resolution, offered by Dr. Dodd, was adopted:

*Resolved*, That the Councilors be given discretion to change the boundaries of Councilor districts in accordance with the wishes of the members of the County Societies involved, the convenience of reaching a common meeting place being considered.

Dr. G. E. Seaman, chairman Committee on Public Policy and Legislation, made a report as to the passage of the medical bill—Sub. 353 A., in which it appears that the balance of unpaid expenses amount to \$1,129.10. The question of meeting these expenses was referred on motion to the House of Delegates, and it was decided that meanwhile a subscription paper be circulated among the members.

On motion adjourned. C. S. SHELDON, *Secretary*.

FRIDAY, JUNE 9TH, 9:30 A. M.

Meeting called to order by the President.

There were present Drs. Sarles, Nye, Scars, Armstrong, Dodd, Boothby and Sheldon.

On motion, it was resolved that the Council ratify the action of the House of Delegates in appropriating \$250.00 to the Committee on Public Policy and Legislation for expenses in connection with the passage of the medical bill, Sub. 353 A.

C. S. SHELDON, *Secretary*.

FRIDAY, JUNE 9TH, 1:30 P. M.

Council called to order.

Present: Drs. Sauerhering, Sears, Windesheim, Dodd, Boothby, Sarles and Sheldon.

A communication from Dr. Conklin, of the Douglas County Medical Society, was referred by the Council to the Councilor of the district, Dr. Dodd, to be reported to the Council in January session, if the matter should not at that time be adjusted.

C. S. SHELDON, *Secretary*.

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**MINUTES OF THE FIFTY-NINTH ANNUAL MEETING OF THE  
STATE MEDICAL SOCIETY OF WISCONSIN,  
LA CROSSE, JUNE 8, 9, 10, 1905.**

**PROCEEDINGS OF THE GENERAL SESSION.**

THURSDAY, JUNE 8, 11 A. M.

The Fifty-Ninth Annual Meeting of the State Medical Society of Wisconsin, was held at the County Court House, La Crosse, June 8, 9, and 10, 1905.

The meeting was called to order at 11 A. M., June 8th, by the President, Dr. C. W. Oviatt.

Invocation was offered by the Rev. C. N. Moller, of La Crosse.

DR. EDWARD EVANS, of La Crosse: Mr. President and ladies and gentlemen of the State Medical Society of Wisconsin: I have been asked to introduce to you a gentleman who will welcome you to the city of La Crosse. He is one whom you would all be delighted to meet, if he were not a physician. As a physician you will be doubly pleased to meet him. He is one of our public-spirited, energetic, far-seeing, rich without money men, who has done so much for La Crosse that we look to him to be our leader in most things that have regard to the forwarding of our city. I take great pleasure in introducing to you Dr. Wendell A. Anderson.

DR. WENDELL A. ANDERSON: Mr. President and Members of the State Medical Society of Wisconsin: Owing to the absence of our worthy mayor due to an engagement elsewhere at this hour, the pleasant duty has been allotted me, in behalf of the citizens of La Crosse, of extending to the members of your Society and to all those who are associated with you on this occasion, a few words of formal greeting and a most cordial welcome to our city.

This welcome would not be complete did I not assure you in their behalf that we highly appreciate the honor you have conferred upon this city by selecting it for this annual meeting.

When the mayor phoned me yesterday I think he must have been reading about Aesculapius and Galen, for he seemed to think, from his remarks,

that this would be an occasion for some ancient history, as he said to me, "You used to be a doctor, you used to be mayor," and so on. But when I asked the Committee of Arrangements what more they wanted than a word of welcome such as I have given, I was told to cut it short and not to throw any bouquets.

I do not know how it is in your respective localities, but the doctors here have become schooled in adversity and expect that all floral offerings will be reserved for their patients after they are through with them.

It was our custom for years, in speaking to strangers about La Crosse, to style it the second city. That was the fact until the last census was taken. A few years before that, however, a normal school was located in one of our northern cities, and we were told that the people there, all of them, immediately commenced the study of mathematics, paying especial attention to addition and multiplication, in order that they might fit themselves to become census enumerators. The result was, as you can see, that when it came to a show-down our conservative enumerators were knocked out as effectually as the Russians were recently in the Sea of Japan. This is only temporary, however, for we have sent some representatives up there to attend that school a short time, and the reports received we shall use for our benefit later.

Now, the law provides that no enumerator shall count a person twice. You remember there is a very large city of a neighboring state near to the point of which I am speaking (and, by the way, if there is any gentleman here from that locality, let him remember that I am representing the mayor, and that the mayor will be back to-morrow, and he can have it out with him). Up there they have two or three sets of enumerators, and when a man comes in from the adjoining city, he is counted by one enumerator and when he goes out he is counted by another. Another thing: In the matter of addition the rule there, instead of the old-fashioned way in arithmetic, as we all understood it, when adding up a column to put down the right hand figure and carry the left, is changed, and they put down the smallest figure and carry the largest, right or left.

But, gentlemen, even if we are not the second city in the state, our hearts beat just as warmly for the stranger guest. We have a city that we are proud of, that we have faith in, that we believe in; and like others, perhaps, one we may be a little too apt to boast of. I may say that we are very glad that there are representatives here from the eastern part of the state, for I believe they will be able, upon their return, to do away with the somewhat erroneous impression that prevails there to some extent, that the sun rises in Lake Michigan and sets on a line just west of the Wisconsin River.

The attractive features of this city and those numerous industries that go to make it such a prosperous place, I think it is my duty to leave to be unfolded by the Committee of Arrangements.

But as I represent the mayor, I can speak of one or two things that I do not think the committee will refer to, and which perhaps it is not customary to mention on such an occasion as this, when you are always putting the best foot forward.

Now, in strolling about the city on our residence streets, if you should happen to see a placard attached to a beautiful shade tree, notifying you to

pay your dog tax on or before the 15th of May this year, last year or some other year, as the case may be, do not get nervous, because that simply applies to the residents of this city.

We had, a few years ago, a mayor (I was fairly well acquainted with him) who had a great antipathy to the poles which so disfigure the streets of many of our cities and villages. He was never happier, I believe, than when he was attending the funeral of some one of those antiquated poles which were being removed, and they were removed largely from the business district. Now, if you notice upon some of these antiquated poles various kinds of placards and handbills, kindly bear in mind that those things are supposed to represent, in the mind of our board of public works, a coat of paint and the words "Post no Bills," which the council ordered for those poles about four years ago. I often feel, when I see those antiquated notices, that people who come here from abroad may not understand them, and that the board of public works ought to have a slip pasted beside them, from that beautiful poem, "Attie Treasures",

*"New-fashioned times is behind the age,  
Old-fashioned things is new,  
And things ain't new or worth a cent,  
Unless they're 'antik' too!"*

Should you see on those poles a notice to take "Clark's No. 21," to try "Gray's Yerba-Santa," please remember that those instructions, like Dr. Osler's chloroform prescription, are suggestive rather than mandatory.

And speaking of Dr. Osler, as his suggestion a few months ago attracted so much discussion in different parts of the United States, it may interest you to know when or about when the idea first occurred to him.

In 1885 the Medical Department of McGill University of Montreal, held a banquet at the opening of some new building. It is customary there (or was until I was there and made one or two speeches) to have the health of the President of the United States proposed, next to the Royal family. I said this was the custom until I had been there and responded to that toast a few times. Dr. Osler was also there from Baltimore. When the toast to the President of the United States was proposed, I responded, telling them what a great medicine man he was, how expert in surgery, how he performed that capital operation of decapitation to the admiration of all his followers, and how I had personally been benefited by his recommendation to me, of a change in climate. Well, when I was through it occurred to me that I might have talked too long, but a gentleman sitting by me reassured me with the statement that I had talked less than seven minutes. The toasts went on, and Dr. Osler was called on at about 11 o'clock, and he pitched into the methods of the American medical colleges in his usual frank manner. And so they went on, speech following speech, until after 2 o'clock, when another toast was proposed, and a venerable, dignified-looking old gentleman arose, having in his hand a huge roll of manuscript—mind you, this was after 2 o'clock in the morning—and apologized to the people there because he had not had time to prepare himself as he ought to, having received his notice only ten days before! I remember very well that, being from the West, my first thought was for a shot gun, and I presume it was then and there that Dr. Osler was inspired with the thought that a more refined treatment would be chloroform.

Gentlemen, although I see no shot gun here I do not know how much chloroform there may be, and it is perhaps better that I should cut this rambling address short, as requested by the committee.

Before doing so, however, I wish to give the President and the members the countersign. In giving this I wish to explain that we generally give a countersign that has some local significance, and the chief of police, in talking the matter over with me, thought that "long feet" would be a very appropriate word. He said if any of those gentlemen are out late at night and on Main Street, all they have got to do is to look up at the signs projecting far out from the buildings and remember that the ordinance provides that those signs shall only be three feet in length.

Now, Mr. President and gentlemen, I trust that the results of your deliberations here will be of the greatest benefit to you all, and, under the management of the Committee of Arrangements, that your impressions will be so pleasing that you will all be in favor of semi-annual sessions hereafter, in order that you may the earlier come to La Crosse again, when I assure you you will be most heartily welcomed.

THE PRESIDENT: We all thoroughly appreciate our cordial welcome to this charming city with its specially prepared weather, and desire to thank Dr. Anderson for his genial words. Speaking of the pride of being the second city in the state, I remember that 20 years ago when I located in Oshkosh we were proud of being able to give ourselves that title. I never knew of the development of the mathematical genius that the doctor has told about, and I only know that we died hard in Oshkosh, but we finally had to bow to the mathematical genius of La Crosse and other cities, until now we have to be satisfied with ranking fifth in the list. Some things, however, cling to Oshkosh that we are not afraid of ever being taken from us by our rival towns. A long time ago it was said that Oshkosh was a splendid place to go to and have fun with the boys, and we still hold that to be true, and we are able, willing and anxious at all times to demonstrate it. The mayor has kindly given us the key to the city; but I understood from the Program Committee that there were some restrictions, and I sent him word through Dr. Evans that, as President of this Society, I would be personally responsible for the action of every member, but I thought I should need a little help in looking after the Milwaukee delegation.

Aside from that I think I will have no trouble. I am sure we all appreciate the beauties of La Crosse. Those of us who have never been here before are, I know, more than favorably impressed, and I have no doubt that we shall have a splendid meeting.

We will now listen to the report of the chairman of the Committee of Arrangements, Dr. Evans.

Dr. Evans spoke as follows:

GENTLEMEN OF THE STATE MEDICAL SOCIETY OF WISCONSIN: Owing to the liberality and hearty coöperation of the profession in La Crosse, the work of your Committee of Arrangements has been made both easy and agreeable. The La Crosse County Medical Society has provided all the funds necessary for your entertainment. As individual members—from the Presi-

dent down to the newest recruit—they have vied with each other in an endeavor to help this committee to make your stay with us one to be agreeably remembered. If you find your visit pleasant you will give the credit to the members of my committee who assisted me so heartily—Drs. Gundersen, Callahan, McArthur, Bradfield and Marquardt, and to the profession of La Crosse who contributed so generously. Nothing remains for me but to announce what has been prepared for your entertainment and pleasure.

This evening at 8 o'clock all will attend the lecture by Professor Vaughan at the Y. M. C. A. Hall. As you secure your badge of the Society from the Secretary, we wish you also to procure a ticket for the lecture for yourself and ladies as well as a ticket for the boat ride. This will prevent any confusion. Your badges will admit you to the reception and scientific exhibit on tuberculosis by Professor Russell of the University of Wisconsin, at Hotel Stoddard, which will immediately follow the lecture. No one should fail to attend these functions this evening—where we hope to have you meet the élite of La Crosse and have a delightful time.

To-morrow (Friday, June 9th) the visiting ladies will meet in the parlors of Hotel Stoddard at 10 A. M. They will be taken for a drive about the city and its parks by the committee of ladies in charge. After this they will have luncheon at the Country Club, returning to the city by trolley.

Supper on Friday evening will be served in all the hotels promptly at 5 P. M., so that all may be aboard the excursion steamer at 6 o'clock sharp. With the members of our Society and their ladies, we hope to have with us on this excursion many people of our city to help entertain you and give you a good time. A ride on the "Father of Waters" on a rare June day is a delight. We hope to make to-morrow evening a memorable one. Through the courtesy of its officers the badge of this Society will admit visiting doctors to the La Crosse Club.

Hoping, Mr. President, that this arrangement may meet with your approval and that of our guests, and assuring you of the pleasure afforded the profession and citizens of La Crosse in entertaining you, we tender you the keys of the city.

THE PRESIDENT: We will now receive the report of the Program Committee, Dr. W. H. Washburn, chairman.

Dr. Washburn presented the following report:

MR. PRESIDENT AND MEMBERS OF THE STATE MEDICAL SOCIETY OF WISCONSIN: The report of the Program Committee is practically the printed program. Last year at the meetings of the House of Delegates the question came up as to the division of the Society into two sections for this year and for subsequent years, and although the proposition was defended by a good many members of the House of Delegates, it was opposed by some, and finally the House of Delegates left the question of the division of the Society into sections to the Program Committee. After considerable deliberation they decided not to divide the Society this year, but to hold their sessions all at once.

Furthermore, it was decided to make a special effort this year to procure discussion of papers, and I think that a greater effort has been made this year than at any previous time to bring out a full and free discussion of the papers. Hitherto the number of papers has been so great that members who



desired to discuss the papers refrained from doing so on account of the time being too limited. This year we have only sixteen papers on the program, and if there are no failures on the part of those who have promised these papers, it is estimated that it will occupy the full time of the Society for each of the sessions. I believe that all of the men who have promised to take part in the discussions will be here, and I trust, and the Program Committee hope, that the result of the work of the committee will be such as to warrant their expectations. The program is here presented. It is as follows:

## ORDER OF PROCEEDINGS.

THURSDAY, JUNE 8TH, 1905.

Morning Session, 11:00 o'clock:

Call to order by the President—C. W. Oviatt.

Invocation—Rev. C. N. Moller.

Address of Welcome—Mayor Torrance.

Response by the President of the Society.

Report of Arrangements Committee—E. Evans, Chairman.

Report of Program Committee—W. H. Washburn, Chairman.

Report of President of the Council—W. T. Sarles.

Afternoon Session, 2:00 o'clock:

Address of the President, Dr. C. W. Oviatt, Oshkosh.

1. Ectopic Pregnancy—Dr. W. C. F. Witte, Milwaukee.

Discussion opened by C. H. Lemon, Milwaukee; C. C. Gratiot, Shullsburg.

2. The Permissibility of Medical Abortion—Dr. W. E. Fairfield, Green Bay.

Discussion opened by T. J. Redelings, Marinette; J. R. Barnett, Neenah.

3. Squint—Dr. Nelson M. Black, Milwaukee.

Discussion opened by J. A. L. Bradfield, La Crosse; G. E. Seaman, Milwaukee.

4. The Clinical Aspects of Diabetes—Dr. C. J. Combs, Oshkosh.

Discussion opened by F. W. A. Brown, Oshkosh; B. Clark, Oshkosh.

5. The Present Status of the Surgical Treatment of Undescended Testis, with Report of Cases—Dr. Chester M. Echols, Appleton.

Discussion opened by W. E. Fairfield, Green Bay; A. H. Levings, Milwaukee.

8:00-9:00 P. M.

The Annual Address in Medicine. (Public invited.) V. C. Vaughan, Professor of Hygiene, University of Michigan. "Tuberculosis and Its Prevention."

9:00-11:00 P. M.

Conversazione at Hotel Stoddard.

Exhibit on Tuberculosis. Dr. H. L. Russell, Professor of Bacteriology, University of Wisconsin.

FRIDAY, JUNE 9TH.

Morning Session, 9:00 o'clock:

6. Placenta Previa—Dr. G. A. Hipke, Milwaukee.

Discussion opened by T. L. Harrington, Milwaukee; G. J. Kaunheimer, Milwaukee.

7. Aseptic Obstetrics—Dr. J. P. Cox, Spooner.  
Discussion opened by E. L. Boothby, Hammond; J. M. Dodd, Ashland.
  8. The Newer Pathology—Dr. J. M. Beffel, Milwaukee.  
Discussion opened by O. Fiedler, Milwaukee; C. J. Combs, Oshkosh.
  9. Causes and Symptoms of Cardiac Insufficiency—Dr. James D. Madison, Milwaukee.  
Discussion opened by W. H. Washburn, Milwaukee; F. R. Weber, Milwaukee; A. J. Patek, Milwaukee.
  10. Infantile Scurvy, with Special Reference to Diagnosis—Dr. A. W. Gray, Milwaukee.  
Discussion opened by Thos. H. Hay, Milwaukee.
- Afternoon Session, 2:00 o'clock:
- The Annual Address in Surgery. Hugh H. Young, Associate Professor Genito-Urinary Surgery, Johns Hopkins University. "The Present Status of the Surgery of the Prostate."
11. Arterio-Sclerosis—Dr. L. A. Potter, West Superior.  
Discussion opened by G. H. Conklin, West Superior; P. H. McGill, West Superior.
  12. The State Society, The State University and State Medicine—Dr. Chas. R. Bardeen, Madison.  
Discussion opened by E. Evans, La Crosse; A. J. Puls, Milwaukee; Prof. H. L. Russell, Madison; C. A. Harper, Madison; U. O. B. Wingate, Milwaukee.
  13. The Pathology and Non-Surgical Treatment of Injuries of the Stomach—Dr. Wilhelm Becker, Milwaukee.  
Discussion opened by Warren B. Hill, Milwaukee; Louis F. Jermain, Milwaukee.

6:00-10:00 P. M.:

\* Steamboat excursion on the Mississippi River.

SATURDAY, JUNE 10TH.

Morning Session, 8:30 o'clock: :

14. The Etiology of Appendicitis—Dr. Reginald H. Jackson, Madison.  
Discussion opened by E. Evans, La Crosse; C. O. Bechtol, Madison.
15. The Diagnostic Value of Cystoscopic Examinations—Dr. W. A. Gordon, Jr., Oshkosh.  
Discussion opened by P. H. Jobse, Milwaukee; R. G. Sayle, Milwaukee.
16. Blood Examination as an Aid to Diagnosis—Dr. M. Dvorak, La Crosse.  
Discussion opened by O. A. Fiedler, Milwaukee; J. H. Sure, Milwaukee.

Adjournment 11:30 A. M.

THE SECRETARY: I have conducted correspondence with 62 secretaries of county societies in the past year, many of whom I have never met. I want to see these men and become acquainted with them personally, because I feel acquainted somewhat with them already from correspondence. Moreover, we may perhaps exchange views mutually advantageous. I wish all the county secretaries present would meet with the State Secretary, members of the Council and delegates, at the close of this meeting, in the adjoining room.

Recess until 2 P. M., same day and place.

THURSDAY, JUNE 8TH, 1905, 2 P. M.

Meeting called to order by the President.

PRESIDENT: Gentlemen, I wish to introduce to you to-day, a gentleman who is with us as our invited guest, who has made himself a reputation second to no man in the world, in his line of work. He has given us knowledge that we have been unable to get from any other source in this country. I take pleasure in introducing Professor Hugh H. Young, of Johns Hopkins University.

PROFESSOR HUGH H. YOUNG: I assure you that it has given me very great pleasure to respond to this very courteous invitation to come to your Society, and I feel very highly honored. I also assure you that I do not deserve anything that your President has said, and that he is entirely mistaken. At the same time I expect to have a very good time here and will be very glad to meet all of you. I have had an assistant for two years who came from this town, Dr. Harry Fowler, who is a splendid fellow, and I know everybody else in Wisconsin is of his type, and I shall be very glad to meet all of you. I thank you again.

Dr. C. W. Oviatt, of Oshkosh, then read the Annual Address of the President, after which the regular scientific program was called for.

Dr. W. C. F. Witte, of Milwaukee, read a paper on "Ectopic Pregnancy."

The paper was discussed and referred to the Committee on Publication.

Dr. W. E. Fairfield, of Green Bay, then read a paper on the subject of "The Permissibility of Medical Abortion." Paper discussed and referred.

Dr. C. J. Combs, of Oshkosh, read a paper on "The Clinical Aspects of Diabetes." On motion paper referred.

Dr. Chester M. Echols, of Appleton, read a paper on "The Present Status of Surgical Treatment of Undescended Testis, with Report of Two Cases." On motion paper referred.

THE PRESIDENT: We have now completed our program for the afternoon, and in talking with some of the members we thought if we could go on over into to-morrow's work we might possibly get through with the whole program to-morrow. There are many members who will find it difficult to get home if they remain over Saturday morning, and perhaps we had better do a little more work to-day.

Motion was made to go on with the program, and lost.

On motion a recess was taken until 9 o'clock, Friday, June 9th.

At the Y. M. C. A. Convention Hall, Thursday, June 8th, at 8 P. M., Dr. V. C. Vaughan, Professor of Hygiene, University of Michi-

gan, delivered to a very large audience, the public being invited, the Annual Address in Medicine.

In introducing Dr. Vaughan, Dr. Friend C. Suiter, of La Crosse, said: Ladies and gentlemen, in introducing the speaker of the evening, I wish to state as an axiom that the preservation of life is one of the first laws of nature. Life has been defined as that inherent power in an individual that tends to preserve itself, in spite of its environments. The laity as well as the profession have for centuries battled to preserve its identity. All individuals and segregated masses have labored against disease. Common diseases have common remedies, specific diseases specific remedies and antidotes, and among these the Great White Plague, tuberculosis, the most hostile enemy of mankind, apt to be most dreaded as an heritage, that claims in our own State of Wisconsin 2,500 victims per annum, has been chosen as the subject this evening to be presented to you by the greatest authority in the world. I take pleasure, ladies and gentlemen, in introducing to you Professor Victor C. Vaughan, of the University of Michigan.

Dr. Vaughan then read his paper, "The Prevention of Tuberculosis."

DR. OVIATT: I would suggest that the meeting send a telegram to Assemblyman Kinney, thanking him for the work he has done in connection with the passage of the sanatorium bill.

By unanimous vote the meeting decided to send such a telegram.

DR. E. EVANS, of La Crosse: There was some difficulty in getting a person of the right sort to speak to the people on this subject, but happily through the efforts of the Program Committee we succeeded in getting not only a man famous the world over for his scientific attainments, but also an enthusiast in the work and study of fighting against the "Great White Plague." We succeeded in getting Dr. Vaughan, at great inconvenience to himself, to come here and deliver this lecture; therefore I move a rising vote of thanks to him for his excellent address.

A rising vote of thanks was then given and the meeting adjourned.

FRIDAY, JUNE 9TH, 9:45 A. M.

Meeting called to order at the County Court House, Friday, June 9th, 1905, at 9:45 A. M., by the Vice-President, Dr. J. A. L. Bradfield, of La Crosse.

SECRETARY: In regard to the quackery bill, the newspapers spent large sums of money at Madison employing lobbyists and attorneys, and we simply had to give up or meet them with their own weapons. The result was an unprecedented expense, because we had to have a lawyer there for two or three weeks in order to look after the interests of the bill. The bill is finally secured, and it is a very good bill, and we are satisfied with it, and we are to be congratulated

upon having a bill upon the statute books which can suppress quackery. The Milwaukee County Medical Society has paid \$200 towards the expense of this work, and it leaves \$1,129.10 that must be paid somehow. We must pay it, and are willing to pay it. It is an honorable debt and we have our *quid pro quo* in the shape of the bill. We have discussed ways and means as to how this \$1,129.10 should be raised. We want to be on safe ground, and have made up our minds that about all we can contribute from the treasury at present is \$250, and perhaps \$250 next year. But the best way is to clean the matter up now, and the plan proposed yesterday and begun at the Council, was to get up a subscription, and \$50 was subscribed then and there. The subscription paper will be put in the hands of half a dozen canvassers, and now is the best time to circulate this paper, and we will raise what we can. We hope to raise \$300 or \$400 at this meeting. It is then proposed that we should send to each county society a full statement of the whole matter, and request them to contribute towards the indebtedness according to their means.

DR. J. R. CURRENS, of Two Rivers: I want to say in addition to what Dr. Sheldon said, that these fees are not alone for the present medical bill, but for other bills where services of an attorney were required. There were two bills introduced into the legislature by the medical union, or the quacks, which if passed would have been very detrimental to our profession, and considerable money was spent on killing those bills.

And in addition we had a bill regarding giving testimony in abortion cases, and one other bill, so that it does not come on the medical bill alone, although the hardest part of the fight was for our medical bill proper.

The paper on "Squint," by Dr. Nelson M. Black, of Milwaukee, was then called for. In the absence of the author, this paper was read by Dr. H. V. Würdemann. Discussed and referred.

Vice-President G. E. Seaman then took the chair.

Dr. G. A. Hiplke, of Milwaukee, then read a paper on the subject of "Placenta Previa." Paper discussed and referred.

Dr. J. P. Cox, of Spooner, then read a paper on the subject of "Aseptic Obstetrics." On motion paper referred.

A recess was taken until 2 P. M.

FRIDAY, JUNE 9TH, 1905, 2 P. M.

Meeting called to order by the President.

PRESIDENT: It has been one of the most pleasant customs of our Society to invite eminent talent from other states to address our annual meetings on the subjects of medicine and surgery, and we have been most fortunate this year in being able to secure the consent of Professor Hugh H. Young, Associate Professor of Genito-Urinary Surgery at Johns Hopkins University, to deliver the address

on Surgery. The fame of the remarkable work done by Professor Young has no doubt reached you all, and I take pleasure in introducing him to you at this time.

Dr. Young then delivered the Annual Address in Surgery.

DR. J. R. MINAHAN, of Green Bay: I move that the State Medical Society of Wisconsin extend a vote of thanks to Dr. Young for his very able and interesting address and demonstration.

Unanimously carried by rising vote.

Dr. G. E. Seaman in chair.

Dr. James D. Madison, of Milwaukee, read a paper on "The Causes and Symptoms of Cardiac Insufficiency." Paper discussed and referred.

Dr. A. W. Gray, of Milwaukee, then read a paper on "Infantile Scurvy, with Special Reference to Diagnosis." Paper discussed and referred.

Dr. L. A. Potter, of West Superior, read a paper on "Arteriosclerosis." Paper referred.

Dr. Wilhelm Becker, of Milwaukee, read a paper on "The Pathology and Non-Surgical Treatment of Injuries of the Stomach." Paper discussed and referred.

SATURDAY, JUNE 10TH, 1905, 9:15 A. M.

Meeting called to order by the Vice-President, Dr. J. A. L. Bradfield.

Dr. W. A. Gordon, Jr., of Oshkosh, read a paper on the subject of "The Diagnostic Value of Cystoscopic Examinations." Paper discussed and referred.

Dr. Sarles took the chair.

Dr. M. Dvorak, of La Crosse, then read a paper on "Blood Examinations as an Aid to Diagnosis." Paper discussed and referred.

At this point the chairman appointed Drs. Washburn and Newton to conduct the president-elect to the chair.

SECRETARY: While they are finding the new President, I wish to make a few remarks to the Society, of information and congratulation, because with our present method of administration the body of the Society is not conversant with the business proceedings and with the result of the year's work which have been laid before the House of Delegates and the Council.

(The new President was then conducted to the chair by Drs. Washburn and Newton.)

DR. WM. H. WASHBURN: I have the pleasure and satisfaction of introducing to you your next President, Dr. J. R. Currens, of Two Rivers.

PRESIDENT CURRENS: Mr. Chairman and members of the Wisconsin State Medical Society: I appreciate and thank you very much for the honor you have conferred upon me. I feel this morning like Dr. Anderson, "I am rich without money." This is an honor I never anticipated; it has come to me as a surprise; and I assure you that if the little work I have done for the profession of this state has been appreciated, you have more than cancelled the debt by your action in making me President of this Society. I am proud to represent 1,500 of the best physicians in Wisconsin, in the State Medical Society, as its head; and I assure you that anything I can do to make our next meeting a success, will be done, and I want all of you to help me. I feel as though I could leave my posterity no greater legacy than the honors which have been conferred upon me by the State and National organizations of the Medical Boards, together with the honor which you have conferred upon me to-day. While I went into this work without any expectation of honors other than the satisfaction that I was working in a good cause and the hope of seeing my efforts succeed, I feel doubly, yea, a thousand fold repaid by being placed at the head of these different organizations, and this honor that you have conferred upon me to-day, I consider the limit, and will again say, I thank you.

SECRETARY: We certainly reciprocate the kindly feelings and the anticipations of our President, and we are willing to offer our cordial coöperation and hearty aid in the work of the coming year for the State Medical Society of Wisconsin.

I was about to remark, when the President was introduced, that we ought to know something about the work that we have been doing this past year. The result of the work has been much better than I anticipated three or four months ago. I feared our membership had perhaps decreased, and I so wrote our chairman of the Committee of Arrangements in La Crosse.

We begin the year, however, with about three more members than when we closed the last year. A year ago, when we organized, we had 1,305 members who had paid the dues for 1904. Fifty came in during the year, so that up to the time when we made our new list for 1905, for the April dues, our total membership was 1,355. We begin our new year with a membership of exactly 1,358 who have paid their dues for 1905. We can reasonably anticipate a greater increase during the present year than last year, so that we may count on a membership of over 1,400 for the coming year.

I think this is a good showing. While in many localities the members have said that it was difficult to maintain an interest in the scientific work of the different societies, I have such faith in the usefulness, in the necessity, you may say, for the physicians in the more sparsely settled portions of the state to come together in medical societies, not only for scientific work, but for business interests as

well, that I believe this plan of county societies will sooner or later vindicate itself and that the inherent virtues and excellencies of the plan will make it succeed. When physicians are prosecuting their work year after year alone, so to speak, without consultation and without that mutual aid which they can get from such societies and from each other, they work at a disadvantage. In union there is strength, and there are a great many incidental advantages that we cannot have when we are doing our work alone. I feel, therefore, that we have great cause for encouragement to go on with our present plan, and that we shall eventually succeed, as we hope to, in securing as membership in these societies every good man in the state, which would mean a membership of something like 2,000. When we have a membership of that sort it will be entirely feasible to reduce our dues considerably, perhaps to \$1.50 a year for each member, which is not a heavy financial tax upon anybody. The benefits are such that no one should hesitate to pay \$1.50 a year for the privilege, not only of membership in your county society, but also in your district society, in the state society, and in the American Medical Association as well.

It is the plan ultimately, Dr. Simmons tells me, to consolidate all of these societies and to make a fee which shall include membership in them all. Of course we cannot govern the local dues so far as the county and district societies are concerned, but aside from that we hope that ultimately a fee of \$5 will constitute membership in your county society, in your state society and in the American Medical Association, and entitle you to those two periodicals, the Wisconsin Medical Journal, the official organ of the state society, and the Journal of the American Medical Association, than which there is no better journal published to-day; and it seems to me there is no practitioner in the State of Wisconsin who cannot afford \$5—which will cover a membership in all of these societies and entitle you to those two periodicals.

DR. SARLES: In behalf of the State Medical Society of Wisconsin I desire to express our heartfelt thanks to the profession of La Crosse for the royal manner in which this Society has been entertained, and move accordingly.

Motion seconded and carried by a rising vote.

On motion the Society adjourned *sine die*.

C. S. SHELDON, *Secretary*.

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## PROCEEDINGS OF THE HOUSE OF DELEGATES.

WEDNESDAY EVENING, JUNE 7, 1905.

The meeting of the House of Delegates of the State Medical Society of Wisconsin was called to order at the County Court House, at 8:15 P. M., by the President of the Council, Dr. W. T. Sarles.

The Secretary called the roll and 11 delegates or alternates were present as follows: C. S. Sheldon, Dane; R. F. Werner, Eau Claire; H. J. Stalker, Kenosha; J. A. L. Bradfield, La Crosse; W. T. Sarles, Monroe; Charles Flett, Racine; Samuel Bell, Rock; M. Sorenson, Vernon; H. B. Sears, Dodge; W. H. Washburn and H. E. Dearholt, Milwaukee.

President Oviatt took the chair.

PRESIDENT: We will now listen to the reports of councilors.

DR. H. B. SEARS of the First District:

I have not received the report of Jefferson County and I am sorry to confess that I have done comparatively little work and made comparatively little effort in this matter. I have visited only one county, and owing to accidents which were unavoidable, the others—excepting my own county—have not been visited. I think that when the reports are received there will not be found any falling off in membership. From three counties there is one increase in membership over last year. I think the factor to be emphasized most of all is the shirking of individual responsibility on the part of the members, feeling perhaps that the officers of the component societies, and the state societies, are to do the work and create all the enthusiasm and activity. I am also convinced that in smaller towns little prejudices and misunderstandings and enmities constitute an unpleasant factor in keeping some from becoming members. I would emphasize the importance of having each county meeting made attractive by the members, if possible, but if not thoroughly successful, then by calling outsiders in to give increased interest to the meeting. This is the only way to keep up the interest in or membership of the societies.

The attendance during the winter months, when the roads as well as the weather are bad, seems to have been very poor, so far as I have learned. During the summer season when the elements are more favorable there seems to be a disposition to turn out. In my own county we have found it very advantageous to call in outside help, having one paper at least furnished by an outside member. It has seemed to add interest to our meetings and has not detracted in any way from the efforts of the members of the county society.

There are a few things that impressed me particularly: first, that there should be prevalent in every county organization a sincere desire that every legalized practitioner should become a member, participate in the papers, and contribute toward the success and reputation of the society; second, that too great exaction should not be exercised in the qualification of candidates, and an opportunity may well be extended to nearly all, urging them to join. While we cannot afford to forget that the outside world holds us responsible

for the character and efficiency of the profession, it remains with us to make the standing individually and collectively of as high a type as possible. While candidates of good standing should be welcome to membership, we must maintain the dignity and worth of the society; it should not be brought to scorn or disgrace, but its ideals should be jealously guarded, so that none should feel that he can afford to remain outside.

Reciprocity between states in regard to license should be speedily accomplished. It seems as though there should be some guaranty or insurance against malpractice suits also.

The general medical practitioner, like all the rest of the world, is more or less selfish, and it seems as though if we cannot offer some special inducement and make each individual member feel that he is gaining something by membership, it is very difficult to interest him or retain his attendance or membership.

DR. F. T. NYE, of Beloit, then presented the report of the Third District, as follows:

I was glad to hear Dr. Sears make such a good report from his district. Of course down in the south end of the state we have many doctors, and especially in Dane County. Whether any county in the state can beat Dane's record I do not know, but we will have to take the Secretary's report for that. I suppose the report of Dane County is so good because the Secretary lives there. Out of 71 who are eligible there are 61 members; so I think that will probably be the leading county. I have the report from all of my counties except Sauk and the report of my own county. I supposed that we would have that but we have not. I think the Secretary has the membership record.

SECRETARY: I have the report. The present membership of Rock County is 35, and that of last year 29, a gain of 6.

DR. NYE: That comes in pretty close rank, and brings us with 5 or 6 exceptions up to all those who are eligible. I have to do a little missionary work in Janesville, and will do so the coming season in order to get them into the society. In Beloit we are practically all members. I had a peculiar experience in Sauk County. I undertook to correspond with the Secretary of the Sauk County Society, for quite a while, with no result. Finally, after corresponding with Dr. Sheldon, we concluded that we would stir things up a little, so I wrote a circular letter to ten or a dozen doctors in Sauk County, mailed them, and the next day received a letter saying that they had had a meeting that afternoon, which was the first intimation I had of the fact. Of course it was very satisfactory to find that Sauk County had been organized, and in fact they had been organized the year before, but unfortunately both the president and secretary had moved away, which left them in a peculiar situation. But, as I say, they are organized and have 12 members, so I think that next year we can do good work there. We have had some slight opposition of a pessimistic character, but the outlook is good.

I think a little missionary work in the locality where the opposition is met with will increase the membership another year. I have found the work quite pleasant in a good many respects. Some of the doctors do not understand why we are so anxious to have them join the county society. The majority feel that way, but a few feel they cannot afford it and we have a

good deal to overcome in that way. I think in our district we have little trouble, once they come to the meetings. I found that in Green County they had quite a little disturbance, and quite a few were standing off and objecting in a way, but when they came to the meeting they felt better. There was good work done in the meeting, and they all promised that they would come a little later to other meetings, and that is the way the work goes along.

If the secretary of each county has a good deal of work to do it is difficult for him to get the notices out early enough and keep the members mindful of the meetings. I think it would be well in almost all instances to send a second notice. Of course where we have telephones, we always make it a practice to telephone to everybody within reach, notifying all of the meetings, especially where these are held in the evening. In that way we have been able to get a pretty good attendance.

I had a letter from Dr. Thompson of Marquette County, containing a request to have Marquette County join Columbia, and meet with them. I am not sure whether the idea has been completely carried out or not. They had the consent of Dr. Walbridge, their Councilor, and I presume by this time they have effected this union. I do not know whether there is any necessity of bringing this up or taking a vote on it, but I would like to hear from some of the others how this could be brought about.

What we need, I think, is the best method that can be followed for increasing membership, and the only way we can tell is by comparing notes with each other in the future, and hearing from other states. Every one has different ideas upon the subject, and it will require a little more time to increase the membership.

SECRETARY: The councilor of the Fourth District, Dr. Armstrong, is not present, and possibly Dr. Lawler, who is the delegate from Iowa county, might report in his place something of interest.

DR. T. S. LAWLER, of Cobb, presented a report of the Fourth District as follows:

I am not in a position to report much to you of the councilor's work. The general condition in our district seems to be fairly good. Grant County is reported as being in good condition in various ways. Lafayette County reports progress. Iowa County, I am sorry to say, fell in a rut, but we hitched onto it yesterday and got it out of the rut. Iowa County has been slack. We had one meeting in June, 1904, which was a pleasant and profitable one. I regret to say that there has been no meeting since that, until the 27th day of May, 1905.

Our councilor, who was to have been with us on that day, was not able to be present. Consequently we adjourned until June 6th, met yesterday, elected our new officers, buried the hatchet, and took up the fight together. There seems to have been in our county some old standing disturbance that has tended to hold back our society. We have, I think, got rid of that nicely, and in the future will do better.

The one question which is stirring us mostly in that region so far, has been the fee bill. A part of the county has been having very good liberal fees, another part has not. Conditions appear to be such that at present it is difficult to do much towards improving that condition; a fee bill has been introduced, but there is sufficient opposition, so it has not yet been adopted.

Last year we had, I think, 19 members in good standing, and at our meeting yesterday we could muster only 13 votes. But the others promised to come in later and we trust they will.

The society last year did one thing: the board of censors voted two to one against one of our members, and the society voted 9 to 6 against him. Then he went out and reported that the physicians were afraid of him and did not want to let him in the society, and for that reason they ruled him out. But he has quietly expressed a wish to our secretary to come in, and the secretary quietly went around amongst us and explained to us that it would make things more harmonious if we would reconsider our previous action; and the doctor's argument in favor of harmony was sufficient, so we voted to admit him, and he paid his dues and has been with us—not in the front ranks by any means, but he has at least been with us.

We have in our society one man who is a non-graduate, practising with a license. I do not know whether that condition of affairs will be agreeable to the members of the society or not, but this condition exists in our society. I am sorry for it, and had I been on the board of censors it would not be so, but he is with us nevertheless, and we trust that in Iowa County at least—the others we cannot say much for—the work of the coming year will be much better than that of the last. We hope to have at least 4 meetings in a year, two of which are to be of a social nature, and we will endeavor also to have some papers and work along medical lines, to brace us up and help us along over the rough places.

SECRETARY: Dr. Lawler is the new president of Iowa county, and I think it will be all right next year.

DR. W. T. SABLES, of Sparta, then presented the report of the Seventh District as follows:

I think the reports of 5 out of 6 counties of my district give a net gain of two in membership, 85 last year and 87 now, and Pepin not reported. Out of these five reports the secretaries of three of the counties answered the question No. 5 in our blank report which reads "Number in the profession eligible and non-affiliated—why—answer fully and suggest methods for affiliation." I desire to state that in these 3 counties there are only 27 reported non-affiliated members, and I just want to read the reports of these three secretaries with reference to the answer to question 5. One secretary says: "Some doctors are shy of others and prefer to travel alone. These fellows would have to be cast after another pattern to be made to see the benefits of affiliation." The other says: "The non-affiliated men are mostly either homeopaths or eclectics. They object to severing their connection with sectional societies." The next: "Indifference or carelessness. Invitation and endeavor to get them interested. Organization and benefits to be derived from coöperation."

In this district there is a net gain of two, with the Buffalo-Pepin Society to hear from, which will probably stand about even.

SECRETARY: I have heard from them but they have not reported on that particular blank. Every county of the 62 has reported, which is a blessed fact—put it down. Buffalo-Pepin has 17 members.

DR. SABLES: That is a gain of one, and that makes a net gain of three in the district. I think that under the influences that have been brought to

bear during the first year, this is a very commendable showing, considering the amount of work done. Because I have worked only by correspondence, I have visited but two of these societies in this part of the state. There are here as large a percentage of so-called irregular practitioners, eclectic and homeopathic, as in any part of the state, there being 8 out of 20 in our part of the state; but they are good men and are doing good work. I understand from Dr. M'Cormack's report in the district meetings, that he held that men who are legal licentiates under the law, from whatever school, are not barred from membership in county societies, and from this we understand that under the conditions of the constitution—they come in as physicians. In the societies of the eclectic and homeopathic physicians throughout the state, a great deal of work has been done on the part of their journals, and in their national bodies also, to keep them away from us; that is, they did not want the identity of their individual societies lost—nor should they. Now, as a legal proposition, those societies are maintained by the law of this state, and there must be maintained such a society from which a certain number of men, 10 in number, shall be chosen, from which number the Governor shall appoint a representative on the State Board of Medical Examiners. For that reason it is necessary for them to keep their charter up, as the law now stands. I think that after another year, when it is better understood by these branch state societies that our county society means to take in every well-meaning physician, no matter from what school he graduates, we will get a still larger membership, and he can still hold his affiliation with his home society on the ground that it is for legal purposes. I believe that is the intention of the national body. I know in the House of Delegates it was distinctly stated than any man, from whatever school, if a true physician, could belong to our society—he could belong to both state societies—but the minute he joins our county society he would be a member of our state society, and as that information becomes known to the men in general, our society is going to increase in numbers. Of course, my district report and the Secretary's report will show that we have held our own in the state this year, which is a remarkable thing under the circumstances. I know at least five men not present here, who have told me that they have got enough benefit out of their county meetings to pay them for their trouble, even if they did not know anything about our state organization. That is going to ripen into an affiliation, as it grows better known. The most sensitive creature in the world is the doctor.

There is one matter in connection with this district report that I might mention, and that is this: We have scientific physicians, we have commercial physicians who look absolutely to the cash side of the proposition, and then we have all grades between. We have the doctor who believes we should not have a thing occur in the meeting—like certain religious people—but pure sanctification; others who believe that every meeting should have some little thing appertaining to finances. Now, I believe one meeting every year should be known as a financial meeting, at which time the rates, charges, differences in localities, and all that should be plainly discussed and the discussion entered into by every member. Of course we have a January meeting known as an annual meeting, and this should be a business meeting. I have received complaints somewhat to this effect: "I know some doctors who will join you if you will have one meeting a year in which to talk business. If

you will have one meeting a year I will bring in two other doctors with me." This is a point for our consideration.

We ought also have one meeting a year at which outside talent, some man of wide reputation, may be used as a drawing card. We should have the other two meetings among ourselves, but I believe 4 meetings a year is about all the average county can stand. La Crosse County is much better off, however, with a monthly meeting than with a quarterly meeting, because most of the practitioners live in the city of La Crosse, and by meeting monthly they keep up the interest better. In the county of Monroe, where there are hardly more than 8 men in any one town, we find we can keep up our meetings much better every two or three months; a monthly meeting would be largely attended by the local doctors only. I know that Dr. McCormack, in his report, insisted on monthly meetings, and he has lived in a city where they can have such meetings; but I know if we get together and have a quarterly-meeting, and have it right, it is better than a failure of a monthly meeting, because the members soon lose heart thereby.

DR. E. L. BOOTHBY, of Hammond, presented the report of the Tenth District as follows:

Mr. President, I will try to be as brief as possible in reporting the condition of affairs in the Tenth District.

I have visited during the past year every county society, and there are six societies in the Tenth District. One of them is composed of three counties, Polk, Barron and Gates, in the northern district. Dunn County only I have not visited. The number of members in Polk-Barron-Gates was 26 a year ago; in June, 1905, it is 26. They have neither lost nor gained. They have held four meetings during the past year. The attendance has been from 10 to 22. Sixteen papers were read at those four meetings, an average of four at each meeting. They were not represented by a delegate a year ago, but have one elected this year, and I suppose he will be here in the morning. There were 15 non-affiliated members of the profession in those three counties; one of them is in Gates County—one of the newest counties if not the newest in the state. They say nothing here in relation to the question as to why these 15 members of the profession were not within the fold.

Eau Claire County reported 16 members a year ago. They report 25 the first of June, 1905, a net gain of 9. They have had four meetings the past year with an average attendance of 12, and have read 10 papers. They were not represented by a delegate a year ago, but will have one this year. There are five non-affiliated members of the profession eligible in that county. The secretary says, under the head of remarks: Have always sent all eligible physicians in the county notice of meeting; but from five he has never heard.

Dunn County reported 18 members a year ago and 19 the first of June, 1905, a gain of 1. They have held seven meetings the past year with an average attendance of 8—the greatest 12 and the least 5. Five papers were read during the year. Some were probably business meetings. They were represented by delegates a year ago and this year also. There are four non-affiliated members—not visited by the councilor. Those four members live in the northern part of the county away from railroad communication, and they have 15 or 20 miles to drive to get to Menomonie, where they have had all their meetings, and they are not able to join any other county because of their location.

Chippewa County had 11 members June 1st, 1904, and report 15 this year, a gain of 4. There are 8 nonaffiliated eligible members of the profession in the county. They suggest no method looking toward affiliation, but simply say they do not know why they have not joined. They held three meetings, the greatest attendance 14, the least 7. Five papers were read. They were represented by a delegate last year and will be this year; visited by the councilor once only.

St. Croix County reported 13 members in 1904 and 14 in 1905. Have lost two by removals and gained three, a net gain of one. There are 8 non-affiliated members in the county. The secretary says he does not know why they are not affiliated, as all have received urgent invitations. I think that is partly a mistake. Perhaps some may have received invitations, but they have not been notified of every meeting. There were seven meetings held during the year with an average attendance of five—greatest eight, least three. Seven papers were read. Were represented a year ago, also this year, by a delegate. I have been present at six of those meetings, but simply in my capacity as president of the society. There have been two removals.

Pierce County reported 21 members a year ago, 13 this year, a loss of 8, largely and perhaps entirely through the fault of the secretary in not getting them out and having the meetings better attended, and by giving better notice of them. Up to January the secretary did nothing. Since January, or since the last of December, they have elected a new secretary, and have done a little better. But they have not succeeded in getting all those old members back. They have held three meetings, with an average attendance of 8, greatest 10 and least 4. But one paper was read from that county during that year. That was written by one of their members. They were not represented a year ago, and no delegate was elected, but there has been one selected this year and I expect to see him here. Has been visited by the councilor once.

Briefly summarized, the condition of affairs in the Tenth District is about as follows:

Total number of membership in the Tenth District in 1904 was 105; June 1st, 1905, 112; a net gain of 7 in the district. There are 51 non-affiliated physicians in that district. That counts the eight who were dropped from Pierce County, who naturally belong there, and probably will all come back. There have been 28 meetings held in that district, 44 papers read, and that is practically the condition of affairs there.

In regard to meetings, most of them try to hold them quarterly. Some have no regular time, and some have quite regular meetings. St. Croix County has tried to have a meeting every month since last Fall. At times it was not possible for the members to get together and the meetings were postponed.

I believe where a county is small, composed of 4, 5, 6, or 8 members, and where the county cannot get more than 3 or 4 together, that if there are 2 or 3 of those counties in close proximity, they might hold a joint meeting, and I think it would be well to try and have joint meetings at least once or twice a year between those societies that are close together. I shall endeavor to get Pierce County to meet with my own county oftener during the future than I have in the past. It is the only way I will be able to

hold Pierce County up and regain those members. Pierce County has a meeting for Spring Vale—where they have not yet met—set for August, where they expect to get in some new members.

There are a great many things to be thought of and worked up along this line of keeping up the membership, retaining the old members and getting new ones. I know it is pretty hard work for 3 or 4 men to attend all the meetings and do all the work in a county society, and be responsible for its condition, but that has always been the way, even in the old societies, and it is the way to-day.

I have thought that it would be well to have one meeting a year in each county or in connection with the county society, or a joint meeting between two different county societies lying close together, devoted entirely to matters of sanitation, to which you would invite your prominent citizens and your boards of health, local health boards of the county, and the health officers, and have in that meeting some one well known in sanitary matters to address you. I am arranging at the present time, and have been for the last two months, for a meeting of that character at our county seat. I expected to have it come off in May, but it was so close to the meeting of the state society that I could not arrange it. I wish to get a little help from Minnesota, have the Health Commissioner of St. Paul attend, have some one deliver an address, and devote the whole day to sanitary matters. I do not think we could do better work than that along this line once a year. It would tend to help the membership, and cause the profession to have the greater respect of the people at large, our patrons.

And here I may say that I believe we have held the meetings of our society almost too exclusively; not that I believe in advertising or parading myself before the public, but what interests me in the medical profession should interest my friends, should interest my patrons and the public generally, especially along the line of sanitary matters, of tuberculosis, of quarantine and all those questions that every citizen is interested in. I believe the public should be invited to those meetings, not only the board of health of every town, village or city in your county, but the interested intelligent public, the citizens, the best of the citizens, and it cannot but redound to your benefit and to your credit.

These are some of the things from which we will receive benefit if we can take time and work them up. It is a pretty hard thing to have a county society meet every month, or every three months, have the same three or four fellows read papers every time on some practical subject, which is about all the country doctor can do—he has not time for the purely scientific—it gets to be a little monotonous. But you can vary it. One meeting, as Dr. Sarles very well said, should be devoted entirely to financial matters. But this brings in a question there: your constitution says no schedule fee shall be made by the county society. You don't want it made by the county society—you want a county association of physicians outside of your society—let it be known—you do not have to join the society in order to come in and talk fee bill. They will adopt the fee bill in St. Croix County, and it will be adopted by the doctors of St. Croix County regardless of the St. Croix society—and that is the way we will accomplish our purpose.



## REPORT OF COUNCILOR ELEVENTH DISTRICT.

A review of the work done in the Eleventh Councilor District reveals a condition which is both encouraging and otherwise, and I am more than ever impressed with the statement made in my report of last year, that the difficulties confronting a councilor are not so much in organizing as in holding the doctors together in working organizations. There is a feeling of indifference in the county medical society which seems very difficult to overcome. I have not visited, personally, all the counties in my district during the past year, but have made considerable effort to keep in touch with the doctors of the district personally and by letter. We have during the past year held two district medical meetings, one in Ashland last September, and one in Superior in January of this year, both of which were well attended by the local doctors, but did not draw largely from the outside counties. It must be remembered that distances in my district are great, the district being about 200 miles wide and covering an area about one-fifth the size of the state, and in one county at least, a trip to the county seat occupies two days. In this sparsely settled country it is obvious that to have an active county medical society is not an easy matter. It has been my policy from the beginning to make the meeting of the district medical society an event of as much importance as possible, and considerable time and money have been expended to make the meetings attractive to those living at a distance.

When the state was re-districted at our meeting last year, Washburn, Burnett and Sawyer Counties were turned over to me as one society. I found, however, that the membership list did not include any of the Burnett County doctors, and I have not since been able to secure any of them as members. I have written repeatedly to the doctors of this county, and even set a time last winter to meet them and organize them independently if I could receive any assurance that I would be met with a sufficient number to effect an organization. This letter and all others sent to that county failed to elicit a response.

The coming of Dr. McCormack among us last year was productive of much good, and he was able to create considerable enthusiasm, meetings being held in my district, both at Superior and Ashland.

From two years' experience I reach the conclusion that the work of the councilor is difficult, very much unappreciated by those in whose interests he labors, and yet an indispensable one to the cause of Medical Unity.

J. M. DODD, *Councilor Eleventh District.*

In the absence of Dr. A. T. Holbrook, the Secretary read the report of the Councilor for the Twelfth District as follows:

## REPORT OF THE COUNCILOR FOR THE TWELFTH DISTRICT.

Gentlemen: Conditions in the Twelfth District may be summarized as most excellent in Milwaukee County and below standard in Ozaukee County. Milwaukee County has 243 members in good standing, Ozaukee had 10 last year, and has 7 now.

Personal letters have been written repeatedly by the Councilor to the Officers of the Ozaukee County Society; they have been invited to join with the Milwaukee County in meetings, but no interest or response has been aroused. A report of their membership and condition by President T. A.

Berwick is appended, and illustrates the difficulties of keeping up a county society under conditions that exist in Ozaukee district. The Councilor is aware that the accepted method in cases where interest needs rousing is to make personal visits and appeals; but the lack of any kind of a reply to four letters of invitation and requests for information, etc., has perhaps been the most potent reason for being derelict.

The report of the Milwaukee County Medical Society, which is attached to this report shows that organization to be in the most flourishing condition. The work of members of this society done in the interests of medical legislation during the past session, should receive the hearty plaudits of the entire medical profession. Aside from this particular work, their scientific papers, clinical exhibits, discussions; their work in harmonizing, in no small measure, antagonized elements in the Milwaukee profession; their active participation in all matters affecting the professional welfare in the state; the unselfish work of the officers of the organization—all have given the Medical Society of Milwaukee County a record to be proud of.

The disadvantages of many of the societies in arranging programs and securing attendance, is not shared by the Milwaukee County Society; but the Ozaukee society is evidently afflicted, and the remedy, which, candidly, does not hold out much promise of relief, is personal solicitation, repeated invitation to Milwaukee meetings, interest on the part of men in closer touch with that county than we are in Milwaukee.

Respectfully subscribed,

A. T. HOLBROOK, *Councilor Twelfth District.*

#### REPORT OF MEDICAL SOCIETY OF MILWAUKEE COUNTY.

Madison, Wis., May 25, 1905.

Dr. A. W. Gray, Sec'y Milwaukee Co. Med. So.

Dear Doctor: I enclose blank form, which kindly fill out at once in duplicate and send one copy to your Councilor and one copy to the State Secretary, Dr. C. S. Sheldon, at Madison, together with delegate's certificate.

Report of Milwaukee County Medical Society.

1. Number of members in good standing June 1, 1904—203.
2. Number of members in good standing June 1, 1905—243.  
Number of members under suspension for non-payment—22.
3. Loss . . , gain 40.
4. Number profession in county non-affiliated—216.
5. Why? Answer fully and suggest methods toward affiliation—See accompanying sheet for answers to 4 and 5.
6. Number of meetings held from June 1, 1904, to June 1, 1905—11.
7. Average attendance—39. Greatest 100. Least 23.
8. Number proposed meetings arranged for and not held—None.
9. Number papers read—7. Reports of clinical cases have been made a feature.
10. Were you represented by a delegate in 1904? Yes, by 5.
11. Have delegates been elected or appointed for 1905. Yes.
12. How many visits has your Councilor made you in past year?
13. Date and place of meetings for coming year—Second Friday of each month, Public Museum Bldg., Milwaukee.

14. Remarks, suggestions, etc.

15. Report all deaths and removals in society during past year—Ralph Chandler, died Aug. 12th, 1904; H. C. Barekman left city, address not known.

It being impossible to give information concerning the non-affiliated profession under the form of question 4, the following classification, with explanation, is submitted:

130 Eligible, by most liberal construction: about 65 of this number have been solicited but declined to affiliate; 18 of this number were dropped from the rolls January 1, 1905, for non-payment of dues. It is possible that 40 or 50 of this 130 will eventually become affiliated, but this can be accomplished only by personal solicitation.

3 Are licensed physicians, but have gone into business, are not practising, and do not care to affiliate.

24 Are homeopaths. Our board of censors has ruled that membership in a homeopathic society was supporting an exclusive dogma. The homeopaths will not resign from their societies.

6 Are eclectics.

3 Call themselves physio-medicals and are graduates of the Independent College of Chicago, which is not recognized by the Illinois State Board of Health.

23 Are advertisers.

17 Are disreputable, *viz.*, are abortionists, have drug habits, or are immoral in other ways.

10 Have no diplomas or refuse information concerning antecedents.

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216 Total.

#### REPORT OF THE MEDICAL SOCIETY OF OZAUKEE COUNTY.

Within three months of the time we organized the Ozaukee County Medical Society two years ago, we had 10 members. During the past year we have lost four. Three have left the county. One is indifferent and does not seem to care to travel in our wagon. This is Dr. Kierksiek, of Grafton. We have seven members at present and expect two more at our next meeting. During the past winter we had some severe weather, which made it almost impossible to get a quorum together. We reduced the number constituting a quorum from 6 to 3, so that in the future we can have a meeting almost every month. We are in poor shape as far as having any money on hand is concerned. However, we are out of debt and have a few dollars to the good. At the close of each meeting we usually have a spread of some kind. The papers have been interesting, the discussions lively and good. All members but one are in good standing. There could be more of a spirit of interest shown by some of the members, but I suppose it is the general rule to allow the work to devolve upon two or three members. I shall not be able to go to La Crosse as I shall be out of the state at the time of meeting. I presume you will get a full report from Dr. Hurth, our Secretary.

Respectfully yours,

T. A. BERWICK, *President Ozaukee County Medical Society.*

DR. A. W. GRAY, of Milwaukee: There are a few points that I was going to ask Dr. Holbrook to bring out for Milwaukee County. Dr. Sarles' remarks about the homeopaths and eclectics cover one of them. He suggested that the societies throughout the state should accept for membership any man eligible under the laws to practice medicine. If it is proper for the House of Delegates to pass an advisory resolution to this effect, I think it would help Milwaukee County to do so.

Our censors have held that members of homoeopathic societies were not eligible. We have some strong so-called homeopaths in Milwaukee County whom I think it would be advisable for us to admit if possible, but under that ruling of the censors we cannot take them in, since they are not willing to relinquish membership in their societies. The eclectics are not numerous in Milwaukee County, but I think it will be more difficult to get them to affiliate than the homeopaths.

I wish to suggest, also, the advisability of reducing the dues of the county societies and state society for those admitted after the middle of the year. In Milwaukee County we are now practically at the end of getting new members for this year, because few wish to come into the society in the middle of the year, since they have to pay a full year's dues, for which they receive only 6 months' benefit.

DR. BOOTHBY: They do not have to pay full price under the constitution.

DR. GRAY: They have been doing so in Milwaukee County.

DR. SARLES: Not after the 1st of July.

DR. GRAY: Then the state society owes the Milwaukee society a good deal of money, having received \$2 for each new member irrespective of the time he joined the society. We will collect from the state society if that point is covered in the constitution.

SECRETARY: I will state that practically those men get the journal a year. I mean to say we have no way of revising or keeping individual accounts, at least we have not attempted to do it for each individual, as to the expiration of their membership. For instance, the journal will go to all members who have paid their dues in the past year up to the time of this meeting, because we have been receiving reports since the 1st of April, from all these county societies. As soon as this meeting is concluded the old list will be thrown aside and we will have nothing to do with it and a new list will be prepared and sent to Dr. Dearholt, and those included in that list are entitled to the journal, and those men will receive the journal until the next meeting, that is, they will receive it for a year. I do not know of any other way to obviate that condition of things unless I kept in my office an individual account of the time of each member uniting with the society, and notifying the journal when it expires, and I have never attempted to do that. Of course, most of the members join the society in April, or about that time, when the annual reports are sent in.

DR. GRAY: The fact remains that it is just as difficult to get the men into the society after the first of July, when they have to

pay \$3, as it was before Dr. Sheldon's explanation. We cannot get members into the Milwaukee County Society under these circumstances, especially after the 1st of September. I find that while many promise to come in on the first of January they do not do so when the first of January comes around. We could get their applications at the psychological moment if dues were reduced after the middle of the year.

DR. SEARS: The matter which the doctor brought up here relating to the affiliating of those who practice exclusive systems of medicine, reminds me that it was stated by Dr. M'Cormack that that was allowable. In our county—on the strength of that statement, and also on the strength of the statement of councilors at the last meeting, that we could cross out of the application the portions of the two lines which referred to the affiliation or practice of an exclusive system of medicine, I found in our locality that some homeopaths would apply for membership in a county society; but as the constitution interprets the matter differently, it seems to me it would be well for us to pass a resolution, or do something which would make it more definite.

In regard to the dues, being secretary of our county society, I would say that we have received members at any time, and they have paid their \$3 for the membership fee, and no report was made, and they simply came in the next year. I suppose we have been neglectful, and I do not know as they have received the journal.

SECRETARY: Of course they have not received the journal until they reported.

DR. SEARS: We simply reported them next year.

DR. SARLES: Dr. M'Cormack, in his visits to the different councilor districts in different states, in Pennsylvania, this state, etc., stated that applicants may be members of eclectic and homeopathic societies, especially where the laws provide that men are to be appointed on examining boards from those bodies, if they do not hold themselves out as practicing as sectarians. Now, how far that can be carried out here I cannot say. We are certainly safe in using the words that they give us in the American Medical Association, covering that point, and it might be well for the committee to look up that matter and see if there is a way that a change could be made, and bring it up at tomorrow's session. I know that in our county society we do take in members of those two societies, because they are good square men, and they are holding themselves out simply as physicians and surgeons, but they belong to these different societies.

There was just one word relative to the remarks of the councilor here: he is a good councilor, but here is a report from a certain county relative to having an association outside of your society, of a financial character, which I do not believe in, and here is a little lesson right here in one of the main counties of our state (Racine County). The answer in regard to affiliation is this: "because most of the non-members live in the city of Racine, where there is an organization known as the Racine Physicians' Business Association, to

which all of them belong, therefore they do not or will not become members of the two organizations. Merging has been suggested and refused. Believes the only way of solving the difficulty will be through agency field work by the state and national officers."

Now you see, you get up enough of those associations and you will have a dissenting body; and pretty soon you will notice that you will have the same condition of affairs that they have in St. Louis, where there are a great many journals getting after the American Medical Association, calling it a monopoly, and all that. We cannot meet as a body and schedule a fee bill, but that does not mean that we cannot have an understanding as to fee bills which will be practically binding. You cannot make it legally binding on your body, but you can have an understanding as to certain fees that will tend to raise instead of depreciate the standard.

SECRETARY: I would ask Dr. Gray what would be the practical outcome, if we should adopt the view of Dr. McCormack and carry out this construction of the constitution in Milwaukee county. Would it be acceptable to the society as at present constituted, and would that invitation be accepted by many of the sectarians?

DR. GRAY: It would be acceptable to the society, I take it, and would be accepted by a good many homeopaths. We have had some negotiations with them, but had to stop because of the ruling by our Board of Censors, who believed they were in duty bound to so construe the constitution, and also because of the application blanks which are sent to us by the state secretary, which read: "I promise not to support an exclusive school or dogma," or something to that effect; and they held that membership in a sectarian society was equivalent to supporting an exclusive school or dogma. So if you can get something advisory for Boards of Censors, it will help us. My position is, that if a man with homeopathic college training does not hold himself out in any way to be a homeopath, except that he wishes to retain membership in his so-called homeopathic society, he should not be debarred from our regular societies.

SECRETARY: I think that the construction of our constitution made by the Milwaukee Co. Med. Society is correct, and I should say that membership in a Homeopathic or Eclectic society constituted a support of a sectarian school: but when we come to the practical question of the best way to deal with these bodies, one of the objects, we must remember, of this organization is to harmonize all of the interests of the medical profession of all schools, and I believe that an amendment such as has been mentioned would be useful. I do not know as it would be derogatory to or lower our standards. I think it is entirely competent and probably allowable for us to modify our constitution in any way that we choose, so far as our relation with the American Medical Association is concerned; and as a practical measure I am inclined to think it would conduce to the desired end, and that it would help to do away with sectarian medicine.

DR. H. E. DEARHOLT, of Milwaukee: Recently I got a list of the members of the State Homeopathic Society, numbering 110, and

in checking it over with the list of our own society, found names of about 30 who were already members of our state society. To these physicians, not then associated, I sent a copy of the Journal which contained an editorial on Dr. McCormack's address and the interpretation which he gave of the clause about admitting homeopaths and eclecticists. Very shortly afterwards I think there were five memberships added from that body to our society list; and I have no question but that if we could admit them under the terms suggested we would absorb them and the State Homeopathic Society.

DR. E. L. BOOTHBY, of Hammond: Pierce County has a homeopathist who joined the county society at the first meeting, who became one of the censors of the society, and is a member in good standing to-day as far as I know, in that society, and is also the President of the Minnesota Homeopathic Association, although he does not live in Minnesota, but in Wisconsin, and always has lived in Wisconsin. I saw the notice of his election to the presidency of that association two or three weeks ago, and clipped it out of the paper and sent it to Dr. Kerr, the president of the Pierce County Medical Society, and made no comments on it, and he answered that they had the matter under consideration over there but had concluded to say nothing about it. If he wanted to keep up his membership they were perfectly willing he should do so.

PRESIDENT: We had a similar incident in our experience also.

DR. H. J. STALKER, of Kenosha: We also had a similar incident in the Medical Society at Kenosha. We had a homeopathic brother who was anxious to become a member of our society, but he would not renounce his membership in the Homeopathic Medical Society, and would not refuse to advertise himself as a homeopath. In order to get around that matter, they had, previous to our organization, a county medical association in which they took all these men, which simply met for social purposes and advancement in medical practice, and it was very successful, served its purpose, and is still in existence, although I think it has outlived its usefulness. Our society adopted a new set of by-laws whereby they could have the same advantages, allowing them to come in as associate members of our society, but not to take part in any elections or anything that pertained to the state society.

SECRETARY: Do they pay their dues to the state society?

DR. STALKER: No, just simply to the county society, and come in as associate members of our society, and merely get the benefit of our meetings. They have nothing to do with any of the work of the association that pertains to the state society, but they simply come in and read papers or take part in discussions, though they have not generally taken advantage of that proposition and have not joined even under those auspices.

SECRETARY: I should hardly think it would be advisable to invite them to do so. Of course they could not be members of the county society without becoming members of the state society.

DR. STALKER: They just come in as associate members, and not into full membership.

DR. BOOTHBY: The constitution does not provide for that.

DR. SEARS: I wish this matter might be taken care of as suggested by Dr. Sarles, for it would then obviate some little embarrassment. The consensus of opinion of the last council, I think, was that we might receive, by the authority of Dr. M'Cormack, any homeopathic or eclectic member, and that we might strike out that clause in the constitution referring to his practicing an exclusive system, and with that understanding I took upon myself to declare that to our society; but it might lead to quite a little embarrassment, and I suggest that a committee of three be appointed to prepare some suitable modification of the application, as well as something that would settle this matter, to be presented tomorrow morning. I make that as a motion.

Motion seconded.

DR. SARLES: Of course the constitution and by-laws of the county society were prepared by the committee on organization of the American Medical Association and recommended for adoption to this society, and were adopted. This article three reads: "Eligibility. Every legally registered physician residing and practicing in . . . . . county, with good moral and professional standing, and who does not support or practice, or claim to practice an exclusive system of medicine, shall be eligible to membership." And the motion is, as I understand it, that a committee of three be appointed by the chair to report upon the advisability of a certain interpretation of article three as to eligibility of membership in county societies, and to report at the next regular session. Now, that report would have to lie over till another day, and could not be acted on till Friday.

DR. BOOTHBY: Section 5, on page 14 of the State Society Constitution would have to be modified to conform.

SECRETARY: This action of the committee would be purely advisory, so far as the county societies are concerned. We do not formulate a constitution for the county societies. Each county society does that for itself.

DR. BOOTHBY: You can change your state constitution.

SECRETARY: We may modify our own state constitution, but the remarks made had reference to the qualifications here in the county societies. It would be simply permissive and advisory, so far as this body is concerned, and they would have the authority of the state society, to take such action if they chose to. However, as I understand the matter, each county society adopts its own constitution.

DR. SARLES: That is right.

SECRETARY: And makes its own changes.

DR. BOOTHBY: Makes what changes it pleases, so long as they do not conflict with the state society constitution.

(Dr. Sarles read section 5, page 14, of the State Constitution.)



DR. SARLES: This has been adopted by our State Society, and they cannot adopt another constitution and by-laws in their county society different from this that is given here.

They cannot change that article unless we change our state constitution. I asked the question in the beginning, if we had any record of Dr. McCormack's report as given out to these different county societies, in which he states that it does not mean a membership in an eclectic or homeopathic society—in other words it does not mean what it says.

It says any change of the constitution can be made by filing it one day and carrying it by a two-thirds vote of all the members present. We shall probably have two more sessions, but I think there ought to be an understanding on that very point. Some of our county societies have members belonging to these other societies, and we are told by national authority that that is proper. Now, let such counties as Milwaukee and others, who are deeply interested, know what is the consensus of opinion. We know there never was a year in the history of the state when an effort was made to pass laws, wherein there has been such an unanimity of professional work on the part of every physician, both regular and otherwise. There never has been a time when they have been so unanimous in their efforts to try to better the laws and build up professional standing in this state, as this past year, and it has all come about from the fact that we have tendered to the different practitioners of medicine of different schools, the possibilities of becoming members of this society and therefore of the national body; and the feeling of antagonism has largely disappeared. I believe that to be true, and I would like to hear what Dr. Washburn has to say about the matter. He has studied that question considerably.

DR. W. H. WASHBURN, of Milwaukee: I think the simple and easy way to solve this question is for this House of Delegates to adopt a resolution expressing its interpretation of this section five. We do not need to amend the by-laws at all. Dr. McCormack, when last he was in Milwaukee, stated that it was the practice of a great many county societies throughout the country to admit homeopathic practitioners who maintained their membership in homeopathic societies. Now, if we should adopt a resolution here, setting forth our interpretation of this section, as not intended to exclude homeopaths who maintain their membership in homeopathic societies, it would solve the problem and would convey to the Milwaukee County Medical Society the information they desire.

If this House of Delegates adopts such an interpretation the County Medical Society of Milwaukee County will doubtless adopt the same interpretation and admit to their membership a good many of the homeopaths in the city, and I think that is the idea that Dr. Gray wanted to bring out here.

DR. SARLES: I believe that is a good way to settle this question. I would suggest that Dr. Washburn prepare a resolution covering that and present it.

DR. T. S. LAWLER, of Cobb: While Dr. Washburn is preparing his motion, I would like to ask a question in regard to the section Dr. Sheldon read relative to the adoption of the fee bill. The reason I ask is this: In our county, when the proposition of adopting a fee bill was first brought up, some of the men cited the section already referred to to us, and claimed that under that no fee bill could be adopted by the society as a society. In order to dispose of that matter an amendment was proposed changing the reading from what it is at present, to read "may" adopt a fee bill. What is the opinion of the House of Delegates as to such action on our part?

SECRETARY: I think it is entirely proper for each county society to decide that matter for itself. This is simply a suggestion.

DR. WASHBURN: I move the adoption of the following resolution:

RESOLVED, That it is the sense of the House of Delegates of the State Medical Society of Wisconsin, that eligibility to membership in county societies shall not require physicians to relinquish their membership in their sectarian, local or state societies.

Seconded by Dr. Bell.

DR. G. WINDESHEIM, of Kenosha: I should like to report to the House of Delegates an incident that happened a year ago at Kenosha. This same question came up and we discussed it at large. We were anxious to take in homeopaths. We corresponded with several of the so-called authorities, and some of them advised us not to mind at all whether the homeopaths or eclectic affiliates with their state societies or not—simply take them in as members; while others, better informed, said we must follow the constitution. The constitution says distinctly that a physician must not be in affiliation with any sectarian society. For that reason I do not think that the House of Delegates will do wisely if they adopt any such resolution.

DR. SARLES: I think the gentleman from Kenosha said that that was the opinion at that time, but they have changed their minds in Chicago about that very thing. Dr. McCormack's report as he gave it to the different societies is to the effect that a man can be a member of his state society and still be eligible to membership in his sectarian society, although at first the national organization gave a different interpretation. But I do not think that original interpretation has been given later than the meeting at Atlantic City.

DR. WINDESHEIM: This correspondence was quite late last fall.

DR. SARLES: That is since our meeting, but I believe that Dr. McCormack's remarks were misunderstood. The meaning of his statement was, that a man's being a homeopath or eclectic, should not bar him from membership in a county society, providing he does not claim to be a homeopath, or eclectic.

DR. WINDESHEIM: Changing that one sentence will interfere with the standing of this Society in the American Medical Association. I should like to have the homeopaths and eclectic all in the same fold, but it cannot be done under our present constitution.

SECRETARY: I do not think we are at liberty to amend our constitution covering that point. I think it would conflict with the constitution of the American Medical Association, and we would probably be thrown out into the cold if we should insist upon it. I think, however, it would be proper for us to adopt tentatively, the resolution presented by Dr. Washburn, subject to the ruling of the American Medical Association. I am a delegate and I certainly shall bring the matter before the national body at that time and have it ruled upon. If it is not feasible, we can simply let it drop, for we cannot go contrary to the ruling of the American Medical Association, because this is a body under discipline, and we propose to obey our commanders. Just as the county societies must have their constitutions in accord with the state society's constitution, so the state society's constitution must be in accordance with the constitution of the American Medical Association. But that question can be raised and solved at the meeting of the American Medical Association next month in Portland, and for the present I second Dr. Washburn's motion, and hope that it will be adopted tentatively subject to the ruling of the American Medical Association.

DR. WASHBURN: Dr. M'Cormack was in Milwaukee and met the physicians of Milwaukee in the County Society in February, and this question was brought up; the question was asked by a member of the Milwaukee County Society, whether a homeopath or eclectic might be admitted to the society and still maintain his membership in the eclectic or homeopathic society. Dr. M'Cormack explained very plainly that that was done in very many places and told us places where it had been done, and suggested that we do it here. Dr. Sears was there at the time, and the Dodge County Society has been acting upon that idea. They have homeopaths for members of their county society who maintain their membership in the state society. Dr. M'Cormack explained, moreover, that it was a point of good policy on the part of the county societies to so admit homeopaths, and the ground was this, that pride would prevent a very large number of homeopaths and eclectics from joining the regular society, if that clause was kept in the application for membership.

If it were left out and they were allowed to affiliate with the State Medical Society and their own society, that the time would shortly come when it would be found by them that there was no advantage in maintaining a separate organization, and the outcome would be that there would be only one county medical society, and I believe he is right, and for that reason I hope that the resolution will be passed—that is—not an amendment of the by-laws. I do not think that we could amend that by-law at this time; but we can adopt this interpretation of the by-law, and if this interpretation is not confirmed by the American Medical Association, the interpretation will fall.

Motion carried and Dr. Washburn's resolution adopted.

*(To be concluded in October number.)*

**SECOND DISTRICT MEDICAL SOCIETY.**

The third meeting of the Second District Medical Society was held at the Y. M. C. A. Building, Lake Geneva, Wis., August 30, 1905.

The meeting was called to order by the president, Dr. J. C. Reynolds, and the following papers were read and discussed:

"Paraffin Injections," Dr. Richard H. Brown, Chicago.

"The Appendix as Seen by the Rural Practitioner," Dr. W. R. Cheever, Kenosha.

"Surgical Syphilis," Dr. G. Frank Lydston, Chicago.

"Business Side of Medicine," Dr. W. H. White, Lyons.

"Inguinal Hernia," Dr. L. N. Hicks, Burlington.

"Mucous Colitis," Dr. William H. Macdonald, Lake Geneva.

Upon motion the chair appointed a committee of three to nominate officers for the ensuing year, the secretary being instructed to cast a ballot for the society for those placed in nomination.

Upon motion Kenosha was selected as place for next meeting to be held in June, 1906.

Committee on nomination of officers consisting of Drs. R. W. McCracken, W. E. White, F. E. Andre, reported the renomination of same officers as last year.

Dinner was served at the Hotel Dennison.

After conclusion of the business meeting the session adjourned *sine die*, and the members of the society took a launch ride on Lake Geneva, which is reputed to be one of the most beautiful lakes in the United States.

J. P. McMAHON, *Secretary*.

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**JOINT MEETING OF THE NORTHWESTERN WISCONSIN MEDICAL ASSOCIATION WITH THE SOCIETIES OF THE NINTH COUNCILOR DISTRICT AND WAUPACA MEDICAL SOCIETY.**

The joint meeting held at Waupaca, August 17, was very successful and well attended. The following program was presented:

"Chronic Interstitial Nephritis"—Dr. O. T. Hengen, Grand Rapids.

"Operations on the Prostate Gland"—Dr. J. R. Minahan, Green Bay.

"Two Favorite Remedies"—Dr. F. A. Southwick, Stevens Point.

"Fraternity"—Dr. D. Sauerhering, Wausau.

"Early Diagnosis and Early Operative Treatment of Acute Infectious Osteomyelitis"—Dr. Karl Doege, Marshfield.

Report of Cases and Exhibition of Specimens—Dr. D. N. Alcorn, Stevens Point.

"Drugs and their Use"—Dr. L. H. Pelton, Waupaca.

The social side of the meeting was very enjoyable.

C. VON NEUPERT, JR., M. D., *Secretary*.

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**JEFFERSON COUNTY MEDICAL SOCIETY.**

A meeting of the Jefferson County Medical Society was held at Jefferson on August 29, 1905. In the absence of the president, Dr. W. W. Reed presided.

Dr. Wm. A. Engeberg read an excellent paper on *Cystic Fibroma*, giving an interesting history of the case and showing specimen of the tumor. Dr.

J. S. McNeel gave his experience with nucleinic acid in pulmonary tuberculosis, in which he showed the favorable results of that treatment as advocated by Prof. Vaughan, of the University of Michigan. Dr. R. B. Haermann read a paper on *Ophthalmia Neonatorum*, in which he outlined the most recent treatment of that disease.

The Nestor of our physicians, Dr. W. W. Reed, read a very interesting paper on *Urinary Vesical Calculi in the Female*, showing a calculus almost one inch in diameter which he had removed from the bladder of a patient through the urethra. Dilatation of the urethra in this and other cases he had, was followed by no untoward results and he warmly advocated that form of surgical procedure in females, who, he claims, are more often subject to stone in the bladder than males, notwithstanding statements to the contrary in text-books.

All papers were actively discussed by the members present.

This was one of the most interesting meetings held by the flourishing society of Jefferson County.

The next meeting, which will be the annual, will be held at Jefferson, Tuesday, December 5, 1905. As this is the first notice of our society in the Wisconsin Medical Journal I will give a brief history of the same when I report the annual meeting.

CARL R. FELD, M. D., *Secretary*.

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#### LA CROSSE COUNTY MEDICAL SOCIETY.

The La Crosse County Medical Society held its first fall meeting on September 7, after having enjoyed a two months' adjournment. The meeting was fairly attended, about half of the members being present.

Dr. D. S. McArthur read a paper on *Intussusception, with report of a case*. The paper was discussed by Dr. T. A. Miller, who related the histories of two cases that had occurred in his practice. Dr. Edward Evans discussed the treatment by reduction with the aid of water injections and the operative treatment by laparotomy, giving preference to the latter. Dr. M. Dvorak remarked at length from the literature on this subject. Dr. Marquardt spoke on the importance of an early diagnosis and dwelt on interesting points as presented by Dr. McArthur's case.

A long discussion was indulged in as to how a medical society should conduct its meetings with reference to making its good work felt by the general public, particularly in advancing those interests of our city that are best understood by the profession.

C. H. MARQUARDT, M. D., *Secretary*.

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#### LANGLADE COUNTY MEDICAL SOCIETY.

The regular meeting of the Langlade County Medical Society was held at Antigo, September 8th.

The following resolution was read and adopted:

*Resolved*, That the following fees be the established and accepted fees to be charged for medical service by the members of the Langlade County Medical Society: Day calls within the city limits of the city of Antigo, \$1; night calls, \$2; office consultations (medicine extra), \$1; administering anesthetic, \$5; consultations, \$5; ordinary obstetric cases, \$10; obstetric cases with complications, \$15 to \$50.

Upon discussion it was decided that steps should be taken to investigate

the numerous quacks visiting this section of the country, such as "Minneapolis Medical Institute," "Chicago Medical Institute," etc., and report them to the State Board of Medical Examiners whence their state certificates come.

FRED V. WATSON, M. D., *Secretary.*

#### OUTAGAMIE COUNTY MEDICAL SOCIETY.

The Outagamie County Medical Society held its regular quarterly meeting at the Sherman House, Appleton, on Tuesday, Sept. 5th. Dr. J. T. Reeve, the president, presided. Dr. C. M. Echols, of Appleton, presented a case of *Congenital talipes equino-varus* upon which he had operated with excellent results. Dr. Echols also read a most interesting paper on *Surgery in Ulcer and Cancer of the Stomach*, which he illustrated by some fine drawings.

The following resolutions were adopted by a unanimous vote of those present:

WHEREAS, A certain organization, one of whose objects is to furnish medical services to its members and their families at a certain fixed price per year, has become more or less prominent in our community, and as this service is to be rendered by only such physicians as shall be chosen by the society, and as the amount paid, per member, for this service is very small; therefore, be it

*Resolved*, First. That the Outagamie County Medical Society condemns this practice and considers it unwise for any physician to accept an appointment with any such organization.

Second. That it is below the dignity of any self-respecting physician to place himself at the beck and call of each and every member of an organization at a fixed price regardless of the amount of service rendered.

Third. That the physician who encourages this tendency of society to organize itself into groups for the above purpose, strikes a blow at the future high standing of our profession.

Fourth. That the experience of the profession in Europe, where "Club Practice" originated, justifies these resolutions.

The secretary was instructed to send a copy of these resolutions to the secretary of every medical society in the state.

M. J. SANDBORN, M. D., *Secretary.*

#### WASHINGTON COUNTY MEDICAL SOCIETY.

The regular meeting of the Washington County Medical Society was held at Schlesingerville, June 28. The following physicians were present: Drs. Lynch, Heidner, Wehle, Reichert, Butzke, Bossard, Sears of Beaver Dam, and A. M. Benson of Hartford.

Dr. J. E. Reichert read a paper on *Lateral Curvature*, and also presented three cases which were fully discussed.

Dr. D. W. Lynch presented a paper on the subject of *Miscarriages*.

*The Principles of Medical Ethics* was the title of a paper by Dr. Sears of Beaver Dam. Dr. Sears also asked the society to contribute a little toward the expense incurred in the last legislature. Motion was made and carried that ten dollars be sent to Dr. Sheldon for this purpose.

The next meeting will be held at Allentown the last Wednesday in September.

W. J. WEHLE, M. D., *Secretary.*

## CENTRAL WISCONSIN MEDICAL SOCIETY.

The annual meeting of the Central Wisconsin Medical Society was held at Madison, August 29, 1905. There were 30 in attendance, including Drs. Levings, Washburn and Thienhaus of Milwaukee.

Dr. R. J. C. Strong, of Beloit, read a paper on *The Early Diagnosis of Consumption*. Dr. Boyce, of Madison, presented a paper on *Nasopharyngeal Stenosis*. Dr. A. H. Levings, of Milwaukee, read a paper on *The Surgical Treatment of Gallstones*. Dr. Stebbins, of Mt. Horeb, read a paper on *Perineal Lacerations, Prevention by proper administration of Chloroform*. Dr. Noer, of Stoughton, presented a paper on *Tetanus: Recent Researches into its Causes and Pathology*.

Drs. L. H. Fales, C. O. Bechtol, and Frank I. Drake, all of Madison, were elected to membership.

The committee appointed to prepare a memorial sketch of the late Dr. W. S. Wheelwright, of Belleville, made their report.

The committee appointed by the president of this society to draft resolutions of respect submit the following:

WHEREAS, Dr. W. S. Wheelwright, a beloved member of this society, has been called to his reward in the prime of his vigor and usefulness; therefore, be it

*Resolved*, That while we bow in submission to the decree of Infinite Wisdom, yet we hereby express our sense of sore bereavement in his untimely death.

*Resolved*, That the untiring devotion which our friend has exhibited in his chosen life-work and the generosity which he uniformly manifested toward his brother physicians, together with his thorough integrity and broad manhood, endeared him to our membership in life and remain enshrined in our hearts as his best legacy in death.

*Resolved*, That we extend our warmest sympathy to those that mourn him as a devoted husband and father, as well as to the great number who mourn the loss of a true physician and friend.

*Resolved*, That a copy of these resolutions be sent to the family and inscribed in the minutes of this society.

J. A. JACKSON,  
S. R. MOYER,  
JNO. A. EVANS,

*Committee.*

The annual election of officers resulted as follows: President, Dr. S. R. Moyer, of Monroe; 1st vice-president, Dr. A. C. Helm, of Beloit; 2nd vice-president, Dr. W. H. Washburn, of Milwaukee; 3rd vice-president, Dr. W. W. Gill, of Madison; secretary and treasurer, Dr. C. S. Sheldon, of Madison; censors, Drs. J. F. Pember, Janesville; A. S. Thompson, Mt. Horeb; J. C. Cutler, Vermont, and J. F. Gill, Madison.

The usual banquet was held at the Park Hotel and was planned as a "Reunion" of the members of the society who went to the meeting of the A. M. A. at Portland in the "Wisconsin-Minnesota Special."

Dr. C. S. Sheldon acted as magister, Dr. J. A. Jackson responded to the toast "The Doctor's Vacation," Dr. T. W. Nuzum to the toast "Incidents of Travel," and Dr. A. H. Levings to "The Wisconsin-Minnesota Special."

At the conclusion the society repaired to "Angleworm Station" and occupied the remainder of the afternoon in a boat ride on Lake Monona.

The next meeting will be at Janesville, October 31st.

C. S. SHELTON, M. D., *Secretary.*

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### CURRENT LITERATURE.

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**Early Diagnosis of Interstitial Nephritis.** M. LECLERC and H. CITRON (*Glasgow Med. Jour.*, May, 1905) hold that interstitial nephritis is not recognized early enough by physicians. The patient is usually between 40 and 50 years of age, apparently perfectly well to himself and to his family and friends, and first consults a physician for a general feeling of oppression and weakness. The doctor examining the urine, which has probably been passed in the morning after a night's rest, finds no albumen, or only a minute trace, and concludes that there is no serious renal condition present. At the same time the patient may be suffering from interstitial nephritis which will show itself later.

The earliest symptoms are a sense of losing strength; a feeling of unusual weakness after slight exertion; restlessness at night; hypertrophy of the heart; accentuation of the second cardiac sound as heard on right side of middle line; galloping rhythm; hard, quick pulse; polyuria, with frequency of micturition; urine usually of low sp. gr., light in color. These symptoms, even without albumen, should make the physician sure he has before him a case of interstitial nephritis. He should then give his patient the necessary instructions regarding his habits, his work, and his diet. The author admits the difficulty of having such instructions carried out by patients who do not realize their condition. (A. W. Ackerly.)

**Tolerance to Nitroglycerin.**—D. D. STEWART, Philadelphia (*Journal A. M. A.*, May 27, 1905) says an excessive tolerance to nitroglycerin can be readily acquired if care is not taken to avoid a too rapid increase of the dose, hence the drug, though intelligently employed, is often of little service. He refers to the earlier articles of his on the subject, and especially to a case before mentioned in *The Journal A. M. A.*, in which 50 minims of a 10 per cent. solution were taken daily without any very marked effects. The best rule for giving the drug for its effects on blood pressure, is, in his opinion, to administer it four times a day in dose just sufficient to produce the slightest feeling of fullness in the head or to slightly quicken the pulse. If more than this is given, an undesirable tolerance is likely to be established. When a rather rapid increase seems needed to keep up a constant effect, it is best to discontinue the drug for two or more days, at intervals, and to resume its use with a smaller initial dose. By so doing the use of very large doses and strong solutions, which are not exactly safe to handle, will be avoided. Nitroglycerin, he thinks, has not met expectations as a remedy in conditions of persistent high tension, and he now uses it in such cases less frequently than formerly, endeavoring at first, at least, to relieve by limiting the nitrogenous intake and maintaining free action of the skin and bowels. Aconite is often substituted for nitroglycerin in these cases with advantage.



**Open Treatment of Burns.**—H. SNEVE, St. Paul, Minn. (*Journal A. M. A.*, July 1) advocates the disuse of occlusive dressings and reliance on strict cleanliness and perfect drainage for the healing of the injured surfaces. The dangers in extensive burns are from shock, toxemia, loss of function of absent skin covering, and from exhaustion. For shock, the first indication is to combat the vasomotor paresis, and the only drug at present to be recommended for this, he states, is adrenalin, cautiously administered; whisky, morphine, strychnin, etc., are warned against as poisons to the susceptible and already overburdened nervous system. The symptomatic treatment of the resulting conditions is, he says, far better. To drive the blood out of the abdomen, he gives drinks and enemata of cold normal saline solution which add volume to the circulating medium; chafes the hands and feet and applies local warmth to the extremities and especially to the nape of the neck. To meet the fall in body temperature, he uses the hot bath and maintains a high temperature in the room. Finally, to give the heart more fluid to work on, he uses saline infusion or hypodermoclysis. Toxemia, he believes, is directly favored by occlusive dressings which retain the discharges and prevent perfect drainage. The dangers of air-infection are, Sneve considers, negligible, the surface is at first well sterilized by heat, and later, the granulations and crusts protect against invasion. It is to toxemia that he attributes the sudden deaths occurring after severe burns, and the importance of insuring free escape of the secretions is emphasized. The functional activity of the uninjured skin is also of the greatest importance and for this reason the continuous full bath of Hebra is not the best treatment of burns, as the skin works best in its natural medium, the air. Cold sponging and friction are perhaps the best stimulants to skin function and should be frequently practiced in treating burns. Supplying artificial heat is another important indication, especially during the first few weeks of a severe burn. Exhaustion from constant discharges from burned surfaces is best met by grafting skin as soon as possible in those that have suffered a burn of third degree. Nourishing diet and other supporting measures naturally suggest themselves. In this summary, Sneve advises against any positive prognosis of burns in the beginning. He remarks on the slight amount of pain in cases treated by the open method. When this is present, it is best relieved by morphin, but he advises giving as little of this as possible and none during shock. Another astonishing feature of the open treatment is the favorable character of the cicatrices which are smooth, flexible and skinlike. He says: First, treat the shock as indicated above. Second, control the pain as necessary and keep everything from contact with the burned areas. Third, keep the patient surgically clean. Ordinary surgical principles govern here as elsewhere; bichlorid of mercury, carbolic acid and other strong antiseptics are to be avoided when possible because they are such powerful cell poisons that toxic effects, both general and local, are to be feared; the delicate covering of granulations will not stand escharotic action without interfering with the production of smooth flexible scars. Fourth, give frequent cold sponge baths to the sound skin with frictions, and keep room temperature high. Fifth, cut away all blisters, cleanse with normal salt solution, dry thoroughly, and dust all second degree burns with stearate of zinc, carefully wiping away serous exudate until dry, brown, adherent crusts are formed. Sixth, leave third degree burns exposed without powder and keep surface clean until granulations are ready for skin grafting.

Seventh, to maintain and to preserve function, body and limbs should be exercised as much as possible; the eschars of burns to fourth degree should be removed when nature so indicates and amputation should be performed when needed.

**Relation Between Anthracosis and Pulmonary Tuberculosis.**—J. M. WAINWRIGHT and H. J. NICHOLS (*Amer. Journ. Med. Sc.*, Sept., 1905) contribute a statistical and experimental study of this subject. Their statistics have been mainly gathered from the records of the Board of Health at Scranton, Pa., although they have made use also of the United States census (1900) and some English statistics. From these figures it is obvious that coal miners are less liable to tuberculosis than men in other outdoor occupations. There are many factors at work to bring this about. The men are not overcrowded either at their work or in their homes. They live an outdoor life and often have to walk a considerable distance to their work in regions where the air is dry and rarified. The mines are continually damp so that tuberculous sputum has no chance to dry and become distributed. The air supplied to the chambers in the mines passes along damp tunnels often a mile in length to the miners, becoming purified by sedimentation. The bacterial content of the air in their chambers was shown experimentally to be very low. But aside from all these factors the authors are convinced that the coal dust itself is a considerable element in the low death rate from tuberculosis. To prove this they kept guinea pigs for considerable periods in boxes in which coal dust was constantly kept stirred up. These animals were subsequently inoculated with pure culture of tubercle bacilli, the bacilli being injected into the trachea. Guinea pigs not previously subjected to the coal dust were also inoculated as controls. Three such series of experiments were made. In the first two series the lungs of the anthracotic guinea pigs were free from tubercles, there being, however, an extensive peritoneal tuberculosis. In the controls the tuberculosis was in all cases general. In the third series the tuberculosis was general both in the anthracotic and control pigs. The authors conclude that the failure of tuberculosis to develop in anthracotic lungs in the majority of cases is due to the fact that coal dust causes a stimulation of connective tissue growth which is Nature's method of combating tuberculosis. They found that the coal dust itself had no germicidal effect whatever. They are continuing the experiments, feeling that they are hardly justified in drawing too definite conclusions from so little data. Their work, however, is very suggestive and may lead to methods of some therapeutic value. (R. G. Washburn.)

**Pharmacology of Tannin and Its Mode of Application.**—Lewin (*Deut. Med. Woch.* No. 22, 1904) proved by experiment that if tannin is given as an alkali-albuminate to dogs and man, tannic acid is eliminated in the urine. Tannin is absorbed as an alkali-albuminate, which has marked astringent properties. Tannin, or the albuminate, which the author prefers, can therefore act upon distant organs of the body. To prevent irritation of the gastric mucosa, the author uses the albuminate in aqueous solution (about 1 to 3 per cent.) adding thereto the white of an egg.—(B. S.)

# THE WISCONSIN MEDICAL JOURNAL

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## ORIGINAL ARTICLES.

### THE CAUSES AND SYMPTOMS OF CARDIAC INSUFFICIENCY.\*

BY J. D. MADISON, M. D.,  
MILWAUKEE.

Cardiac insufficiency is an inability to do work, and is not to be taken as synonymous with valvular insufficiency. In this condition there is a disproportion between the heart's capacity for work and the amount to be performed. A patient with marked mitral regurgitation may do much work and have complete compensation, while another patient, with only a slight leakage, may have symptoms of cardiac insufficiency on the slightest exertion. The reserve power of the normal heart is enormous, as Lewy<sup>1</sup> has shown, yet such demands may be made upon it that, for the time, it becomes functionally incapable.

Since the days of Corvisart<sup>2</sup> and Laennec<sup>3</sup> the so-called "fatty heart" has attracted the attention of observers, and has long been considered the most important cause of cardiac insufficiency.<sup>4</sup> The term "fatty heart" includes two distinct conditions—fatty degeneration, and fatty overgrowth. In the first there is a deposit of fat within the cell; in the second, the fat is deposited about the heart and between the fibres. The first careful study of these conditions anatomically seems to have been made by English pathologists, among whom Quain<sup>5</sup> is particularly to be mentioned. In 1818 John Cheyne,<sup>6</sup> and, nine years later, Robert Adams,<sup>7</sup> each published in the Dublin Hospital Reports a carefully described case of fatty heart. These cases are interesting, not only because they are probably the first carefully described cases of fatty heart, but also because the one contains the first description of a form of breathing known as Cheyne-Stokes; and the other, the first description of the Stokes-Adams syndrome.

\*Read at the 59th Annual Meeting of the State Medical Society of Wisconsin, La Crosse, June 9, 1905.

The conception of fatty degeneration has been—and this conception still prevails for the most part—that the cell proteid degenerates into fat. This idea was first promulgated by Virchow<sup>8</sup> in 1847. He recognized two forms of fatty change of the cell: fatty infiltration, and fatty degeneration. In fatty infiltration the fat is deposited in the cell from without, while in fatty degeneration the fat is supposed to have been split off from the cell proteid. It was taught that, for the most part, the two conditions could be distinguished microscopically. Fraenkel<sup>9</sup> held, that in fatty degeneration there was a sort of necrobiosis of the cells, and by means of this process the cell proteid was split into a nitrogenous and a non-nitrogenous portion. From the latter the fat was formed. Virchow's view for a long time met with little opposition.

The new conception in regard to the origin of the fat in the cells dates from the very important and epoch making work of Rosenfeld<sup>10</sup> published in 1895 and in 1897, although the old idea of fatty degeneration had been combatted by Lebedeff<sup>11</sup> in 1883. Rosenfeld starved dogs until their body fat was reduced to a minimum. The dogs were now fed upon lean meat and mutton fat, the fat depots again becoming filled, but this time with mutton fat. They were again starved sufficiently to remove the fat from the liver only. Phosphorus was now administered, and, as usual, the livers became very fatty. Analysis showed this fat to have the composition of mutton fat, thus demonstrating that the fat came from the fat depots and was not a formation from the liver proteid, as, in that case, the fat would have the composition normal for the dog. In 1901 Rosenfeld<sup>12</sup> extended his observations to the heart muscle, and was able to show that the degenerated hearts of dogs fed upon mutton suet and then poisoned with phosphorus, contained a fat identical with mutton fat. This work has been confirmed by Leich and Winekler<sup>13</sup> and we may fairly conclude that here also, we are dealing with fatty infiltration, not fatty degeneration. The importance of this work is apparent at once. So long as it was thought that fat in the muscle cell was formed from the cell proteid the conclusion that the cell was thereby seriously damaged was unavoidable.

The great frequency with which the heart muscle is the seat of fatty depositions seems not to be generally recognized. Osler<sup>14</sup> states that it is a very common condition, but most clinical writers seem to look upon it as a comparatively rare one, except in chronic heart disease, severe anemias, and in intoxication. Pratt<sup>15</sup> and Christian<sup>16</sup> have noted the frequent occurrence of marked fatty change in the heart in various conditions, and often that it appeared to bear no relation to

cardiac weakness. Many years ago Welch<sup>17</sup> found that rabbits with marked fatty degeneration of the heart did not show evidence of cardiac weakness. More recently Hasenfeld and Fenyvessy<sup>18</sup> have shown by an experimental study, that even marked fatty degeneration of the heart does not notably reduce its reserve power. Krehl<sup>19</sup> determined carefully the amount of fat present by the chemical method, and was able to trace no relation between cardiac disturbances and the amount of fat present. Osler notes that extreme fatty degeneration may be present as in pernicious anemia, with a full, regular pulse, and a regularly acting heart. He calls attention, however, to the fact that a patient with advanced fibroid myocarditis may have complained of no cardiac distress, but finally drop dead at his work. Nearly all the well-known works on heart disease contain a statement that fatty degeneration is common in hypertrophied hearts of chronic heart disease and myocarditis. Krehl and others now insist that fatty degeneration is rare in these cases, and Bollinger has come to the same conclusion in regard to the cases of cardiac weakness occurring among the Munich beer drinkers.

The subject of fatty changes in the tissues is still in an unsettled state, and we are at present unable to justly estimate the meaning of fatty changes in the heart muscle. On the one hand it seems clear that there are cases in which the fatty condition of the heart muscle does not seriously impair its power to do work, while, on the other hand, we find cases in which it is, undoubtedly, in some way associated with an injured heart muscle. Cells that have undergone injury and death frequently contain an abnormal amount of fat, which appears, not after the death of the cell, but during the period when it is damaged but still alive. The great bulk of this fat, as we now know, has been imported into the cells and does not represent broken down protoplasm. For the present, then, it would probably be best to consider that an increased amount of visible fat in the cell is, in many cases, an index of cell injury, but does not represent, in itself, the real injury.

Fatty overgrowth of the heart is to be considered as a feature of general corpulency. There is about and in the heart an excessive deposition of fat, as in other parts of the body. In obesity we have to deal with two classes; stout people with strong muscles, and stout people with weak muscles. The size of the heart muscle is in proportion to the size of the skeletal muscles, but the work of the heart is in proportion to the bulk of the body. Therefore, in the cases with poorly developed muscles, too often the work required of a weak heart is beyond its power of performance.

Disease of the coronary arteries is one of the most frequent causes

of cardiac insufficiency. Not infrequently the anatomical picture is that of fatty degeneration, and it was this feature that particularly impressed the English observers, though their descriptions usually indicate that coronary sclerosis was present. Fibrous myocarditis, so frequently associated with coronary sclerosis, is in many cases to be regarded as a final, a conservative rather than a pathological process. Coronary sclerosis and fibrous myocarditis are not identical conditions, as they may occur independently. It is doubtless a fact that individuals may suffer from marked coronary sclerosis with slow obliteration of the lumen of the vessels, and yet never have shown evidence of cardiac weakness. This is probably because certain venous channels, especially the veins of Thebesius, supplement the scanty arterial blood supply sufficiently to maintain the nourishment of the muscle.<sup>20</sup>

During the last few years marked progress has been made in the study of cardiac insufficiency, and for much of this advance we are indebted to the researches of Krehl and Romberg. They have emphasized the relation which exists between disturbances of cardiac function and demonstrable lesions of the heart muscle. The results obtained have been based upon the most careful and laborious examinations. Krehl<sup>21</sup> found areas of acute interstitial myocarditis in every case of chronic valvular disease examined, and also in so-called idiopathic cardiac hypertrophy. Other investigators,<sup>22</sup> using Krehl's method, have confirmed his findings.

The great frequency of acute interstitial myocarditis in acute infectious diseases has also been fully demonstrated. Hayem<sup>23</sup> seems to have first called attention to this condition, but the later work of Romberg is much more important. It was Romberg<sup>24</sup> who first insisted that it is necessary to distinguish between the disturbances of circulation arising at the height of the fever and those occurring later in the course of the disease. In a more recent publication<sup>25</sup> the conclusion is drawn from a series of animal experiments that the circulatory disturbances which arise at the height of the fever are to be attributed largely to paralysis of the vasomotor center in the medulla, while those occurring later are usually to be traced to definite myocardial changes, of which acute interstitial myocarditis is the most important. Bolton,<sup>26</sup> among others, objects to this view, and insists upon the damage done to the heart muscle by toxins at all stages of the fever. This damage, he thinks, is usually made evident by the presence of fatty degeneration.

There are many unsolved problems in connection with the causes of cardiac insufficiency. The changes in the muscle substance for the most part dominate the situation. Many of these have been known for

years, while others have only recently been brought to light, and doubtless, many very important changes of the finer structures of the cells are still not recognized.

**SYMPTOMS AND SIGNS.** In considering these our attention will be particularly directed to the symptoms and signs that are to be found—if present at all—during the early stages of myocardial disease. Unfortunately, only too often no recognizable symptoms are present thus early, and the first indication of a diseased myocardium may be the last. No attempt will be made to assign definite symptoms to the different myocardial conditions found at autopsy, because we do not believe that the present state of our clinical knowledge warrants such a division. The early symptoms are often indefinite, and may be identical with those of other ailments, or easily confounded with them. As a consequence, there is a danger that they will be overlooked, or attributed to a wrong source.

The following brief abstract of a case will serve to illustrate some of the early symptoms of cardiac weakness. The patient, a middle-aged, well-built, active man, has been a hard worker, first, as a fireman, and then as an engineer, and has used alcohol, and especially tobacco, very freely. One year ago his train was wrecked, and the cardiac disturbance dates from that time. He now complains that he is very irritable, nervous, and easily depressed, that he sleeps poorly, and that his accustomed energy and strength are gone. There is some gastric disturbance, and in the cardiac region there is frequently present a sense of distress, consisting at times of a simple feeling of pressure, while at others, there is an actual gripping sensation. He occasionally experiences a feeling of numbness in this region. There is slight shortness of breath when he hurries, or climbs steps. The heart is somewhat enlarged, the first sound is indistinct, a soft systolic murmur is present at the apex and over the body of the heart, and there is some arrhythmia.

Not infrequently these patients complain of a tightness about the chest, or of some precordial distress, which may not be an actual pain, but merely a consciousness of the heart's action, or a feeling of oppression. Occasionally there may be acute pain in the cardiac region, perhaps radiating to the shoulders or arms, as in attacks of angina pectoris. Areas of hyperesthesia, or numbness, may be present over the left chest, axilla, neck or arms, or, again, there may be present all the features of an intercostal neuralgia. Anemia and general weakness may first attract attention to the cardiac condition. A little later, and usually with beginning dilatation, appear disturbances of digestion, cough and slight swelling of the feet; the latter is usually a more

marked feature of valvular disease than in simple myocardial conditions. The gastric symptoms may appear early, and may be the predominating feature of the case.

The onset of pronounced symptoms may be sudden, and then too often the disease is of long standing, and we are dealing with advanced lesions of the myocardium. As is well known, many patients never complain of cardiac distress, but enjoy vigor of body and mind till the last, when sudden death intervenes. These first, but perhaps final symptoms, may assume various forms, but it is not our purpose here to do more than mention them. An attack of syncope may be the first evidence of any cardiac disturbance, and, in not a few of these cases, it may be found that the symptoms conform to the Stokes-Adams syndrome, in which we find, in addition to a slow pulse, synopal, vertiginous, epileptiform, or apoplectiform seizures. Or, again, at night the patient may be suddenly seized with an attack of asthma. In still other cases the attack may assume the form of angina pectoris. Finally, during the closing scene, Cheyne-Stokes breathing is not infrequently present. We may now consider the physical signs.

**INSPECTION AND PALPATION.** Observations as to the location and character of the point of maximum impulse are of much value, and there are many cases in which its location is of equal, or of even more value, than the information obtained from percussion. It may vary with the position of the patient; it may be felt and not seen; seen and not felt, as in marked dilatation; or be absent to both touch and sight. The impulse may be wavy or multiple. It may be absent with feeble action of the heart; when behind a rib; when the intercostal spaces are too narrow; when the lung is thickened; in edema; in emphysema of the chest wall; and in pericarditis with effusion. Finally, the apex beat may be displaced without any disease of the heart.

**PERCUSSION.** Percussion usually, though not necessarily, reveals an increased area of cardiac dulness. It must be remembered that the method is not an exact one, and the margin of error, even in the hands of the most skilful, is considerable, varying with the conditions present in the individual cases. Karfunkel<sup>27</sup> and Abrams<sup>28</sup> believe that the fluoroscope is the most accurate means of determining the size of the heart.

**AUSCULTATION.** It is by means of auscultation that we usually obtain the best and the earliest evidence of cardiac enfeeblement. Arrhythmia and tachycardia are probably the most important early signs of myocardial weakness, but the condition also manifests itself by bradycardia, by enfeebled, or reduplicated sounds, and by galop, or by fetal rhythm. So great an authority as Krehl<sup>29</sup> considers arrhythmia



as pathognomonic of myocardial involvement. He believes that there is a definite relation between arrhythmia and disease of the auricles, the disease of the auricles producing a disturbance in the sequence of the heart's cycle. The auricle, according to Schaefer,<sup>30</sup> is the most inherently rhythmical part of the heart, and the part which inaugurates each heart cycle. Radasewski<sup>31</sup> reaches much the same conclusion from a comparison in a small series of cases, of the signs during life with the pathological lesions of the heart. He found that only where there was a diffused fibroid transformation of the muscles of the auricles, was there irregularity and arrhythmia. Arrhythmia may be the only clinical cardiac expression of myocarditis. However, we should remember that the significance of arrhythmia is not always easy to determine, as Osler remarks, and he cites the case of a man of unusual bodily and mental vigor, who, dying at the age of 87, had, for nearly 50 years of his life, an extremely irregular pulse.

There can be no doubt but that a rapidly acting heart is frequently due to myocardial changes, and there is usually associated with it some arrhythmia. One must carefully distinguish the myocardial from the toxic and reflex forms of tachycardia, and it is not to be confounded with palpitation. A great fact to be remembered, is that tachycardia may be the terminal cardiac symptom, and death may result in a few hours, or a few days after its onset.<sup>32</sup> A slow pulse is not unusually met with, and not infrequently as a feature of the Stokes-Adams syndrome. These patients rarely suffer from angina or from severe arrhythmia. A progressive dilatation rarely takes place. Fatal syncope is the usual cause of death.

A careful study of the heart sounds is often of great value. In the early stages with hypertrophy the first sound may be prolonged and dull, or it may have a booming quality. With dilatation it may be clear and sharp. With enfeeblement of the cardiac muscle, usually come enfeeblement of the systolic sound, and, in some cases, the second sound alone is audible. The second sounds also vary much in intensity. An accentuated second pulmonary is found with increased arterial tension in the pulmonary circulation, and usually appears with the onset of mitral insufficiency. Either sound may be reduplicated, and, when marked, we have the so-called gallop rhythm. According to Graham Steel, its presence is an indication of muscle weakness. In the final stages the rhythm may be fetal in character. Not infrequently systolic murmurs are heard. They may be due to mitral, or tricuspid insufficiency, or, again, they may be hemie in character, or, still again, they may be one of a large group of what is often termed accidental murmurs, their precise nature being still in doubt.

In conclusion let me urge that it is to the early symptoms and signs that our attention should be particularly directed, because it is then—and only then—that we may hope to aid our patient much by treatment. In the later stages—and we do not forget that the first symptoms may be the last—not only can we do little for the patient, but the time for accurate observation has passed. So often the clinical picture is then entirely obscured by the final symptoms, or by the many complications that so frequently appear at this time. The diagnosis of myocardial disease is still often difficult and its nature obscure. There is much need for careful bedside observation. And, finally, I would urge that the present state of our clinical knowledge allows us to do little more than to determine whether the heart muscle is competent or incompetent. Finer distinctions, so often indulged in, mean little, and serve but to confuse and bewilder.

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#### Discussion.

DR. W. H. WASHBURN, of Milwaukee—The subject which has been presented for our consideration this afternoon is one of the most vital importance, because the cardiac muscle is the very center of the circulation, as stated by Corvisart, and upon the normal and proper performance of its function depends life itself.

Soon after the publication of Corvisart's work, Laennec discovered the use of mediate auscultation; following this there was a long period in which the importance of the heart muscle was practically lost sight of, and the attention of the profession was riveted upon the valves. The diagnosis of heart disease was not made until cardiac insufficiency in a very marked degree was present; and then the valvular defects were found, and for a long time the diagnosis of heart disease meant early and sudden death.

But along about the middle of the last century the life insurance companies, which now have become great, began business, and it soon developed that a great many of the cases that were declined on account of valvular lesions nevertheless lived to attain a great age, and such has been the observation of physicians of any large amount of practice since.

Dr. Madison has summarized, I think, very clearly the causes of cardiac insufficiency, fatty changes, malnutrition due to coronary disease, and fibrous myocarditis and interstitial myocarditis.

The difficulty is in diagnosis. If it is important to make a diagnosis of tuberculosis in the early stage in order that a cure may result, it is equally important that the earliest evidences of myocardial insufficiency should be recognized, in order that efficient means may be put into operation to restore sufficiency. Percussion and palpation furnish us with extremely uncertain information.

One point brought out by Corvisart ought to be mentioned here, inasmuch as the paper does not refer to it. Corvisart in the earliest edition of his work called especial attention to the disproportion between the impulse of the heart against the thoracic walls and the pulse, stating that in cases of insufficiency the impulse of the heart against the thoracic walls appeared to be very vigorous indeed, and he contrasted that with what he calls the small, serrated, concentrated and weak irregular pulse of myocardial insufficiency. I think this is a point that ought to be taken into consideration.

In regard to intermittence of the pulse the fact should not be lost sight of that we very often encounter cases of myocardial irregularity that are idiosyncratic. The writer of the paper speaks of that.

I remember one case where the subject under observation had an irregular and intermittent pulse. He had it that he had known of for about 10

years. His father, who died at an advanced age, suffered from irregular and intermittent pulse for over 50 years; an aunt, a sister of the father, had the same symptoms, and the son of this aunt was suffering from the same cardiac irregularities.

Auscultation probably furnishes us with the most certain information that we can obtain in the early stages of cardiac insufficiency.

I have here an instrument devised by Oertel and intended to furnish information at the earliest possible stage, which I would like to exhibit. It is an ordinary monaural stethoscope, as used first. The tube is a hollow cylinder of metal provided with a slot graduated in millimeters, so that this opening can be made of any size from the least to the full opening of the tube. A great deal of preliminary study was necessary to determine the relative intensity of the heart sounds, and it was found that the relative intensity of the sounds was as follows: in the normal heart, the mitral sound, that is, the first sound at the apex was twice the intensity of the aortic sound. By auscultating and then ascertaining the square surface of opening at which the aortic sound disappeared and comparing that with the opening when the mitral sound disappeared, you can determine the relative intensities of these sounds.

Stress is laid not upon the intensity of the sounds *per se*, but upon the relative intensity. Normally they should be: aortic, 20 sq. mm., pulmonary 18 sq. mm., mitral 40 sq. mm.

When the slot in the stem is open to its fullest extent the opening is 600 sq. mm., and with the monaural attachments it is occasionally possible to hear the mitral sound when the tube is entirely open. On this account I have not used the instrument much as a monaural stethoscope but have used the binaural attachment with the Bowles chest piece which has seemed to me to be the most satisfactory.

The instrument is new and as yet I have not been able to find much in the literature upon its use. In fact, I have only seen it mentioned in the *Johns Hopkins Bulletin* for February, 1904. Its usefulness is, therefore, not as yet fully established, but from the comparatively small experience I have had with it I am convinced that it may be made to serve a very useful purpose in the early recognition of cardiac insufficiency.

DR. A. J. PATEK, of Milwaukee—I will add only a word, and that is to emphasize the necessity of early recognition of myocardial conditions, and their early treatment. While in general the impression may exist that myocardial conditions are incurable and are progressive in character, this is not borne out in actual practice, because when recognized early and put under the proper treatment, such as diet, rest, graduated exercises, baths, and possibly some medication—potassium iodide being one of the drugs indicated, especially where there is the added factor of arterio-sclerosis—they frequently show very great improvement.

Dr. Madison quotes Krehl to the effect that he considers all arrhythmia as pathognomonic of myocardial degeneration. It would seem from practical experience that this is hardly true. As Dr. Washburn has stated, we have all found cases of arrhythmia not based on myocardial degenerations. I have in more than one instance found arrhythmia due to gastro-intestinal disturbances. In one case in particular which I was enabled to follow closely, indigestion caused several attacks of marked arrhythmia, and yet the closest examination of the heart during a period of several years has never resulted in the discovery of

any indication of degeneration. As myocardial degenerations are essentially progressive, it is hardly probable that a case such as the one cited, would leave the heart absolutely intact after prolonged observation were the theory of a gastro-intestinal causation not conceded.

Some studies by Cohnheim, reported a year or two ago, also seem to indicate that gastro-intestinal intoxication is possibly a frequent cause of arrhythmia—not an arrhythmia due to myocardial disease. Of a series of 13 cases of arrhythmia, Cohnheim found a very large degree of indicanuria in eleven, and after this had subsided the normal rhythm of the heart returned.

DR. MADISON (closing)—I have not much to say in conclusion. I do not want to take the time. Just a word in regard to the quotation from Dr. Krehl. I look upon the matter very much as Dr. Patek does. I do not think Dr. Krehl intended to say there was serious damage in all cases. I think he would not include in his statement cases in which there was temporary intoxication, in which the injury to the heart muscle was eventually recovered from.

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## MUCOUS COLITIS.\*

BY W. H. MACDONALD, M. D.,  
LAKE GENEVA, WIS.

In using the term mucous colitis it is intended that it be synonymous with chronic colitis and membranous colitis, the pathology of each, according to Tuttle, being identical,—that of hypertrophic catarrh of the colon in different stages of development. The disease is considered by internists to be in all cases a neurosis, a secretory neurosis and properly classed as one of the manifestations of hysteria or neurasthenia. There are many others who very correctly maintain and have demonstrated conclusively that the disease is sometimes of local and sometimes of reflex origin—local from hardened fecal masses, or foreign bodies long retained in the colon—reflex from diseased tubes, ovaries or uterus, bands of adhesions following general or pelvic peritonitis, partial intussusception, enteroptosis, chronic appendicitis and floating kidney. Barnard found in 1,100 cases of this disease, that chronic appendicitis existed in 76. Ten out of this number submitted to operation and were cured.

According to Edwards, about 80 per cent. of the cases of this disease occur in women between the ages of 20 and 50 years. They may be thin and neurotic, or fat and phlegmatic, and it may also occur in children.

\*Read at the meeting of the Second District Medical Society, Lake Geneva, August 31st, 1905.

The discharge from the bowel of varying amounts of tenacious mucus in the form of strings, ribbons, frog spawn and cylindrical casts, constitutes the most significant symptoms. This substance has no structure and consists of a coagulated or transformed mucus, containing cast-off epithelium and particles of intestinal debris.

The passage of these discharges is usually preceded for an indefinite period by evidence of gastro-intestinal derangement. Then begins a period of disturbed nervous function, with increasing pain and points of special tenderness, principally in the lower and left portion of the abdomen. The pain is of a tenesmic, colicky character, which continues at intervals until after the characteristic discharge appears.

Areas of left-sided tenderness may remain for a long time, but the pain subsides gradually after the passage of the mucus, which may be accomplished in a day, or it may take a week, leaving the patient weak and exhausted sometimes to the point of complete collapse.

During this attack the bowels may be relaxed, or constipated, but constipation is the rule, and blood may accompany the movements.

These attacks constitute the special feature of this disease, and they may extend with greater or less frequency over a period of many years, with intervals varying from a day to a year or more.

Many of these cases suffer more from disturbances of the nervous-system than from the digestive disorder, since the majority exhibit some of the manifestations of neurasthenia or hysteria and there is no feature of these two diseases which may not be a part of a case of mucous colitis—mental depression, melancholia, pain in any or all parts of the body, areas of anesthesia or hyperesthesia, insomnia, convulsive seizures and functional paralyses.

They are nervous, worried, filled with fear, and naturally enough take a very gloomy view of their future, and often do become mental and physical wrecks. There is a marked aggravation of all these symptoms during the time of mucous discharges, and they may entirely disappear during the interval, only to return with their usual severity at the next attack.

Indications for treatment are very naturally determined by the apparent cause of the case in hand. Any well defined surgical disease of the abdomen or pelvis should first receive attention, and a very careful search made at the same time for any unsuspected band of adhesion, a displaced kidney, or pelvic organ. If the surgeon can be safely left out of the case, a different course is required. From the diet should be eliminated foods giving a hard undigested residue, starches and

sweets, tea, coffee and alcohol. Van Noorden advises the use of meats in abundance and eggs, fresh vegetables and corn or whole wheat bread.

In the local treatment it should first be determined that the colon is free from retained fecal masses. This is accomplished by warm, high enemata of cottonseed oil, followed by warm water, and repeated on two or three successive days. This should be followed in most instances by medicated enemata used through a long Wales bougie of suitable size, preceded by enough normal salt solution to clear out the lower bowel. Salt solution is advised since it is much less irritating to a sensitive mucous surface and less likely to produce griping. These medicated enemata should be used daily, preferably on retiring, the patient lying supine with his hips elevated or in Sim's position, and allowing the fluid to run into the bowel slowly, with the object of having it retained if possible.

Many remedies have been used for the purpose. From long contact with several aggravated cases, the writer believes his best results have been obtained from krameria, used in the proportion of one ounce of the fluid extract to a pint of water.

Internally, one of the best remedies will be found in ichthyol, a convenient preparation of which is ichthyol albuminate, marketed as ichthalbin. This remedy should be used in 5 to 10 gr. doses, three times daily. Salol is also a valuable remedy, though less so than the one just mentioned. The writer believes ergot to be a valuable agent in these cases, used in conjunction with those mentioned, on account of the apparent improvement in tone of the general circulation.

Properly regulated exercise, together with the usual hygienic regulations, and freedom from outside depressing influences must not be neglected.

Symptomatically each case will furnish indications for treatment not indicated above.

In closing allow me to impress upon you the necessity for the systematic enforcement over long periods of time of the medical treatment and supervision of these cases. The difficulty of doing this, is oftentimes so great that a protracted stay in a well-ordered sanitarium affords one of the best means of bringing these cases to a successful issue.

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## PLACENTA PREVIA.\*

BY G. A. HIPKE, M. D.,  
MILWAUKEE.

To guarantee a probable uninterrupted pregnancy, the placenta must apparently be situated at the upper part of the uterus on its anterior or posterior surface.

It is a question whether a lateral or a cornual implantation, without its encroaching upon the internal os, does not predispose to disturbed gestation. If, however, the placenta encroaches upon the internal os, or partly or entirely covers the same, we have possibly the most serious complication of pregnancy—placenta previa.

We recognize three varieties, the central, the lateral, and the marginal. The last variety is referred to by Winekel<sup>1</sup> as a low implantation of the placenta, rather than a form of placenta previa. These different varieties, according to Strassman, occur in about the following proportions: Centralis in 23 per cent., lateralis in 61 per cent. and marginalis in 15 per cent. of all cases. <sup>2 3</sup> Placenta previa occurs more frequently at present than formerly. Schwarz, an authority of the old school, reports one case in 1,564 confinements, while present day observers meet one case in about 500 confinements. Tarnier even reports one case out of every 207 obstetrical cases.<sup>4</sup> The increase of literature upon this subject naturally follows the increase of the condition itself.

**SYMPTOMS.** "There is but one symptom (says Dorland), namely, a sudden painless flow of bright red arterial blood, without apparent cause other than its frequent correspondence to what normally would have been a menstrual period."<sup>5</sup>

This bleeding may occur at any time after the formation of the placenta—about the third month of gestation. In the majority of cases no hemorrhage occurs until the sixth or seventh month of pregnancy, and from then on more frequently with the loss of larger amounts of blood with each attack, becoming alarming in the last month.<sup>6</sup>

Bleeding occurs earlier the more nearly the placenta is implanted centrally. Not only does hemorrhage come on sooner in the centralis than in the other varieties, but also more frequently and more profusely.<sup>7</sup>

The hemorrhage comes on without warning, frequently making its appearance while the patient is asleep, and she is astonished to find herself lying in a pool of blood and unable to account for the same. The bleeding, as a rule, is spontaneous, but it may be brought on by

\*Read at the 59th Annual Meeting of the State Medical Society of Wisconsin, La Crosse, June 9, 1905.



severe bodily exertion.<sup>8</sup> Most frequently the bleeding stops almost as suddenly as it appeared, to return as unexpectedly and without any apparent provocation. In other cases, the bleeding does not cease entirely, but there is a continuous discharge of blood-stained fluid, which so weakens the patient that she may succumb to the next acute hemorrhage. In the marginal variety the hemorrhage, as a rule, does not occur until the beginning of labor, when it may be slight, or so profuse as to prove fatal. The danger from hemorrhage in placenta previa exists not only during pregnancy and labor, but to a great extent after labor.<sup>9</sup>

**PHYSICAL SIGNS.** We are told that in these cases the cervix is softer and more succulent than in normal placental implantation. The cervical canal is more or less patulous, so that little difficulty is experienced in introducing the finger or fingers into the internal os. Too much reliance, however, should not be placed in the above described condition of the cervix in making a diagnosis. The only positive physical sign in this serious condition is obtained by introducing the finger into the internal os and feeling the sponge-like placental tissues.<sup>10</sup>

Davis, Dorland, and others mention the location of the uterine souffle as of diagnostic value, claiming that this sound is produced by blood coursing through the placenta—while in fact it is due to the blood flowing through the enlarged uterine sinuses. This souffle can frequently be demonstrated after the placenta has been delivered. Ballottement is very difficult to elicit in this condition, even in those cases where a normal head position exists.

**DIAGNOSIS.** The diagnosis of placenta previa is very difficult and is made only after the appearance of the above symptoms and clinical history, and it can only be positively demonstrated by actual palpation of the placental tissue.<sup>11</sup> The only condition from which it must be differentiated is hemorrhage from a normally implanted placenta. To make the differential diagnosis between hemorrhage from a normally implanted placenta and placenta previa, we may in doubtful cases, according to Williams, anesthetize the patient, dilate the cervix if necessary and feel for the placenta. Of considerable diagnostic value is the fact that, when in a case of placenta previa the patient is in labor, the hemorrhage increases during a pain—while it becomes less during the interval.<sup>12</sup>

**PROGNOSIS.** The prognosis is grave for both mother and child. "The maternal mortality is due to (1) hemorrhage, (2) shock, (3) sepsis, (4) air embolism, and (5) post-partum hemorrhage." "The fetal mortality is due to (1) abortion, (2) asphyxia and prematurity."<sup>13</sup>

The maternal prognosis has been materially improved through improved methods of treatment. The death rate has been decreased from about 50 per cent. to nearly 10 per cent. This showing is encouraging, but the fetal death rate remains as high as ever, being variously estimated, ranging from 50 to 80 per cent. Is all the gain in the maternal death rate made at the expense of the child? If so—and it appears so—we had better revise our treatment in placenta previa.

TREATMENT. It seems to be the prevailing opinion, that, because of the danger of profuse hemorrhage, the uterus is to be emptied in the most conservative manner, as soon as possible after a placenta previa has been positively diagnosed.<sup>14</sup> We, as students, are frequently censured for expressing opinions which are contrary to those propounded by older heads, and founded upon experience far more extensive than ours. Those of us who have a very limited amount of experience in this as well as other subjects have, nevertheless, formulated methods of treatment and wish to express them.

In looking over the literature on this subject we do not find a single case where, prior to the seventh month of pregnancy, death of the mother ensued because of spontaneous hemorrhage. This being true, at least practically so, we may ask, why this general proclamation, which calls for the removal of the contents of the uterus as soon as the diagnosis of placenta previa is made?

The other causes of maternal mortality operate to the same degree before the seventh month of pregnancy as they do at or after this time. In fact, infection ensues more frequently where early interference is resorted to.

It is well to give the child some consideration that we may more frequently be able to present the mother with a living child.

In seven cases, coming under personal observation, the mother would listen neither to early nor late interference. In two of these the children were stillborn, while in a third, labor ended spontaneously at about the eleventh month, the mother giving birth to a live child. This child died within 24 hours, which gives us a death rate of 43 per cent. The mothers all lived.

You may rightfully say that these seven cases were fortunate ones, and that we have no right to infer that the next seven cases will turn out as fortunately. We grant this, but we are forced to conclude that if we had interfered early the fetal death rate would have been 100 per cent. One of the reasons given for early interference is that two-thirds of all cases (60 per cent. according to Winekel) end spontaneously—prematurely.<sup>15</sup> Is that sufficient reason in itself for bringing on labor immaturity? Personally, I have faith in, and in the future shall practice conservatism up to the end of the seventh month

of pregnancy—Dorland, Williams, Edgar, Winckel, and others to the contrary notwithstanding. Whether or not to follow this method beyond this time—say, up to the end of the eighth month of pregnancy—depends upon circumstances.

After the end of the seventh month, where the patient is so placed that considerable time will elapse before medical aid can reach her, the best method of treatment appears to be that one which has for its object the early emptying of the uterus in a manner which best preserves the rights of the mother and child. Where the patient is an inmate of an institution where medical aid is always at hand, the mother runs little or no risk by subjecting herself to the expectant plan of treatment. The expectant plan of treatment is a passive one. The patient must avoid heavy work and violent exercise. Walking, especially in the fresh air, is permissible, while riding is objectionable. A light, nutritious and easily digestible diet should be enforced. Soft bowel movements should be obtained. Absolute rest in bed for weeks at a time may become necessary. Sedatives and anti-spasmodics may become mandatory; the physician, however, should remember the evil influence of these drugs when long continued.

The active methods of treatment are quite numerous. I shall mention the most useful ones, commenting upon them as we go along, without describing the technique. A method long in vogue, and still frequently resorted to, is the tamponading the cervix and the vagina (under strictly aseptic conditions) until the cervix is sufficiently dilated that version may be easily performed and labor quickly terminated.

This method was originally practiced in the interest of the child. Labor usually proceeds slowly where this mode of treatment is instituted. This necessitates frequent renewal of the tampons, which adds to the danger of the mother through infection.

Theoretically, infection should not ensue, because of the repeated introduction of tampons; practically, we know that it does. Schonwald states that of 26 infected puerperal patients following placenta previa, 10 had been treated with tampons.<sup>16</sup> That this treatment saves the life of the child seems an illusion.<sup>16</sup> If we secure complete dilatation of the cervix in placenta previa centralis or lateralis, a large portion of the placenta is loosened, the child receives little or no blood from the mother, and therefore dies in utero.<sup>16</sup> In rigidity of the parts, however, this method of treatment seems very appropriate. In combination with the early rupture of the membranes, it saves the life of many children and women.

The next method is one which is more radical than the former and more conservative than those still to be mentioned. It calls for

the early artificial rupture of the membranes. This is in selective cases followed by immediate cessation of hemorrhage, the presenting part descends and impinges upon the loose and bleeding part of the placenta. This method should be selected where a promising longitudinal position exists, or where it can be readily procured, and where we have either a partial or marginal previa.<sup>17</sup> In central and extensive lateral placenta previa the above mentioned method of treatment is generally followed by the birth of a dead child, due to the fact that, as the presenting part descends, it presses upon the placenta, loosening it, and cutting off the fetal blood supply.<sup>17</sup> Another objection to the above method of treatment is the fact that after the rupture of the membranes and the escape of the amniotic fluid, it becomes more difficult and more dangerous to make use of any of the more radical methods of treatment in case of further severe hemorrhage. Still another method of treatment is the introduction of a rubber bag, into the cervical canal up to the internal os, distending it with sterile water or a weak aseptic solution. This method is not in general use, although highly spoken of. Winckel claims that it further exposes the mother to air embolism. The treatment most in vogue at present, in cases where the above methods are contraindicated, or where they have been resorted to and hemorrhage still continues, is the combined method of podalic version. A leg is brought down, and held or left in this position, allowing nature to end labor spontaneously; or where desired labor may be ended by further artificial aid.

In placenta previa centralis, where hemorrhage is severe and time is precious, the internal method of version is preferable to the combined, and in the performance of internal version in such a case, it is better to push the hand through the placenta, rather than lose time in the attempt of making a lateral placenta previa out of a centralis. The lives of the child and mother are liable to be sacrificed if this attempt is made.

The combined method, as well as the internal method of version, is followed by immediate cessation of bleeding. In the hands of obstetricians, the maternal death rate in placenta previa has been materially reduced through the performance of version, but, as before stated, the fetal death rate remains about the same as ever. Personally I think that in cases of placenta previa lateralis and marginalis the fetal death rate can be considerably reduced if these cases are intelligently treated by one of the above methods. Certain cases should be treated in a certain manner.

We meet here with a mechanical abnormality in different degrees, and it is not ridiculous to claim that each variety calls for a certain line of treatment in all cases, if the same general condition exists in

the mother. The high fetal mortality, to some extent at least, is due to the fact that in all cases of placenta previa centralis treated with the above methods the birth of a dead child must almost of necessity follow. Why we have ever succeeded in securing a live child in placenta previa centralis with these methods of treatment is a conundrum. The child either bleeds to death or dies asphyxiated without an attempt at respiration, or it attempts to breathe and drowns.<sup>18</sup>

This country, within the last year or more, has been flooded with literature upon the indiscriminate use of Cesarean section in placenta previa. More than this, the cases of placenta previa as treated by Cesarean section, have with one exception, not been reported by obstetricians, but by surgeons. In one case the operation of Cesarean section was performed because the operator was ignorant of, or unfamiliar with, the technique of podalic version.

Braun, Sligh, Tait, Deaver, and others, men of high standing in the profession, after temporizing with tampons and other methods of "orthodox" treatment, for from 12 to 32 hours, performed Cesarean section, and, by so doing, demonstrated to the obstetrician the surgeon's lack of obstetrical knowledge. If Cesarean section was indicated at all in these cases, it should have been resorted to immediately, before exhausting and infecting the patient. It is well for the surgeon to keep his hands free from obstetrical cases, unless the obstetrician calls him in to perform an operation.

"I have all my life avoided obstetrical practice," says Tait.<sup>19</sup> and then proceeds to treat placenta previa by hysterectomy. Surgeons tell us that the indication for Cesarean section in placenta previa is a rigid os. In looking over the literature on this subject, you will find that obstetricians report that a rigid os in placenta previa is of very rare occurrence<sup>20</sup> and, furthermore, a rigid os is successfully treated in cases of normal placental implantations, without resorting to Cesarean section. The same measures will overcome a rigid cervix in a case of placenta previa. From a theoretical standpoint as well as from a study of a few reported cases, it appears that in a given case of placenta previa centralis, with a living child, the only treatment is Cesarean section, because this mode of treatment favors a live child and does not increase the danger of the mother. Right here it is well to remember that in placenta previa centralis the maternal death rate still hovers between 25 and 30 per cent, where the old line of treatment is instituted.

Holmes of Chicago recently presented a very carefully prepared and instructive paper on the treatment of placenta previa by Cesarean section.<sup>21</sup> He comes to the conclusion that placenta previa *per se*,

should never be treated by Cesarean section. After furnishing us with statistics upon the subject he says: "Cesarean section in placenta previa in 100 cases saves 19 children, but kills 13 mothers."

In his table III (*Journal of the American Medical Association* May 20th, 1905, p. 1597) he finds that in cases of placenta previa centralis the maternal death rate reaches 24.4 per cent. where the cases are treated by the orthodox methods, while in similar cases, treated by Cesarean section, the maternal death rate was only 11.1 per cent. In these same cases the fetal death rate is given as 70.8 and 22.2 respectively. The high mortality rate was found where the old time treatment was instituted, while the low percentage followed Cesarean section. These percentages would give us the following results in 100 cases of placenta previa centralis treated by the orthodox methods: 24 dead mothers, 71 dead children; 100 cases of placenta previa centralis treated by Cesarean section: 11 dead mothers, 22 dead children. This, in other words, means that in 100 cases of placenta previa centralis, treated by the old line methods, we kill 13 mothers and 49 children. These children and mothers can be saved by Cesarean section.

The natural conclusion for us to draw from a study of placenta previa, is that Cesarean section should always be performed where the child is alive in a case of placenta previa centralis; and that it should never be performed in cases of placenta previa lateralis or marginaris, because of the fact that in the latter the best results follow where they are treated by the old line methods.

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**Discussion.**

DR. T. L. HARRINGTON, of Milwaukee—Mr. President and members of the State Medical Society: In opening the discussion on this very important subject, I find it necessary to differ in a number of points from the essayist. There are many suggestions which he makes with which I agree, and which are commendable, but my time I believe will be so thoroughly taken up with the points on which we differ that I shall not take the time to tell him wherein we agree.

The essayist tells us that placenta previa occurs more frequently at present than formerly, and that "the increase of literature upon this subject naturally follows the increase of the condition itself." I do not believe that we have any statistics from which we can draw conclusions showing that placenta previa is on the increase. There are more cases reported, it is true, and a number of German obstetricians have been reporting cases of placenta previa lateralis which manifested no symptoms of placenta previa, but which showed after the delivery of the placenta, after a normal labor, that the membranes were ruptured in such a position that they believed the placenta was situated low down. These, of course, were not in years past, and I believe ought not at this time to be termed, cases of placenta previa. I say again, I believe we have no statistics by which we can conclude that placenta previa at the present time is of more frequent occurrence than formerly, and certainly the fact that we have a greater literature on that subject at this time does not at all show that it is of more frequent occurrence at present. Small-pox to-day is of less frequent occurrence than it was 100 years ago, but we have much more literature on the subject to-day than 100 years ago. The reason is easy to see. It is simply because of an increase in medical literature, an increase of medical societies, and the increased tendency of physicians to write and record their experiences.

The author tells us that the diagnosis of placenta previa is very difficult, and he continues by saying the only condition from which it must be distinguished is hemorrhage from a normally implanted placenta. I believe ordinarily the diagnosis of placenta previa is very easily made. The cervix is soft and easy to examine, and within lies the sponge-like placental tissue. As Dr. Williams says, the history of the case in most instances will tell you that it is a case of placenta previa; you do not know anything about it ordinarily until hemorrhage sets in, and from the manner of the hemorrhage, the increase of the bright blood with each pain, you have, as he says, but one thing to differentiate it from, and that is hemorrhage from a normally implanted placenta, and the diagnosis ordinarily, instead of being difficult, is very easy. Exceptionally the diagnosis is difficult, and then I believe with him that you may anesthetize your patient and dilate the cervix sufficiently to make a positive diagnosis.

In speaking of the treatment of placenta previa the essayist says in one place, "the child either bleeds to death or dies asphyxiated without an attempt at respiration, or it attempts to breathe and drowns." Again he says: "if you secure complete dilatation of the cervix in placenta previa centralis or lateralis, a large portion of the placenta is loosened, the child receives little or no blood from the mother, and dies in utero." Now, the facts are that the child never receives any blood from the mother; the child makes its own blood; the child receives from the mother oxygen and nutriment and a certain amount of

serum, which transfuses through the intervening membrane, but the child does not receive blood from the mother, and the child cannot bleed to death, although the mother may bleed to death from the severed placenta.

Again, I do not believe it is possible for the child to attempt respiration within the uterus. The act of respiration is established only when air comes in contact with the child; and if the child is in utero, with no contact of air, it can make no attempt at respiration, and I believe cannot drown within the uterus.

The doctor quotes Holmes of Chicago, as follows: "Cesarean section in placenta previa, in 100 cases saves 19 children but kills 13 mothers." In drawing his own conclusions he uses these words: "In 100 cases of placenta previa centralis treated by the old line method we kill 13 mothers and 49 children." The medical profession is not in the "killing" business, and I think when professional men present scientific papers before a scientific body they should use terms correctly. If I am treating a dozen cases of pneumonia and two die I do not kill those two cases. If I use my best efforts and best skill in treating my cases of placenta previa and I lose 10 or 15 per cent., I am not killing those cases, and I say to the essayist and to Dr. Holmes of Chicago, that in presenting material of this kind before a scientific body he should use accurate and exact language. Is it any wonder that the laity believe that a portion of the business of the medical profession is killing, when our scientific men stand before scientific bodies and state, because we have failed to save life, how many mothers and children we have "killed"?

Now, the doctor asks, is all the gain in treatment of placenta previa to be made at the expense of the child, and answers in the affirmative. I do not think we have any reason to draw such conclusions. If we compare statistics of 25 or 30 years ago, we learn that to-day our statistics are very much in favor of the mother. We have reduced the death rate of the mothers from perhaps 30 per cent. down to about 10 per cent., but we have reduced the death rate of the children only a little, and yet we have reduced it some.

Now, if it were true, as he says, that the increased saving of mothers resulted in a greater death rate of children, his statement would be true, but it is not. We have progressed much further in our work in saving the mother than we have in saving the children.

Again the essayist tells us, in speaking of forcing the hand through the placenta, if we dissect up along the side "we make of a placenta previa centralis a placenta previa lateralis." That is impossible. You cannot make of a placenta previa centralis a placenta previa lateralis, by virtue of the definition. You define a placenta previa lateralis as a placenta previa which is implanted low down and does not encroach upon the cervix, and now the fact that you take a centralis, which entirely surrounds the cervix and dissect off a portion of it, does not make a lateralis out of it.

The most important point on which I disagree with the doctor is his final conclusion, that in treating placenta previa centralis we should always perform a Cesarean section, but in lateralis and marginalis the Cesarean section should not be resorted to. I believe that is bad and dangerous teaching to give to the medical profession. He has given us the statistics of a number of cases that have been saved by Cesarean section, but he has not told you that these cases were saved by the most skillful abdominal surgeons that we have in this country and Europe to-day. Let me say to you what you already know,



that if Cesarean section ever becomes a common treatment, as the doctor urges, for placenta previa centralis, the death rate of both mother and child will be very much higher than it is at the present time. It will be very much higher, first, because all cases of placenta previa are likely to be premature, and in most cases of placenta previa centralis the first dilatation of the cervix, with the low implantation, the placenta being adherent all the way around the internal os, brings on early hemorrhage. Now, in order to discover that that is not a case of lateralis, or a case of marginalis, it is necessary for you to go in and make an examination, sweeping the finger around the internal os to see whether the placenta is implanted all the way round, and if you do that you will likely infect the woman.

The author tells us that hemorrhage comes on earlier and is more severe in centralis than in other forms of placenta previa, but these are the cases in which there is little time to be wasted, in which your patient is already anemic from the loss of blood, and in which perhaps you have not the time to take her to the hospital, if you are fortunate enough to be situated where there is a hospital—these are the cases, I say, which the doctor specifies, saying that he always performs Cesarean section, but I believe this to be bad teaching.

It may be advisable to do Cesarean section in certain cases of placenta previa where we have not only a surgeon skilled in abdominal section, but at the same time a skilled obstetrician in attendance. We know the very great danger from post partum hemorrhage, and I wish the doctor had devoted a little of his time to discussing the difficulty with which the placenta is removed in many cases of placenta previa. The low implantation makes the Credé method of removing the placenta of no value. And, moreover, we know that in many of these cases there is a pathological condition, not a physiological union of placenta and uterus, but a pathological union of placenta and uterus, and in removing that placenta you are very likely to get a paralysis of the lower uterine segments, failure of contraction and enormous post partum hemorrhage. That again makes it necessary, in many cases, to amputate the uterus, if Cesarean section is performed. Holmes says, in every case in which Cesarean section is done the uterus should be removed, and in that case you unsex the woman; besides doing that you add to the already weakened condition of the woman one of the major operations of surgery. It is true that Cesarean section may be done in certain choice cases in which we have a skilled operator and a skilled obstetrician; and perhaps again there are some cases where it is absolutely necessary because of obstruction to labor, to do this operation; but in the great majority of cases, if the teaching advocated by the essayist ever prevails, the statistics that we have at this time will be reversed.

DR. L. F. BENNETT, of Beloit—I wish to protest against the adoption of the rule to invariably perform Cesarean section in these cases. I believe it is dangerous doctrine to advocate here in Wisconsin, where a large proportion of our men are practicing in towns where they have not the advantages of hospitals and also the advantages of skilled surgeons to perform this operation.

Furthermore, I also believe that it is in most cases unnecessary. I have personally been able to succeed very well in these cases without Cesarean section; and I wish to dwell a little more fully on the methods of procedure

in these cases. I wish to lay a little increased emphasis upon the dangers of infection. These are cases which come upon us in a great hurry, where there is great consternation from the bleeding and danger of sudden death, and we are prone not to take the usual antiseptic precautions that these cases demand, before attempting to remove the child, while really these cases should be prepared with the same amount of care that we would use in an operation upon the vagina. In other cases where we are going to perform a surgical operation, for instance—vaginal hysterectomy, the patient is shaved and prepared in the most careful manner, and while we know the time is limited in these cases and the patient often bleeding, nevertheless the preparation for operation should be careful. The latter part of the preparation might be postponed until after the patient has been tamponed; but we must remember that in tamponing a case we must be very careful not to infect the patient, and to get the vagina perfectly clean, likewise the cervix, and also not to carry any infectious material from the vulva into the vagina; and if we would exercise the same amount of care that we do in other cases where we are to perform a surgical operation, I believe that the cases of infection would be materially decreased in number.

So in performing version, in introducing your hand into the uterus, you find a patulous os as has been explained, and it is usually an easy matter after the vagina has been tamponed, to enter the uterus in this way. It requires, of course, a certain amount of manual dexterity and quickness in removing the child. The hand is often used as a tampon in entering the uterus, before the cervix is thoroughly dilated, and in this way we can save a large loss of blood. Our success in avoiding infection of our patients is proportionate to the care employed in our asepsis and speed in delivery, and I believe this is the line on which to work. If the doctrine were uniformly adopted to perform Cesarean section in these cases, our mortality would, I believe, be very much increased.

Dr. W. B. HILL, of Milwaukee—There was one point in this very interesting paper that I think was omitted, and that was the point of location—not the location of the placenta but the location of the patient. I think that is one of the most important points in the treatment of this condition. If a patient is situated seven miles from town, outside of telephonic communication etc., the treatment should be far different from what it would be where she is under the eaves of a hospital; or if the patient is situated in a house under circumstances where trained assistants are at hand, in that case we can use the expectant plan and do a great deal more to keep this patient going as long as the child is living, or has a chance of being delivered as such, than though the circumstances were more adverse. I think these are points that we should take into consideration in discussing the paper. I believe that in practicing in the country, if you discover that you have a patient with placenta previa, the quicker the foetus is delivered and the placenta removed the safer it is for the mother. I believe that is our first duty. If, however, the conditions are such that she can be taken to a hospital when the diagnosis is made and kept there under care and watchfulness, then we can select a method best adapted to the needs of that particular patient, and, as the essayist says, in placenta previa centralis it would be admissible to resort to Cesarean section, although I would not recommend that it be done in every case, because we can

in many instances save the mother and sometimes the child by the other method.

But that was the one point that I wished to bring out, that if the conditions are not favorable to immediate relief, then I believe that it is wrong for us to delay, but we should induce premature labor as quickly as possible.

DR. J. R. MINAHAN, of Green Bay—I want to say a word or two in behalf of the surgeon, and that is that the day has gone by in which a surgeon should be called to a case of appendicitis to see a patient with a temperature low, and a pulse rate of 150 or 160; the day has gone by when the surgeon is brought in for a case of obstruction of the bowels which has been existing 8 or 10 days, and expected to do his work.

I have operated on two cases of Cesarean section recently in which both patients died through delay in calling the surgeon. One was a little cripple about three feet high, who had been in labor three or four days before they called a doctor at all, and then after the doctor arrived he saw that the deformity in the pelvis was such that it was impossible that the child should be born; the patient was brought to a hospital, Cesarean section done, and the mother died of shock. What else could you expect?

I want to say a word to the obstetrician; if he is to call the surgeon to do anything in Cesarean section, he must call him in before he has tried every other means at his command; he must determine before the labor has progressed far, that it is a case for Cesarean section; he must determine at once if he is going to have a Cesarean section in a case of placenta previa centralis, not after the patient has been weakened by severe hemorrhages.

Call the surgeon early, if at all, and not as a last resort.

DR. J. H. STURE, of Milwaukee—In reference to Cesarean section for placenta previa, operation has been done by surgeons, as has been stated. The surgeons were Italians and Americans. The Germans do not seem to take to that procedure, at least not yet. They have not been convinced that it is good. Holmes concludes from statistics that the marginal, central and lateral varieties are giving a mortality of 20 per cent. for the mothers and 33 per cent. for the children, 7 out of 25 being born alive; but he adds that 9 infants die during the first few days, making a gross foetal mortality of 64 per cent.

The question arises, does it pay, with the foetal mortality not reduced, to expose the woman to a serious operation, such as Cesarean section? Cesarean section, when performed by the best surgeons, shows a maternal mortality of 12.1 per cent. Urnfest, in *American Medicine*, January 11, 1902, compiled statistics showing a maternal mortality of 19 per cent. (551 cases Ohlshausen-Veit) in contradistinction to the conservative method for placenta previa giving a mortality of 3.8 per cent. when performed by obstetricians of experience (467 cases University Clinic, Berlin).

DR. HIPKE (closing)—In opening the discussion, Dr. Harrington states that placenta previa is not actually on the increase, but that we are better diagnosticians and therefore report more cases than were reported by older authorities.

Winckel, in his "Handbuch der Geburtshülfe," states that this condition happens more frequently than formerly, and that this increase in frequency is due to the increase of the three great causes of placenta previa, namely

gonorrhœa, syphilis and criminal abortion; and by statistics proves that those countries blessed with syphilis, gonorrhœa and criminal abortion are the countries in which placenta previa flourishes. I wish to repeat right here that Schwarz, an observer of the old school, reports one case of placenta previa in 1564 confinements, while Tarnier, of a later day and in a different country, reports one case in 207 obstetrical cases.

Dr Harrington, furthermore, tells us that the diagnosis of placenta previa is easily made. In my paper I take the stand that this is not so. The existence of a placenta previa may be strongly suspected from the history of the case, but it can only be positively demonstrated by the actual palpation of the placental tissue. The palpation of the placenta can only be accomplished by the introduction of a finger or fingers into the cervix, and this manipulation is frequently followed by labor, the thing we wish to avoid.

In the discussion objection is raised to one of my statements in which I assert that no time should be lost in the attempt to make a "lateral out of a placenta previa centralis." The doctor says this is impossible. Literally—he is right, practically—he is wrong. Every reader of obstetrical literature knows that our best authors make use of the above term. Following their lead I used the phrase.

In contradiction to one of my statements, the doctor stated that the child does not attempt to breathe in utero. Any physician who has performed versions, is aware of the fact that attempts at respiration are frequently made during the performance of version. And again, the child will make an attempt at breathing in cases of placenta previa (this happens most frequently in placenta previa centralis) after the placenta is detached. The child must breathe in order to live after the oxygen supply of the mother has been cut off, and it matters not whether the child at this time is in or out of the uterus.

Objection is made to the treatment outlined in placenta previa centralis. This is quite natural because the treatment given is radical. Whether right or wrong only time can tell, for the statistics upon this subject are still quite meager. According to the statistics, however, of Holmes of Chicago, an ardent opponent of the Cesarean section treatment for placenta previa, more maternal as well as fetal lives are saved in cases of placenta previa centralis by Cesarean section than by the old line of treatment. Holmes can not get away from this conclusion. The statement made here during the discussion of this paper—that in these cases Cesarean section was performed by our best surgeons, is an illusion. They may be good surgeons, but by the history of their cases they proved that they were poor obstetricians. They operated under conditions where an obstetrician would almost consider it criminal to perform Cesarean section. As stated in the original paper, one of these surgeons admitted that he performed Cesarean section because he was unfamiliar with podalic version.

If the statistics of Holmes are reliable, and we have no reason to doubt them, we may assume that the maternal and fetal death rate will decrease in cases of placenta previa treated by Cesarean section. But this decrease in the mortality rate will only come if this treatment is resorted to immediately, before exhausting and infecting the mother with other lines of treatment. This decrease in mortality rate will come when the surgeon learns when and when not to interfere with Cesarean section in placenta previa centralis.

Since the writing of the above paper, I treated a case of placenta previa by performing Cesarean section. The child died within 24 hours from atelectasis. The mother, immediately following the operation, showed fewer signs of shock than I had met with in two previous cases of placenta previa centralis treated by podalic version. For forty-eight hours following the first day after the operation, the patient was very low and restless. At times the condition was very discouraging indeed. This depression of the patient, however, was apparently due to a condition of the bowels (a pseudo post-operative intestinal paralysis) for the symptoms quickly improved after a thorough cleansing of the same. From this time on, for about three weeks, the condition of the patient was very favorable, when a tubercular (later mixed) osteomyelitis of the right clavicle ensued. This was followed by metastasis and eventually the death of the patient. At some other time I shall give the history of this case in detail.

Dr. Bennett in the discussion says that internal podalic version can be very quickly done, and therefore we may expect a living child where this treatment is instituted. It can only be quickly done where the vagina and perineum are thoroughly relaxed, where the pelvis is roomy, and where dilatation of the cervix is complete. If this latter condition exists then we will find that in a case of placenta previa centralis the child is probably dead because the oxygen supply to the child has been cut off while the cervix was dilating and the placenta loosening. This is not a case for Cesarean section.

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## REMARKS ON THE TREATMENT OF SCABIES.\*

BY LEOPOLD SCHILLER, M. D.,

MILWAUKEE.

Scabies or Itch is such a common and wide-spread affection of the skin, sometimes appearing in numbers amounting to a small epidemic, that it possesses more than common interest to the general practitioner. This ordinary and uncanny disease has been especially common in our vicinity within the past year, and without any doubt every one of us has had cases under observation and treatment during this time.

Mostly all cases of scabies, which disease we know is purely a local affair, and due to the invasion of the skin by the *Acarus Scabiei*, *Sarcoptes Scabiei*, or common itch-mite, are easy of diagnosis. In certain instances, however, when the lesions manifest themselves in unusual localities of the body, when the burrows have been promptly destroyed by the finger-nails, or when the irritation of the skin results in a more or less extensive secondary eczema, which may even assume the appearance of an impetiginous dermatosis, through the invasion of the staphylococci, then the diagnosis becomes by no means an easy matter. Although the finding of the itch-mite is of course decisive in

\*Read before the Milwaukee Medical Society, May 23, 1905.

every instance, the corpus delicti very often cannot be found, even after the most diligent and systematic search. In such cases we must depend entirely upon the clinical picture, arriving at a diagnosis by means of the other symptoms, the most conclusive being the symptom of itching, especially at night, when the victim gets warm in bed.

Now, as a general thing, it is simply necessary to make the diagnosis, prescribe for the case, giving directions as to the method of carrying out the treatment, in order to be rewarded with a rapid and safe cure of a disease, which, if left untreated, will go on indefinitely and be a menace to everybody with whom the patient may come into more immediate contact. Unfortunately, however, this happy termination does not by any means always ensue, in so far as that, after having considered the disease entirely cured, the patient returns after several weeks or months with a renewed outcropping of the itch eruption. Again, we may find that as the result of injudicious treatment, although the primary disease may have been rooted out, we have to deal with a secondary condition of the nature of an eczematous dermatitis which will at times baffle our ingenuity in endeavoring to get the best of it. These unpleasant experiences may result either from an inherent hypersensitiveness of the skin, from the application of improper remedies, or from the injudicious application of the proper remedies.

In order to ensure success in the treatment of scabies it is not sufficient simply to make your diagnosis, prescribe an ointment, and tell the patient to use it several evenings in succession. In order to succeed, it is necessary, whatever remedy you may prescribe, to give your patient explicit directions how to use the same, otherwise one of the links of the chain of observances necessary for success may be unwittingly dropped, and your efforts defeated. The following tactics must therefore be rigidly enforced in every case:

1. The clothing must be removed and treated like clothing which has been infected. The cotton or linen worn next to the skin must be boiled for a length of time, while the flannel and woolen garments may be placed in a disinfecting oven if this is feasible, or if not, they may be ironed out, using a very hot flat-iron, especially about the pockets. These garments can again be worn after the patient has been cured. Gloves, if they are again to be worn, must likewise be thoroughly disinfected by being cleaned with gasoline within as well as without. This source of reinfection is often overlooked. While the treatment is in progress any old clean underwear may be worn.

2. In the treatment itself we may err in two directions, we may do too much as well as too little. If properly made one, or at most two applications of the antiscabic remedy suffice in nearly every instance.

3. The preparation of the skin for the treatment is in my opinion essential. This is best carried out in the evening and consists of the following procedure:—the patient takes a prolonged bath, quite warm, at the same time using green soap or tincture of green soap if the skin is not too sensitive, which is seldom the case; the soap is well rubbed in, and then a hard-bristled hand brush is used to give the skin a good scrubbing and open up the burrows which have not already been destroyed by scratching. After thoroughly rinsing and drying the skin it is ready for the application of the parasiticide. This is usually in the form of an ointment which is to be thoroughly rubbed in on those parts of the body where the insects are most commonly lodged, namely the hands, wrists, flexures of the joints, and where two folds of skin lie in apposition. The entire body is anointed with the exception of the face, which is, as a rule, exempt, except in rare instances in young children. The patient then goes to bed in the old underwear, cotton or linen being preferable to flannel, because the latter is liable to increase the secondary inflammatory condition, although I should say that, as long as the underwear is clean it does not matter whether it be cotton, linen or flannel. In the morning a warm bath is taken, castile soap being used as a detergent, and after applying an indifferent dusting powder—cornstarch being as good as anything—the patient puts on fresh clothing, or the old clothing which has been disinfected. The inunction can be repeated on the following night, but the bath can be omitted, although a single treatment is usually all that is necessary in most cases, we order two to make sure, while three applications should be the limit, always stopping short of producing any decided dermatitis.

We have quite a number of remedies for the cure of itch to choose from, but the choice is not a matter of indifference. They will all do the work, but it is not so much a question of cure, as which remedy will do it in the shortest time and with the least possible annoyance to the patient.

Sulphur is known as the classical remedy for scabies and it is probably still being used more than any other today, but it has of late years been to a great extent supplanted by others which have been found to be just as certain in their effect, and, what is of considerable moment, less apt to produce secondary untoward effects. It is these undesirable secondary eczemas which are the drawback to the use of sulphur. In ointments for the cure of itch lard is the best base to use, because it is easily rubbed in and quite penetrating. Thus we have the simplest ointment by taking 1 to 2 dr. of sulphur to an ounce of lard. Additions to and modifications of this simple formula have been

made from time to time with the object of making an ointment which is either less irritating, or one which is more penetrating and certain in its action. The first object is accomplished by adding a certain amount of carbonate of potash to the simple ointment, as in Wilson's, Hardy's or Helmerich's ointment, the second by a formula like Wilkinson's ointment, which contains tar and a certain amount of chalk, which penetrates and fills the burrows, or Hebra's modification which contains besides a certain amount of green soap. Although an ointment is by far the most commonly employed and best form of application, still other forms can be used with good effect. Thus we can use lotions of which Vlemingck's is the prototype. This is made by taking 2 oz. of slaked lime, 4 oz. of sulphur and 20 oz. of water. This mixture is boiled for about half an hour in an iron vessel, using a wooden ladle for stirring and then filtering. The main objection to this preparation is its sulphuretted odor, sulphide of calcium being developed.

Sherwell, in an article in 1899, advocated the use of sulphur in powder form. In this treatment the usual bath is given, then the patient is rubbed with about half a teaspoonful of sulphur, and the same amount is sprinkled on to the bed sheets. This procedure is repeated every other day and the cure is effected in about a week. This is certainly a very simple treatment, said to be very effective, and although slower than other methods, less liable to cause irritation of the skin. I have no personal experience with this mode of treatment.

In 1883 Kaposi introduced a new remedy in the treatment of scabies. In place of the sulphur and tar of Wilkinson's ointment he substituted beta-naphthol, which he claimed was not open to the objection of producing dermatitis in a certain number of cases, but that, on the contrary, it had the happy effect of diminishing any existing secondary dermatosis. His claims have certainly been verified. The formula of this preparation which goes by the name of Compound Naphthol Ointment of Kaposi is originally as follows: Beta-Naphthol, 15 parts, prepared chalk 10 parts, green soap 50 parts, lard 100 parts. In children or persons with a very delicate skin, the strength of the ointment can be reduced, and the green soap can be entirely omitted in young children. Kaposi did not believe in the preliminary bath, especially when a secondary eczema was present, maintaining that the ointment in itself was sufficiently penetrating, the preliminary treatment being unnecessary and undesirable. I, myself, can see no harm in any case, and considerable benefit in many cases to be derived from the bath, soap and scrubbing brush. The bath need not be employed more than once, but the opening of the eunuculi by means of the soap



and brush can only be an advantage and never a hindrance to success of treatment. I have never seen an adventitious dermatitis materially augmented or brought on by the preliminary bath. One application of Kaposi's ointment if thoroughly made, those parts inaccessible to the patient like the back being rubbed by some assistant, ought to suffice in most cases, but two or three applications can be made with impunity, the only unpleasant feature being the burning produced by the application, which usually lasts about fifteen minutes.

The itching of the skin will not disappear immediately after the completion of the cure owing to the irritated condition of the skin usually present if the disease has existed for any length of time. This irritation does not amount to an actual dermatitis as a rule, and subsides in the course of a few days under appropriate treatment. In some nervous individuals the itching may be more persistent without there being any apparent cutaneous lesions, and these patients become quite despondent. In order to mitigate this post-seabetic condition, we may have recourse to alkaline baths or lotions, or to some other anti-pruritic lotions of which we have quite a profusion. I have found Crocker's Lotion, which consists of a suspension of calamine and zinc oxide in rose water to which a little glycerine is added, freely applied several times a day not only to soon stop the itching, but also to be particularly indicated where an actual erythema, eczema or urticarial condition exists. When the skin is dry and scaly Crocker's Liniment, which is a suspension of calamine and zinc oxide in carron oil, may be preferable. At times the addition of a little oil of eade or of compound tincture of coal-tar will hasten the restitution of the skin to its healthy condition.

I wish to touch on one more point and that is, not to consider a case as dismissed until it has been kept under observation for about a month, because it may happen that some of the ova have not been destroyed by the first treatment and will hatch out in a few weeks, thus causing a return of the disease, and necessitating a repetition of the treatment. If only a few vesicles make their appearance they can be opened with a cannie needle and the ointment applied several times to the affected spots. This would obviate the necessity of a complete course of treatment.

In every instance all the members of a family ought to be examined, and, if infected, treated at the same time, otherwise a vicious circle will be established in the family, and the disease protracted ad infinitum.

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## EDITORIAL COMMENT.

## TYPHOID FEVER—METHODS OF TRANSMISSION.

On page 290 we reproduce advance sheets (as published in the Public Health Report, August 25, 1905) from the "Transactions of the Third Annual Conference with State Board Authorities," upon a subject that has long held a prominent place before the public, and with sanitarians. Outbreaks of typhoid fever in endemic and epidemic form are frequent, and rigid investigations have often discovered the sources of the infection. But it has happened, and in our own communities, that every effort aimed at locating the source of the disease has been baffled, and such a failure leads to the discomfiture of health authorities, and great uncertainty as to the proper mode of action. It is therefore of great importance to add to the store of our knowl-

edge of the many possible means by which the typhoid contagion may be carried, and the emphasis laid upon direct contagion, as outlined in the report referred to, marks a direct advance in our information upon the subject of preventive medicine.

The recommendation that typhoid fever be considered a contagious disease, and that quarantine and disinfection regulations be observed as in other contagious diseases, is well worth the attention of all health officers.

A perusal of the article printed in this issue will well repay the reader.

### THE HOSPITALS OF NEW YORK.

The hospital situation in New York is the cause of much alarm and concern at the present time. One would hardly feel justified in speaking of a hospital famine in that city without properly qualifying the phrase, because the institutions are indeed very numerous, and—very gorgeous. And herein lies the difficulty. That hospitals, unless richly endowed against all contingencies, are costly ventures, even if economically administered, is undisputed. There are but few large institutions that do not assume it as an obligation to serve a certain proportion of the needy gratuitously. Latterly, however, there have been erected in the large cities, institutions, generously enough endowed with sufficient funds for the erection of elaborate buildings, but without support with which to continue in the service of the poor. Veritable marble palaces have been constructed, buildings to conform with the extravagant tastes and notions of those whose ideas were rather to build structures that should be monuments to their own industry, than such as would answer the purpose for which they were originally intended. In some of these institutions there are palatial rooms for wealthy patients, but the poor find the hospitals' doors closed to them inasmuch as too little money provision has been made for them. One large New York institution now has 200 vacancies, but was erected at a cost of \$10,000 per bed. Roosevelt hospital which last year had a daily average of 182 patients, maintained 281 persons within its walls to wait upon them. St. Luke's had 209 patients who were attended by 275. So New York is now looking about for winter quarters for its many sick poor and finds an enormous problem upon its hands.

Judicious giving, endowments where they belong, less ostentation, extravagance and luxury in the equipment, and more concern for the welfare of the many rather than the few—this must be the solution.

**PUBLICITY AND FRAUDULENT MEDICINE.**

The augurs are propitious when laymen take arms against the medical mountebank. Since the time of Hippocrates the regular profession has been engaged in an attempt to convince the public that the medical mountebank is the most reprehensible of parasites, fattening at the expense of the mental and physical weaklings of society, and often at the expense of the cultured and intelligent. Every attempt of medical men to secure legislation with a view to the suppression of the nefarious enterprise of these men has been opposed "tooth and nail" by the newspapers and by the "laity" on the ground that a "Medical Trust" was being consolidated in order to suppress "competition" and abridge the right of man to enjoy life, liberty and the pursuit of happiness according to his own ideas, or as one writer puts it, to go to the devil in his own way.

Dudley E. Sicher contributes an able and suggestive article on quackery to the September number of *Popular Science Monthly*, and the warfare of *Collier's Weekly* against quacks and nostrum venders and manufacturers has been widely noticed. The *Outlook*, *The Ladies' Home Journal*, and one or two other lay periodicals have excluded medical advertising from their pages, recognizing the fact that all such advertisements are deceptive and fraudulent.

Sicher's view as to the cause and success of quackery is that of a layman and may be summarized about as follows:

1. The fact that all diseases and all patients cannot be treated successfully by reputable physicians and the physician is honest enough to admit it.

2. The fact that minor and imaginary ailments are magnified by the quack into serious diseases which he, and he only, can cure.

3. The venality of the press which unblushingly prints the vilest and most criminal advertisements, not only in their advertising pages, but as "readers"—ostensibly news items.

The conclusions thus tabulated will be universally admitted to lie at the foundation of quackery.

The cure is to be sought for in a universal recognition of the fact that all medical advertisements in the lay press, and all advertisements of medicines and special methods of treatment are dishonest and fraudulent, and are deliberately worded in order to deceive the people and frighten them into visiting the advertiser. When this fact is generally recognized quackery will no longer pay and will therefore cease to exist.

Judging from the past, however, it would appear that although as above indicated some journals have undertaken to enlighten the

public in these matters and along these lines, it will be ages before the fact will reach the masses of the people, and hence the quack will continue to flourish for some time to come.

#### **CHIROPRACTICE.**

The citizens of Milwaukee have seemingly been reveling in a feeling of security, which—through ignorance on their part—was in reality but a sham. They have fortified themselves against the onslaughts of disease with medical bulwarks of all kinds—samples of every sort of school, teaching, preaching, humbug and quackery, so that the wants of all classes seem hitherto to have been richly catered to.

In spite of all this the embalmer has occasionally found business brisk. The ruthless hand of science has, however, stepped into the breach, and the undertaker sees visions of being robbed of his means of a livelihood, for at last there has been found a cure for those who use crutches, invalid chairs, braces, canes, etc., and Milwaukee is now honored with an office of "Chiropractic" healers who "cure all diseases that have been pronounced hopeless by the world's leading physicians." This is said to be a new science, although its founder claims for it an age of nineteen years. The greatest claim to distinction made by the "discoverer and developer" of this school on his private letter heads, is that his (the Palmer) school "has the best collection of pathological and anomalous specimens in osteology of any school in America."

We have not yet acquainted ourselves with the office equipment of these new Milwaukee fakirs, but, bearing in mind the maxim "all quacks look alike to us," have in our mind's eye a vision of the many and strange wonders of "chiropraetic."

#### **CONSUMPTION NOT HEREDITARY.**

The weight of public opinion is always a factor to be reckoned with in any general movement. The belief in the direct hereditary transmission of tuberculosis has so long been taught by the medical profession, that evidence that is accumulating to the contrary will not find ready recognition on all sides. Until physicians are convinced, the laity will remain skeptical. The Tuberculosis Congress, recently held in Paris, has gone on record as opposed to the doctrine of an inherited consumption, and has voiced the opinion that the state ought to have the right to separate children from families, any one of whose members is affected with the disease at any stage.

The promulgation of this doctrine cannot be too strongly insisted upon, and its emphatic repetition, again and again, before medical and lay bodies, is essential before we can hope for general recognition of the infectious nature of tuberculosis.

#### THOUGHT—A NEW MAGAZINE.

Under the title "Thought—An Advocate of Psycho-Therapy," we are introduced to a new monthly magazine published by the Magnum Bonum Company of Chicago. In appearance it has used Hubbard's *Philistine* as prototype, and it costs one dollar per year—but is worth many times the price—we have the publishers' statement for this. We are told that the tenets of the followers of Psycho-Therapy are very far removed from those held by "that very respectable cult known as "Christian Scientists." "It is the mission of 'Thought' to show a way of escape from the ills of both mind and body with which mankind is burdened. What it shall proclaim is the Giant Deliverer of the age." (Sounds strangely like "Allness in All," etc.)

That the editor of *Thought*, Dr. Sheldon Leavitt, of Chicago, does not hold physicians in very high regard, is shown by his statement "that patients suffering from slight ailments are often made to believe themselves on the verge of serious sickness. Lesions of vital organs are vaguely hinted at in a manner to awaken grave fears; and when, as it may happen, despite the treatment adopted rather than as a result of it, there is recovery, the patient and his friends are given to understand by word and action that superior skill alone has wrought the salutary change. This is but one of the many polite frauds practiced upon a gullible public by medical and surgical practitioners in good standing."

The editor is not chary of his superior erudition, because he reveals to us that "Magnum Bonum" means "great good," and tells us that "it is the purpose of the publishers of this magazine to do great good to many people. If you are not a success mentally, morally, physically and financially, write to the company and receive free advice concerning your deficiencies."

It is refreshing to know where to turn for good advice upon a successful method of coping with a financial deficiency. We really fail to see what other magnum bonum "Thought" will bring to its readers. But then—we're not Psycho-Therapists.

## ITEMS OF INTEREST.

**State Board vs. Budan.**—Dr. Budan of Milwaukee, a graduate of Harvey Medical School of Chicago, has been arrested for practicing medicine without a license. The Board of Medical Examiners refuses to recognize this college as a reputable one, and has therefore refused Dr. Budan the privilege of taking the examination for license. Several attempts have previously been made to compel the courts to take action in this case, and at the last trial the Board was asked by the judge of the circuit court to re-investigate the standing of Harvey Medical School. This has evidently been done, and the Board stands by its original determination. As it has discretionary power we can see no alternative for the court but to uphold the Board's action in the case.

**The Indiana State Board of Health** has decreed that all cosmetics shall be indicated as poison by the presence of a skull and cross bones upon the wrappers, and that any one selling them without their being so designated will be arrested. State Chemist Barbard has been making an investigation, and says that all cosmetics contain corrosive sublimate, and although not poisonous to the skin are dangerous to have about the house without a label. In the event manufacturers are unwilling to put such labels on their products they will have to withdraw them from the state.

**An Improved and Accurate Method of Staining Blood Films.**—The Palisade Manufacturing Co. has published, for gratuitous distribution to physicians, a little brochure, with the above title. It details the method of preparation of Wright's modification of Leischman's stain, which is probably the most satisfactory stain for general use, and is of easy manufacture and convenient use. In addition, there are printed a number of case reports, and excellent colored plates showing pictures of the commoner forms of white and red corpuscle abnormalities.

**Patent Medicines Hard Hit.**—The ruling of Commissioner Yerkes of the internal revenue bureau, that patent medicines containing a large percentage of alcohol will have to pay liquor license, has been followed in South Carolina by an order from the state authorities that certain patent medicines shall not be sold, except upon the prescription of a physician, and if druggists or others sell them without prescriptions, they will be arrested for operating "blind tigers."

**Banquet for Dr. Senn.**—A complimentary banquet will be tendered Dr. Nicholas Senn on Saturday, Nov. 11th, by the medical profession of Chicago. It will be along the same lines as that given Dr. Fenger several years ago. Dr. Senn's national reputation will doubtless ensure the participation at this banquet of many admiring friends, not only from Illinois, but from Wisconsin, and other more distant states.

**A Corporation Cannot Practice Medicine**—This is the decision of the Nebraska Supreme Court, because the law of that state specifies only that individuals may not practice without a license. Therefore, corporations doing business in Nebraska, are not amenable to prosecution. Until this defective law can be amended, quack "Institutes" will probably flourish *ad nauseam*.

**Dr. Edgar S. Hooper**, formerly of Darlington, Wis., and more recently located at Redfern, Iowa, died on October 8th. He was the first president of

the La Fayette County Medical Society, and until his removal from Wisconsin acted as Conncilor for the 4th District. Dr. Hooper was graduated from Rush Medical College in 1895.

**The N. Y. State Hospital for Incipient Pulmonary Tuberculosis** at Ray Brook in the Adirondacks, has issued its statistics for the first year. There were admitted two hundred and seven patients, more than half of whom had tuberculosis in an incipient form. Of one hundred and five patients discharged fifty-two were apparently recovered.

**The Chiropractics** have been called upon by the State Board of Medical Examiners to prove why they shall not be liable to prosecution under the medical act adopted by Wisconsin. A test case is being tried at La Crosse.

**Millard B. Sheldon, M. D.**, of Lake Geneva, a graduate of Northwestern University Medical School in 1895, died September 9.

**Dr. Hugo Philler**, of Wankesha, was elected Surgeon General of the G. A. R. at its recent encampment at Denver.

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## MEDICAL NOTES.

### TYPHOID FEVER—METHODS OF TRANSMISSION.

The following article, reprinted from the Public Health Report of August 25th, 1905, is part of the "Advanced Sheets from the Transactions of the Third Annual Conference with State Health Authorities," and is of sufficient merit and interest to deserve wide publicity:

"At the Third Annual Conference of State and Territorial Health Authorities with the Surgeon-General of the Public Health and Marine Hospital Service, Washington, D. C., May 15, 1905, among the subjects for general discussion was that of the transmission of typhoid fever. \* \* \*

"The statement of Dr. Victor C. Vaughan that two-thirds of the cases in military camps were due to infection by personal contact will be of surprising interest to most sanitarians, and while urban conditions differ widely from those encountered in camps, still the statements of himself and others with regard to personal contact, infected houses, bedding, clothing, eating and other utensils, etc., are pertinent at the present time as showing the means other than water supplies of the spread of this disease in cities. \* \* \*

"Dr. Vaughan stated that he had formerly held the view that 95 per cent. of the typhoid fever was transmitted by drinking water, and as a teacher had so instructed his class for years; in fact, the commission went to the various military camps impressed with the belief that the water supply was at fault; but the experiences and the information collected by the commission had led him to radically change his views. He believed now that the spread of the disease was largely by personal contact. From the observations made by the latter he had reached the conclusion that under the conditions maintained in military camps, personal contact was responsible for the spread of the disease in about 66 $\frac{2}{3}$  per cent. of the cases. Continuing, he stated that the disease (a continued fever) at Camp Alger, 8 miles from Washington, was



held by the medical officers in charge, men of skill and experience, to be malarial fever.

"The first step taken by the commission at Camp Alger was to have competent men detailed by the Surgeon-General of the Army to examine the blood of patients in each case for plasmodia, and to make the Widal reaction. Dr. James Carroll, of the United States Army, was assigned to this duty at Camp Alger. The result of these examinations was that in only seven or eight instances out of the many hundreds examined at Camp Alger were the plasmodia of malaria found, and an immense majority of these cases held to be malaria at that point gave a positive Widal reaction. Further comment was therefore unnecessary. The disease supposed to be malaria was in reality typhoid.

"The commission then went to the camp of the Seventh Army Corps, at Jacksonville, where there were a large number of sick, and where the same mistake in diagnosis obtained—the disease supposed to be malarial fever. The consent of the Surgeon-General was obtained to select 50 cases and to send them to Fort Meyer, Va. Upon arrival, these cases were all examined, and all gave the Widal reaction and no plasmodia. One hundred and fifty cases were subsequently selected, sent to Fort Meyer, and the same examinations were made with the same result. The condition of the Seventh Army Corps was particularly instructive. The camp was supplied from the city water supply of Jacksonville, and contained about 30,000 troops, many of them regulars. The population of the city of Jacksonville was about the same in numbers. The water being the same, the population of the city and the camp approximately the same, there were during the same period in the city of Jacksonville only 7 or 8 cases of the fever.

"The commission then visited Chickamauga. The conditions here were terrible. The disease prevailing was again held by some to be malaria; by others it was maintained that the disease was peculiar to the locality. Indeed, medical officers assured the commission, with bated breath, that the disease was incident to the locality, and that Chickamauga meant literally "the river of death."

"The water supply from Camp Alger was derived from driven or bored wells, 100 to 150 feet in depth. The water supply, as has already been related, at Jacksonville was the city water supply, and neither at Jacksonville, at Camp Alger, or at Chickamauga could any typhoid infection of the water be shown.

"Dr. Vaughan went on to give more instructive observations as to the course of the disease. He showed that when camps were changed typhoid fever seemed to follow the command by companies, by regiments, and by brigades. An instance was cited by him of a Pennsylvania command, whose camp was frequently changed and which invariably carried its typhoid with it, and this typhoid continued until a thorough disinfection was made of the tents, the blankets, and the personal clothing of the command. Then, and not until then, did the typhoid fever diminish and finally disappear. At Jacksonville and at Chickamauga, and likewise at Camp Alger, the fly was likewise an agent in the dissemination of typhoid, but to a much less extent than has been supposed. Dust was also a factor, the dust, of course.

being contaminated with typhoid infection. He was therefore led to the conclusion that typhoid is not only infectious, but is contagious in the ordinary acceptation of the term, and he believed that the result of the observations of the commission showed that disinfection is just as necessary after typhoid fever as it is after diphtheria, scarlet fever, or other contagious or infectious diseases.

“Interrogated as to the disposal of the excreta, Dr. Vaughan replied that the commission had had an opportunity to examine into the details of three methods: At Camp Thomas, Chickamauga, there were troughs, from which the dejecta were washed at intervals by a flow of water; at Jacksonville the excreta were collected in large tubs, which were removed by laborers and transported in carts to a sewer and dumped, and at Camp Alger the regular army latrine, in a trench about 6 feet long, 2 feet wide, and from 4 to 6 feet deep, was in use, the trench being filled with earth as the excreta accumulated.

“The commission was enabled to observe that the percentage of typhoid occurrence was least where the excreta were water-borne, greatest where the tub system was employed, and the camp latrine gave intermediate results. Nor was the reason difficult to understand when the details of the tub system were observed. The removal was irregular; the tubs were often overfilled, and in loading them into the carts the contents were often spilled, so that the route of the carts through the camp could be followed by the excreta upon the ground. Indeed it was often impossible to walk about the camps without soiling the feet by the dejecta, and where lime was employed to sprinkle them in the camp, as was sometimes done, it was easy to see that the flies, with their feet whitened by the lime, crawled over the bread, the potatoes, and other food in the kitchens before it was distributed by the men. But the feet soiled by this dejecta carried this material everywhere and was a prolific source of spread of the disease. To keep the tents free from contamination under the circumstances, was utterly impossible. Again, the dejecta, mixed with the dust of the shell roads, and ground up with it, was carried by the wind, and it was noticeable that camps on the lee side of the roads, exposed to this dust, had more typhoid than the windward side.

“Another source of spread was noted at Camp Thomas, and the same conditions undoubtedly obtained elsewhere. A call would be made for a hundred orderlies for hospital duty, and untrained, green men would be supplied. These men, fresh from nursing the sick, from supplying and emptying bedpans and urinals, and from all the intimate personal contact of the nurse with patient, would then be seen marching to their meals, without cleansing of hands, and conveying food to their mouths, and passing food to their comrades, with hands soiled not only with excrement, but with excrement from actual typhoid patients. It sounds incredible, but was nevertheless a fact.

“In corroboration of the conclusions of Dr. Vaughan, Dr. Fulton quoted the recent instance of the spread of typhoid fever in England by the sale of a large number of infected army blankets from the Transvaal.

“Dr. Harrington cited one important method of spread which he thought had been neglected, and that was the dairy farm where typhoid

fever prevails. \* \* \* He cited shellfish also as a source of danger and quoted recorded observations as showing that in a certain population 5 per cent. were eaters of shellfish, and gave a typhoid rate of 76 per thousand, as against 56 per thousand in the non-shellfish-eating population. Still more striking, in a shellfish-handling population the rate was 156 per thousand. Shellfish are frequently fattened in water polluted by sewage, and it was impossible any longer to disregard this practice as a source of danger.

“Dr. Smith, of Maine, cited the lobster industry of Maine, especially at Portland, as a source of typhoid conveyance. In Portland there are 200 or 300 barrels of lobsters shipped per day. These lobsters are caught and collected all along the coast of Maine and as far north as the Bay of Fundy. They are brought to Portland and are kept in pounds, or floating traps in docks, many of which are in proximity to sewer mouths.

“Dr. Vaughan in closing stated that he did not by any means desire to be understood as desiring to exclude the responsibility of water supplies, but cited instances where the infection of typhoid seemed to hang to certain houses, and in which a thorough disinfection of the houses had been followed by a cessation of the disease. He therefore put in a strong plea that typhoid should be considered an infectious and contagious disease, and that every case should be followed by a systematic and rigid disinfection.”

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## CLINICAL REPORT.

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### A CASE OF TYPHOID FEVER WITH A RARE COMPLICATION.

By B. E. SCOTT, M. D., Berlin, Wis.

Patient—Mrs. F.; age 22; married one month; previous health good. Had been feeling tired and weak for ten days previous to calling me. When first seen had a temperature of 103° at 11 A. M., some tympanitis, constipated and very restless, with severe pain in head and shoulders. Diagnosed typhoid on third day. Subsequent course of fever uneventful till during defervescence when left parotid region became swollen and inflamed and simultaneously quite severe pain was complained of in the right orbit with radiating neuralgic pains above the orbit. Five days later I evacuated a large amount of pus of fecal odor from parotid abscess.

Meanwhile the pain in the right eye had nearly ceased, but the eye was gradually bulging forward. Aspiration of the orbit was negative and the temperature became normal, but exophthalmus kept increasing. I applied hot dressings with pressure, and aspirated with negative results three days later. Sight began to be dim so I made an incision under the lower lid, and, dissecting back behind the eyeball, evacuated half an ounce of pus with same odor as parotid abscess. With a few strands of catgut for drainage the eye rapidly became normal in appearance, but sight is still below 25 per cent. of normal.

The peculiar things about this to me are: location of abscess; absence of severe pain and fever; no tendency to point externally.

THE STATE MEDICAL SOCIETY OF WISCONSIN.

ORGANIZED 1841.

Officers 1905-1906.

J. R. CURRENS, Two Rivers, President.

A. W. GRAY, Milwaukee,  
1st Vice-President.

A. GUNDERSON, La Crosse,  
2d Vice-President.

W. E. FAIRFIELD, Green Bay, 3rd Vice-President.

CHAS. S. SHELDON, Madison, Secretary. S. S. HALL, Ripon, Treasurer.

A. T. HOLBROOK, Milwaukee, Assistant Secretary.

Councilors.

FOR ONE YEAR.

1st Dist., H. B. Sears, - - - Beaver Dam  
2nd Dist., G. Windesheim, - - - Kenosha

FOR TWO YEARS.

3rd Dist., F. T. Nye, - - - - Beloit  
4th Dist., C. A. Armstrong, - - - - Boscobel

FOR THREE YEARS.

5th Dist., J. F. Pritchard, - - - Manitowoc  
6th Dist., J. S. Walbridge, - - - Berlin

FOR FOUR YEARS.

7th Dist., W. T. Sarles, - - - Sparta  
8th Dist., T. J. Redelings, - - - Marinette

FOR FIVE YEARS.

9th Dist., D. L. Sauerhering, - - - Wausau  
10th Dist., E. L. Boothby, - - - Hammond

FOR SIX YEARS.

11th Dist., J. M. Dodd, - - - Ashland  
12th Dist., A. T. Holbrook, - - - Milwaukee

NEXT ANNUAL SESSION, MILWAUKEE, JUNE, 1906.

The Wisconsin Medical Journal, Official Organ.

SOCIETY PROCEEDINGS.

MINUTES OF THE FIFTY-NINTH ANNUAL MEETING OF THE  
STATE MEDICAL SOCIETY OF WISCONSIN,  
JUNE 8, 9, 10, 1905.

PROCEEDINGS OF THE HOUSE OF DELEGATES.

(Continued from page 245.)

The Treasurer then read his report.

(Report referred to Council.)

TREASURER'S REPORT.

S. S. Hall, *Treasurer* in account with the State Medical Society of Wisconsin.

DEBTOR.

Cash on hand, as per report June 21, 1904.....		\$3,181 46
Received from old dues.....	\$ 24 00	
Received from Western Passenger Ass'n, refund.....	15 00	
Received from Secretary.....	2,864 00	
		\$2,903 00
Total.....		\$6,084 46

CREDITOR.

Wisconsin Medical Journal:

1904.		
July	7.....	\$ 110 25
Aug.	1.....	116 00
Oct.	5.....	233 42
Nov.	8.....	107 75
Dec.	7.....	107 84
1905.		
Jan.	10.....	108 00
Feb.	6.....	109 00
Mar.	6.....	109 92
April	5.....	110 42
May	5.....	116 00
June	5.....	117 22
		<hr/>
		\$1,345 82

Councilors, expense:

1904.		
June	2—J. M. Dodd.....	\$ 94 87
June	22—J. S. Walbridge.....	2 00
June	23—T. J. Redelings.....	18 90
June	23—J. R. Currans.....	89 60
July	7—J. Meachem .....	4 80
1905.		
Jan.	19—J. S. Walbridge.....	5 65
		<hr/>
		\$ 215 82

1904.		
June	24—C. S. Sheldon, Secretary, expense.....	\$ 134 89
June	24—C. S. Sheldon, Secretary, salary 1904-5.....	200 00
July	1—S. S. Hall, Treasurer, salary 1904-5.....	100 00
July	7—Hotel Pfister, account Drs. Park and Wilson..	5 00
July	22—H. D. Goodwin, reporter.....	191 00
July	22—American Medical Association, account July 19	5 75
1905.		
Jan.	7—500 stamped envelopes, Treasurer.....	10 60
Feb.	7—State Journal Printing Co., circulars.....	2 75
Mar.	18—American Medical Association, account Mar. 14	3 00
May	20—American Medical Association, account May 20	1 50
May	26—Western Passenger Association.....	17 00
June	2—Traey, Gibbs & Co., account May 27.....	89 64
		<hr/>
		\$ 761 13

		<hr/>
		\$2,322 77
Balance on hand.....		\$3,761 69
		<hr/>
		\$6,084 46

Respectfully submitted,

SIDNEY S. HALL, *Treasurer.*

PRESIDENT: We will now hear the Secretary's report.

SECRETARY: We have reports from 62 county secretaries, which I think is a very promising indication. It shows that there are 62 organizations still alive, with 62 secretaries sufficiently interested to send in a report.

#### SECRETARY'S REPORT FOR 1905.

Gentlemen of the House of Delegates: The Secretary begs leave to submit the following report for the past year.

The last annual meeting found the State Society, one year after the adoption of the new plan, with 71 counties of the state organized into 62 County Medical Societies, with about 1,300 members. It is the duty of the Secretary to review, as briefly as may be, the activities—and otherwise—of the societies during the year, and state their present condition. These organizations once effected, the burning question was and is, what will become of them? It has been said frequently and justly, that it might be possible, by a supreme effort, to start these societies, but would they last, or be, in any way more useful or satisfactory than the old county societies? That the real test of the plan would be later. Theoretically the profession has always appreciated the immense importance of local medical societies, and vigorous attempts have been made from time to time to stimulate their growth; these attempts, however, have been attended uniformly with comparative failure, and there were not more than 8 or 10 rather feeble county medical societies in the whole state when the new plan was adopted. Under the circumstances there was naturally much doubt and uncertainty in many minds as to the outcome under the new conditions. It was urged by the critics, with some show of reason, that the means used to organize these societies were somewhat forcible and arbitrary, and that the results would not be as favorable as though the organizations were more spontaneous and voluntary. It is pleasant to state that thus far the predictions have not been realized, or at least, only exceptionally. From the annual report we learn that most of these societies have begun a genuine organic life, and have manifested, in various degrees, a scientific and social activity which is most encouraging; that they are growing into genuine medical societies and are not merely organizations on paper, whose sole function is to pay the annual dues. When this is not the case it seems due to local and special causes, which, with proper effort, can largely be obviated. It is the duty of the Council and of the House of Delegates to study these conditions carefully and make such changes and modifications as seem called for. In order to ascertain, as far as possible, what the conditions are, the State Secretary has sent to each county secretary, a blank, with which many of you are familiar, containing inquiries regarding the life and progress of their society during the past year, and asking for a statement of the causes for any lack of success or efficiency, with suggestions as to the means best adapted to correct previous mistakes and secure better results. From the 62 societies I have received 58 replies. From these reports it is evident that the small societies have had the most difficulty in maintaining an existence. With a membership of 6 or 8 and an attendance of 4 or 5 it is hard to sustain interest, much less to arouse enthusiasm. In a small society, too, there is greater danger of personal differences among

the members, *c. g.*, Bayfield, with 4 members, has had but one meeting. Door, with 7, asks to be affiliated elsewhere. The same is true of Forest and Florence, with 4, and they have had no meetings. Iron, with 6, has had no papers. Likewise, Langlade, with 7; Marquette, with 8, asks to be affiliated with Columbia County. Vilas, with 5, has had but one meeting and no papers. To be sure, most of these societies are in the northern part of the state, with members widely separated, with poor railroad facilities, and unable to attend a meeting at any central point except at a large expense of time and money, which many of them can ill afford. At best it is a difficult problem to solve, but it may be wise to try a plan of greater concentration, by uniting these small bodies with each other or with larger ones, thus making our societies fewer and with larger membership. In some cases the fault lies in the failure to secure the right sort of a secretary. When one is found who is energetic and tactful, he is able to accomplish much even at great odds. It is often a hard matter to find a man with all these desirable qualities, but when he is found the results are very evident. This is not intended as a reflection upon the efficiency of the present county secretaries. It is pleasant to state that, as a body, they are worthy of all praise for their devotion and faithfulness.

Another feature disclosed by the report is the fact that these county societies have not received as much aid as they should from the officers of the State Society. Outside the counties where the councilors reside, only 21 visits by the councilors are reported in the whole state during the year, and 12 of these visits have been made in two districts, leaving only 9 visits in the remaining 10 districts. This is not in accord with the theory of the plan, which is that the councilor shall be a real bishop of his diocese, active and persuasive; that he should be constantly in close touch with each county secretary and be ready to enter the breach to strengthen any weak place. Several of the secretaries report that they would be able to secure certain men if they could be aided by one of the general officers of the society. In such cases much might be accomplished by correspondence. It is suggested that each county secretary send to his councilor a list of eligibles with whom the councilor may use his influence. This cannot take the place of personal visits, however, which the constitution provides should be made to each county society, at least once a year. This involves a considerable sacrifice and much unselfish effort, but it is work which pays.

Of the 62 county societies, three have held 12 meetings during the year, one 11 meetings, three 8, two 7, four 6, three 5, sixteen 4, thirteen 3, three 2, three 1, and two no meetings. The average attendance in all the societies, outside Milwaukee has been 9. Papers have been read (1-24) in 48 of the societies, and considerable consistent scientific work done in about 40. While much remains to be done in the way of making the meetings more attractive and successful, there appears on the whole to have been substantial progress in this direction during the year. The reasons stated for non-affiliation of those eligible are various; often it is indifference to the organization; other reasons stated are "jealousy and prejudice," "objection to business methods of some of the members," "the homeo's are not willing to forego the name homeopath;" one writes, "Objections to qualifications for membership and petty jealousies—Remedy—Personal work by good councilor and enthusiasm

of members of the society;" another says, "Some too poor, others too d— independent, offer the first premiums for joining—leave the others alone."

#### DISTRICT SOCIETIES.

The plan contemplated by the constitution of forming a district society in each councilor district, is being gradually adopted. In several of the districts one or more meetings have been held during the year with evident profit to the county organizations. This must be the work of the individual councilors, and along with other obvious advantages, it is an efficient means for a closer acquaintance with the divisions of his bailiwick. It is very desirable that every councilor district shall be organized during the coming year, into a district society. It has also been found advantageous for two adjacent counties to hold a joint meeting once in the year, thus increasing social opportunities and adding interest to the scientific work.

#### THE COUNCIL.

There have been several meetings of the Council during the year, all in Milwaukee. At these meetings reports were made by the councilors from the counties in their districts, and plans were discussed for the more successful prosecution of the work. At the October meeting arrangements were made for the visit to the state, of the National Organizer, Dr. J. H. McCormack. At the January meeting Dr. C. A. Armstrong, of Boscobel, was elected councilor of the Fourth District in place of Dr. E. S. Hooper, removed from the state.

#### PUBLICATION.

By vote of the House of Delegates at the last meeting, the contract with the Wisconsin Medical Journal Company was renewed for one year at the same rate. Under the able management of Dr. A. J. Patek as editor, and Dr. Hoyt E. Dearholt as managing editor, the journal has more than maintained its former high standard. It would seem that no more advantageous plan for the publication of the proceedings of the society can be adopted. The management has at all times been most liberal in its dealings with the society, and the cost of publication is far less than it would be for us to publish our own journal. In fact, according to the statement of the managing editor, the proceedings of the society have been published the past year at a loss to the company. Under the circumstances it is only right and just that in renewing the contract, more favorable terms should be given the company, and so the Secretary recommends.

#### MEMBERSHIP.

Of the 62 societies, as compared with one year ago at the annual meeting, 28 have increased their membership, 33 have lost, and one has remained the same. The present membership is 1,348, which represents only those who have already paid the 1905 dues. At the last annual meeting it was 1,305—a gain of 43. The total membership during the whole of last year was 1,355, a loss as compared with the present membership, of 7. We thus begin with practically the same membership as last year, and shall probably have at its close, about 50 more than in 1904. We must be satisfied with this showing for the first year following our organization, when a reaction might have



been looked for. After this year, with added experience and more vigorous and consistent effort, we may confidently expect still greater gains.

## DEATHS AND REMOVALS.

The following deaths have occurred in the membership of the society, during the year:

G. A. Blakely, Albany, Feb. 3, 1904; A. L. Buchan, Racine; Ralph Chandler, Milwaukee, Aug. 12, 1904; Storrs Hall, Rosendale, Jan. 13, 1904; B. J. Jurgensohn, Manawa; H. R. McComb, Shawano; J. C. Noyes, Oshkosh, June 7, 1904; J. B. Stair, Lake Mills; J. B. Whiting, Janesville, March 28, 1904; U. S. Wheelright, Belleville, Feb. 5, 1904.

The following removals have been reported:

James Burke, Sherwood to Manitowoc; G. L. Bellis, Jefferson to Bundy, Wis.; T. W. Bishop, Platteville to Pasadena, Cal.; W. T. Brown, Platteville to Las Vegas, N. Mex.; H. J. Burns, Marshfield to Tigerton; Clemens Bossard, Richfield to Chicago; E. L. Bullard, Mendota to Milwaukee; Barth Bantley, Milwaukee to Waupaca; H. C. Barchman, Milwaukee to unknown; D. M. Cook, Glen Haven to Gay's Mills; T. T. Conroy, Neillsville to Ravenswood, Ill.; J. M. Conroy, Neillsville to Europe; Jesse C. Clason, Neosho to (East) Post Graduate Course; Jos A. Clementson, Mineral Point to Lancaster; J. A. Crum, Oshkosh to unknown; K. L. De Sombre, Fond du Lac to Medford; Edward Barrow, Superior to Ackley, Minn.; C. G. Dwight, Darlington to Chicago; F. I. Drake, Antigo to Madison; F. E. Delling, Superior to New York, Post Graduate Course; J. T. Elliott, Cylon to Rhinelander; J. F. Ford, Omro to Cuba; Carrie Frost, Stevens Point to Sitka, Alaska; B. H. Foster, Richland Center to unknown; L. P. L. Gaillardet, Hurley to Chippewa Falls; Gramling, St. Martins to Milwaukee; Chas. Gorst, Baraboo to Mendota; M. W. Harrison, to Spokane, Wash; E. S. Hooper, Darlington to Harnum, N. Mex.; E. M. Hunt, Boyd to Morrisonville; Ida H. Hunt, Boyd to Morrisonville; T. C. Hodgson, Boaz to unknown; A. W. James, Solon Springs to Elkhart, Ind.; F. W. Kitzki, Wausau to unknown; E. R. Lovesee, Monticello to unknown; J. W. Lockhart, Delavan to Omro; T. E. Loops, Picketts to Mellen; H. A. Mount, Elm Grove to California; W. T. Pinkerton, Mazomanie to Prairie du Chien; J. H. Pflueger, Platteville to Fairchild; R. P. Potter, Wonevoc to Auburndale; W. W. Pretts, Superior to Platteville; F. H. Russell, Campbellsport to Dunbar; C. A. Richards, Oshkosh to Rhinelander; J. P. Stoye, Theresa to Dodge Co.; C. E. Stuvonell, Tegerlow to Oshkosh; R. H. Sweatman, Birnanwood to Green Bay; J. M. Sleicher, Watertown to unknown; H. E. Twohig, Fond du Lac to unknown; A. W. Thorpe, Three Lakes to unknown; E. H. Thompson, Superior to Los Angeles, Cal.; G. H. Williamson, Malton to Antigo; B. R. Warren, Merrill to California; W. E. Wray, Minocqua to Tomahawk; C. E. Lander, Johnson Creek to Viroqua; S. E. McGregor, Nekoosa to Milton.

The following is a tabulation of membership, in 1904 and 1905, number of meetings, attendance at, number of papers read at, and visits of councilors to the county societies:

	Membership, 1904.	Membership, 1905.	Eligible.	Meetings.	Av. Attendance.	Papers.	Visits.
Ashland	10	15	4	4	8	6	4
Barron-Gates-Polk	30	25	5	4	12	8	1
Bayfield	5	6	3	4	4	1	3
Brown	22	25	8	8	7	9	0
Buffalo-Pepin	16	17	10	3	8	4	0
Calumet	10	12	0	4	7½	3	1
Chippewa	14	15	8	3	7	5	1
Clark	13	12	15	3	6	3	1
Columbia	25	23	10	3	10	0	0
Crawford	11	9	6	4	8	14	1
Dodge	22	22	3	8	..	8	3
Dane	70	70	10	4	29	24	1
Door	7	5	7	4	4	0	1
Douglas	31	24	5	12	12	11	0
Dunn	18	19	2	7	8	6	0
Eau Claire	16	26	2	5	14	8	2
Fond du Lac	41	40	12	6	14	14	1
Forest-Florence	4	2	5	0	0	0	0
Grant	42	38	11	3	8	8	0
Green	25	25	9	3	15	12	1
Green Lake	25	25	6	3	18	12	3
Iowa	19	16	3	1	13	4	0
Iron	6	5	0	4	3	0	0
Jefferson	16	22	8	4	12	9	0
Juneau	15	13	10	2	10	5	0
Kenosha	10	14	8	12	7	..	1
Kewaunee	6	8	3	3	5	6	0
La Crosse	25	27	4	8	good	6	1
Lafayette	21	20	2	3	10	14	0
Langlade	7	5	5	4	5	0	0
Lincoln	18	17	2	6	7	8	0
Manitowoc	21	22	3	5	8	8	6
Marathon	20	17	11	4	10	5	5
Marinette	11	12	7	6	10	10	10
Marquette	8	7	2	2	3	0	0
Milwaukee	249	246	216	11	39	7	11
Monroe	20	20	2	6	8	10	4
Oconto	9	10	9	12	7	8	0
Oneida	10	9	2	0	0	0	0
Outagamie	29	30	8	4	12	8	0
Ozaukee	10	7	4	2	8	4	0
Pierce	16	15	3	3	8	1	1
Portage	16	17	6	3	9	8	0

	Membership, 1904.	Membership, 1905.	Eligible.	Meetings.	Av. Attendance.	Papers.	Visits.
Price .....	10	10	2	1	6	0	1
Racine .....	19	21	23	3	9	2	3
Richland .....	16	15	8	4	1	5	0
Rock .....	29	35	14	16	12	10	4
Sauk .....	14	16	10	1	8	8	0
St. Croix .....	13	15	8	7	5	7	6
Shawano .....	15	12	10	4	8	4	0
Sheboygan .....	20	20	10	4	5	0	0
Taylor .....	6	6	4	1	5	1	0
Trempeleau-Jackson .....	14	13	3	4	5	3	0
Vernon .....	14	16	10	2	6	6	0
Vilas .....	5	3	3	1	3	0	0
Walworth .....	19	26	15	3	15	5	0
Washington .....	14	14	8	3	6	10	0
Washburn-Sawyer-Burnett.....	9	11	1	4	8	20	2
Waukesha .....	33	36	12	8	10	8	1
Waupaca .....	21	15	14	4	8	1	0
Winnebago .....	42	41	8	5	15	10	1
Wood .....	16	18	5	4	8	..	0
	1348	1357					

Attention is called to the matter of filling out the permanent record blanks. In some counties but few reports have been received. It is very desirable that the state medical index shall be completed the coming year and the State Secretary desires all possible aid from the county secretaries.

In summing up the work for the year we certainly have good grounds for encouragement and a belief in the ultimate and permanent success of the new plan. The "medical society spirit" is certainly growing stronger. Our numbers have increased. Better work along scientific lines is being done. The morale and esprit du corps of the profession is rapidly advancing to a higher plane and all we have to do is to gird up our loins and cheerfully and bravely go on.

Thanking, in behalf of the officers, all who worked in the interests of the society the past year, this report is respectfully submitted.

C. S. SHELTON, *Secretary.*

Report unanimously accepted and such parts as should be acted upon by Council are referred to Council.

PRESIDENT: The next order of business is the election of two delegates to the American Medical Association for two years following this year.

SECRETARY: In view of the small attendance to-night, the remaining business being largely the selection of committees, delegates and councilors, I suggest that we adjourn until 9 o'clock to-morrow morning.

Motion carried.

JUNE 8, 1905, 9:30 A. M.

House of Delegates called to order by the President.

Roll-call showed the following Delegates present: Doctors Dodd, Sattre, Mertens, Minahan, Sheldon, Sears, Werner, Seanlan, Lawler, Stalker, Bradfield, Sauerhering, Sarles, Stone, Nolan, Flett, Bell, Cantwell, Caples, Washburn and Dearholt.

The minutes of the preceding meeting were then read by the Secretary, and approved.

PRESIDENT: The next order of business will be the election of Delegates to the American Medical Association.

DR. SARLES: How many delegates are to be elected?

SECRETARY: Last year we elected two delegates for two years. Dr. Evans held over to this year, and a successor to Dr. Evans will be elected to-day. Dr. Sarles and Dr. Bennett were elected as new delegates and they will hold over for another year.

DR. SARLES: I move that the highest number of votes entitle the candidate to be a delegate, and the next highest entitle the candidate to the position of alternate.

I desire to nominate W. H. Washburn, of Milwaukee, as a delegate for two years. He has worked on the program committee a number of years and has not had a chance to spend a couple hundred dollars as a delegate to the national body.

Seconded and carried.

DR. WASHBURN: I would like to nominate Dr. A. H. Levings, of Milwaukee, as alternate.

Dr. Washburn and Dr. Levings were elected.

PRESIDENT: The next order of business is the election of Committee on Scientific Work.

DR. SARLES: I think the Committee on Scientific Work ought to be selected after the President is elected. Last year we elected a nominating committee of ten and left with this committee the naming of the members of the Council, etc., and I think that perhaps is the easiest way. Then this Program Committee or Committee on Scientific Work was left for the incoming president and officers to name. That is the manner in which we nominated last year.

I move that we proceed to the election of 10 men known as the Nominating Committee, and it shall be their duty to nominate whom we shall have for officers, and also those members of the Council whose

terms shall expire, and that they bring in their report the morning of the last day of the convention. It may be necessary to suspend the rules and make that report Friday morning, and I think it would be good policy to do so. That would be the third day of our regular meetings. Have this committee report Friday morning at 9 o'clock; but we can take that up at to-morrow morning's session and I move that we now proceed to the election of the 10 men who shall act in that capacity.

Seconded and carried.

PRESIDENT: We will now receive nominations.

DR. SARLES: The Councilors are not eligible to a place on this committee. Under our by-laws we have provided for 10 Councilor Districts, and we changed to 12, and in fact 12 is our original number, only in printing this paper they printed it 10, and the constitution calls for 12. So we ought to base this election on 12 members of the Committee one for each Councilor District, and then the two Councilors who are elected this year must be elected for 6 years instead of 5, and that will make one Councilor elected each year. The terms of the first ones expire this year, and if two are now elected for 6 years it will come out right. So my motion should read 12, instead of 10, and a man should be selected for each Councilor District.

Amendment seconded and carried.

The following nominations were then presented:

- 1st District, Dr. B. F. Caples, of Waukesha.
- 2nd District, Dr. Charles Fleet, of Waterford.
- 3d District, Dr. Samuel Bell, of Beloit.
- 4th District, Dr. T. S. Lawler, of Iowa County.
- 5th District, (no nomination.)
- 6th District, Dr. W. N. Nolan, of Outagamie.
- 7th District, Dr. J. A. H. Bradfield, of La Crosse.
- 8th District, Dr. J. R. Minahan, of Green Bay.
- 9th District, Dr. D. L. Sauerhering, of Wausau.
- 10th District, Dr. O. M. Sattre, of Rice Lake.
- 11th District, Dr. M. S. Hosmer, of Ashland.
- 12th District, Dr. W. H. Washburn, of Milwaukee.

The foregoing were unanimously elected as Nominating Committee.

DR. SARLES: I move that the chair appoint a committee of three whose duty it shall be to name ten men to present to the Governor from whom he may nominate one as a member of the State Board of Medical Examiners, whose terms expire in July. The Governor will appoint one member of the State Board of Medical Examiners from this society.

Motion carried.

PRESIDENT: I would appoint as committee mentioned, Dr. Dearholt, of Milwaukee, Dr. Sarles, of Sparta, and Dr. Boothby, of Hammond.

SECRETARY: I have a communication from the Wisconsin Medical Journal which I would like to present to you. They publish, as you know, the proceedings of our State Society. The letter is directed to the Secretary.

Letter and proposition read.

DR. WASHBURN: I move that the contract be awarded to the Wisconsin Medical Journal for the ensuing year, at the rates specified in the proposition, \$1.20 per member.

Motion seconded.

DR. SARLES: I believe that resolution ought to pass, and to make it binding I think it has to be referred to the Council, and the Council has to take action. The Council will meet right after the address of the President at 2 p. m. in this room. There are several matters of this character to take up, but if this resolution passes the House it must be referred to the Council and the Council must take action on it. First we have to see, as custodians of the treasury, that there is money enough to carry out that proposition; if there is we will be glad to carry out the wishes of the House. If there is not, we would have to refer it back to the House with the statement that we have no funds for that purpose.

DR. WASHBURN: I modify my motion then by saying that I move that this bid of the Wisconsin Medical Journal be referred to the Councilors, with the recommendation that it be awarded as specified, if the finances of the society will permit it.

Motion carried.

PRESIDENT: As Dr. Sarles is ineligible to office on the committee of three I will appoint Dr. J. M. Dodd, of Ashland, in his place.

DR. GARLOCK: Which member of the State Examining Board goes out this year?

PRESIDENT: Dr. Currens.

On motion a recess was taken until 8 A. M. next day.

FRIDAY, JUNE 9, 1905, 8:35 A. M.

Meeting of the House of Delegates called to order by Dr. Bradfield.

The minutes of the preceding meeting were read and approved.

The roll was called, showing that the following members of the House of Delegates were present: Kittrick, McDowell, Sheldon, Sears, Seanlan, Morris, Bradfield, Mulholland, Wright, Nolan, Morley, Caples, Pelton, Washburn, Hitz, Dearholt, Steele—making 17 in all.

SECRETARY: There were several reports of Councilors which were not read but which have been filed with me; among them the report of the 5th Councilor District, Dr. Pritchard, and also the report of the 4th Councilor District.

These reports were read as follows:

## REPORT OF COUNCILOR, FIFTH DISTRICT.

Manitowoc, Wis., June 1, 1905.

The House of Delegates, State Medical Society of Wisconsin:

The Fifth Councilor District is in a very prosperous condition. I visited each of the county societies and at an early day we organized a district society at Sheboygan, where we had an attendance of 27, with Dr. W. M. Gunther as president; Dr. J. E. Luce of Chilton, vice-president, and Dr. Flora A. Read, of Fond du Lac, as secretary and treasurer. At the meeting in Sheboygan we had as our principal speakers Dr. Patrick, of Chicago, on "Hysteria as an Element in Supposed Injuries," and Dr. McCormack on "Organization."

The next district meeting was at Fond du Lac, where the attendance was quite equal to that at Sheboygan, with an address on the "Anatomy of the Kidney with special Reference to its Diseases," by Dr. Sifton, of Milwaukee. Dr. Pritchard read a paper on "Organization," and Dr. Wiley a paper on "Diseases of the Bladder."

The third district meeting was at Manitowoc with an attendance of 25, and the address by Dr. Preble, of Chicago, on "Some Elements in Pneumonia, with special reference to Infection from Pneumococcus." At each of these meetings we were provided with a banquet in charge of the local society.

The result of the year's work in the district is, I feel, excellent, and as we will not only secure attendance, but also great benefit to individuals, and in a way that physicians in the district will begin to feel that membership there is no doubt but that if we can secure addresses of the nature given to ship in the society is a necessity.

The county societies so far have not attempted much original work, but the effort is being made to have a systematic study of medical and surgical subjects, and now as there is organized a bureau for furnishing speakers from the office of the American Medical Association, we feel that a great step has been made towards consolidating the profession and lifting it to a higher plane of study and benefit.

Respectfully.

J. F. PRITCHARD.

## REPORT OF COUNCILOR EIGHTH DISTRICT.

To the House of Delegates, State Medical Society of Wisconsin.

Gentlemen: I respectfully submit the following as the councilor's report from the Eighth District. The work in the county societies of this district has progressed fairly well in those counties in which the number of physicians is fifteen or more. In the counties in which there are less than this number of physicians practicing I found it very difficult to maintain the organization of a county society. Early in the year Forest and Florence County realized that they would be unable to maintain their county organization on account of the small number of physicians—which was reported to be only four—and on account of the difficulty of transportation. These counties cover so much territory and are traversed by few railroads, so that the men could reach each other only at the expense of traveling great distances. At the request of Dr. Smith I took up the question of the affiliation of these men with the adjoining counties, and while I have not a final report, this matter was well under way at my last communication from Dr. Smith. Door County

also experienced difficulty in maintaining its county organization. There are eleven physicians in the county, most of these residing in Sturgeon Bay. North of Sturgeon Bay there is no railroad communication. On account of personal feeling existing at Sturgeon Bay the work of the society did not progress smoothly, and the men from the outpoints were unable to lend much assistance. I have recently had a communication from Dr. Simmons, President, and Dr. Egelund, Secretary, requesting permission to affiliate with adjoining counties. Up to this time I have advised against this move and have urged the men to get together, and, if possible, maintain their organization. They are so situated that they cannot easily reach the adjoining counties. The natural county with which to affiliate would be Kewaunee. It can be reached only by one line of road, upon which the accommodations are very poor. Transportation by boat to Green Bay would be more easy. This would throw them into Brown County, or they could cross the bay to Marinette and affiliate with Marinette, but boat service is very irregular and unsatisfactory. The permanency of the Door County Society is not yet established. I have had no reports whatever from Brown County but understand that the Brown County Medical Society is in flourishing condition. The following is a report of the several counties, making a final report at the end of the year.

Door County: Number of members in good standing, June 1st, 1904—7; June 1st, 1905—4; lost 3; gained none. Number in profession in county eligible and non-affiliated—7. Cause for non-affiliation—disaffection among the members. Number of meetings held during the year 4. Average attendance 4. Greatest attendance 7. Least attendance 2. Practically no literary work was done by this society.

Oconto County: Number of members in good standing June 1st, 1904—9; June 1st, 1905—10; lost—2, gained—3. Number in profession non-affiliated—9. Cause for non-affiliation was assigned to lack of interest in the reorganization movement. Number of meetings held during the year—12. Average attendance 5. Greatest attendance 12. Least attendance 4. Number of papers read 8. Dr. A. S. White is reported as having removed to Manitoba.

Shawano County: Number in good standing June 1st, 1904—14; June 1st, 1905—13; lost—4; gained—2. Number in profession non-affiliated—not stated. Four meetings held during the year. Average attendance 8. Greatest attendance 12. Least attendance 4. Number of papers read 4. Dr. H. R. Macomb is reported to have died.

Kewaunee County—Members in good standing June 1st, 1904—6; June 1st, 1905—8; lost—none; gained—2. Non-affiliated physicians in county—3. No reason assigned. Number of meetings during the year 3. Average attendance 5. Greatest attendance 6. Least attendance 4. Number of papers read 6.

Marinette County: Members in good standing June 1st, 1904—11; June 1st, 1905—11; lost 3, and gained 3. Non-affiliated physicians in county 7. Reason undoubtedly lack of interest in the work of the society. Number of meetings held during the year 6. The average attendance 10. Greatest attendance 20. Least attendance 2. Number of papers read 10. Meetings are held in the parlors of Hotel Marinette each alternate month and the meetings



are attended by members of the profession of our sister city, Menominee, Mich.

The showing in the Eighth district is not what it perhaps would be if the councilor felt that he could frequently visit the several county societies, but the distance is so great and the meetings so numerous that he finds it impossible to make the sacrifice in time. He has therefore endeavored to hold the men in line by correspondence, but finds it a rather unsatisfactory method.

Regretting my inability to be with you this evening, I am,  
Fraternally yours,

T. J. REDELINGS, *Councilor Eighth District.*

REPORT OF COUNCILOR, FOURTH DISTRICT.

Boscobel, Wis., June 6, 1905.

To the State Medical Society of Wisconsin.

Gentlemen: As Councilor to fill vacancy I have not met with very great success. I have compiled the following tables, which I submit.

Our territory comprises Grant, Iowa, LaFayette, Richland and Crawford Counties:

	Grant.	Richland.	Iowa.	LaFayette.	Crawford.	Total.
1. Number of members in good standing						
June 1, 1904.....	39	14	19	20	9	101
2. Number of members in good standing						
June 1, 1905.....	38	15	11	20	8	92
3. Loss .....	1	0	8	0	4	13
Gain .....	0	1	0	0	3	4
4. Number eligible and non-affiliated.....	11	8	4	2	6	31
6. Number of meetings June 1, 1904, to June						
1, 1905 .....	3	4	1	3	4	15
Average attendance .....	8	..	13	10	8	39
Greatest attendance .....	9	..	13	14	12	48
Least attendance .....	5	..	13	7	6	31
8. Number of meetings arranged and not held	0	0	0	1	0	1
9. Number of papers read.....	8	5	4	14	14	45
10. County represented by delegate in 1904	Yes	Yes	Yes	Yes	Yes	All
11. Delegate elected for 1905.....	Yes	Yes	Yes	Yes	Yes	All
12. Visits of councilor.....	1	0	0	0	1	2

One physician, Dr. J. G. Stanton, of Prairie du Chien, died. The general opinion of the secretaries as to reason why physicians remain "non-affiliated" is that of indifference on the one hand and a dislike to give up the "school society" on the other.

Personally I feel that county societies will only succeed in getting an attendance from those favorably situated on railroads leading to convention points where the time card gives sufficient time to become interested in the meeting. Take Iowa County for example: the C. M. & St. P. runs along the northern border of this almost square county, the C. & N. W. runs parallel near the southern border, both roads running east and west, the

larger towns in the southern portion. The physicians in the northern end could go to Madison more easily than to Mineral Point, those in the southern part could go to Dodgeville, and so it is all over the district. If the state could be divided on railroad lines it could be so arranged that the physicians could attend meetings and not be absent from home more than one day. Richland County is almost square with a spur of railroad running from the south to the center; here we could no doubt get all the physicians in the county to go to the county seat in the center of the county very easily, but it is the only county so situated in the district.

All of which is respectfully submitted.

CHARLES A. ARMSTRONG, *Council pro tem., Fourth District.*

SECRETARY: At the Councilor meeting it was the sense of the meeting to permit the Councilors to so make the arrangements as far as attendance upon scientific meetings is concerned, as to accommodate the residents of the different counties on the principle that Dr. Armstrong has suggested, if in their opinion it was thought wise and advisable.

DR. SCANLAN: We have in a measure arranged for that in Grant County. Boscobel takes the meeting next time. All the men on the Milwaukee Road can attend. They have failed to reach Platteville up to the present time.

PRESIDENT: We will now listen to the report from the 2nd Councilor District, by Dr. John Meachem, of Racine.

#### REPORT OF COUNCILOR, SECOND DISTRICT.

DR. MEACHEM: The work has progressed satisfactorily during the year. June 1, 1904, Racine had members in good standing, 16. June 1, 1905, 20.

June 1, 1904, Kenosha had members in good standing, 10. June 1, 1905, 14.

June 1, 1904, Walworth had members in good standing, 19. June 1, 1905, 25.

Total for June 1, 1904, 45. Total for June 1, 1905, 59. Gain for district, 14.

Racine lost two by death and removal; gained 6; net gain, 4.

Kenosha lost none; net gain 4.

Walworth lost none; net gain, 6.

Racine has 23 eligible and non-affiliated: reasons—Racine Physicians' Business Association. This society is unwilling to merge with county society.

Kenosha has 13 eligible and non-affiliated: reason—regulars not wishing to give up their "original county society"—balance homeopaths.

Walworth has 15 eligible and non-affiliated: reason—needs more personal solicitation.

One district meeting was held at Racine. Papers by Dr. J. Beffel, of Milwaukee, with exhibition of pathological specimens; by Dr. Cleary, on "Ethics," and by Dr. Fulton on "The Blood."

Racine held three meetings, attendance from 6 to 9, at one of which Dr. McCormack, national organizer, was present.

Kenosha held 12 meetings, attendance 6 to 10.

Walworth held three meetings, average attendance 15.

Racine was not represented by delegate in 1904—one elected for 1905.

Kenosha was represented by delegate in 1904, and one elected for 1905.

Walworth was represented by delegate in 1904, and one elected for 1905.

Councilor has made three personal visits in Racine County, one in Kenosha, none in Walworth.

During the year A. L. Buchan, of Racine, died—a great loss to Racine County. He was an enthusiastic society man. H. S. Lester, of Racine County, removed to Streator, Iowa. J. W. Lockhart, of Walworth County, removed to Omro, Wis. D. W. Rector, of East Troy, died.

The year closes with marked progress in all three counties of the district and a better outlook for the future.

JOHN MEACHEM, *Councilor Second District.*

The Committee then presented the following list of names from which the Governor is to choose a member of the Board of Medical Examiners, which list was unanimously adopted.

- A. W. Gray, Milwaukee.
- P. H. McGovern, Milwaukee.
- J. T. Pritchard, Manitowoc.
- J. R. Barnett, Neenah.
- O. T. Haugen, Grand Rapids.
- F. W. Epley, New Richmond.
- A. B. Rosenberry, Arbor Vitae.
- G. C. Buck, Platteville.
- W. P. Sperry, Phillips.
- L. R. Head, Madison.

The following resolution was adopted:

*Resolved.* That the incoming President of the State Medical Society of Wisconsin, now assembled at La Crosse, appoint a committee of eight, two from Milwaukee, and one each from the cities of La Crosse, Superior, Madison, Racine, Sheboygan, and Oshkosh, to determine the necessity of the medical inspection of the public schools, for the following reasons:

1. In the interest of public health, for the prevention of various contagious and infectious diseases, especially tuberculosis.
2. To secure for the child the best hygienic and sanitary conditions possible.
3. To inform school teachers in regard to the physical and mental capacities of children and to get exact knowledge of the same.

The Committee to report at the next session of the society.

Following committee was appointed and expressed a willingness to act: La Crosse, Dr. Edward Evans; Superior, Dr. L. A. Potter; Madison, Dr. Bechtol; Racine, Dr. J. G. Meachem, Jr.; Sheboygan, Dr. W. H. Gunther; Milwaukee, Drs. Madison and Akerly.

SECRETARY: Dr. G. E. Seaman made a report in the Council yesterday afternoon from the Committee on Public Policy and Legislation upon the passage of the medical bill substitute for 353 A, on which the balance of the expenses, after \$200 have been paid from

the treasury of the Milwaukee County Medical Society, amounts to \$1,129.10. The question of how these expenses should be defrayed was discussed at length and on motion the matter was referred to the House of Delegates, and it was decided that meanwhile a subscription paper be circulated among the members to raise what funds we can at this meeting. Perhaps a note of explanation might be in order from the Secretary. You know the effort which was made at the beginning of the session to pass a bill in the legislature for the suppression of quackery in general, and with special reference to the obscene advertisements in the newspapers—particularly the Milwaukee newspapers—which met with a most determined opposition by the newspaper men. It is stated that the newspapers have spent from \$10,000 to \$25,000 in fighting this bill, and I do not think this is an exaggeration. I know they had a lobby at Madison, not only of all the newspaper correspondents, but of one or more attorneys all the while, with a very expensive retainer to Mr. Bashford; and we had no alternative except to fight it or lie down and give up; and as a result, in order to fight fire with fire, and hold our own, it was necessary to go on and on until, as is apparent, the bill was very large, and the balance is now \$1,129. At the meeting of the Councilors it was the opinion of Dr. Hall that the treasury would bear only a limited strain at the present time. We have considerable funds, but we get no more until next May. We can foot up our expenses pretty accurately now, and we find that we cannot spare more than \$200 or \$300. We do not want to be borrowing money on our personal notes if we can avoid it, as we used to do. This is a legitimate bill and it has got to be paid and must be paid by the profession, and if the treasury of the State Society will not stand it, why, then we must look elsewhere, and the discussion largely ran along the line of how this money should be raised. Dr. Hall thought we could pay \$250 now. May be next May, when we get our money in again, we can pay perhaps \$200 or \$300 more. That would reduce this to about \$879. The notion was yesterday that we had better raise what we could right on the spot; so a subscription paper was circulated among those present here and \$50 was raised immediately. To-day it was proposed to have half a dozen good fellows circulate half a dozen more papers and raise what we can from everybody here—get the subscription right on the spot. We have got to raise it, and we might as well get as much as we can right here. There was not much opportunity after the meeting yesterday, but we got about \$100 by subscription last night, and it is hoped that we can raise the balance, a couple hundred dollars more, before the close of the meeting. We ought to raise \$300 at least.

DR. HALL: If the balance of the society will subscribe as the Council did yesterday we ought to raise \$500 or \$600.

SECRETARY: If we could raise it all, and get it off the books, it would be a great honor to the society and be a splendid thing. This matter was referred to the House of Delegates for your opinion and suggestions as to ways and means.

DR. STEELE: Would not there be a source of revenue in the county medical societies? We have some money that we would gladly appropriate, a few dollars anyway.

SECRETARY: That was another suggestion. It is very desirable that we should avoid an assessment. In fact, I do not know that we have the power to levy an assessment upon county societies, but if we have the power it is inadvisable and impolitic at this time to tax the members and the societies a dollar apiece—a good many of them would not like it—but I think it is entirely legitimate and proper to send a circular or a personal letter to each County Medical Society stating the financial condition and saying, "Help us what you can by personal subscriptions and from your treasury." We have 62 County Medical Societies and if we do not get more than \$5 from each society it would amount to \$300, and if we get \$300 more on this subscription and \$250 from the state society treasury, we shall see light very soon.

DR. T. M. STEELE: How would it be when we get home and know how much money we need to raise, if it would not be too much of a tax upon the Secretary, to have him apportion it somewhat according to membership and ability to pay, to the different counties of the state, and to send those counties a statement requesting so much from them to clear up this indebtedness? I believe that they will respond, and I believe that it can be done.

SECRETARY: We might make the suggestion and if they can send more it will be acceptable, because there might be a shrinkage in some quarters.

DR. STEELE: It is very easy to appropriate money you do not have to take out of your own pocket. They have money and it is a worthy use to which to apply it, and I move that the Secretary apportion the amount to the different societies and then request the societies for that aid.

Motion seconded.

DR. DEARHOLT: It should be borne in mind when the apportionment is made that Milwaukee has already put up \$200 and would not be able to do much more.

DR. MINAHAN, of Green Bay: We have no money in the treasury. We have spent every cent from year to year. If we have anything over we always have a social benefit and eat, drink and smoke it up, and I believe that the matter of raising this money is a little bit of honor that we all feel proud to have a chance to give and I noticed a great many names were subscribed on the paper passed around yesterday.

Motion carried.

PRESIDENT: We will now hear the report of the Nominating Committee.

DR. WASHBURN: The Nominating Committee appointed met yesterday afternoon, and we beg leave to submit the following nominations for officers for the ensuing year:

For President, J. R. Currens, of Two Rivers.

1st Vice-President, A. W. Gray, of Milwaukee.

2nd Vice-President, A. Gunderson, of La Crosse.

3d Vice-President, W. E. Fairfield, of Green Bay.

Councilor for 1st District, H. B. Sears, of Beaver Dam.

Councilor for 2nd District, G. Windesheim, Kenosha.

Place of meeting, Milwaukee.

Program Committee: Chairman, Arthur J. Patek, of Milwaukee; Fred T. Nye, of Beloit; Secretary *ex-officio*, a member.

The Committee inadvertently neglected to make any nominations for the Committee on Public Policy and Legislation, so that nominations are in order for that.

DR. SARLES: I move that the report of the Committee be accepted by the chairman.

Motion seconded.

DR. BOOTHBY: I would like to inquire if that list of Vice-Presidents has been made out following the rule laid down in the constitution, wherein it says that the Vice-Presidents of the State Medical Society shall be selected from the Presidents of the District Societies. We did not follow that last year, and I do not know why it should not be followed. If an organization is worth anything it certainly is worth following out in all its details, if you want it complete.

SECRETARY: I would state that the matter was brought before the Committee, and there was no objection in the mind of any member of the Committee to following that rule, but at that moment we had no information on that point. We did not know the President of any society.

DR. SARLES: We have not the complete list of district societies yet. We have no way of following that rule out until the state is completely districted. Another year I think our district societies will all be formed, and then we should select Vice-Presidents from the Presidents of the District Societies according to the constitution.

Motion carried and report adopted.

DR. SARLES: I would like to move that Drs. J. J. McGovern and G. E. Seaman be nominated on the Committee on Public Policy and Medical Legislation.

DR. SEAMAN: I must decline. The longer a man is at Madison the more expensive it is, and I think that that Committee is getting to be a very expensive Committee. I positively could not serve another year on the Committee, and I think that some new men ought to be put on.

DR. SARLES: I think it is necessary that at least two of the old Committee remain another year. In the first place there is no legislative body next year, but we have some settlements to make during the year, and two members of the Committee at least should remain who know the circumstances and all the surroundings. If you will

serve another year perhaps by the time the legislature meets again we can relieve you.

DR. SEAMAN: You mean getting our bills paid up?

DR. SARLES: Yes.

DR. SEAMAN: I will stay for that purpose.

DR. SARLES: That will be the only thing that will be of consequence the coming year, and for that reason I make the motion that two members who have not other offices be named on that Committee.

SECRETARY: I would like to nominate Dr. Sarles as the other member.

Motion seconded.

DR. SARLES: I am not eligible, being President of the Council. I nominate Dr. Byron Caples, of Waukesha.

SECRETARY: Dr. Sarles is truthful and sincere and very modest. He never likes to take office unless he is forced into it, but he is entirely eligible. Being President of the Council has no possible relation to his candidacy. He is trying to sneak out of a duty.

DR. SEAMAN: I do not see why a man should object to going on a committee when there is nothing to do but to pay the bills.

PRESIDENT: All in favor of the two members acting and in favor of the motion say aye. Unanimously carried.

PRESIDENT: All in favor of Dr. Sarles acting as the third member of the Committee will say aye.

Carried.

DR. SARLES: We want to elect a man to serve as delegate in Portland in the place of Dr. Dodd and Dr. Bennett, neither of whom can go.

SECRETARY: I nominate Dr. Byron Caples, Delegate to the American Medical Association in place of Dr. Bennett who cannot attend.

Seconded and carried.

PRESIDENT: We will again have the roll called.

The roll was called and the following found to be in attendance:

Doctors Minahan, R. F. Werner, T. S. Lawler, White, E. H. Townsend, H. J. Stalker, D. L. Sauerhering (Milwaukee as before), W. T. Sarles, S. R. Stone, K. G. Rossiter, Samuel Bell, E. L. Boothby, W. H. Cantwell, W. H. Gunther, Joseph Littenberger, Steele, L. K. Potter.

DR. SEAMAN: I want to inquire whether any acknowledgment has been made of the services of the medical members of the legislature.

SECRETARY: No.

DR. SEAMAN: Then I would like to move that a telegram be sent to Dr. Dinsdale, Dr. Powell and Dr. Noble, the first two of whom are members of the assembly, and the last, Dr. Noble, a member of the senate, and all members of this society, expressing the appreciation and the thanks of the society for their services in connection with medical legislation at Madison. I think that we owe that to these gentlemen who rendered the best possible services on all occasions out there, and who at all times, even at the sacrifice of other personal matters in which they were interested, stood by the various measures that were proposed by the Committee on Legislation, and other matters of a medical nature that came before the legislature. I make that as a motion.

SECRETARY: I would like to amend that by asking that Dr. Seaman, at the expense of this society, send the telegram.

Motion as amended, seconded and carried.

Adjourned *sine die*.

C. S. SHELDON, *Secretary*.

#### DODGE COUNTY MEDICAL SOCIETY.

The Dodge County Medical Society met at Beaver Dam, August 28, 1905. For some unknown reason the attendance was very small, certainly not in keeping with the worth of papers presented.

Dr. W. H. Neilson, of Milwaukee, was present by invitation and gave a very interesting and profitable talk on *Lobar Pneumonia, with special emphasis on treatment*. After proper attention to the functions in a general way, the doctor considered digitalis the most important remedial agent.

The subject of *Typhoid Fever* was presented by Dr. E. P. Webb.

Dr. G. W. Dewey, of Burnett Junction, read a paper on *The Influence of Low Wet Ground on the Health of Residents*.

Juneau was selected as the next place of meeting.

H. B. SEARS, M. D., *Secretary*.

#### DUNN COUNTY MEDICAL SOCIETY.

The Dunn County Medical Society held its regular monthly meeting at Colfax, Tuesday, September 12.

Although the weather was rather threatening during the morning, the clouds cleared away towards noon and seven members were present and enjoyed the generous hospitality of Dr. Larson's home. The meeting was purely social and was thoroughly enjoyed by all. Such meetings promote the feeling of goodfellowship which should exist among physicians. It was the concensus of opinion of those present that such meetings should be held oftener. Although no papers were read a case of compound Colles fracture was presented by Dr. Larson.

The next meeting will be held at Menomonie, October 17.

B. J. STEVES, M. D., *Secretary*.



**FOND DU LAC COUNTY MEDICAL SOCIETY.**

The regular bimonthly meeting of the Fond du Lac County Medical Society was held September 13, 1905, Dr. G. V. Mears presiding.

Dr. G. F. Scheib, of Fond du Lac, presented the history of a case of *Glioma of Retina* in a child two and a half years of age, with gross specimen of same. About three months ago the mother noticed peculiar reflex of eye, but father did not consider it of much importance, later when pain came with increased tension child was brought to Dr. Scheib who removed the eye. Dr. Scheib spoke of the diagnostic points in a case of glioma of retina. The pathology and bad prognosis were also mentioned.

Dr. Connell then presented as a clinical case, a man with a bad compound fracture of the arm. The arm was so nearly off that it practically hung by skin and the attachment of one muscle. Patient refused an amputation so he did the best he could to keep the arm. He drilled holes in bone with carpenter's drill and drew the fragments together with catgut. The fracture being above the elbow, the arm was supported in a box. The gauze packing remained in ten days. There was no infection and it is now three weeks since the accident and there is fair union of the fragments.

*Renal Calculi* was the subject of a paper presented by Dr. D. J. Twohig, of Fond du Lac. Dr. Twohig dwelt especially upon the symptomatology saying that he would leave the treatment to be brought out by discussion. In discussion Dr. Connell said that he considered pus and blood in the urine of prime importance in making a diagnosis of renal calculi.

Dr. John S. Frat, of Ripon, became a member of the Society.

F. A. READ, M. D., *Secretary*.

**GRANT COUNTY MEDICAL SOCIETY.**

The Grant County Medical Society held its regular meeting at Boscobel, September 12, Dr. C. A. Armstrong presiding. Thirteen members were present, and Dr. G. H. Perrin, of Crawford County Medical Society, and Dr. Egan, of Muscoda, were guests at the meeting.

An informal meeting on the subject of *Tuberculosis*, and discussion as to the best means of preventing contagion from same, preceded the regular meeting.

The following program was presented: A paper on *Metritis*, by Dr. J. E. Heraty; a paper on *Purpura Hemorrhagica, with report of a case*, by Dr. F. S. Tuffley.

*Reports of cases* was responded to by all present, and many interesting and unusual cases were presented, and helpful points brought out.

At noon a banquet was served, which was given by the members of the profession in Boscobel, who, by their united efforts, succeeded in making this the largest and most enthusiastic meeting in the history of the society.

It was decided to hold the December meeting at Lancaster.

M. B. GLASIER, M. D., *Secretary*.

**LAFAYETTE COUNTY MEDICAL SOCIETY**

The La Fayette County Medical Society postponed the last quarterly meeting one day on account of the death of Dr. E. S. Hooper, its first president and principal organizer. Thirteen members of the society acted as honorary pall-bearers and attended the medical meeting following the funeral.

Dr. W. W. Peek read a paper on *Some Sources of Infection during Child-birth, their Prevention and Treatment*. In the discussion Dr. C. C. Gratiot made a strong plea for the use of antistreptococcus serum in streptococcal infection. The discussion was general.

Dr. Birkbeck not being able to be present, his paper on *Infantile Diarrhea* was held over for the next meeting, which will be held the second Wednesday in Jan., 1906.

Dr. H. E. Scott's paper on *The Relation of Bovine Tuberculosis to the Public Health* was well received.

Dr. C. F. Lehnkering made a report on the meeting of the A. M. A. held at Portland. Dr. Shockley of Lamont was elected to membership.

The president appointed a committee to draft resolutions of respect for the late Dr. E. S. Hooper. C. F. LEHNKERING, M. D., *Secretary*.

#### LA CROSSE COUNTY MEDICAL SOCIETY.

The La Crosse County Medical Society held its regular monthly meeting October 5th, with fourteen members present.

E. S. Hebbird on behalf of the Druggists' Association, presented some changes made in the last issue of the U. S. Pharmacopeia and promised at some future meeting to furnish a complete list of changes in such preparations as have been altered, also to furnish a list of additions and of those articles left out of the work.

Dr. E. Hauser presented a patient referred to him by Dr. D. S. McArthur, with a *double compound fracture of the inferior maxilla* which he had dressed with wires and a band all within the mouth, the patient being fed through an opening caused by an absent tooth. The patient was a young adult male. Dr. Hauser also showed a plaster model that gave an excellent view of the fracture.

At the next meeting of the District Medical Society, which is to be held in this city as announced by Dr. W. T. Sarles, the Councilor, who was present at our meeting, we will entertain the District Society. Considerable routine business being done, the Society adjourned.

C. H. MARQUARDT, M. D., *Secretary*.

#### LINCOLN COUNTY MEDICAL SOCIETY.

The regular monthly meeting of the Lincoln County Medical Society was held at Merrill on September 6. One new member, Dr. F. H. Keeley, was added to the list. Papers were read and discussed and after the scientific program was ended the society was entertained at an elaborate banquet given by Dr. and Mrs. Joseph Farber, at their home. Dr. Munroe acted as toastmaster and many were the happy responses to his call.

Those who were present were Drs. Farber, Munroe, Walsh, Collier, Rhinehart, Wittman and their wives; Dr. Hinekley and Dr. Ravn.

L. B. COLLIER, M. D., *Secretary*.

**TREMPEALEAU COUNTY MEDICAL SOCIETY.**

The regular quarterly meeting of the Trempealeau County Medical Society was held at Arcadia, Sept. 7, 1905. The meeting was called to order by the president, Dr. G. N. Hidershide.

Dr. C. E. Remaly, of Melrose, read a paper on *Auto-intoxication*, which proved very interesting to the society and brought out a lively discussion, opened by Dr. Lawrence and Dr. Littenberger.

Dr. Rosinow, of Chicago, then favored us with an informal address on *Pneumonia*, relating the investigations made in the Presbyterian Hospital, under the supervision of Dr. Billings; as these have not been published they were new to the members and will serve as a nucleus for thought and study. Dr. Rosinow is an old Trempealeau county boy and we were pleased to note the progress he has made.

The time and place of next meeting were then discussed and it was decided to hold it at Galesville, early in December, and that it should be an evening session.

Dr. Gunn of Independence, Dr. Moore of Merrilan, and Dr. Pierce of Arcadia, presented their applications for membership and were accepted.

The following members were present: Drs. Hidershide, Palmer, Littenberger and Pierce of Arcadia; Dr. Remaly of Melrose; Drs. Hutchins and Gunn of Independence; Dr. McFarland of Trempealeau; Drs. Parker and Sandbo of Whitehall, and Drs. Lawrence and Jegi of Galesville, and the following visitors: Dr. Ed. Rosinow of Chicago, and Drs. Lehrbach and Myhre.

H. A. JEGI, M. D., *Secretary*.

**WALWORTH COUNTY MEDICAL SOCIETY.**

The third meeting of the Walworth County Medical Society for 1905, was held in the county courthouse at Elkhorn, September 19th.

A splendid paper on *Shock* was read by Dr. Cleary of Kenosha, for which he received a vote of thanks by the society. Dr. B. J. Bills of Genoa Junction, gave us a good paper on *Injuries to the Kidneys*.

Two new members were taken into the society, Dr. Wm. H. Hurlbut of Elkhorn, and Dr. N. P. Seelye of Lake Geneva.

Much interest is taken in the work and the society is growing.

M. V. DEWIRE, M. D., *Secretary*.

**BRAINARD MEDICAL SOCIETY.**

The Brainard Medical Society held its quarterly meeting at the Milwaukee Hospital, Milwaukee, October 4th.

Cases for diagnosis were presented by Dr. E. J. Butzke of Jackson, Wis., and Dr. Heidner of West Bend; also by Dr. Peterson of Waukesha. Dr. Batchelor of Milwaukee read a paper on *Acute yellow atrophy of the liver following operation* and reported such a case. Dr. Durr, of Milwaukee, reported a similar case.

The Committee on Gynecology reported at this meeting as follows: Subject, *Acute Gonorrhoea in the Female*. Dr. Sayle of Milwaukee read a paper on the *etiology and pathology*, Dr. Margaret Caldwell of Waukesha on the

*prognosis and symptomatology*, and Dr. Louis Nolte of Milwaukee on the *treatment*.

The Society elected Dr. Wm. Mackie of Milwaukee official delegate to represent the Brainard Medical Society at the Nicholas Senn banquet.

The Society voted that \$75.00 be donated the Milwaukee Hospital for the kindnesses shown the society.

Dr. E. J. Butzke was admitted to membership. Thirty-six members were present at this meeting. The time being too limited, the whole program could not be presented, but will be continued at the next meeting.

The next meeting of the Society will be held the second Wednesday in January, 1906, at the Milwaukee Hospital.

N. E. HAUSMANN, M. D., *Secretary*.

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### CURRENT LITERATURE.

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**Eclampsia.**—KIRKLEY (*Jour. of Obst.*, Sept., 1905), discusses this subject and arrives at the following conclusions:

1. The toxins producing eclampsia probably consist of waste products from the liver, intestines and kidneys, augmented by those of fetal and uterine metabolism.

2. Renal insufficiency rather than albuminuria, is usually an etiologic factor.

3. There is probably a causative relation between the condition of the urine in pregnancy and eclampsia, because toxemia results when the amount of urea excreted is diminished.

4. Prophylactic treatment—encouraging elimination through the great emunctories—is usually successful.

5. Venesection in suitable cases is the best prophylactic.

6. The uterus should be evacuated when other means of relief have failed.

7. Venesection in suitable cases is the best curative means because of its promptness in the elimination of toxins. *Veratrum viride* as a substitute is purely visionary.

8. Morphia has no place in the treatment of eclampsia because it hinders elimination by the kidneys and bowels. (G. C. Ruhland.)

**Face Presentation.**—VON HERFF (*Munch. med. Woch.*) compares his results in the management of two series of cases of face presentation.

In the first series (comprising 21 cases) he interfered to change the presentation and 6 of the children were born dead. In the second series (76 cases) no attempt at a change of presentation was made, with the result that all children but four were born alive and all the mothers dismissed in good health. He concludes therefore that interference in face presentations is contraindicated unless for imperative reasons, *e. g.* for a hurried delivery or to avoid excessive lacerations of the perineum.

Brow presentations, however, should be changed into vertex, or, if that is impossible, into face presentations, provided interference seems to be indicated. (G. C. Ruhland.)

# THE WISCONSIN MEDICAL JOURNAL

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## ADDRESS.

THE SURGERY OF THE PROSTATE.\*

THE ADDRESS IN SURGERY.

BY HUGH H. YOUNG, M. D.,

ASSOCIATE PROFESSOR OF GENITO-URINARY SURGERY, JOHNS HOPKINS UNIVERSITY  
AND HOSPITAL, BALTIMORE MD.

I have been asked to speak on "The Surgery of the Prostate," but as it is too large a subject for a single talk, I will have to omit a great deal that is important in order that I may do justice to others of more immediate interest.

The prostate, as you all know, plays a very important double rôle, *viz.*, that of a urinary organ, and that of a sexual organ.

The act of micturition, which is one of the most remarkable of our reflex actions, is largely carried out by the delicate, nervous and muscular mechanism of the prostate.

On the other hand, in the rôle of a sexual organ, it plays an equally important part. In the prostate lie many of the important centers that govern the power of erection. It has a great deal to do with sexual intercourse, and is the one organ which produces ejaculation. But I have time to go but briefly into the physiology, histology and pathology of this organ. In its position it may be likened to a railroad center through which various trunk lines pass, and it is liable to become involved by accidents along any of the lines.

In the first place, diseases in the higher urinary tract are very apt to leave the prostate more or less damaged. Pyelitis and cystitis are very likely to produce prostatitis, and tuberculosis of the kidney and ureter and bladder often infect the prostate. Diseases of the testicle, epididymis and vas deferens, particularly tuberculosis, often produce secondary involvement of the prostate. Likewise in infections

\*Read at the 59th Annual Meeting of the State Medical Society of Wisconsin, La Crosse, June 9, 1905.

of the urethra, particularly gonorrhœa, the disease travels to the prostate in a large proportion of cases. With more avenues for infection than any other organ, it is not surprising that it is a very common seat of various forms of disease. Moreover, on account of its delicate nervous mechanism, its various reflexes, and its intimate connection with the sympathetic system, it has a great deal to do with various neuroses, and, more than any other organ, is responsible for neurasthenia in the male.

In looking over any one of the principal works on the prostate, one is struck with the very great number of diseases to which it is heir—therefore the impossibility in a talk of this kind to do anything like justice to the subject. In the splendid work of Socin and Burekhardt we find the following subjects considered: Anomalies, injuries, infections—acute and chronic, abscesses, cystitis, sarcoma and carcinoma. It is impossible, of course, to take up in detail all these various conditions.

I thought that it would be better for me to dwell upon a few of the more important things, and I have chosen, therefore, Gonorrhœa of the Prostate, Prostatic Hypertrophy, Carcinoma of the Prostate, Calculus of the Prostate and Traumatism.

Statistics vary considerably in the frequency of prostatic infection in gonorrhœa, but I think 50 per cent. is a moderate estimate. This is evidenced by great pain and tenderness in that region, frequency of urination, terminal hematuria, and other signs too well known to allow of my dwelling upon this subject longer.

But it is the chronic condition which I think is most important, not only from a surgical standpoint, but also to all general medical practitioners. *Chronic prostatitis* is one of the most common of diseases, one of the most difficult to treat, and one that is accompanied by certainly most serious neurotic symptoms. As you know, the etiology of it may be, and generally is gonorrhœa, but it also may be due to masturbation or to infections which may come from the kidneys, ureters, bladder, and rectum. It is very hard to explain how a chronic prostatitis may be produced by masturbation, but it is a thing that has been recognized for years. Rectal examination of these cases shows an indurated, inflammatory condition of the prostate, and a microscopic study of the secretion obtained by massage shows pus cells. I have been surprised to find also, in a great many cases, bacilli and sometimes staphylococci in the secretion obtained by massage. How such infection can come from simple masturbation is very difficult to explain.

I have no time to go into the pathology of chronic prostatitis. It is similar to that of chronic inflammation of any racemose gland, characterized as it is by infiltration in and around the glands and stroma, focal areas of pns formation, retention cysts, etc.

The symptomatology is oftentimes very obscure, and sometimes difficult to explain. You have the urinary symptoms which sometimes are those of either stricture of the urethra or enlarged prostate. A great many cases of chronic prostatitis have been treated for enlarged prostate. These urinary symptoms are generally frequency of urination, oftentimes considerable pain, and sometimes slight dribbling at the end of urination. One thing which differentiates it from both stricture and prostatic hypertrophy is the intermittency of the disease. As a rule the patient will be perfectly comfortable for weeks, and then have attacks characterized by great irritability due unquestionably to some peculiar but definite change in the prostate, perhaps only an increased congestion, sometimes a definite exacerbation of the inflammation. Besides that the sexual symptoms are oftentimes very severe. Horwitz and others have held that the prostate has very little to do with the power of erection, ejaculation, etc., but this is easily controvertible by the many cases of even slight chronic inflammation of the prostate in which the sexual symptoms are very marked: absence of erections, nocturnal pollutions, premature ejaculations and numerous grave neurotic symptoms being present.

Examination of these cases often shows little pathological. The urine as a rule contains shreds in the first glass and shreds in the third glass, thus differentiating it from chronic urethritis not involving the prostate in which the third glass of urine is free from shreds. The shreds in the third glass of urine are those squeezed out, in the last act of urination, from the ducts of the prostatic glands, and from their shape have been aptly called "comma shreds." On examination with the endoscope you will find enlargement, reddening and sometimes ulceration of the verumontanum. The cystoscope shows generally only a slight hyperemia, but sometimes a definite thickening of the median portion of the prostate. By rectal examination irregularities, nodules and areas of induration, generally involving the seminal vesicles are found, and if you squeeze out the secretion by means of your finger, it will flow out at the end of the penis, and an examination under the microscope will show definite pus cells and often bacteria, sometimes the gonococcus, but generally one of the colon group of bacilli.

The most efficacious treatment is massage, rubbing frequently and vigorously, and in that way expressing the inflammatory products,

softening the indurated areas, and improving the vascularity of the organ. Along with prostatic massage, dilatation and occasional endoscopic applications and vesical irrigations should be given.

The question of cure is determined by the disappearance of the enlargement and induration, and the return of normal elements, particularly the leechin bodies, epithelial cells and spermatozoa in the expressed fluid. Permission to marry should never be given until an examination shows the prostate well.

Chronic prostatitis alone deserves much more time than I can give it, because I think it is one of the most important and common diseases that the human flesh is heir to.

**TRAUMATISMS.** As to traumatism of the prostate and prostatic urethra, I may say that they are frequently found in fractures of the pelvis, where there is a transverse rupture of the urethra just at the apex of the prostate. I had one case not long ago of a man who was caught between two freight cars, and whose pelvis was fractured. At operation through the perineum I found the prostate torn off from the membranous urethra, and with a greatly distended bladder pushed upward by an immense collection of blood to the umbilicus where it felt like a gravid uterus. It was an easy matter, however, to draw it down and suture it to the membranous urethra. The wound healed quickly and there was no stricture afterward, although no instrumentation was employed. An interesting circumstance in this case was, that the accident was followed by impotence due probably to the rupture of nerves and blood vessels, which thus removed the power of erection.

**TUBERCULOSIS** of the prostate is one of the few subjects in which we will have to say that little or no progress has been made in treatment in the last ten years. We are much more conservative than we were a few years ago. Statistics now show conclusively that operative treatment upon the tuberculous prostate is not only not indicated but is contraindicated. Of course in tuberculous abscess an incision is necessary, but radical operations have not been successful. That is due to several reasons. In the first place the seminal vesicles are nearly always involved coincidentally with the prostate, and often before the prostate; so that unless the prostate and seminal vesicles are both removed the operation is almost certain to be unsuccessful. In the second place the bladder is very apt to be involved and complete radical removal of the disease is well nigh impossible.

**HYPERTROPHY.** Let me now turn to that subject in which the greatest advances have been made, *viz.*, Prostatic Hypertrophy. This



is one of the most common diseases to which the human male is heir, occurring, according to the best statistics, in about one in every six individuals who pass the age of 55 years. Not all of these have severe symptoms, but a large proportion do have sooner or later.

The literature of prostatic hypertrophy is perfectly enormous. In the recent book of Socin 1200 articles, upon prostatic hypertrophy alone, are enumerated, so that you see how impossible it is to give even a glance at the literature of the subject.

A great many have held that infections, particularly gonorrhœa, have been responsible for the subsequent development of prostatic hypertrophy. There is a measure of truth in this statement, but I think the conclusions in this respect found in the work of Cichanowski are based on faulty premises, because he was unquestionably dealing with men who were too young to have prostatic hypertrophy, and who were suffering rather from chronic prostatitis due to gonorrhœa. A careful investigation of a long series of cases and statistics leads me to doubt the inflammatory origin of prostatic hypertrophy. Others have held that sexual excesses have had something to do with it, and I think it is partly true. Perhaps this explains the frequency of the disease among preachers, as it is commonly believed that an enforced abstinence from other worldly habits causes them to take undue advantage of the one which is not withheld.

But although we are at sea as to the etiology we are no more so than we are in other regions. We do not know what produces adenomata of the breast, or the benign tumors of the thyroid gland.

Pathologically, the greater portion of cases are pure adenomata. They are often associated with an increase in the muscular elements of the prostate, and the condition may be termed adeno-myoma. In some cases where there are inflammatory changes, we have adeno-fibroma or fibro-myoma, but unquestionably the important thing is the glandular enlargement and that is the principal cause of the enlargement and obstruction in the majority of cases.

The symptomatology, as you know, is fairly plain, and corresponds to the pathology. With the gradual increase in the glandular tissue the urethra is infringed upon, compressed; the bladder has to work harder and this produces a gradual thickening of the bladder walls, and then a contraction of the capacity. Then, as the disease goes on, you have more and more obstruction and gradually a separation of the hypertrophied muscle bundles of the inner coat and the formation of little pouches or diverticula between the trabeculae. Ultimately we may have considerable dilatation of the bladder, weak-

ening of the fibres. I do not believe, however, that we have (as Thompson and others have held) except in rare instances a complete general atrophy or a definite paralysis of the bladder. Thompson held that a bladder which had required catheterization for two years or more could never regain its contractility. This is certainly not true, because I have had patients upon whom I have operated after ten years or more of catheter life, who can now empty the bladder normally, and have excellent vesical tonicity.

Other symptoms are, as you know, pain, and occasional hematuria, which is more common in the middle lobe than elsewhere. Complications, such as epididymitis, ascending affection of the kidneys, pyelitis, septicemia, may occur at any time.

Examination should be very thorough, and, as a rule, cystoscopy should be performed. I am very strongly opposed to those who hold that the cystoscope is not only not necessary but a dangerous thing in prostatic hypertrophy cases. Its findings are often of the greatest importance. By means of it you are able to map out at once the form of enlargement present, whether the middle lobe alone or both lateral and middle lobes are involved; whether it is a pedunculated lobe or not, or whether complicated with tumors, diverticula, incarcerated calculi, diseases of the ureters, kidneys, and the like. In a great many cases of prostatic hypertrophy the cystoscope is not only advisable but well nigh indispensable, and certainly ought to be employed.

In rectal examinations you find sometimes no definite enlargement, sometimes a very great enlargement of the gland. I have seen it as large as a baby's head; but as a rule the enlargement is not so very great, and sometimes it is only slightly more than normal.

The contour and consistence are of very much more importance than the size, as these specimens will demonstrate. I first show you a specimen illustrating a case in which there was complete retention of urine, and it was absolutely necessary for the patient to use a catheter, yet the disease was cured by the removal of the three ridiculously small lobes which you see. But here is a specimen where the lobes are probably a hundred times as large as in the previous case; and yet the patient had not suffered as much as the other. So you see that the size of the prostate has very little to do with the symptoms.

A study of the contour, the surface and consistence, is of great importance in differentiating the benign from the carcinomatous prostate. The ordinary hypertrophied prostate presents a regular contour, a smooth surface, and a consistence generally elastic, but of varying degrees of softness, some slightly fairly hard, some very soft; but it

is generally elastic and gives way under pressure. The surface is more or less oval and regular in contour, and there is shown no outgrowth of the disease beyond the limits of the prostatic capsule. Remember this, as we shall shortly see in discussing the question of carcinoma, that the fact that it is smooth, is not indurated, is generally elastic and generally does not grow into the region of the seminal vesicles, differentiates at once the benign from carcinomatous. With the cystoscope you will be able to find generally either the presence or absence of more or less extensive intravesical outgrowth, either unilateral, bilateral or triple, whereas in carcinoma there is generally little or no intravesical enlargement apparent. With the catheter you find a small amount of residual urine in certain cases and in other cases a very large amount, depending entirely on the ability of the bladder to empty itself.

TREATMENT. There has been very great progress in the operative treatment in years which have elapsed since Mercier in 1856 brought out his instrument for removing portions of the middle lobe through the urethra. Bottini in 1876 showed that by burning or cauterizing the prostate by electricity, he was able to reduce the obstruction and restore urination. The possibility of removing the lobes of the prostate was demonstrated on the cadaver as early as 1866, and in 1867 Billroth actually operated by the perineal route and enucleated a portion of the prostate. Since then the surgery of the hypertrophied prostate has been illumined by McGill, Bellfield and Alexander, Fuller, Goodfellow, White, Cabot, Syms, Murphy, Fergusson, Albarran, Freyer and others.

Various methods have had their vogue: from 1894 to 1897 it was castration; from 1897 to 1900 the Bottini method; from 1900 to 1903 suprapubic prostatectomy, and since 1903 the perineal. Under the leadership of Freyer the suprapubic method of prostatectomy, which has been supplanted by the better perineal operation in America, has been rediscovered in England, and now for a time holds the boards in that country.

My work on the prostate, which began about eight years ago, has included all these various methods, and I must plead guilty (as others have done), of jumping from one thing to another. First I thought the perineal route by the method of Alexander was the best, then I pursued the suprapubic method, then the perineal route again, then the Bottini operation. I was seeking the most satisfactory method. After using the Bottini operation in 85 cases and losing six, several of which ought not to have died, I was satisfied that something better

was needed, and turned to the work of Goodfellow, Ferguson, Murphy and Syms. It seemed to me, in reviewing these methods, that the work of Syms was certainly the most rational, in that he employed a tractor for drawing the prostate down and exposing it in the perineum, so that it could be enucleated without much difficulty, and without the necessity of the suprapubic opening, which Alexander used.

Syms' instrument, however, I found unsatisfactory, because it was unwieldy, being simply a rubber bulb tractor with which it was

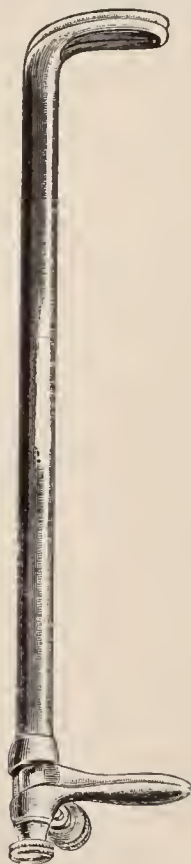


Fig. 1.—The tractor, closed.



Fig. 2.—The tractor, opened.

impossible to direct your pressure so as to draw to you the particular part or lobe which you wished.

After considerable experiment I devised an instrument which I have here (Fig. 1). By means of a simple mechanism it can, after introduction into the bladder, be opened out so as to provide a bivalved tractor as seen here (Fig. 2). Very soon after using this method it occurred to me, owing particularly to the very urgent representations

of a patient who was extremely anxious to preserve the sexual powers, and because I learned that the sexual powers had been destroyed where the floor of the urethra and ejaculatory ducts were removed, that the operation might be improved in this regard, and I began the successive improvements in technique which have resulted in the following routine method.

It consists of an inverted V-shaped incision in the perineum, generally about two inches long, and going only through the skin (Fig. 3). The object of that is simply to allow subsequently a good field of view. By blunt dissection the fat is pushed back on each side and the central tendon brought into view (Fig. 4). A bifid retractor

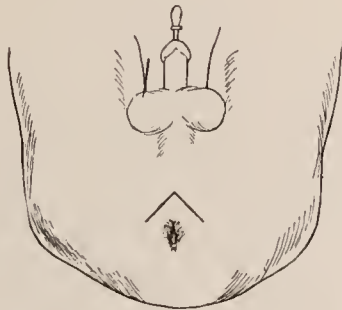


Fig. 3.—The inverted V cutaneous incision.

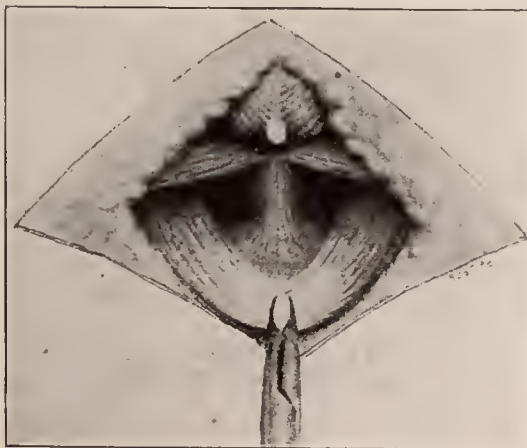


Fig. 4.—After division of central tendon. Exposure of rectourethralis muscle.

is then inserted and the tendon is cut off close to the bulb, dividing also the anterior fibres of the recto-urethralis muscle and exposing thus the membranous urethra which is then opened upon an ordinary grooved sound, which has been previously inserted into the urethra (Fig. 5). The cut edges of the urethra are picked up with artery clamps and the tractor passed through the opening into the bladder and opened out. By means of traction the prostate can now be drawn down, so that the whole posterior surface is exposed (Fig. 6).

To those of you who saw the two cases on which I performed this operation this morning, it is unnecessary for me to say that by means of the proper kind of a posterior retractor, it is possible to draw back



Fig. 5.—Opening of urethra on sound, preparatory to introduction of tractor.

the rectum and expose the posterior surface of the prostate, and by the intravesical tractor, to draw it well into the superficial wound. In the normal prostate the ejaculatory ducts lie just beneath the urethra, bound together in one fascia, and in the hypertrophied prostate they are very rarely displaced. Even in those cases where the middle lobe passes up into the bladder, the ejaculatory ducts are only pushed down closer to you, so that it is easy to avoid them. The method, then, that I have adopted is, instead of opening the urethra in the middle line, as is generally done, to make two deep incisions parallel to the

urethra and thus block out this portion of tissue back of the urethra which contains the ejaculatory ducts (Fig. 6). By means then of a blunt dissector the enlarged lobe is freed both from the capsule and from the urethra (Fig 7). Continuing the freeing by means of the finger, (it being sometimes necessary to put on a forceps to hold the

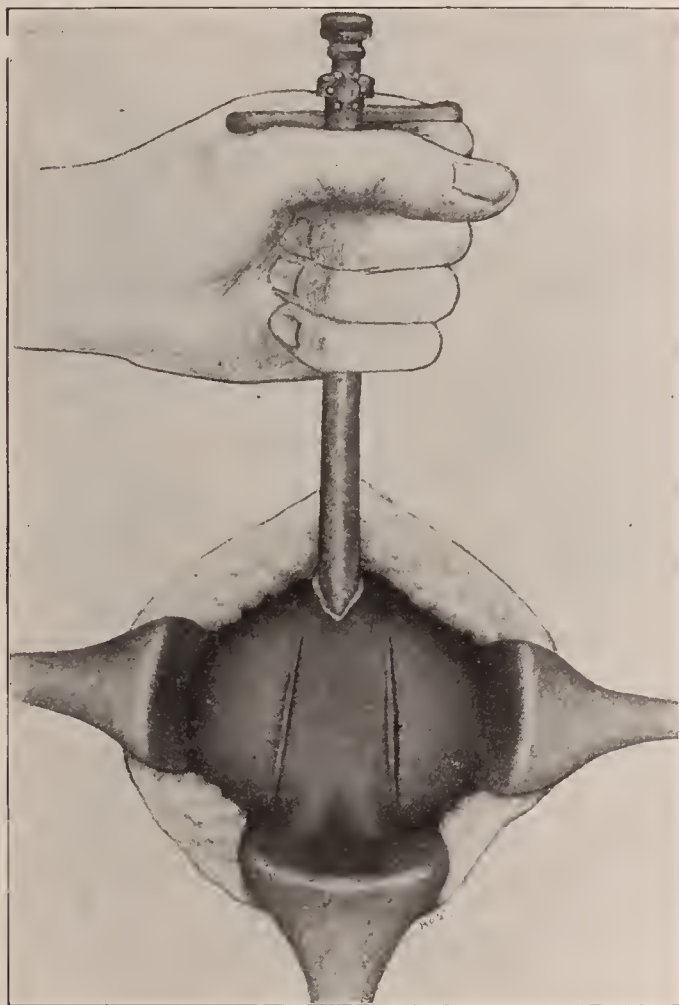


Fig. 5.—Tractor introduced, blades separated, traction made exposing posterior surface of prostate. Incisions in capsule on each side of ejaculatory ducts.

lobe—but oftentimes not), it was possible to take out first one lobe and then the other of the lateral lobes, leaving intact the urethra, and the ejaculatory ducts behind the urethra.

Oftentimes there was left after this an intravesical enlargement of the

middle lobe, which projected into the bladder, and which it was necessary to remove. The question then arose how to get out the middle lobe without undoing what you had been striving for, to save the ejaculatory ducts. It was very soon found possible by this same in-

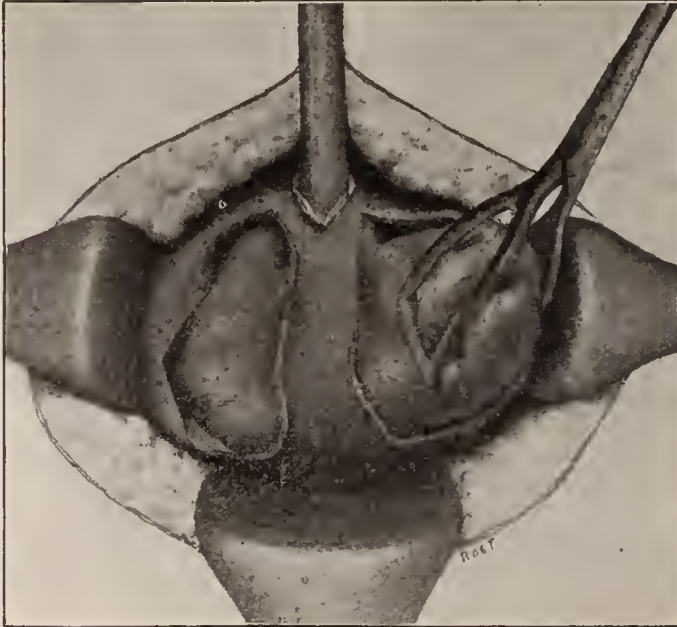


Fig. 7—Enucleation of lobes. Forceps in position

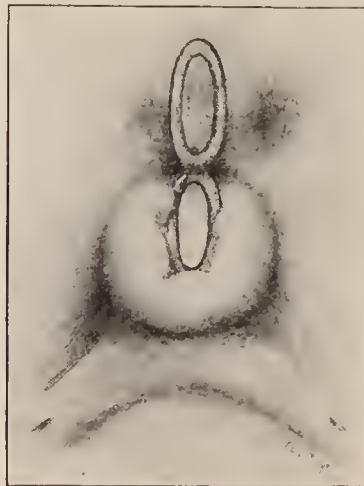


Fig. 8.—The blade rotated so as to engage middle lobe.

strument to catch the surface of the middle lobe, and then by rotation and traction push that middle lobe into one of the cavities which was



left empty by one of the lateral lobes, and enucleate it in that way. Fig. 8 shows the position of the blade of the tractor in the bladder when engaging and drawing down the remaining middle lobe, and Fig. 9 shows the enucleation through the left lateral cavity of this median lobe.

In the specimen I show you of one of the cases operated on this morning, the middle lobe was removed in that way. It projected into the bladder, but after removal of the two lateral lobes it was very easy by rotation to cause it to present in the left lateral cavity and to enucleate it without removing any of the urethra or destroying the ejaculatory ducts.

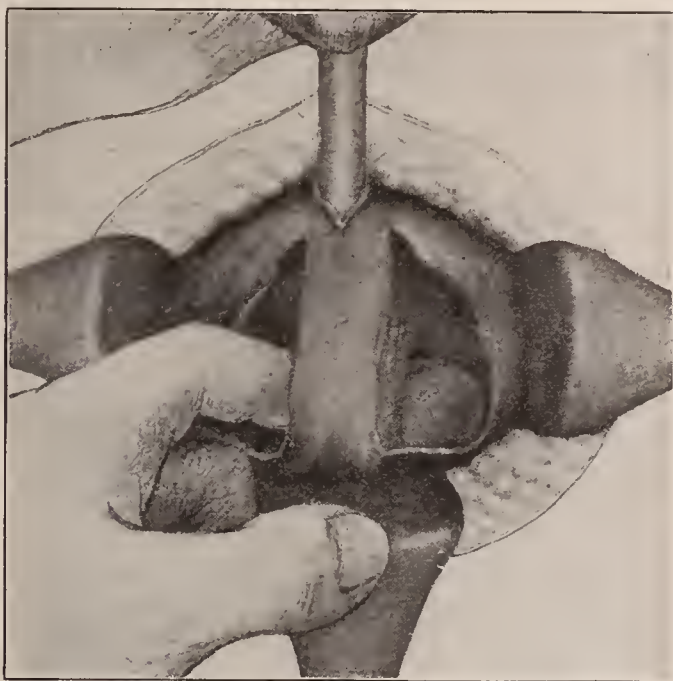


Fig. 9.—Showing technique of delivery of middle lobe into cavity of left lateral lobe.

In certain cases where the lobe was too firmly attached, or too pedunculated to be caught by this means, it was necessary to remove the instrument and insert the finger in place of the tractor, and with it to push up the middle lobe and enucleate it through one of the lateral cavities (Fig. 10). In two or three cases in which the sexual powers were already gone, and in which the cystoscope showed only a median bar, instead of trying to preserve the ejaculatory ducts I cut through that portion and enucleated the middle portion of the

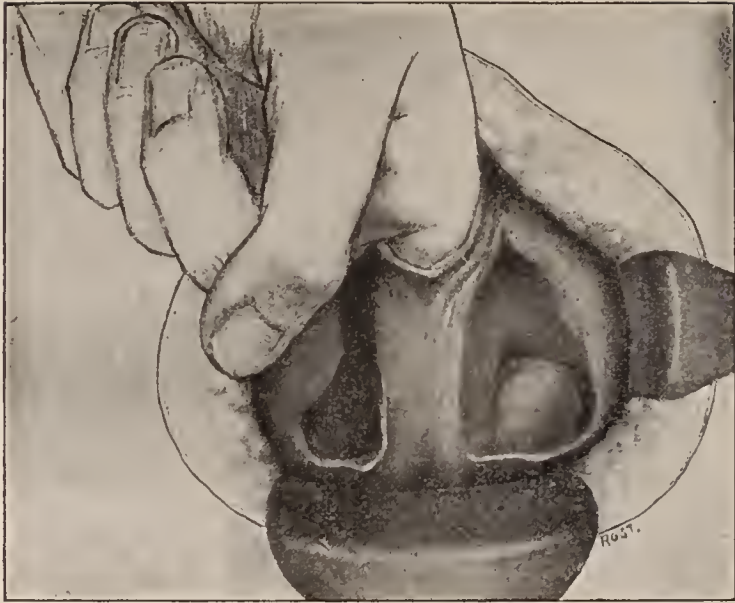


Fig. 10.—Showing use of finger instead of tractor to draw down small median lobe into lateral cavity.



Fig. 11.—Showing subnrethral method of enucleating median bar.

prostate through that region, dividing the ejaculatory ducts (Fig. 11). This furnishes a very much easier way of getting at the fibrous median bar, but besides destroying the ejaculatory ducts, you leave their cut ends ending in a suppurating cavity, thus inviting an ascending infection of the vasa deferentia. These cases are unquestionably very much more apt to have epididymitis than those in which the ejaculatory ducts are preserved, so I think the latter method should not be employed unless the enucleation through a lateral cavity is impossible.

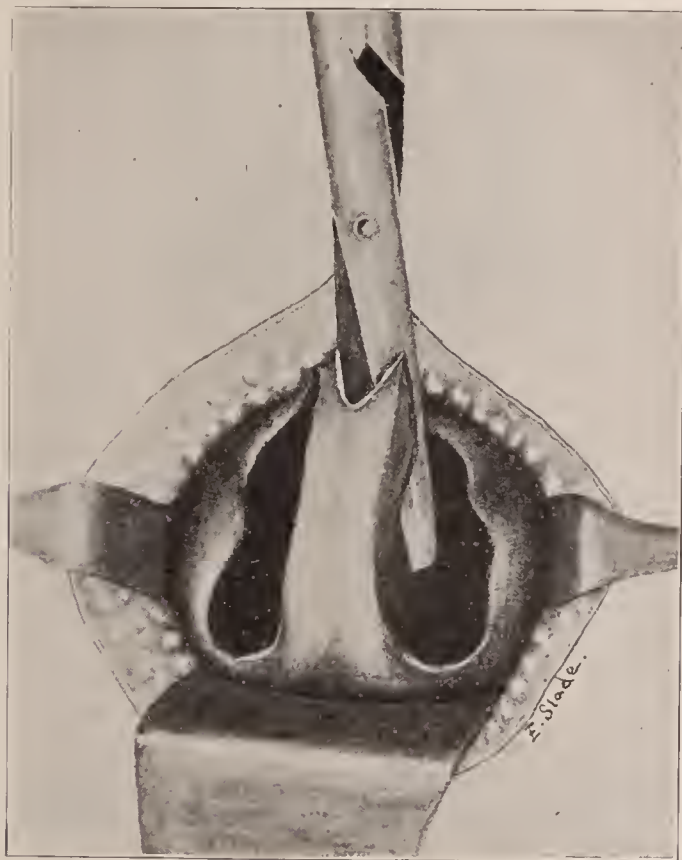


Fig. 12.—Showing division of lateral wall of urethra to allow extraction of large calculus through lateral cavity.

In those cases in which a calculus is present after the removal of the prostate, it is possible to do one of two things, either to dilate the urethra and drag the calculus through, sometimes tearing the urethra and neck of the bladder, or the better practice is to divide the lateral wall of the urethra down to the vesical neck as shown in Fig.

12. Then by dilating the vesical orifice you are able to remove stones of large size. In that manner I have been able to remove calculi two inches in diameter (Fig. 13). The rapidity of healing was apparently just as great as in cases where the urethra was not divided and no incontinence has followed.

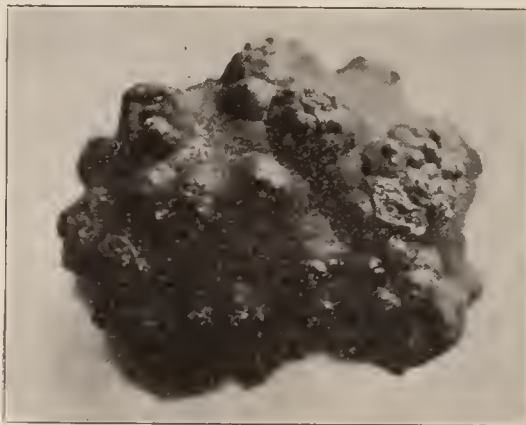


Fig. 13.—Photograph of stone (natural size) removed through lateral cavity.

*Results.* I have now had 111 cases in which I have performed the operation described above. Of these there were four patients over 80, one 81, another 82, and one 87, 18 patients over 70 years of age, 26 patients between 65 and 69, 26 between 60 and 64, 11 patients between 55 and 59, and 5 between 50 and 54; below 50, 6 patients. In other words, 33 per cent. of these patients were over 70, 4 over 80, the oldest 87, and 80 per cent. were over 60 years of age.

There have been no operative deaths. What I mean is, no patient has died in less than 10 days after the operation. There have been 5 deaths after the operation.

The first was a patient aged 81 years who died five weeks after the operation of uremia and asthenia. No autopsy was obtained.

The second case was a patient 73 years old, who died two weeks after the operation of pulmonary thrombosis following a high enema in which he strained severely at stool.

The third patient, aged 65 years, died two weeks after the operation. He was uremic previous to operation and died of uremia. The autopsy showed an old double pyo-hydronephrosis.

The fourth case was a patient 87 years of age, who died 5 weeks after the operation, of pneumonia; and the fifth case was a patient

78 years of age, who died two weeks after the operation, also of pneumonia.

We see then that four of these five patients were over 70, two were over 80 years of age, and that of 73 cases that were under 70 years of age there was only one death, and that was in a patient with double pyo-hydronephrosis, which he had unquestionably had before operation. But while several of these deaths are really not attributable to the operation (any more than they would be to an anesthesia) they must of course be counted in estimating the operative mortality. They unquestionably demonstrate, however, that the operation in itself is one of the most benign, considering that we have to deal with patients of great age and in serious condition.

*Functional Results.* There are only four, (and I have followed all very carefully), in which the obstruction has not been completely removed. In these four cases there is present residual urine varying from 200 to 500 cc. in amount. In two of these cases which I have been able to see since the operation, I feel sure it was due to the fact that in the early operations I did not as completely remove the median bar as I should have. All the other cases have been restored to normal urination in that they are able to pass water without a catheter, and without any great frequency. Several of the cases have frequency of urination due to cystitis and to contracture of the bladder, and I feel sure that that is one of the things to be combatted more frequently than anything else after this operation.

There is not one single case of incontinence of urine. The only case that simulates incontinence of urine is in a man aged 83 years who had a prostate larger than a large orange, which presented suprapubically so that you could palpate it through the abdomen, and in which it was necessary to remove a good part of the urethra in removing the prostate. This patient after holding his urine for two and a half hours, has a slight dribbling which he cannot control.

*Sexual functions.* In January last I made a careful study of cases operated on up to that time, and from the patients who claimed to have sexual puissance before the operation, I got the following answers: Of those under 50 years of age there were four who had, before operation, normal sexual powers, and three of these replied that sexual intercourse was normal; those between 50 and 59 were five, and sexual powers had returned and were normal in four; those between 60 and 69 were 15, erections had returned in 12, and coitus was indulged in and normal in 8; between 70 and 79 there were six and erections were present in 5, coitus possible and attempted in one,

not attempted in three, and no erections were present in one. This record of cases shows conclusively that if the floor of the urethra, the verumontanum and the ejaculatory ducts, are preserved intact, the sexual powers will not generally be destroyed. While it makes no difference to certain patients, there are others who will ask you whether their sexual powers will be impaired, and they must receive an encouraging answer before they will be willing to submit to an operation. If you will study the cases reported by Murphy a year ago, you will find that after his operation, in which the floor of the urethra and the ejaculatory ducts are removed, a great many are reported to be impotent. The reports of Proust and Albarran state that nearly all of their patients are impotent. A comparison of these results strongly suggests that the power of erection and sexual intercourse depends largely upon nerves which lie in the floor of the urethra, in the verumontanum and that part of the prostate along the ejaculatory ducts.

**CANCER OF THE PROSTATE.** I have already taken up so much has been written on the question of operative treatment of carcinoma very important subject, *viz.*, carcinoma of the prostate. Very little of your time that I will have to make my remarks very brief upon a of the prostate, which is far more frequent than generally supposed. In 250 cases of prostatic enlargement that I have had in my practice, there have been 22 cases of cancer. Of these 16 cases were diagnosed correctly and 6 were not. These six cases, in which I made grievous errors in diagnosis, have furnished me recently with very much food for sober reflection and repentance for past mistakes. I have not time to discuss them, although they are particularly interesting.

In all of these cases, however, several things stand out: the prostate was not very greatly enlarged, it was irregular, very hard, and had a tendency to go upward towards the seminal vesicle. All of these cases, however, with two exceptions, were early in the disease and unquestionably could have been cured by radical operation. The cystoscope in all of these cases but one, showed an absence of the prostatic outgrowth into the bladder.

After these unfortunate mistakes I made up my mind that I would try to diagnose cases of carcinoma of the prostate earlier than I had before, and operate upon them radically, if possible. Last year a patient aged 70, who had suffered with urinary trouble for a year, which was characterized by pain and frequency of urination, came to me. He had been to Philadelphia and had a Bottini operation done three months before, with a subsequent rapid recurrence of the obstruction. On examination I found the prostate enlarged and very hard,

with upward growth into the region of the seminal vesicles, particularly upon the right side. A cystoscopic examination showed no intravesical prostatic hypertrophy. I felt certain that it was a case of carcinoma and advised a radical operation, to which he readily consented.

The operation was performed as follows with the kind assistance of Dr. Halsted. An inverted V cutaneous incision was made in the perineum as in the operation employed by me for simple hypertrophy of the prostate—each branch of the incision being made about two inches long. By blunt dissection the end of the bulb and central tendon were exposed and the latter divided, exposing in turn the recto-urethralis muscle, the division of which gave free access to the membranous urethra behind the triangular ligament. Urethrotomy upon a grooved staff was followed by introduction of the prostatic tractor which was opened out after it reached the bladder. While traction was made upon this instrument the rectum was carefully separated from the prostatic capsule by blunt dissection until the entire posterior surface of the prostate was brought into view. Up to this point the operation proceeded exactly as in the usual prostatectomy operation, with the exception that the tissues around the prostate were more hemorrhagic and the wall of the rectum more closely adherent to the capsule of the prostate than usual. Examination of the prostate then showed much greater induration than I have ever encountered in the benign prostate. The rectum and periprostatic tissues were free from invasion. Complete excision was therefore decided upon and carried out as follows: The handle of the tractor was depressed, thus exposing the membranous urethra anterior to it at a point where it was easily divided transversely with a scalpel, leaving a small stump of the membranous urethra protruding from the surface of the triangular ligament. By further depressing the handle of the tractor the pubo-prostatic ligament was exposed, and being very tautly drawn easily divided by scissors, thus completely severing the prostate from all important attachments (except posteriorly). The lateral attachments, which are slight, were easily separated by the finger. During these manipulations a moderate amount of hemorrhage was encountered (coming from the prostatic veins, particularly those just behind the triangular ligament in front of the prostate), but it was easily controlled by clamping several bleeding points and applying pressure with gauze by means of an anterior deep retractor.

The posterior surface of the seminal vesicles was then freed by blunt dissection, the now mobile prostate being out of the wound. In

this exposure of the posterior surface of the vesicles I was careful not to break through the fascia of Denonvilliers which covers not only the posterior surface of the prostate but also of the seminal vesicles, and forms, I believe, an important barrier to the backward growth of the disease.

The next step was to expose the anterior surface of the bladder, which was easily done by depressing the tractor and making strong traction. By this procedure the bladder was drawn down so close to the skin wound that it was easily incised at a point in the middle line about 1 cm. behind the prostato-vesical juncture.

By means of scissors the division was continued on each side until the trigone was exposed. After swabbing away the blood and urine the ureters were easily found and the line of incision carried across the trigone with a scalpel so as to pass about 1 cm. in front of the ureteral orifices.

While still making traction upon the prostate, the base of the bladder was pushed upward with the handle of the scalpel, thus exposing the anterior surface of the seminal vesicles and the adjacent vasa deferentia, all of which were carefully freed by blunt dissection with the finger as high up as possible, so as to remove with the vesicles as much circumjacent fat and areolar tissues as possible on account of the lymphatics which they contained. The vasa deferentia, after being drawn down as far as possible, were picked up on a small blunt hook and divided with scissors as high up as possible, care being taken to see that the ureters were not in danger. After division of the vasa the seminal vesicles were found to come down more readily, the deep adhesions were finally divided, and the mass, consisting of a portion of the membranous urethra, the entire prostate with its capsule intact, the seminal vesicles, 4 cm. of the vasa deferentia, and a cuff of the bladder, 1 cm. wide along the anterior and lateral surfaces and 2 cm. wide in the region of the trigone, was removed in one piece.

There now remained a large defect to be repaired. The vesical opening was about 8 cm. in diameter. The stump of the membranous urethra had been obliterated by the compression of the anterior retractor so that it was necessary to insert a soft rubber catheter through the urethra from the meatus to discover it. The anterior wall of the vesical opening was then caught with forceps, and with no great traction I was surprised to find how easily it could be drawn down to the membranous urethra, where an anastomosis was readily made. The first suture was placed by inserting the needle into the triangular liga-



ment above the urethra and out through the anterior wall of the membranous urethra, then through the anterior wall of the bladder in the median line from within out, care being taken to include only the submucosa and muscle. When this suture was tied the median line of the anterior wall of the bladder was drawn to meet the median line of the roof of the remaining membranous urethra, the knot outside, and thread left long. Lateral sutures similarly placed, (including the periurethral muscular structures below) and two posterior sutures completed the anastomosis of the membranous urethra with a small ring into which the anterior portion of the margin of the vesical wound had been fashioned by the tying of the sutures, thus completely closing the defect and replacing the prostatic urethra with a funnel shaped process made from the bladder wall. The sutures used were silk, one end of each being left long and brought out of the wound so that they could be extracted later—(since then I have found alternate sutures of catgut and silk-worm gut also left long the best). After light gauze packing had been placed in various positions of the wound, the levator ani muscles were drawn together with catgut in front of the rectum, and the skin wound closed on each side with interrupted catgut sutures leaving only a small portion open at the angle in front for exit of the gauze drainage. The retained catheter (which was of considerable service in making the anastomosis of the urethra and bladder) was fastened in place by adhesive plaster around the penis, and the patient was returned to the ward. During the operation he received 1000 cc. salt solution infusion beneath the breasts, and his condition throughout was good, the pulse varying from 65 to 92 and being 80 at the end of the operation which required two hours.

A study of the specimen removed showed adeno-carcinoma involving the entire prostate, the region between the seminal vesicles, and the inferior surface of the excised trigone and the vasa deferentia. The capsule of the prostate and the bladder at the upper limit of excision were free from disease, but along the left vas deferens the disease extended 4 cm. above the prostate to the upper limit of the excision.

*Convalescence.* Patient convalesced well. Left the hospital May 30, 1904. Perineal wound healed tight; no difficulty of urination; able to hold his urine for three or four hours at night; incontinence in the day.

Dec. 22, 1904. Condition of patient excellent until 2 months ago when he began to suffer pain in the urethra. Examination shows three calculi in the bladder. Operation. Litholopaxy. One calculus was

found attached to a silk ligature and in removing this the mucous membrane of the bladder was torn. This was followed by a perineal abscess, extravasation of urine and death four weeks later.

Autopsy showed excellent union between bladder and urethra. No recurrence in bladder, but behind the bladder along the left vas deferens was a small area of carcinoma. No carcinomatous glands present.

Since then I have carried out this method in three other cases, without an operative death. In the second case, on exposing and palpating the trigone, it felt indurated and, I thought, involved in the malignant disease. This proved later to be a mistake—and a costly one because the patient later died of ascending renal infection.

My third and fourth cases have had excellent results and these are the specimens removed. This patient is now perfectly well six months after the operation; can hold urine perfectly at night, but has incontinence in the day. The other is also well, and was operated upon four months ago. All were relieved of pain in rectum, perineum and thighs, which distressed them so greatly. I have recently made a study of forty cases of cancer of the prostate from my records and those of the Johns Hopkins Hospital, but have not the time here to give you in detail the results.\*

**CONCLUSIONS.** The following conclusions may be drawn from this study of 40 cases. Carcinoma of the prostate is more frequent than is usually supposed—occurring in about 10 per cent. of the cases of prostatic enlargement, as shown also by Albarran. It may begin as an isolated nodule in an otherwise benign hypertrophy, or a prostatic enlargement which has for many years furnished the symptoms and signs of benign hypertrophy may suddenly become evidently malignant.

Marked induration, if only an intralobar nodule in one or both lobes of the prostate in men past 50 years of age, should be viewed with suspicion, especially if the cystoscope shows little intravesical prostatic outgrowth, and pain and tenderness are present.

The posterior surface of the prostate should be exposed as for an ordinary prostatectomy, and if the operator is unable to make a positive diagnosis of malignancy, longitudinal incisions should be made on each side of the urethra (as in prostatectomy) and a piece of tissue excised for frozen sections, which can be prepared and

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\*Reported in full with other papers on the prostate in a forthcoming volume of the Johns Hopkins Hospital Reports, entitled, "Studies in Urinary Surgery."

stained in about six minutes and examined by the operator at once. If the disease is malignant the incisions may be cauterized and closed and the radical operation performed.

Cancer of the prostate remains for a long time within the confines of the lobes—the urethra, bladder and especially the posterior capsule of the prostate resting uninvolved for a considerable period. Extraprostatic invasion nearly always occurs first along the ejaculatory ducts into the space immediately above the prostate between the seminal vesicles and the bladder and beneath the fascia of Denonvilliers. Thence the disease gradually invades the interior surface of the trigone and the lymphatics leading toward the lateral walls of the pelvis, but involvement of the pelvic glands occurs late, and often the disease metastasises into the osseous system without first invading the glands.

Cure can be expected only by radical measures and the routine removal of the seminal vesicles, vasa deferentia and most of the vesical trigone with the entire prostate, as carried out in four cases by the writer as described above and as shown to be necessary by the forty cases, including 8 autopsies and 10 operations reported above.

The four cases in which the radical operation was done demonstrated its simplicity, effectiveness and the remarkably satisfactory functional results furnished.

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## ORIGINAL ARTICLES.

### INFANTILE SCURVY: WITH SPECIAL REFERENCE TO DIAGNOSIS.\*

BY A. W. GRAY, M. D.,

MILWAUKEE.

Though it may not be clinically familiar to many of you, infantile scurvy is a common disease. It is a disease of general practice, seldom appearing in institutions, and occurs more frequently among the well-to-do than among the poor. It is found in the country as well as in the city, and among good hygienic surroundings rather than otherwise. It is my belief that it occurs more frequently than it is recognized, especially in its milder forms, and that it is likely that it

\*Read before the 59th Annual Meeting of the State Medical Society of Wisconsin, La Crosse, June 10, 1905.

has been upon the increase during the last half century, and will continue to increase with the methods of infant feeding at present in vogue among the laity.

To Moeller, in 1859, belongs the credit of first calling attention to the disease by giving it a distinctive description, though he considered it an acute manifestation of rickets. Ingerslev, a Swede, seems first to have suggested its true nature in 1873. Cheadle, in 1878, in a clinical lecture which was published, reported three cases in which he clearly identified the condition present with scurvy of adults. Dickinson, Gee, Page, and others of the English school reported additional cases during the early eighties, not in every instance, however, with complete understanding of the significance of the lesions described, until after Sir Thomas Barlow had published the results of his clinical and pathological researches in 1883. This report, which was the result of 31 cases, firmly established the symptom complex as true scurvy, and furnished such a wealth of clinical and pathological description that there seemed to be no further excuse for not recognizing the disease. And in England it seems to have been generally recognized since that time.

It is singular that, in spite of this wealth of description given to us by our English cousins, we find no case recognized in America until 1889, when Northrup reported his first case, diagnosticated at autopsy. Jacobi and Forcheimer had before that time observed several cases of a peculiar cachexia, which they considered as possibly scorbutic, but which did not appear in literature until after Northrup read his paper before the American Pediatric Society in 1891, when he reported 2 personal cases and 9 others gathered in New York and the vicinity. Now that the disease had been recognized, however, reports came out rapidly, and, by 1894, 114 authentic cases had been gathered. In 1898 the American Pediatric Society published in its transactions, as the result of its collective investigation, 379 cases observed by 138 individuals, and this established the disease as no longer a curiosity, but as of frequent occurrence, and called attention to the fact that it was probably of more frequent occurrence in the United States than in any other country, because, mortifying as it may be, this was, and still is, the country in which the proprietary infant's food has its greatest sale and consequently does its greatest damage.

The facts of this history should bring out the point, that in every community where Barlow's disease has been recognized in a single first instance, other cases have been found as a result of the knowledge gained from the first. For it is easily recognized, even in its mildest

forms, and the diagnosis confirmed by its specific treatment, which gives results with a rapidity and thoroughness which can leave no doubt as to the nature of the affection. At the present time, however, there are still too many cases going unrecognized, and therefore untreated, not only by the general practitioner, but also by the specialist, the surgeon, the orthopedist, and the dermatologist, which is my excuse for presenting to you what can be easily gathered from the now extensive literature on the subject.

The diathesis, to use an almost obsolete term, which underlies this hemorrhagic disease, is obscure. An increased alkalinity of the blood and friability of the capillaries have been demonstrated, but aside from these changes the blood findings up to the present time are only those of secondary anemia. It seems possible that physiological chemistry holds the secret in an unknown cytolyisin which is destructive to the normal physiology of the lining endothelial cells of the blood vessels, but this is scarcely more than speculative.

Practically, the pathology is that of hemorrhage, which may occur anywhere in the body. It shows a tendency to be symmetrical. It is preceded by an increased vascularity of the tissues affected, bones, periosteum, muscles, viscera, mucous membrane, and skin. There is congestion of the bone marrow, of the periosteum generally over the shaft, and of the cancellous tissue in the vicinity of the epiphyses of the long bones. This appearance has been ascribed to, or at least not distinguished from, the changes of rickets, the lesions of which may be present in any given case, but are distinct from those of scurvy. This increased vascularity is followed, if the disease progresses, by oozing of blood into the medullary canal and into the vascular layer of the periosteum, which is an explanation of pain and tenderness in the early cases even before there is evident tumefaction. The pain and tenderness may suggest rheumatism and have frequently been so diagnosticated, which is, of course, to the detriment of an early cure. In rickety babies there is often considerable tenderness over the epiphyses and at the costo-chondral junctions, which is usually explained satisfactorily to the diagnostician by the rachitic process. But it is my belief that, in a considerable proportion of the cases in which pain and tenderness are marked symptoms, there is a scorbutic taint present, and I am certain that I have seen marked tenderness disappear in many cases of rickets when orange juice was added to the diet. Inhibition of movement on account of the sensitive and damaged condition of muscles and their insertions, accounts also for the pseudo-paralyses so often noted, which may be mistaken

for infantile or syphilitic paralyses. Reflex muscular rigidity due to joint irritation, and intra- and periarticular swelling, have led to the diagnosis of hip and Pott's disease.

As the disease progresses the blood accumulations become more extensive—covering the entire length of the bone in some instances, from the knee joint to the hip, or from the ankle to the knee, giving the limb an appearance of regular fullness, or showing itself in more limited tumefactions, which latter condition has been mistaken for myelo-sarcoma, and again for osteo-myelitis and abscess formation of tuberculous osteitis. About the hips an extensive deep accumulation may be hidden from casual examination by the apparently natural breadth through the pelvic region and thighs. If hemorrhage into the medullary canal and into the periosteum has been extensive, pressure and lack of nutrition bring about absorption, thinning, and fragility of the bone, which may result in fracture of the shaft, or separation at the epiphysis. Overlying these accumulations, or independent of them as in the cheek, in the glutei and anterior thigh muscles, there may be more or less hemorrhage into the soft tissues, which are sodden with blood and serum, a condition which can be seen can give no real sense of fluctuation, but which has nevertheless been mistaken for phlegmon and tuberculous abscess. The skin overlying the swelling is tense and glistening, or may be brawny from infiltration of serum, and discolored by extravasation of blood in different stages of absorption. There is no local heat to suggest phlegmon.

The tibia and femur are the bones most frequently affected; next the ribs and bones of the upper extremities; less frequently the flat bones, pelvis, scapula, and cranial bones. A favorite seat of hemorrhage seems to be the orbital fossa, into the periosteum of the orbital plate of the frontal bone, displacing the eye-ball downward and infiltrating the areolar tissue and discoloring the skin of the upper and lower lids.

The viscera, to varying extents, share in the hemorrhagic process. Bleeding from the lung tissue, and into the spleen and liver, has been frequently found in the cases that have come to autopsy. Extensive hemorrhage may occur into the pleural cavities and sudden syncope from this cause may be the cause of death. Hematuria is a frequent symptom, present in at least 10 per cent. of the cases. It may be the *first* and *only* symptom. It frequently occurs as early as bone tenderness. It is to be differentiated from blood in the urine due to malignant disease of the kidney, vesical polypi, renal and vesical calculi, and hemophilia. Albumin and casts are said to be present in

25 per cent. of the cases. The differential diagnosis from nephritis should be easily made. Extravasations into the mucous membrane of the stomach and intestines occur, and free bleeding may be so extensive that considerable quantities of blood are vomited or passed in the stools. Hemorrhage from the bronchial mucous membrane and from the nose may occur. Subdural hematomata, and cortical and subcortical extravasations are probably more frequently due to scurvy in infants, and less frequently to syphilis than supposed.

One of the early symptoms of the disease is redness and inflammation of the gums, which must be differentiated from stomatitis of an entirely local character. This is present only if teeth have erupted or are about to erupt. The gums at first show a faint line of redness about the base of the teeth, which spreads, becoming darker in hue; they bleed easily, and finally throw out dark purple exuberant granulations from which oozes a sanguino-purulent discharge with a fetid, disagreeable odor.

The skin seems not to be so vulnerable in the infantile type of the disease as in adults, but even here purpura like manifestations are more frequently due to scurvy than supposed. Petechial hemorrhages occur, as well as larger limited lesions and extensive extravasations. Even slight bruising is likely to be followed by considerable ecchymosis. In one of my cases, the site of old eczematous patches, which had practically disappeared, became hemorrhagic.

The pathology and symptomatology of the disease, then, is that of hemorrhage, which may occur in any tissue or organ of the body, and which manifests symptoms according to its location; simulating many pathological conditions of infancy, and yet easily capable of being differentiated if a clinical familiarity with possible types is brought to bear in making the diagnosis.

The disease occurs in infants most frequently between the ages of 6 and 18 months, but while this is the type under discussion the fact should be mentioned also that the disease is probably frequently unrecognized in older children. The previous condition of the child does not aid in the diagnosis, in fact most of the cases reported have been of babies previously robust and healthy. Symptoms of rickets may or may not be present. There is almost invariably a history of feeding of proprietary food, condensed or sterilized milk: occasionally pasteurized or raw milk, of questionable cleanliness and purity, given in too dilute formulas. Very occasionally the disease has been found in breast fed infants, but in these cases the mothers have been actually suffering from scurvy or have been so improperly nourished that a

scorbutic cachexia could be admitted. A child, thus improperly fed for some months, becomes fretful and takes its food less eagerly than formerly. A cause for the latter may not be discovered if digestion is not disturbed; and it is not likely to be, for the proprietary foods owe much of their popularity to their dangerously easy digestibility. The baby soon shows a rather peculiar yellowish suspicion of anemia; it becomes listless when undisturbed, and apparently debilitated. It cries out when the napkins are changed, or when it is handled for any cause, and seems comfortable only when lying quietly in bed or on the nurse's lap. By this time, or even earlier, the napkins may be stained by bloody urine. It soon becomes evident that the child is suffering from pain; it shrieks out if the legs are moved; one leg may be held rigid and motionless, or flexed at the knee or hip, or flaccid as if paralyzed. The child may apparently be more comfortable if lying on one side or the other, with the knees partly drawn up toward the abdomen, the spine bent forward, the whole posture one of crouching in the bed. Older babies who sit up, let the trunk bend forward and partly flex the lower extremities and thus sit crouched up, occasionally giving whining little cries of pain, or shrieking out sharply, if moved ever so slightly. They learn to cry out even if approached, anticipating the agony of movement. Petechial hemorrhages begin to appear on the lower extremities, and nose bleed and hemorrhage from the bowels may occur. Tenderness spreads to other parts of the body, the upper extremities being affected as well as the lower, though they may have been affected as early as, or earlier than, the lower. The ribs, at their junctions with the cartilages, are exquisitely tender to pressure, and respiration may be greatly accelerated in consequence. The gums may now be tender, swollen and bleeding. The eyelids of one or both eyes may suddenly become edematous, ecchymotic, and drooping, and one or both of the eyeballs pushed downward. Fusiform deep swellings appear in the extremities, and the skin more or less generally becomes edematous and discolored here and there with ecchymotic extravasations.

The child becomes more and more emaciated, food being refused; the temperature, which has been unaffected early, becomes high, the pulse rapid, and finally death occurs, after several weeks or months, from syncope, exhaustion, or most likely, pneumonia.

Happily, however, even in the cases in which diagnosis is not made, the natural course of events may bring about a cure. At any stage of the disease, usually early among the poor, later among the well-to-do, when the child is put onto a more varied diet, the proprie-



tary food given in smaller amounts or discontinued entirely, and potatoes or other anti-scorbutic diet given by happy chance, improvement may begin, and continue slowly, under such circumstances, until complete. But early recognition on the other hand means rapid cure. And it is for this early recognition of the disease that I am arguing, when the symptoms are slight, perhaps no more than peevishness, or blood in the urine, or a dislike upon the part of the child to be moved; or, most important of all, the fact that the child is being fed on a proprietary food (there are none that are good), which is itself a symptom that the child is diseased, or will be sooner or later.

Further differential diagnosis than that suggested above is scarcely necessary, for the disease is easily diagnosed, without exclusion of other diseases, if it is thought of. It is more common than articular rheumatism in infancy, the shafts of the bones are affected rather than the joints, the swellings are more persistent, heart lesions do not occur, hemorrhages may be present, and blood cells may be found in the urine if the microscope is used. In infantile paralysis, reflexes are lost, reactions of degeneration are present, hemorrhages do not occur, and tenderness and pain are absent. From syphilis it is differentiated by lack of history of inheritance and of earlier lesions, as oral and anal fissures, and cutaneous syphilides. From hemophilia it is differentiated by lack of family history, usually of transmission of the disease to males through the female side.

Rickets is more frequent among the poor, scurvy among the well-to-do; rickets shows no signs of hemorrhage, and pain and tenderness are not well marked. Purpura rheumatica is uncommon during infancy and is uninfluenced by the treatment of scurvy. Nephritis is uncommon in infants, except when secondary to infectious diseases, is unaccompanied by hemorrhages except in the later stages and is not characterized by pain and tenderness. Pott's disease, hip disease, traumatism, malignant disease, phlegmon, and tuberculous abscesses will not be confused if the possibility of scurvy is considered.

The treatment is very simple. Discontinue the proprietary food. Give fresh raw milk, modified to meet the digestive conditions present. Give one or two teaspoonfuls of strained orange juice three times a day. Under this course the tenderness will disappear and the urine will clear up within a few days, fresh hemorrhages will not take place, and the large accumulations will be rapidly absorbed. A few weeks effect a cure in the most advanced cases, and treatment besides the above is not indicated for any special condition except immobilization for fracture, which is uncommon.

**Discussion.**

DR. A. J. PATEK, of Milwaukee—I am prompted to say just a word on the subject, because I believe that physicians, because of lack of knowledge on their part of the proper method of infant feeding, are often unwittingly the cause of the development of this disease. Dr. Gray has emphasized what improper feeding will do in the causation of these cases. I now have in mind one case in particular which came to my notice about six months ago. This was a child of well-to-do parents, able and willing to do everything for it that a physician could demand. In order to correct some intestinal disturbance in this case, the physician ordered pasteurized milk. The child did not improve, and the milk was re-pasteurized at home. The child even now did not improve, and the milk was ordered boiled after having undergone the other two processes of sterilization. Still the child did not improve, nor was it to be expected that it could do so upon milk that had undergone a three-fold process of sterilization. When I saw the child two or three days after the condition began, it was quite evident that the baby was suffering from scurvy; after a few days' observation and proper feeding, the infant recovered. Doubtless the physicians, and not only the mothers who use proprietary articles indiscriminately, are often at fault. Simply sterilizing milk or boiling it, or diluting it, is not going to cure a case of gastro-intestinal disturbance, if the milk does not agree with the child, or the child has symptoms that milk is an improper food for the time being.

DR. GRAY (closing)—I have nothing more to add to my paper except to lay emphasis upon diagnosis. It is a fact that many cases of infantile scurvy go for a long time unrecognized even in these days, and I have no doubt that, every year, some babies die because of failure to diagnose the disease. It is still a fact that these accumulations of blood which are characteristic of the disease are occasionally mistaken by surgeons for abscess or malignant disease or other surgical condition, and even opened into in consequence; and that orthopedic surgeons may, and do, ascribe the symptoms to Pott's or hip disease, or strains due to traumatism and may for a time think such diagnosis confirmed by diminution of pain in joints tender from scurvy when immobilized by plaster. Of course, this argues for a wider knowledge of the disease.

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## THE EARLY DIAGNOSIS AND EARLY OPERATIVE TREATMENT OF ACUTE INFECTIOUS OSTEOMYELITIS.\*

BY KARL W. DOEGE, M. D.,  
MARSHFIELD, WIS.

G. R., aged 13, was taken with pain in his right arm and shoulder and with a general malaise, nausea, vomiting and fever at a time when a severe epidemic of measles was prevalent throughout the city. It was assumed that he was "coming down" with the measles.

\*Read before the Northwestern Wisconsin Medical Association, Waupaca, Aug. 17, 1905.

On account of the fever and pain, his father went to the office of a physician and received a few fever powders. As the boy did not improve a physician was called to attend him on the following day. The patient now had pain in his right shoulder and in his left knee. It was considered a case of rheumatic arthritis, and was treated as such. During the same day the other knee also became painful and the boy presented a very sick appearance. His mind became clouded and within the next twenty-four hours he went into a comatose condition. He would cry out as if in pain, throw himself about restlessly in bed, and again drop into a stupor. The salicylates apparently had no effect. When seen by me in consultation, his pulse was about 130, his temperature 102 degrees, and he was unconscious. Talking did not rouse him. The clinical picture no longer resembled rheumatism. The joints, which had been carefully wrapped in cotton and flannels, were examined. The right shoulder, the original seat of pain, was found to be converted into one large pus bag. An immediate operation, without chloroform, if I remember correctly, was done at the hospital. The cavity was drained and the bone cavity chiseled open. The patient died fourteen hours later, from acute sepsis. No post-mortem examination was performed.

This case is of but recent occurrence. The physician in charge was a wide-awake man, and his success in practice more than ordinary. Yet he missed the diagnosis in this instance. It brought home to me the desirability of presenting a paper on the subject before this meeting.

Cases like the above are fortunately rare, but their occurrence should be constantly borne in mind, especially by the general practitioner, for he is the one who most generally sees them first. Murphy says: "The early diagnosis, *i. e.*, within forty-eight hours, of acute infectious osteomyelitis in the young, is of vital importance." The truth of this statement as attested by the above case is undeniable. Only the early, nay, the immediate diagnosis would have saved the patient from being overwhelmed by so powerful an infection as was present in his case.

Acute infectious osteomyelitis is a disease that affects the young by preference. As its name would indicate, it is an infection that locates in the center of bones, especially the long bones, and often follows an exposure, a trauma, or is subsequent to another infection. In common with other acute infections, it often has a tumultuous onset, characterized by a chill, high fever, localized pain in the affected limb, and by a profound impression on the general system. The germ most frequently found is the *staphylococcus aureus*. Its place of en-

trance into the body can often be recognized at the time of the attack. It may be in an abrasion of the skin, the result of a trauma, but it can also be carried to the bones by the blood, the germ then entering the system through the mucous membranes and lymphatics. We often have cases in which we can recognize with positiveness the place of entrance of the infection, as well as the special infecting germ, and then the pathological condition is clear before our eyes. Yet, in others there is much mystery about the whole process, especially if we consider the frequency of small injuries and infections and the comparative rarity of the disease under consideration. "We try to explain this discrepancy by assuming a varying degree of virulence of the germ and greater or lesser resistance of the organism. Essentially such explanations are merely words, the actual ideas for which are as yet wanting."

The clinical picture produced by an acute infectious osteomyelitis varies somewhat according to the kind of germ that causes the infection. As mentioned before, the staphylococcus is the most frequent. Next comes the streptococcus, the pneumococcus, the typhoid bacillus, the gonococcus, and tubercle bacillus. Each of these germs impresses its own peculiar stamp upon the clinical course of the disease, varying it in a greater or minor degree. The profuse suppuration and destruction of the staphylococcus is in marked contrast to the more superficial, spreading and gangrenescent tendencies of the streptococcus. (Klemm.) It is of interest to note the relation of such streptomyces to acute suppurative arthritis. They are characterized by their relative lack of severity. They often heal after puncture, or after a simple incision of the joint, without extensive joint destruction.

The typhoid bacillus has been recognized in various forms of osteomyelitis. Its seat of predilection is the diaphysis of the tibia and the osseous part of the ribs near the cartilaginous border. Its course is rather chronic, rarely acute, distinctly differing from the staphylococic form, and reminds one of tubercular and syphilitic processes.

Osteomyelitis attacks almost exclusively long bones during the period of growth. The original focus is commonly situated in the diaphysis, near the epiphyseal line, in marked contrast to the tendency of tubercular infection at the epiphysis on the articular side. It may be said in a general way, that osteomyelitis processes affect the diaphysis of bones, leaving the proximal joints free, while tubercular affections attack mostly the articular extremities of the bone, in-

volve the joint very early. Diagnostically this point is of considerable importance.

The tendency of the staphylococcus to form in lumps when grown in a culture medium, may have a decided influence in permitting them to be deposited near the epiphysis. These points during the age of growth are in a state of physiologic congestion. The blood flows through the broadened capillaries in a slow stream, and deposition of germs may easily be effected. Once located, the germs cause an attraction for the leucocytes, and a destruction of the surrounding tissues takes place, accompanied by pus formation. The marrow of the bone receives its blood supply by way of the nutrient artery, and these in turn communicate through the Haversian canals of the hard bone with the capillaries of the periosteum. Through these Haversian canals, then, the pus reaches the under surface of the periosteum and quickly separates the outer surface of the bone from its periosteal covering, which when complete will cause the necrosis of the entire shaft of the bone. This accumulation of pus underneath the periosteum is extremely painful. The tension is great and favors the rapid absorption of toxins. The temperature then runs high and the overwhelming of the system with toxins may destroy the organism in short order. Where this process is a slower one, the tension is not so severe and the toxemia is not so intense. Then time enough will elapse to allow of perforation of the periosteum and an escape of the pus into the loose muscular and subcutaneous tissue. Now the pain ceases, but the toxemia continues unless speedily relieved by a spontaneous rupture externally or by an early operation.

Typical cases of acute osteomyelitis offer no difficulties as to diagnosis, says Czerny. Most often the patient draws the attention of the physician to the painful and inflamed limb. The greater the discrepancy between the profoundly affected system and the local changes, the smaller the evidences of inflammation and suppuration in the affected limb, the more certainly will we suspect a hidden focus of suppuration in the center of the bone. Especially is this the case where the disease begins with a decided chill and pronounced sepsis, as in the case mentioned above. When the patient does not draw our attention to the diseased limb, then every bone in the body should be carefully palpated and percussed and the seat of the trouble found.

In those violent and septic forms, an example of which was related at the outset, there can be no difference of opinion as to the therapeutic measures to be adopted. The intensity of the infection as characterized by the chill, the high fever and early typhoidal symptoms, calls for immediate intervention. The osteomyelitic focus must

be opened and drained by means of the hammer and chisel under all circumstances. A simple splitting of the periosteum is altogether inefficient. Not only is it necessary in these cases to make the operation a radical one,—it must also be an early one. The diagnosis and operation must follow each other closely. There is no time for procrastination in these septic cases. The infection rapidly becomes general, and draining the original focus will not and can not affect the general sepsis after it has once set in. The operation then is still indicated, but we must not expect immediate results from it. As the early bird catches the worm, so the early operation saves the patient.

As said before, there is no difference of opinion as to the treatment of these violent cases. Not so as to the other acute but less septic forms. Here, various good men and wise have differed radically.

The methods vary from a mere skin incision to an amputation. It is a well known fact that the admission of air to a staphylococcal infection often aggravates the symptoms. Kocher in 1896 urged strongly against a long open incision when mere drainage was desired. The free admission of air, the great loss of blood at the operation and of serum during the following days, were the arguments preferred. He advocated the use of the thermocautery to make a puncture, in order to drain the cavity. Others advised the trephining of the bone, in order to relieve the tension inside. Kuester and Haidenhein advise to lay bare the bone by a sufficiently large incision, then to chisel open the bone and form a groove of adequate length to enrette the diseased part of the bone. They hope to thus prevent the extensive destruction of the shaft. Still others, more radically inclined, demand a complete removal of the shaft, in order to cut short the suppurative process at once and with it the danger of subsequent complications and sepsis, leaving the periosteum to form a new bone.

The majority of surgeons now-a-days perhaps take the middle path. I operate all acute cases of osteomyelitis immediately, and the method followed depends upon the pathological condition present. And right here I want to draw your attention to a fact that frequently is lost sight of during an operation in pus cases, and during the future dressings. I refer to the exceedingly bad prognosis in cases of mixed infection. Especially the mixed infections of staphylococcus and streptococcus are to be dreaded. It is therefore necessary to preserve an asepsis, even in septic cases, excluding all other germs except the one present in this infection.

The limb is thoroughly scrubbed and aseptieised. The Esmarch

bandage is applied or not, as you may choose or the case may demand. Then an incision of adequate length is made through the skin and the fascia split. The bone is approached by separating the various muscles at their septa, rather than by cutting the fibres. The division of the soft tissues must always be extensive enough to allow a thorough inspection of the bone. After the pus is removed by washing or sponging, the bone is inspected. Usually the point of communication between the original focus in the bone with the surface can be detected and a probe easily enters the cavity.

At this point the bone is chiseled open. If the operation is an early one the focus may be confined to the cancellous tissue of the diaphysis, and then a careful use of the curette will remove all the infection. If pus has entered the medullary canal, the whole canal must be chiseled open, forming a groove running along the entire length of the diaphysis and the bone resembling a trough. Whether the entire wound is merely packed and left open or partly closed and then drained, depends entirely upon the condition of the soft parts and of the bone. It is always essential to put the limb on a splint, in order to immobilize the adjacent joint, thus to prevent the easy extension of the infection to the joint cavity. Medicinally, tonics are indicated. Proper diet and hygienic measures are of prime importance. Serum therapy so far has proved useless.

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## RELATION OF BOVINE TUBERCULOSIS TO PUBLIC HEALTH.\*

BY H. E. SCOTT, M. D.,  
ARGYLE, WIS.

I am prompted to present this paper upon the subject of bovine tuberculosis, because of my interest in it as a local health officer, and because I am associated with Dr. Roberts, State Veterinarian, Dr. Russell, State Bacteriologist, and Professor Emery of the State Dairy School, in superintending the examination, slaughtering and burial of the largest herd of tubercular cattle in the state.

The concensus of opinion of present day authorities is to the effect that the tubercle bacilli that infect the human system and those attacking domestic animals are identical in their growth, development, the results produced upon tissues, and in their culture characteristics.

\*Read before the LaFayette County Medical Society, October 12, 1905.

To Professor Koch most of our knowledge of the tubercle bacillus and tuberculosis is due. Briefly, the morphological characteristics of the bacillus are: a short, fine rod, often slightly curved, with an average length of nearly half the diameter of a red blood corpuscle. Staining brings out a beaded appearance which has by some been attributed to the presence of spores. The bacillus grows on blood serum, glycerine agar and potato, but most readily on blood serum at body temperature. Its growth is slow, appearing at about the end of the second week in colonies that form thin, grayish-white, dry, scale-like masses on the surface of the medium. Successive inoculations may be made from cultures indefinitely and all will be found virulent.

Much discussion was aroused by Koch in his address on tuberculosis at the British Congress, when he maintained that human and bovine tuberculosis were distinct entities, and that the human could not be transmitted to cattle. He claimed that it was not yet proven that man was susceptible to bovine tuberculosis, but that he was nevertheless at liberty to say that if such a susceptibility really did exist, the infection of human beings is but a very rare occurrence. He emphasized this view in the following manner: "I should estimate the extent of infection by the milk and flesh of tubercular cattle, and butter made of their milk, as hardly greater than that of hereditary transmission, and I therefore do not deem it advisable to take any measures against it." Koch based his conclusions upon the failure to produce tuberculosis in cattle and other domestic animals by inoculating them with tubercular material of human origin, and his success in causing progressive and fatal tuberculosis in the same kind of animals when inoculated with tubercular material of bovine origin. Following this announcement experiments were made by Hamilton, Smith, and the German Tuberculosis Commission, and directly opposite results were obtained—their experiments proving that tubercle bacilli through the human animal affected cattle just as virulently as did bovine bacilli.

Martin experimented by feeding the sputum to six calves with the result that two showed no lesions, one 53, one 63, and two 13 tubercular nodules in the intestines. Experiments by Chauveau are more conclusive: he fed and infected three cattle with an emulsion made from tuberculous human lungs. In this case the different organs of the animals were affected and the virulence in all three cases was pronounced. The autopsy, made about 57 days after inoculation, revealed in one case 200 tubercles in the small intestine, also some in the cecum, colon and peritoneum. The two retropharyngeal glands were enlarged, and typical tubercular infiltration was found. At the same



time three cattle were infected in like manner with bovine material, and at the autopsy it was impossible to distinguish any difference between the animals infected with the human, and those treated with bovine material. All were affected, and in all the tuberculous lesions had the same characteristics.

From these experiments we draw the conclusions that human tuberculous virus acts upon the bovine species exactly like bovine tuberculous virus. Ravenel has recorded three cases of veterinarians whose hands were infected with tuberculosis in performing autopsies upon tubercular cattle. Typical tubercular nodules developed at the point of infection. These were excised and recovery was complete. In the fourth case, however, pulmonary tuberculosis developed and the patient succumbed to the disease.

Another interesting case of primary subcutaneous tuberculosis is that of a little girl, six years of age, who had suffered from an eruption on the left leg supposed to be due to ivy poisoning. This was treated at home by the topical application of cream. When it first came under the care of a physician, there was a painless ulcer of irregular shape, the size of a twenty-five cent piece, on the posterior aspect of the leg, having the characteristic appearance of a tubercular ulcer, with reddish tinged borders slightly over-hanging the floor which was covered with granulations and sero-pus. There were also a dozen light, mahogany colored spots confined to the calf of the leg and the lower third of the thigh, varying from the size of a hazel nut to half the size of a large walnut, and containing masses of caseous material. The cow from which the cream was taken was examined and the udder seemed normal; yet inguinal and intraperitoneal inoculation of two rabbits with a mixture of this milk and cream gave positive results in both inguinal inoculations and one peritoneal. The caseous material from the nodules of the girl's leg, injected into the peritoneum of a rabbit, produced tuberculous peritonitis and death in three weeks.

Infection through milk. One of the many interesting cases, and the only one which I will cite, is that reported by Olliver: twelve girls contracted tuberculosis at a boarding school; of these three died. From the fact that the sick and deceased girls were descended from healthy ancestors, and without question showed the phenomena of intestinal tuberculosis, there was a suspicion of infection due to the food. Full confirmation of this suspicion was found after the slaughter of a cow which for a year had served as a source of milk supply for the school. The cow had extensive tuberculosis of the intestines and udder.

In tuberculin we have found an unfailing means in diagnosing tuberculosis in cattle. Tuberculin is prepared by sterilizing, filtering and concentrating the liquids in which the tubercle bacillus has been allowed to vegetate. This substance has the effect, when injected into tissues of a tubercular animal, of causing a decided rise of temperature, while it has no effect upon animals free from the disease.

In testing a suspected animal the temperature is first taken at intervals of about two hours, and a sufficient number of times to establish the normal temperature of the body under ordinary conditions of life. The proper dose of tuberculin, about 2 cc., is then injected underneath the skin with a hyperdermic syringe. In tubercular cattle elevation of temperature is generally detected in from five and one-half to six hours after the injection, and reaches its greatest height from the sixteenth to the twentieth hour, then gradually subsides, reaching normal again by the twenty-eighth hour. During the first of May a herd of seventy-two cattle in the town of Argyle, was tested with tuberculin; in 69 of the 72 a decided reaction was obtained. The state authorities demanded and conducted the destruction of these 69 head, and a complete autopsy was performed on each and every animal. Lesions of various degrees were found. In only one case which reacted to tuberculin no microscopical lesion was found, in others only the peribronchial glands were involved, but in some abscesses were found in the lungs, liver and stomach, varying from the size of a pea to that of a large potato. These organs as well as the intestines, peritoneum, and bladder, were studded with the characteristic nodules of the disease. In most cases ulceration of the udder and mammary glands was found. At the same time twelve calves were slaughtered, varying in age from a few days to three months. In eleven of these no lesions were found and these were allowed to be shipped and used as food. This incident goes to show that the disease is not hereditary, but that the predisposition may be. In the twelfth and oldest calf which was suckled the longest by the mother, lesions were found in the stomach, intestines and mesenteric glands, and this shows conclusively that the milk is the richest source of infection. After the burial of these cattle the premises were thoroughly disinfested by the removal of all debris, and by spraying the barn with a carbolic mixture—one gallon of the crude acid to a barrel of water—and whitewashing the interior of the barn.

In closing I would formulate the following conclusions:

First, that human and bovine tuberculosis are identical, are caused by the same germ, and are intercommunicable.

Second, that the disease may be contracted in three ways: ingestion of food, inoculation, and inhalation.

Third, that the greatest danger to the human being is the consumption of infected milk.

The medical and veterinary professions have approached the problem of the relation of bovine tuberculosis to the public health with equal zeal, and much has come to light within recent years that enables them—at least, in a measure—to protect the human race, and it should be the urgent duty of authorities, owners and consumers, to join the medical and veterinary professions in their fight against the ravages of this disease.

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**Treatment of Eclampsia.**—In the Clinical Report of the Rotunda Hospital, Dublin, (*Dublin Jour. Med. Sciences*, June, 1905) Dr. E. Hastings Tweedy makes the following reference to Eclampsia:

“We had no fatality amongst our eight patients who developed eclamptic fits. Five of these were primiparæ, two 2-paræ, and one 3-paræ. All were edematous and suffered from marked albuminuria.

“The fewest number of fits was two and the greatest eleven. In two the convulsions were altogether post-partum in type, and in two they were of the mixed variety, occurring both before and after delivery.

“Macerated children were born in four of the cases. In one instance forceps were applied, whilst labour was terminated by natural efforts in all the other cases.

“In treating this diseased condition the Dublin method was strictly followed. This consists of a rigid adherence to many points of detail. The patient is kept on her side to prevent fluids formed in the mouth from reaching the lungs by inspiration. For the same reason croton oil or other form of medicine or fluid is not permitted to be placed in the mouth of an unconscious patient. I feel convinced that so-called edema of the lungs, which is said to close the existence of many eclamptics, results in reality from such mistaken methods of treatment.

“Neither a vapour bath, nor pilocarpin, nor other form of diaphoretic is administered for the advantages derived from each and all seem very problematical, and are certainly more than counterbalanced by other objectionable effects.

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## WISCONSIN MEDICAL JOURNAL.

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### EDITORIAL COMMENT.

#### "THE PATENT MEDICINE CONSPIRACY AGAINST THE FREEDOM OF THE PRESS."

We desire to take this opportunity to express our appreciation of the valiant efforts of Dr. Jas. H. Noble, of Eau Claire, State Senator, in defense and in furtherance of the bill introduced by him at the last session of the Wisconsin Legislature. This bill required patent medicine manufacturers to state on their labels the percentages of the poisonous ingredients of each bottle of their medicine. As is well known, the bill was defeated. By whom? The newspapers, who fought the patent medicine people's battles to prevent them from carrying out that provision in their advertising contract that nulli-

fied such contracts if legislation, unfavorable to them, were introduced in the states in which they did business.

In the issue of *Collier's Weekly* for November 4th there is reproduced a facsimile of a letter written to Dr. Noble by the Eau Claire *Telegram*. This letter explains so well the coercive methods employed in an attempt to influence legislative action, that we reproduce it for the benefit of those who may not have read it in *Collier's*.

Eau Claire, Wis., April 26, 1905.

Senator Jas. H. Noble, Senate Chamber, State Capitol, Madison, Wis.

MY DEAR SENATOR: We are receiving daily from many of our patent medicine patrons, communications that are very urgent in asking us to do our utmost to prevail upon you to withdraw your revised bill, which, if it is passed, will probably be the means of depriving The Telegram of a very liberal patronage it now receives through advertising contracts made with proprietary medicine houses.

If the writer thought for one moment, that the passage of your medicine bill was something the people really wanted, or were at all anxious that such a law be enacted, he would give you his personal word that no effort on the part of The Telegram would be in evidence to oppose the measure; but on the other hand it is our firm belief that the people of Wisconsin DO NOT CARE ONE WHIT, whether the bill becomes a law or not; and under such circumstances, why you should find it agreeable to proceed along any line that would create unpleasant results for The Telegram and deprive it of a legitimate income, is a conundrum we have tried hard to solve, but cannot.

All the druggists of Eau Claire are unanimously opposed to the passage of any bill which is liable to cause the patent medicine people to withdraw their business from the State of Wisconsin; we say all, one, Mr. Boberg, is not, and it is needless to refer to the reason this gentleman refused to sign the statement left with the Senate Committee by our Mr. E. S. Welch at the time S. 109 was up for hearing last winter; the remainder of the Eau Claire druggists, to a man, are heartily opposed to these measures, and it is only natural that they should be, for why should they endorse any action that deprives them of a revenue that rightly belongs to them?

If YOU want the patent medicine people to print on their packages, in plain English, what such packages contain, then be fair and pass a law which will compel YOU to write your prescriptions so that those who take them can convince themselves JUST WHAT YOU HAVE ADVISED THEM TO TAKE. You know "it is a poor rule that won't work both ways."

I think I call to mind that you mentioned at one time, that the passage of such a bill would not cause the withdrawal of any advertising from the newspapers; let us say, that there is no question about this, for if your medicine bill is passed it is our belief, The Telegram will lose hundreds of dollars annually, and we are going to ask you again to consider the welfare of some of those who perhaps are partially accountable for the title it is possible to prefix to your name.

Very respectfully,

TELEGRAM PUBLISHING CO.

We appreciated throughout the last legislative session that Dr. Noble was fighting a tremendous and united opposition, but of the extent and character of the influences that were brought to bear, and which he withstood so foreibly and valiantly, we were not cognizant. Dr. Noble deserves the highest praise for his unselfish devotion to a principle which he knew to be right, and which had the endorsement of a united medical profession.

#### AMERICAN TUBERCULOSIS EXHIBITION.

The American Museum of Natural History, the National Association for the Study and Prevention of Tuberculosis, and the Committee on Tuberculosis of the Charity Organization Society of New York, have joined hands to make the American Tuberculosis Exhibition a success. This exhibition will take place in New York from November 27 to December 9th, and will have an immense value as an educational campaign. Numerous sections of our country will be represented with elaborate models of sanatoria, photographs, charts, tenement houses—old and new—and there will also be displayed some of the material recently exhibited in Paris at the International Tuberculosis Congress. By this generous interchange of ideas, and through the publicity this exhibition will enjoy, enthusiasm in the fight against tuberculosis will be kindled anew, and the information thus brought to the people will prove of great benefit.

Although the interest in this exhibition is now apparently confined to New York, it is the intention of the directors to make this a traveling exhibition, and, with the co-operation of the committees which now exist in almost all large cities, carry this display and its teachings from state to state. We are informed that much of the material to be used in New York will be shown at Boston, Philadelphia, and Chicago, and plans for one or more small traveling exhibits are now under way. In this way the educational value to the masses of such an elaborate collection of data of all kinds would be enhanced, and great profit ensue throughout the land.

#### FAKES AND FRAUDS OF PATENT NOSTRUMS.

The proprietary medicine men are of late having administered to them a dose of their own "favorite prescription"—publicity—not, however, in the form dear to their hearts, of flattering testimonials, but of exposure of fraud in their claims and methods of promotion that can but discredit them in the eyes of the people. Some of the

facts most saliently brought out in the exposures Mr. Samuel Hopkins Adams is making in *Collier's Weekly* may be briefly indicated.

The numerous "bitters" and so-called "tonics" are wittingly or unwittingly extensively used as alcoholic stimulants, especially in prohibition states and counties with local option laws. Three notable samples are "Hostetter's Bitters," "Paine's Celery Compound," and "Peruna." All of these contain a larger percentage of alcohol than champagne, claret or beer. Many cases of "Peruna drunkenness" have been exposed in various parts of the country, and the sale of this particular tippie has been forbidden by the United States Government to the keepers of stores on Indian Reservations.

Another most surprising development was one which showed the method of procuring the testimonials. It is shown by Mr. Adams that the enterprising promoters of one of these nostrums presented copy of an "ad" to the newspapers in which blank space was left for portrait of a "grateful patient." One of the newspaper men inquired as to filling this space. He was informed that they expected the papers to do that. The newspapers undertook the task of furnishing testimonials, and the method was a very simple one, namely—of writing out a testimonial and calling upon a prominent politician or any other kind of well-known individual who was not above signing a fake testimonial. Thus numerous testimonials were procured and published throughout the country, and one or more of the men utilized for exploiting the nostrum testified they did not know what they were signing.

Another remarkable development was the method whereby the newspapers of the country were compelled to take sides with patent medicine men in opposing and defeating all legislation placing any restriction upon the makers and venders of these articles. Nearly all contracts for advertising contained a clause making the agreement void in case any law was enacted restricting or prohibiting the manufacture or sale of proprietary medicines. In some cases these contracts were made voidable in case any matter detrimental to the advertiser's interests were "permitted to appear in the reading columns or elsewhere in this paper." The Munyon Company, the Hood Company, and the Ayer Company, all employed a contract worded in this way, and newspapers were thereby intimidated and blackmailed and forced to lobby corruptly against equitable bills in state legislatures.

Duffy's Whiskey was also shown to adopt most fraudulent methods in securing testimonials of alleged doctors of divinity and temperance workers. In the case of three of these, one was shown to be the proprietor of a "get-married-quick-bureau," another was a deputy collector, and the third was a preacher in an obscure hamlet, who was called to trial and allowed to resign for endorsing Duffy's Whiskey.

#### A SACRIFICE TO DOWIEISM.

What comment is needed to emphasize our feelings at the inhumanity displayed at an inquest recently held in Kenosha? A seven month old infant, whose parents were followers of Dowie, was permitted to die of entero-colitis from which it had been suffering three weeks, without being given any medical care whatsoever. Not only this, but the parents are reported to have said at the inquest, that, "even had they been convinced that the babe's life could have been saved, they would not have called in a physician." The jury found the parents innocent of criminal negligence, because they acted in accordance with their belief, but they suggested that a severe reprimand be given them.

Responsibility for such action cannot be laid at the door of innocent members of a flock, but at that of their shepherd. Laws that permit such as Dowie to roam about unleashed, and allow him to promulgate rules of action that are suggestive of medieval barbarism, afford no protection against this sort of criminality.

Dowieism and Christian Science are more or less allied, and their greatest and most baneful influence is that they visit upon those who are unable to choose their own salvation, a course of procedure that is unqualifiedly stupid, criminally blind, and highly disastrous.

#### CHRISTIAN SCIENCE TREATMENT OF DIPHThERIA.

Our remarks in the preceding paragraph in censure of the followers of Dowie, apply with equal force to the devotees of the much-married Mary G. Baker Eddy.

An epidemic of diphtheria, which is as yet small, but owing to un-Christian un-Scientific exposure, bids fair to spread, is raging in La Crosse. When, as is the case with diphtheria, we may declare that a specific treatment for the disease has been found, one that has robbed it of its manifold horrors and has reduced its mortality astonishingly, it is nothing short of criminal negligence not to apply this



specific treatment in every case. Quite naturally, recognition of the existence of the disease is essential. Is it not a queer law which on the one hand recognizes a dangerous disease and subjects the afflicted to quarantine, and on the other grants "healers" the right to treat the disease, so long as they bring no medical knowledge to bear upon the case? The absurdity of this is still more evident if we say that when a case is treated non-medically, the law justifies the act and takes no cognizance of the consequences, but if a "healer" were to attempt to reinforce his "scientific" Eddyism with a drug or two, or other therapeutic suggestion, (even though it prove beneficial), he would be amenable to the law for practicing medicine without a license. Where is the law's logic in this anomalous situation?

#### THE HARVEY MEDICAL SCHOOL UNDER THE BAN.

We are pleased to note that the State Board has, after mature deliberation and careful reinvestigation of the Harvey Medical School, determined to adhere to its refusal to recognize diplomas coming from this college.

Suit was begun by Dr. Budan, a graduate of this institution, to compel the Board to grant him a license. After a rather long trial, Judge Williams, of the Circuit Court, rendered judgment, granting the Board three alternatives: to give applicant a license without examination; to give him a license after successfully passing an examination; or to reinvestigate the school with a view to again passing upon its reputability.

It has been stated that, in the course of the trial, the State Board's chief objection to this school lay in the fact that its teaching was conducted at night, and that it was an utter impossibility for men to work all day at some trade or other and be in fit condition to assimilate sufficient science at night to warrant their graduation as physicians and surgeons.

We are not in possession of the records of this case, but are disinclined to believe that such a contention was made, as we are certain that it could not be sustained. While realizing fully that night medical schools are a practical impossibility, that most of their students can devote but two or three hours nightly to work and little or none to study, it does not follow that there are not some who may absorb much from evening lectures and demonstrations, and if they have no other occupation, devote their day hours to study; with a stretch of the imagination, we can further believe that in about six or eight years

time a few may be able to acquit themselves creditably. But this is not the issue. The real question is: is the teaching faculty sufficient, is the instruction actually given adequate, and are the students properly equipped to be placed on a footing of equality with other medical schools, and is this school therefore justified in granting diplomas to men thus enlightened?

It is this question that the Board has now answered in the negative.

#### TO CURE A COLD.

“Consul-General Guenther, of Frankfort, Germany, reports a new cure for a cold. It consists of a mixture of cocaine, paranephrine, and water, applied on cotton to the nose. It arrests secretions, and cures the cold, usually, by several applications. Inasmuch as colds can lead to dangerous diseases, it is wise to prevent its protraction. In the case of children, Doctor Vohsen advises mothers to cut a small rubber tube obliquely and to insert the sharpened end into the nose; then, by means of a rubber ball, blow air into the tube. Thus the secretions in one side may be blown out through the other side. This eases the children and allows them to breathe freely. One can see at a glance how valuable such knowledge is. It can be used in all kinds of cases affecting the nose and throat.”

The above abstract, culled from the *U. S. Consular Reports*, should not be allowed to escape severe criticism. Spread broadcast, such statements as these may do incalculable harm. There is a feeling among intelligent physicians, amounting in effect to a law, against the placing of cocaine in the hands of a patient. The enormous increase in the number of cocaine habitués, has been traced largely to the use of this drug in the manner suggested in this report. One need witness but once the fatal and demoralizing effect of the cocaine habit, to fully appreciate the awful and incurable depravity that is its ultimate end.

With regard to the other suggestion credited to Dr. Vohsen, a few words may suffice. When it is realized that in most instances acute coryza leads to more or less occlusion of both nasal chambers, the forcible blowing of air into one side, if the other be occluded, may lead to the carrying of infectious discharges into the Eustachian tube and middle ear, and setting up an acute tubal catarrh or acute otitis media, with their always possible sequelæ—mastoiditis or subsequent deafness. One may with good reason remind the Consul General in connection with the above abstract, that even in medical literature “all is not gold that glitters.”

## ITEMS OF INTEREST.

A crusade against objectionable medical literature was recently made in Chicago by twenty detectives from Chief Collins's office, during which five offices were raided and seven persons arrested, and five wagon loads of advertising matter of the concerns were confiscated. Advertisements of medical implements manufactured by the concerns are held by the police to have been unfit for circulation through the mails.

**Wm. H. Borden, M. D.**, of Milton, a graduate of Buffalo University Medical Department in 1849, died on Oct. 30, aged 82 years. Dr. Borden began the practice of medicine at Milton in 1854, and was surgeon of the First Wisconsin Heavy Artillery during the Civil War, with rank of major. Dr. Borden was prominent in his community, and served for years on the Rock County pension board.

**Journal Changes.** Dr. A. P. Biddle has resigned from the editorship of the *Journal of the Michigan State Medical Society*. Dr. Edward Jackson has retired from the editorship of *Colorado Medicine*, and is succeeded by Dr. James M. Blaine.

**State Medical Society of Wisconsin.** The Committee of Arrangements for the next annual meeting has been appointed, and consists of Drs. F. C. Studley, Chairman, P. H. Jobse, R. G. Sayle, G. E. Seaman, A. T. Holbrook, Secretary.

**Consolidation of Medical Journals.** It has been announced that the *Medical News* and the *Philadelphia & New York Medical Journal* will consolidate under the management of the A. R. Elliott Publishing Company.

**The Fort Wayne Medical College** has gone out of existence as an independent institution, and has joined with the other medical colleges of Indiana in the formation of the Medical Department of Purdue University.

**Warren C. McManus, M. D.**, of Edgerton, a graduate in 1889 of Howard University, Medical Department, Washington, D. C., died on Nov. 5th, of pneumonia, after a short illness.

**Dr. John W. Coon** has been elected Superintendent of the Milwaukee County Hospital, succeeding Dr. Grosskopf.

**The Northwestern Lancet** has been made the Journal of the Minnesota State Medical Association.

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## BANQUET IN HONOR OF NICHOLAS SENN.

One of the most remarkable testimonials ever given a medical man, was the banquet tendered Dr. Senn on the evening of November 11, at the Auditorium Hotel, Chicago.

There were over one thousand physicians present, representing the medical profession from New York to Colorado, and from the Dakotas and Minnesota to Tennessee and Missouri. A large delegation attested the interest of Wisconsin in her best-known physician. The gathering was the frank, sincere expression of appreciation of the labors and accomplishments of the great surgeon.

Dr. W. A. Evans, as toastmaster, in introducing the speaker, said that it was the third testimonial of the kind given in Chicago, the others being in honor of Dr. Fenger and Dr. N. S. Davis, Sr.; and that the banquet was the natural result of the oft-expressed desire of men to honor Dr. Senn, while he was yet able to work, and to help sweeten the afternoon of his life. Dr. J. D. Bryant, after announcing himself to be a Wisconsin man by birth, presented Dr. Senn, on behalf of those present, with a beautiful gold medallion, containing a likeness of the honored guest; a duplicate of this medallion in bronze was presented to each one in attendance. Dr. L. G. Nolte, of Milwaukee, on behalf of former office-students of Dr. Senn in Milwaukee, presented a large silver loving cup, appropriately engraved. Dr. Nolte spoke of the love and admiration for Nicholas Senn throughout the state, where so much of his work had been done, and said that instead of one hundred and fifty Badgers being present, there would have been three hundred if the birth rate were not so high in Wisconsin. Dr. Senn responded to these expressions and the great ovation tendered him, by saying that he would rather have these gifts at his fellow-physicians' hands than decorations from royalty. He spoke of the "measure of success that had come to him" as the simple result of hard, continuous work. "My library has been my club," he declared, "I have never had time to play cards, read novels, go to the theater or play golf. When I left Chicago for a trip, I took my work with me." Dr. Senn then read some verses which he had written while on his recent Arctic trip, under the text, "For Life is Short and Art is Long," in which he urged men to work and not waste opportunity.

The toast, "American Surgery," was splendidly responded to by Dr. W. J. Mayo, who analyzed fairly the effect Dr. Senn has had on the surgery of the West, of America, and of the world. Dr. Mayo stated that Dr. Senn's first great service was to call the attention of the entire surgical world to his early work, at a time when American surgery was in danger of poor repute, if not contempt.

The remainder of the formal toasts, all excellently given, were: "The Doctor as the Layman Sees Him," George R. Peck, Chicago; "The American Medical Association," President L. S. McMurty, Louisville; "The Medical Man versus the Surgeon," Dr. J. A. Wither-

spon, Nashville; "American Medical Literature, Dr. C. A. L. Reed, Cincinnati.

Informal speeches were made by Drs. W. E. Quine, F. Henrotin, Jacob Lang of Milwaukee, D. R. Brower, J. B. Murphy, and A. Boeckmann of St. Paul.

The singing conducted by Dr. Norval H. Pierce of Chicago, was very good.

The officially appointed delegates from Wisconsin were: State Medical Society, A. T. Holbrook, Milwaukee; German Medical Society of Milwaukee, Jacob Lang, Milwaukee; Manitowoc County Society, J. F. Pritchard, Manitowoc; Dane County Society, R. H. Jackson, Madison; Fond du Lac County Society, Geo. J. Mears, Fond du Lac; Juneau County Society, C. S. Smith, Elroy.

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### CORRESPONDENCE.

EDITOR WISCONSIN MEDICAL JOURNAL:

In the current number of your valuable Journal, I notice another interesting contribution from the pen of Dr. J. P. Cox. Everything our colleague from the North says is instructive, and it is with regret that I feel called upon to touch adversely on this valuable paper.

I object to the thought tendency in the closing two paragraphs. Permit me to quote in full:

"Gentlemen, I sincerely hope that the time may come when a puerperal infection brought on by the neglect of the doctor to enforce asepsis will be considered as good grounds for a suit of malpractice, as a deformity resulting from a fractured bone.

"It may be absolutely impossible to carry out in all cases a thoroughly aseptic procedure. Still, I feel that we have frequently overlooked many of these precautions which are of paramount importance in saving the lives of patients."

We shall pass over the lapse in logic which is quite apparent on placing the essence of these two paragraphs in juxtaposition, to-wit: It is criminal to get sepsis. It may be impossible to avoid sepsis. This, to say little, is pretty hard on the accoucheur. However, this is merely pointed out en passant; what I mean to convey to the profession is the great danger of sensationalism and iconoclasm in science—especially in medicine. The essayist, in the preparation of a paper, is often carried away by his personal success in the particular field in which he is supposed to be an authority. His success, as it were dazzles and renders him uncharitable toward those who may fall short of his ideals. In other words, his intellectual hospitality, jaded by unwelcome facts at war with his thesis, becomes distinctly hostile while the paper is under preparation, and unless the worker frequently exercises honest self-analysis, he is apt to lay himself open to the charge of insincerity, if nothing more.

Medicine is no exact science, and surgery is not a perfect art,

therefore the assumption of a radical position by the physician is ever fraught with danger. Every ill-considered and ill-advised defense the physician may put forth to bolster up his position is eagerly devoured by the layman and lay press and interpreted to the disparagement of the family physician.

You must have observed that the press always takes it for granted that the entire medical profession stands sponsor for every paper read at a medical convention. If a scientific paper or an off-hand discussion is in the nature of a confession, the lay press will make the most of it, and the worthy family physician comes under its suspicions. Every dead-beat can, with the help of a disreputable lawyer, lay his finger on some scientific article, read at a regular medical convention, which convicts the honest, faithful surgeon or accoucheur of malpractice.

When I call to memory the many trying cases of obstetrics that have come under my care, and I have perhaps been no more fortunate than the average practitioner, I still marvel at nature's bounteous charity, and would blush with shame were my colleague to attribute my success to my superior skill in the application of the principles of asepsis, even as I would repel with contempt every insinuation of criminality on my part in connection with the less fortunate cases.

The same holds good in the entire field of medicine and surgery. The doctor cannot cure; neither can he repair. All he can do is to assist nature. To hold the surgeon criminally responsible for every case of sepsis following accouchment or deformity following fracture is absurd and a gratuitous insult to our noble profession.

The physician is but the assistant of Nature, and Nature is often handicapped by environment and a refractory patient. If the result is bad, permit not the ignorant layman to abuse and mulct the doctor, but rather let the patient, the environment, and Nature share every responsibility.

The surgeon's reputation is his only asset. It is bad enough to have the ignorant, the mercenary, and the charity patients attempt assaults on his skill to blackmail him into a settlement.

Let us not permit a colleague, in a moment of professional exaltation and moral rectitude, to place himself on record in an official journal, as antagonistic to the ethics and interests of the profession by opening leads to more malpractice suits and blackmail.

Milwaukee, Oct. 14.

RALPH ELMERGREEN, M. D.

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## OBITUARY.

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W. S. WHEELWRIGHT, M. D., of BELLEVILLE.

Dr. W. S. Wheelwright was born in Ohio, December 18, 1851. His parents were natives of England. They came to Wisconsin in 1854, and the doctor's early life was spent on a farm with them. He received his medical education at Rush Medical College, graduating in

the class of 1878. Shortly after receiving his medical degree he was united in marriage to Miss Lula Rowley of Middleton, Wis., and in June following he located at Belleville, which has been his home ever since. His entire professional life of over a quarter of a century was spent in one community, where the ties of friendship between him and his patients ripened and grew strong with years.

Dr. Wheelwright led the strenuous life of the busy country practitioner. Always faithful to his calling, devoting his entire time to his professional duties, always sacrificing his own feelings for the sufferings of others. No ride was too long, or road too rough, or brain too weary when duty called him. No matter how much his rest had been broken, or how inclement the weather, his kindness of heart would not allow him to refuse a call for help, and his life pays the penalty for his strenuous devotion to his chosen profession. It was prematurely terminated by death while in the pursuit of his noble calling.

On February 1, 1905, he was picked up from the snow, where he had fallen from his cutter, stricken with apoplexy. He was taken to his home by his friends, where he received every aid that human hands could give, but he remained in an unconscious state, until death, February 5, 1905, aged 55 years. He left a family consisting of a wife, two daughters, and two sons.

As a practitioner of medicine Dr. Wheelwright was very successful. By his sterling honesty and cheerful and pleasant ways he was permitted to retain the respect and confidence of his entire community until the very last.

His clientele recognized his ability and he enjoyed a large and lucrative practice.

Dr. Wheelwright was a member of this society, but on account of his arduous work he seldom found time to attend any of its meetings. The committee appointed by the president of this society to draft resolutions of respect, submit the following:

WHEREAS, Dr. W. S. Wheelwright, a beloved member of this society, has been called to his reward in the prime of his vigor and usefulness, therefore

*Resolved*, That while we bow in submission to the decree of Infinite

be it  
Wisdom, yet we hereby express our sense of sore bereavement in his untimely death.

*Resolved*, That the untiring devotion which our friend has exhibited in his chosen life-work and the generosity which he uniformly manifested toward his brother physicians, together with his thorough integrity and broad manhood endeared him to our membership in life and remain enshrined in our hearts as his last legacy in death.

*Resolved*, That we extend our warmest sympathy to those that mourn him as a devoted husband and father, as well as to the great number who mourn the loss of a true physician and friend.

*Resolved* That a copy of these resolutions be sent to the family and inscribed in the minutes of this society.

Committee. J. A. JACKSON,  
S. R. MOYER,  
JOHN M. EVANS.

# THE STATE MEDICAL SOCIETY OF WISCONSIN.

ORGANIZED 1841.

## Officers 1905-1906.

J. R. CURENS, Two Rivers, President.

A. W. GRAY, Milwaukee,  
1st Vice-President.

A. GUNDERSON, La Crosse,  
2d Vice-President.

W. E. FAIRFIELD, Green Bay, 3rd Vice-President.

CHAS. S. SHELDON, Madison, Secretary. S. S. HALL, Ripon, Treasurer.

A. T. HOLBROOK, Milwaukee, Assistant Secretary.

## Councilors.

FOR SIX YEARS.

1st Dist., H. B. Sears, - - Beaver Dam  
2nd Dist., G. Windesheim, - - Kenosha

FOR TWO YEARS.

3rd Dist., F. T. Nye, - - - Beloit  
4th Dist., C. A. Armstrong, - - - Boscobel

FOR THREE YEARS.

5th Dist., J. F. Pritchard, - - Manitowoc  
6th Dist., J. S. Walbridge, - - Berlin

FOR FOUR YEARS.

7th Dist., W. T. Sarles, - - Sparta  
8th Dist., T. J. Redelings, - - Marinette

FOR FIVE YEARS.

9th Dist., D. L. Sauerhering, - Wausau  
10th Dist., E. L. Boothby, - - Hammond

FOR SIX YEARS.

11th Dist., J. M. Dodd, - - Ashland  
12th Dist., A. T. Holbrook, - - Milwaukee

NEXT ANNUAL SESSION, MILWAUKEE, JUNE, 1906.

The Wisconsin Medical Journal, Official Organ.

## SOCIETY PROCEEDINGS.

### COUNTY SECRETARIES - TAKE NOTICE.

Read This Letter and Act Upon It Without Delay.

AMERICAN MEDICAL ASSOCIATION, OFFICE OF GENERAL SEC'Y.

103 Dearborn Ave., Chicago, Nov. 15, 1905.

*Dr. Chas. S. Sheldon, Sec'y State Medical Society of Wisconsin, Madison, Wis.*

DEAR DOCTOR: As you are doubtless aware, the American Medical Association is preparing material for a directory of the medical profession of the United States and Canada. In this directory the names of all members of constituent state and component county societies will appear in capital letters, this combining in one volume the features of a general directory and a society Blue Book.

As the only source of information afforded the General Secretary regarding membership is the certified lists of membership received from State Secretaries, it is of the utmost importance that these membership lists be correct at the time of going to press. As the time is approaching when it will



be necessary to make up the copy for the printer, we request that you forward to us at once any additions or corrections to the membership list of your state association. All such corrections should be in the hands of the General Secretary by December 1st, in order to be included in the directory copy.

We are sending this letter to the secretaries of all constituent state associations, requesting their co-operation and assistance in making our membership records absolutely correct by December 1st. All members in good standing whose names have not been already reported to the General Secretary must be forwarded before December 1st, in order that they may be properly designated in the directory. We suggest that notices to this effect be printed in the state journals and sent to the county secretaries.

Very truly yours,

AMERICAN MEDICAL ASSOCIATION.

FREDERICK R. GREEN, *Ass't to the Secretary.*

Your attention is called—and there isn't a day to lose—to the above letter. No further explanation is needed. Every member of every component County Society desires to see his name in this directory, and if there be some physician who contemplates joining his County Society, but for some or no reason has neglected to do so, let him communicate at once with his County Secretary, and urge that his name be sent in without delay.

And, County Secretaries, make a final round-up *at once*, and send to Dr. Sheldon all names not previously reported as members of the County Societies.

REMEMBER—ALL WHOSE NAMES ARE NOT IN BY DECEMBER 1st, AS MEMBERS OF COMPONENT COUNTY SOCIETIES, WILL NOT APPEAR AS SUCH IN THE DIRECTORY.

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#### THE YEAR'S WORK.

The next meeting of the State Society will be held at Milwaukee, June 27th to 29th. There remain but about seven months for preparation, and these will go rapidly. If the program and the meeting shall represent the best thoughts and the best ability of the profession of the state, there is no time to lose. Earnest and systematic work should be begun at once. Upon the character of the papers which shall be presented rests largely the fate of the meeting. With proper effort and planning it may be made interesting and enjoyable from start to finish, but this cannot be accomplished by careless and slipshod methods. The whole plan of such session—both as to papers

and their discussion—should be thoroughly and carefully worked out. The time of opening and closing each session should be strictly observed. Promptness and dispatch should characterize every procedure. The papers should be brief and largely practical—*boiled down*—“*intensive*.” “A fifteen-minute paper is a delight and a tonic. A thirty-minute paper is often dreary to the last degree and a hypnotic.” It has been frequently remarked that it requires more than four times the effort and thought to prepare an acceptable fifteen-minute paper than one four times as long.

The State Society is the assembling, once a year, of the component County Societies. It is quite consistent with our general plan to utilize some of the best papers which have been presented before the County or District Societies during the year. The plan suggested by Dr. Boothby at La Crosse is a good one, *viz.*: that in each Councilor District the best papers read in the County Societies be selected for the program of the District Society, while the best papers presented in the District Societies be sent to the Program Committee of the State Society. Possibly a healthful competition might be stimulated in the different County and District Societies. At all events, let us all be up and doing, with a firm resolve to put the very best there is in us into the next State Meeting at Milwaukee.

#### THE COUNTY SOCIETIES.

The summer is gone, and the campaign should be on in full blast, by this time, in all the sixty-two County Societies. The evidence of much hard work is not yet apparent in an increased membership, since only 47 new members have been reported since the June meeting. Probably it is too early to expect large accessions. Still, it is well for the County Secretaries to bear in mind that less than five months remain before they will be asked to send in their Annual Report—April 1-10. “Eternal vigilance is the price of Liberty”—and there can be no let-up. Upon the County Secretaries falls the brunt of the necessary work in making these organizations such a power for good as they may be, and should be. At this time it is needless to remind the profession again of the usefulness, and even necessity, of organization and co-operation if we shall make the best progress and secure the best results. All are agreed that a live, well-conducted medical society offers opportunities and benefits to be secured in no other way, if men will only come to it in the right spirit. If this service involves some exercise of self-sacrifice and liberality, the rewards are

also great. As a matter of fact, it pays immensely, even from a selfish standpoint.

To the County Secretaries I would say: Make a thorough canvass of the whole country at once, and get the names of every "eligible" in the county. By correspondence and personal solicitation, secure as many applications as possible. Make a complete list of all who refuse to send it to your Councilor and also to the General Secretary at Madison. By an arrangement with the WISCONSIN MEDICAL JOURNAL, two or three copies of the Journal will be sent to each of them, to show them how much they are missing, and as an inducement to join the County Society. Begin at once and correct your card-index of the county. This will make it easier to make a full and correct report in April. Suitable blanks for reporting changes in membership—of every kind—have been sent to all the County Secretaries, and it is hoped these blanks will be freely used in reporting to the State Secretary.

Hold your meetings at regular intervals, and always at the same dates, and never fail to have a good program prepared, with some special attraction if possible. After all, the greatest inducement and the best attraction are to be found in the enjoyable and well-sustained meetings of the Society.

#### THE COUNCILORS.

According to our Constitution, it is the duty of the Councilors "to visit the counties in their districts at least once a year," in furtherance of the cause. This should be the *minimum*, and as many more visits as possible. The Councilor is the bishop of his diocese. Its welfare is largely entrusted to his care and keeping. An active, interested Councilor, who accepts his responsibility in good faith, and tries honestly to do the best possible work in his district, can be of the greatest assistance to the counties. He should keep in close touch with the County Secretaries, and, in addition to visitations, should ask for quarterly reports from each county. He can use his personal influence in securing new members. He can readjust the boundaries of the constituency of the different societies so as to secure the greatest convenience of the members in attendance on the meetings, and in ways too numerous to mention, help on the good work. During the month of December the State Secretary wishes every Councilor would send in a report from each county in his district for the preceding half-year for use at the Annual Meeting of the Council in January.

The work of the county organization must and will go forward, but it can only be by the active and enthusiastic support and co-operation of all who are committed to the undertaking. (C. S. S.)

#### DODGE COUNTY MEDICAL SOCIETY.

A meeting of the Dodge County Medical Society was held at Juneau, Nov. 6th, 1905.

A very interesting paper was read by Dr. W. H. Watterson, on the subject of *Medical Supervision of Tuberculous Patients.* Dr. E. M. McDonald reviewed *Expert Testimony.*

Resolutions from Outagamie County condemning contract work with societies and institutions, at a fixed price, were unanimously endorsed.

The committee for selecting a site for the State Sanatorium for Tuberculosis were, by resolution, respectfully invited to consider a point in the northwest part of Dodge County including or bordering on Lake Emily.

The society's membership was increased by the addition of Drs. W. H. Watterson, Fox Lake; A. C. Karsten, Horicon; James Cox, Clyman; and Herbert F. Prasch of Beaver Dam.

H. B. SEARS, M. D., *Secretary.*

#### FOND DU LAC COUNTY MEDICAL SOCIETY.

The third annual meeting of the Fond du Lac County Medical Society was held at Fond du Lac, Wednesday, Nov. 8, President Mears in the chair.

After calling the meeting to order the minutes of the previous meeting were read and approved. Of the number of papers printed on the program only one was read, and that by Dr. G. N. Brazeau, on *My Observation on Cataract Extraction.*

Dr. J. P. Connell showed a gross specimen of incipient carcinoma of the right horn of the uterus, the diagnosis having been made by pathologists in Milwaukee from curettings made by Dr. F. A. Jackson of Eldorado on patient thirty years of age.

A paper on *Science*, by Dr. S. Edwards, of Oakfield, was read by the secretary.

A communication from the secretary of the Outagamie County Medical Society was read in regard to their resolutions about doctors doing so-called "Lodge or Club" practice. Dr. Mears appointed a committee to draft resolutions on same; committee to consist of Drs. Gorin, McDougall and Connell.

The name of Dr. Alfred C. Rodloff, of Eden, graduate of Milwaukee Medical College of 1904, was presented, having been approved by the censors, and his name voted into society.

The election of officers for the ensuing year was next in order, the result being as follows: President, Frank S. Wiley, Fond du Lac; vice-president, Dr. Emil Roy, Lamartine; secretary and treasurer, Dr. Flora A. Read, Fond du Lac; censor for three years, Dr. G. V. Mears; state delegate, Dr. G. V. Mears; alternate delegate, Dr. S. E. Gorin, Fond du Lac.

Meeting adjourned.

F. A. READ, M. D., *Secretary.*

**LA CROSSE COUNTY MEDICAL SOCIETY.**

The La Crosse County Medical Society gave a Smoker to its members on the evening of November 2d, the date of its regular monthly meeting. Quite a number were present and all enjoyed the meeting. It had been intended to give this social on account of the meeting of the District Society, which convened here on the same day, but unfortunately the members of that organization could not stay long enough to join in the evening's pleasures.

CHARLES H. MARQUARDT, M. D., *Secretary.*

**WAUKESHA COUNTY MEDICAL SOCIETY.**

The regular meeting of the Waukesha County Medical Society was held at the Waukesha Springs Sanitarium, Waukesha, Nov. 4th, fifteen members being present.

The following resolution was reported by the committee and adopted unanimously by the society:

WHEREAS, Certain fraternal organizations of this County have a by-law which provides medical aid for each member and for the several members of his family upon the payment of the small annual fee of 75 cents for such services to the physician chosen by the organization; be it therefore

*Resolved*, That the Waukesha County Medical Society condemns this practice and considers it unwise for any members of the society to accept or seek an appointment with any such fraternal organization, it being unprofessional, unethical and destined to lower the profession in the eyes of the public.

M. R. WILKINSON, M. D.

W. S. WING, M. D.

HUGO PHILLER, M. D.

An excellent paper was read by Dr. H. B. Hitz, of Milwaukee, on the *Early Diagnosis of Mastoid Disease*, recommending a careful study of the early signs and symptoms of mastoid involvement, and operation as soon as diagnosed, to prevent serious involvement of brain tissue, he having failed to find pus in only three cases out of 136 operated upon and one of those showing marked congestion and threatening breaking down of the bone.

Dr. Voje, of Oconomowoc, gave an interesting paper on *Arterio-sclerosis*, going over briefly the etiology, pathology and symptoms of the disease, and suggesting temperance in all phases in the treatment of a case, especially care in drinking water, and condemned the drinking of distilled water as that acted as a solvent of salts essential to the system.

The paper was ably discussed by Dr. W. F. Becker, of Milwaukee.

Dr. A. J. Hodgson, calling up the question as to how much water should be drunk, remarked that sufficient quantities should be used to keep the urine at a specific gravity of 1010 or 1015.

Meeting adjourned.

M. M. PARK, M. D., *Secretary.*

**MILWAUKEE MEDICAL SOCIETY.**

The first meeting for the season of the Milwaukee Medical Society was held October 10th. About 50 members were present.

Dr. G. P. Barth presented a paper on *Club-foot Treatment*. He stated

that statistics show that club foot occurs once in about 840 births and that the acquired form is somewhat more frequent than the congenital. Equino-varus constitutes three-fourths of all cases, and its treatment only will be discussed, the same principles governing the other forms. If the child is strong treatment should begin early but if feeble it may be delayed until the child begins to use its feet.

For the correction of the faulty lines of the foot the author recommends light plaster of paris dressings applied while foot is drawn into position of partial correction by adhesive strips, the bandage being reapplied every week as in that period of time the irritability of the stretched muscles consequent upon the last correction will have subsided. Apparatus, such as that proposed by Judson, may be used to gradually force the foot into better position, with division of the tendo achillis as a final step in some cases. The Taylor apparatus is also most efficient as a retention brace.

Of the various operative measures, that of Lorenz is most popular and efficient. With improved position, the structure of the elements composing the tarsus will tend to assume the normal. McKenzie is convinced that this applies even in adults. The hands are the best instruments, sometimes aided by a well padded triangular block of wood, and the manipulations should continue until the force of the index finger is sufficient to bring the foot into position of over-correction.

Of the cutting operations, those of Phelps and Ogston are probably the best but are being less frequently used as the Lorenz methods are becoming better understood. After the correction of the club-foot by any of these methods, only one step in the direction of a cure has been taken. The most important part of the whole treatment is the intelligent supervision of the foot afterwards and this should continue for years.

Dr. Bryant Smith thought that in infants and in mild cases sometimes a simple tenotomy of the tendo achillis and a boot is sufficient, the weight of the child when it begins to walk, finishing the correction. In severe cases and in cases not treated in infancy operative intervention may be needed.

Dr. H. E. Dearholt quoted from Hippocrates to show that the condition had been understood and intelligently treated in his time.

*Cholelithiasis and its Complications*, was the title of a paper by Dr. A. H. Levings. Dr. Levings said in part, that in 90 per cent. of the cases of stone in the gall bladder the stones remain inactive or give rise to indefinite symptoms frequently called dyspepsia.

The symptoms of stone in the common duct are more definite but it is a mistake to expect jaundice in every case as it occurs in only about 20 per cent. When the duct becomes dilated behind the stone the ball-valve action of Fenger may occur.

Cholecystitis or cholangitis are often associated with cholelithiasis or may simulate it closely, making differentiation difficult. They are to be differentiated from the simple gall stone cases by the presence of fever and chills, and the great tenderness over the affected region with pain not having the characteristics of true colic.

From gastric and duodenal ulcers, gall stones may be differentiated by the time of onset and character of the pain and the absence of vomiting of

blood or of intestinal hemorrhage. The age and sex of the patient would aid. In cancer of the liver, gall bladder, or common duct the age of the patient, the constant jaundice without previous colic, the tumor, the slight fever and perhaps a history of tuberculosis in the ancestry will help to make a diagnosis. Cholelithiasis must also be differentiated from appendicitis, although the two conditions are sometimes associated.

Gall stones in the common duct usually determine a fatal termination in from 6 to 9 months. Active stones in the gall bladder or cystic duct lead to death in 80 to 90 per cent. of the cases. A stone arrested in the ampulla of Vater may divert the bile into the duct of Wirsung and cause a pancreatitis. Gall stones are the indirect cause of most of the adhesions found about the gall bladder and ducts and adjacent organs, causing dragging on the stomach and pylorus and sometimes pressure leading to dilatation of the stomach. They also encourage infective inflammation of the gall bladder and passages and in the liver, which may lead to gangrene or multiple abscess formation. They may cause perforation and peritonitis or obstruction of the bowels. In some cases they undoubtedly lead to cancer.

Kehr believes that a second attack of gall stone colic is an indication for operation. Two conditions should be met in an operation, removal of the stones and drainage of the gall bladder and ducts.

Removal of stones in the common duct may be facilitated by employing the technic of Mayo Robson and Moynihan.

In regard to the disposal of the gall bladder, opinion is divided. Cholecystotomy, with drainage, is the simpler operation and has a better mortality rate, but the convalescence is often prolonged and recovery is sometimes imperfect on account of the formation of adhesions. A middle course is probably best, cholecystectomy being reserved for the cases showing severe pathological changes of the gall bladder with numerous adhesions.

Cases of acute cholecystitis which do not yield to medical treatment should be treated by drainage.

Dr. C. H. Stoddard pointed out some of the difficulties of differential diagnosis and referred to the abdominal pain caused by intermittent claudication of the intestines due to arterio-sclerosis of the mesenteric arteries. The "gall spider cases" described by Robert Morris suggest that great care should be exercised during operation to limit the formation of adhesions.

Dr. F. Shimonek emphasized the difficulty in diagnosis which is frequently made more confusing by the association of several pathological conditions in the same patient. He has found rotation of the liver difficult in most cases and believes it is possible only when there is some degree of hepatoptosis.

The particular incision used is of little importance as long as an opening of sufficient size is made. The success of modern operative work on the gall bladder and ducts is largely due to the large size of the incision now utilized.

The subject was also discussed by Drs. Beffel, Batchelor, Walbridge, Nichols, and Reineking.

In closing, Dr. Levings remarked that by following closely the technic of Mayo-Robson and Moynihan the liver could be rotated in almost every case unless bound down by adhesions.

Dr. O. H. Foerster exhibited a microscopic specimen showing the spirochaete pallida and reviewed the work which has been done up to the present time in connecting it with syphilis as a causative factor.

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At the meeting held on October 24, 1905, Dr. J. D. Madison read a paper entitled *Delayed Chloroform Poisoning with a Report of Two Cases*. The first case reported was that of a man of 32 years who had had severe indigestion for several years. He was operated upon for appendicitis about 40 hours after the onset of the attack, chloroform was used and the anesthesia lasted an hour and a half. Tip of appendix was gangrenous. Slight jaundice appeared within 24 hours, then gradually cleared up. Two days after operation the temperature reached normal and remained there or below until just before death, when it rose slightly. The urine was normal before operation and showed only a small amount of albumin the day following the operation; no casts were found at this time. Three days later urine was almost suppressed and granular casts and albumin were abundant. Five days after operation he began to complain of headache which later became quite severe, gradually he became dull and stupid and finally passed into coma, with equal dilated pupils and no evidence of paralysis of his limbs. Death took place eight days after operation.

The autopsy showed no general peritonitis but a moderate amount of dark offensive pus in the pelvis. The liver was pale and yellow in appearance, firm in consistency, perhaps a little enlarged. On section the yellowish appearance was more marked and the lobules were in places indistinct. The kidneys appeared enlarged and pale and the markings were indistinct. Unfortunately the specimens were destroyed before a microscopic examination could be made.

The second case was that of a girl of 11, operated upon in second attack of appendicitis. Chloroform anesthesia lasted 45 minutes. She seemed to be doing well, but on second day suddenly developed noisy delirium, after a few hours become quieter, then comatose, and died 58 hours after operation. Towards the end the breath had a sweetish odor, but the urine was not examined for acetone. No autopsy.

This condition was recognized many years ago, but it is only within recent years that the cases have been studied carefully.

The clinical picture varies. Usually the immediate effects of the anesthetic are recovered from and the patient seems to be doing well. In children especially the symptoms may appear suddenly, beginning with restlessness, vomiting or wild delirium. In adults the nervous symptoms may be less marked or the patient may pass into a dull apathetic condition, and finally into coma. Vomiting is usually a marked feature and the vomitus is frequently brownish or black. Jaundice is frequently but not invariably present. Temperature may be normal. Urine is often normal in amount, albumin is usually present and casts are usually found. Acetone and diacetic acid are found in nearly all cases.

Most of the recognized cases have proven fatal but undoubtedly milder cases occur which terminate favorably.



The causation of the symptoms is still in doubt. Probably the chloroform, or ether in rare cases, acts on the liver cells, rendering them unable to excrete certain poisonous substances normally found in the blood. The accumulation of these poisons in the blood causes the symptoms already described.

Treatment is usually of little avail, sodium bicarbonate in large doses, purgation, and saline infusions are generally advised. Venesection and cardiac stimulants have also been recommended.

The condition is one of the serious dangers of anesthesia which has not in the past been generally recognized. It is met with almost exclusively after chloroform, though in a few cases it has followed the use of ether. It is prone to occur in children and after long anesthesia.

The paper was discussed at length by Drs. Batehlor, Hay, Sifton, Reinking, Shimonek, Gray, Hitz, and Walbridge.

Dr. L. Boorse presented a paper on *When and How to Begin Substitute Feeding*. Dr. Boorse remarked that this question is too often left to the decision of the mother or the nurse without due consideration of the nutritive requirements of the infant. Injudicious weaning is responsible for many cases of deranged digestion in infancy which later render nourishment a difficult problem.

Among the better classes of American women not more than one-fourth are able to continue nursing their offspring successfully beyond the third month without supplementing the breast feedings.

Positive contraindications to maternal nursing are tuberculosis in any form, septic infection, acute infectious fevers, severe nervous diseases and disturbances, and pregnancy. A syphilitic mother should not nurse an unaffected child. An infant suffering from congenital syphilis, inherited from the father, should not be put to the breast of an unaffected mother without her consent after a full explanation of the situation, as exceptions to Colles' law have been recorded. Menstruation rarely calls for weaning.

The amount of milk secreted, the nursing habits, and the power of the infant to obtain the milk should be carefully observed. Evidences of satisfactory breast feeding are: steady gain in weight, a happy and contented disposition, gradual and regular development of muscular powers, absence of vomiting after nursing, normal stools. In case of disturbance endeavor to ascertain and correct the cause by careful study of the milk and of the nursing habits before weaning.

When substitute feeding is necessary the age, weight, and digestive powers must be considered.

In weak or premature infants during the first week whey has proved most satisfactory, cream or top milk being added later. In well-developed, vigorous infants cream may be added to the whey in quantity corresponding to 1 per cent. of fat from the start. The subsequent increase of percentage of fat should not be more than  $\frac{1}{4}$  per cent. at a time with a correspondingly smaller increase of the proteids. After the first week the carbohydrate percentage should be increased  $\frac{1}{4}$  per cent. at intervals of ten days or two weeks. The use of split proteids is advantageously continued for two or three months, or partial peptonization may be employed, gradually decreasing the time.

In the discussion Dr. Hay spoke of the necessity for the study of the mother's milk during normal lactation in order that a guide may be had in case disturbance occurs. He also emphasized the importance of modifying the mother's milk by means of a thorough regulation of her diet, exercise, and hygiene in case of any difficulty in its digestion.

H. E. DEARHOLT, M. D., *Secretary*.

#### FOX RIVER VALLEY MEDICAL SOCIETY.

The regular quarterly meeting of the Fox River Valley Medical Society was held at Oshkosh, on Tuesday, Oct. 17, 1905.

At ten o'clock a most interesting clinic was held at St. Mary's Hospital, by Dr. C. W. Oviatt. The members were very hospitably entertained by the Sisters of the Hospital, being served with a substantial lunch, after which the afternoon session was held in the reception room of the hospital.

The following papers were read:

*Treatment of the Drug Habit*, by Dr. Richard Dewey, of Wauwatosa, *Neurasthenia*, by Dr. A. Roos, of Oshkosh.

These papers elicited a full discussion, and the meeting was one of great interest.

The following physicians were elected to membership in the society: Dr. W. A. Gordon, Jr., of Oshkosh, Dr. Niel Andrews, of Oshkosh, Dr. H. L. Bacon, of New London, Dr. J. G. Schall, of Oshkosh.

The next meeting will be the annual meeting, to be held at Green Bay, in January.

JAMES S. REEVE, M. D., *Secretary*.

#### SOCIETY OF GERMAN PHYSICIANS OF MILWAUKEE.

MEETING MAY 6TH, 1905.

A. J. Puls reported good results with stem pessaries in the treatment of *dysmenorrhea*, which, especially among the working population, is preferable to operative methods, as it saves time. E. Kováts spoke of a case of *chronic lead poisoning* in a man who presented the symptoms of Graves' disease. C. Zimmermann stated that in his case of *bilateral papillitis*, presented in one of the previous meetings, his diagnosis of tuberculous tumor of the brain was verified by the postmortem examination. A solitary tubercle, of the size of an apple, occupied the left hemisphere of the cerebellum. It contained numerous giant cells.

MEETING OF NOV. 4TH, 1905.

L. F. Frank related the perfect cure of another case of *leukoplakia of the tongue* with X-rays. C. Zimmermann remarked in the discussion that he recently observed leukoplakia of the tongue in a man, aged 23, whose father had the same affection. As there were no distressing symptoms in either case, no treatment was indicated. E. Kováts communicated a case of Hirschsprung's disease, i. e., a *congenital distension of the flexura sigmoidea*, in a girl, aged 2½. The abdomen was very much bloated by accumulation of gas. A. J. Puls demonstrated a *renal calculus*, spontaneously passed, and uterus, which, on account of a very large fibroma, had required total extirpation.

The woman, who almost succumbed to profuse hemorrhages, made a good recovery. J. von Sholdski described a case of *fibroma of the tongue*, of the size of an apple, immediately in front of the epiglottis, which had altered the voice of the patient, a girl, aged 23. At the surface were large varicose veins. As the galvanocautic snare could not be applied, S. burned deep furrows into the tumor with galvanocautery and greatly diminished its volume. C. Zimmermann treated an infant with *bilateral iritis*, of some standing, which in one eye had led to occlusion of the pupil. The affection, being due to hereditary syphilis, yielded promptly to treatment. In one eye iridectomy was performed.

C. ZIMMERMANN, M. D., *Secretary*.

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### MEDICAL NOTES.

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#### THE PHYSIOLOGY OF THE DIGESTIVE PROCESS— SALIVARY DIGESTION.

During the last few years there has been a great advance in our knowledge concerning the process of digestion. Many physiologists have been busily engaged in research as to the method of secretion of the digestive juices, with the result that many new facts have been discovered. It is our object to briefly indicate the chief changes which the food undergoes in the alimentary canal, and to set before the busy practitioner the more recent views, which have been advanced by those who are actively engaged on this subject: thus pointing out their bearing upon practical medicine. In reference to mastication, the more complete the process the more readily will the saliva and, later, the gastric juice get at the particles of food to carry on the digestive process. One of the most frequent causes of dyspepsia is incomplete mastication, due either to insufficient time being allowed for the process, as so frequently occurs in those persons who habitually bolt their food, or to the deficiency of the teeth. Carious teeth tend to dyspepsia in two ways, firstly by interfering with mastication, and, secondly, by producing poisons which are swallowed with the food, and which interfere to some extent with gastric digestion. The particles of food in the mouth are lubricated by the saliva, which, in virtue of its mucin, derived mainly from the submaxillary and sublingual glands and the small mucous glands lining the mouth, causes the adhesion of the particles, so as to form a bolus, which is finally lubricated, and then placed on the back of the tongue, ready to be swallowed.

Soluble substances in the food, such as sugar and salt, are dissolved by the water contained in the saliva, and may therefore be readily tasted. Starch contained in the food, which has been previously cooked, is acted upon by the ptyalin, the amylolytic ferment of the saliva, and is converted into amyduin or soluble starch, then into the dextrins (erythro-dextrin and achroo-dextrin), and finally into one of the sucroses, namely, maltose, a sugar having the formula  $C_{12}H_{22}O_{11}$ , which will readily reduce Fehling's solution, and give other reducing sugar tests. All kinds of food cause a flow of saliva, rich in mucin, from the submaxillary and sublingual glands, but dry food causes an increased flow of very watery saliva from the parotid gland, from which the secretion contains no mucin. The secretion of saliva from the submaxillary, sublingual, and parotid glands is under the control of the nervous system, and in this connection the psychical element in relation to salivary secretion must be kept in mind, for, provided an individual is hungry, the smell of food, the sight of food, the thought of food, and the administration of food, all cause an increased flow of saliva. If dry food be taken, the parotid saliva secreted is abundant. It has been quite recently shown that, after the food is swallowed, it lies for at least two hours at the fundus of the stomach, because peristalsis is absent from this region during the early stage of digestion. Here the amylolytic action of the ptyalin goes on for a while, so that the digestion of cooked starch continues. After a time free hydrochloric acid is produced in the cardiac portion of the stomach, and this destroys the ptyalin, so that its action is then stopped.

The practical application of salivary digestion is mainly in connection with bread. In the making of bread the starch is cooked, so that the saliva can more readily act upon the more digestible part, namely, the starch granule. Moreover, the introduction of yeast causes the bread to rise and become light, so that the saliva can easily get at the particles. The crust of bread and the surface of toast contains the dextrins and some dextrose. These are then more easily digested than the crumb of the bread itself. It must be remembered, however, that bread contains also about 8 to 10 per cent. of proteid in the form of gluten, and this is obviously digested in the stomach. Gluten does not exist as such in flour, but is formed by the addition of water from pre-existing globulins in the flour. The reaction of saliva is alkaline in healthy persons, but R. Fleckseder (*Centralblatt f. Inn. Med.*, No. 2, 1905), states that it frequently becomes acid in diabetes mellitus, carcinoma, pernicious anemia and leukemia. He states that normal saliva contains traces of ammonia, and he has found urea in the saliva of a uremic patient who was treated with pilocarpine. The amylolytic ferment shows very little fluctuation in health and disease.—(Reprinted from *Practitioner*, May, 1905.)

## MISCELLANY.

**Open-Air Treatment for Smallpox.** The open-air treatment has been successfully applied to smallpox. The health officer of Nottingham, England, recently reported as follows:

"The uniform practice of nursing all serious cases singly in bell tents with open sides, *i. e.*, practically in the open air, has been adopted with the best results. All cases so treated made a rapid recovery with a minimum of septic complications. In addition to the advantage to the individuals themselves there is the palpable advantage to other patients in hospitals with them of being out of reach of the poisonous emanations from their bodies during the acute stage of their attacks. The progress of the cases so treated has been so much more satisfactory than that of those nursed in the wards, that patients lately admitted to hospital have often asked, on the strength of what they had heard outside, to be nursed in the open air rather than in the hospital wards."

### Phone Mouthpiece Abolished.

The suggested transmission of disease by telephone mouthpieces has led the British General Electric Company to devise an instrument in which all danger is avoided by simply abolishing the mouthpiece. The receiving and transmitting apparatus is combined in a small metal case, shaped like a watch, which is held continuously to the ear both in speaking and in listening, the transmitting microphone being made so sensitive that it becomes unnecessary to concentrate the sound waves on it by the aid of any mouthpiece such as is ordinarily

used. Mounted on a handle, with a speaking key, the new arrangement is exactly similar to the common combined receiver and transmitter, except that there is no mouthpiece, and the speaker, as it were, addresses himself to the world at large, instead of talking into a trumpet-shaped orifice. (*U. S. Consular Reports.*)

**A New Inhaler.** Dr. Jas. T. Gathmey, of New York, has devised an inhaler, made by the Kny-Scheerer Co., the unique features of which are that chloroform or ether can be given singly or combined in any desired proportion, and that the air can be increased or diminished without at the same time increasing or decreasing the anesthetic.

**A Testimonial.** A subscriber sends us the following letter which a Milwaukee physician gave a woman who claims to have a "tea that cures consumption in its first stages":

"Dear Doctor: The bearer of this note to whom it may concern I will say that the treatment which she has given to patients under my care have improved and would advise you to try same. My success has been wonderful with this treatment."

### A Good Liniment.

Glacial Acetic Acid.

Oil of Turpentine, of each, 1 oz.

Yolk of one egg.

Water q. s. add 8 oz.

Mix the oil of turpentine, yolk of egg and acetic acid by shaking vigorously together. To the resultant emulsion add the water, a little at a time, shaking well after each addition. This must not be used on an inflamed surface.

**D. W. Riesland, a Chiropractic,** was sued at Duluth last month for \$10,000 for mal-practice. The charge was that the patient had been strapped to a table, and had his back-bone hammered with a mallet or a man's fist, and seriously injured. Under a recent ruling of our Supreme Court regular surgeons are not permitted to testify in such cases because they do not understand chiropractic, and so the plaintiff lost his case. Such a decision is a travesty on justice. (*Northwestern Lancet*.)

**Secretary Root,** speaking before the International Sanitary Convention, said that the cause of war was the mutual failure to appreciate and understand nations. The remedy he says is, "Get acquainted."

This sounds remarkably like a preachment that the medical profession has listened to, of late particularly.

**Perunitis** (Peruna-itis) or Hartmanitis, is the name a Cincinnati physician would like to give to a case of multiple neuritis of Peruna-Alcoholic origin.

**Goitre.** For parenchymatous form one of the most recent suggestions is the use of boric acid, from 5 to 10 grains, well diluted, thrice daily. Not more than one ounce should be given without suspending treatment for a few days.

**Danger of Flannelette.** The *Lancet* calls attention to the numerous victims which this fabric has already made among children, especially among the poorer classes, because they of course will buy a cheap article more readily, and because the mother can not always look closely after her children. Recently several accidents have been reported, the details of which are almost always the same. A little child is left in the kitchen while the mother puts the baby to bed. The child gets near the cooking stove and the flannelette nightshirt catches fire. The usual result is death of the child. The English judge who had to examine into these cases stated that all the parents who wanted to get rid of their children had to do was to clothe them in flannelette shirts and then leave them alone in the kitchen with a burning stove.

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**Dangerous Meat Preservative.** The president of the Berlin police has issued the following warning, which has been published in various German newspapers:

A preserving substance under the name of "sterilisol" has been put upon the market, with the statement that no objection can be found to its application and that it is in no way injurious to health. Contrary to this it has been shown by investigations made by the chemical laboratory of the imperial health office that samples of this preparation contain  $2\frac{1}{2}$  per cent. of formaldehyde. According to the opinion of the royal scientific deputation for medical affairs, formalin, as well as all preparations which contain it, are to be considered as preservatives seriously injurious to health in all articles of nourishment and enjoyment. In the preparation of meat for sale the application of formaldehyde has been expressly forbidden by statutory regulations.

# THE WISCONSIN MEDICAL JOURNAL

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## ORIGINAL ARTICLES.

### THE ETIOLOGY OF APPENDICITIS.\*

BY REGINALD H. JACKSON, M. D.,

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One of the most interesting of nature's laws is "That ontogeny or the development of the individual, corresponds in its main respects with phylogeny or the development of the race." To give a familiar example of this law: The human being during a certain period of prenatal existence is endowed with gill-like appendages, which during the later stages of development of the fetus dwindle and disappear. Occasionally, however, they persist in a rudimentary character and give rise to the various forms of branchiogenetic cysts and fistulae.

According to our law, gills were at one time a useful part of the bodies of our ancestors. By these ancestors we mean the forms of animal life existing when the earth was but the bottom of a universal ocean, countless thousands of years before the progenitors of man changed from quadruped to biped animals.

If, then, we would arrive at a proper understanding of the why and wherefor of the vermiform appendix together with an appreciation of its shape, size, and position, we must study it first in its process of development in the individual, and second, in its various manifestations in the lower animals in an ascending scale of development from lower to higher forms. In this way it is possible to study certain periods of development of the appendix in the individual and find their correlatives in the fixed type of certain of the lower animals.

If we begin this study at a period of prenatal existence when there is no sign of the appendix as we know it in the adult, we find that the colon, instead of ending abruptly in the cecum, is continued

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\*Read before the 59th Annual Meeting of the State Medical Society of Wisconsin, June 9th, 1905.

for a considerable distance and forms a rather capacious cul de sac, which was evidently of some considerable aid in the digestion of the foods in our ancestors who were probably largely herbivorous in habits, as the prolongation is very marked in the herbivora of to-day and takes an active part in digestion.

Specimen No. 1. Human fetus at 6th month. The terminal portion of the cecal pouch is already shrinking to form the appendix. The proximal portion is equal in diameter to the small bowel and is filled with meconium.

Physiologically speaking, the more herbivorous the animal the greater the amount of intestinal surface required for digestion. Hence herbivora have very lengthy intestinal canals and very often an accessory cecal pouch or pouches. Carnivora have very short intestinal canals, the major portion of the food being digested in the stomach.

Charts Nos. 1 and 2 show stages in the human fetus.

Chart No. 3 shows the cecal pouch in the adult rabbit.

Chart No. 4. The large cecal pouch of the goat which may account for his ability to digest tin cans and bill boards.

Charts 5 and 6. That of alligator and sea lion show the condition in the carnivora.

Specimen No. 2 shows the double cecal pouch in the water hen, an herbivorous bird.

Specimen No. 3 shows the almost complete absence of the cecal pouch in the fish duck.

Specimens of cow, hog and sheep are shown.

Owing to change of environment and food due to man's ascendancy over the lower animals, together with the enormous aid to digestion brought about by the art of cooking foods, a time came when the body no longer had need for this accessory organ. When such a condition of affairs occurs during the process of evolution, nature causes the useless organ to disappear by a process of atrophy which may take thousands of years before it is completed. In the case of the large cecal pouch of the human being we note that it has changed in size and shape so as to practically form a new organ, the vermiform appendix. In reality this is but the dwindling inactive remnant of a former organ.

By carrying this process into the future we see that eventually the cecum and appendix will be obliterated, "A consummation devoutly to be wished," by all except the surgeon. Occasionally an individual is born in whom this has already occurred.

Let us now consider the changes which take place in the appendix from infancy to old age. In the infant the appendix is relatively



larger than at any later period of life. The lumen is of good size and uniform, the muscular layers in its wall are well marked so that it can readily empty its contents into the cecum. The mucous membrane is rich in adenoid and glandular tissue.

Chart No. 7. Appendix of infant.

Chart No. 8. Microscopic appearance of infantile appendix.

The examination of the appendices of a hundred people who died between 60 and 70 years of age from heart disease or any other affection (they were not afflicted with any acute appendicular trouble during life) will show that in quite a number the appendix consists of a simple fibrous cord. There is no lumen. In others this condition exists only for the terminal third. In others we note that there are irregular constrictions and dilatations.

Charts No. 9, A and B, show the various conditions.

Specimen No. 4 is a specimen taken from a patient during a myomectomy. She was 40 years old and had never had any appendicular trouble. The specimen is a solid fibrous cord.

Specimen No. 5 shows the terminal third solid. This patient, 50 years old, died of aortic aneurysm. Having his consent to an autopsy I enquired particularly about his appendix. He had never, so far as he knew, had any trouble with it.

What do these changes indicate?

First let us note the way in which nature replaces lost tissue. When a piece of skin is gouged away, nature fills in the gap with scar tissue, which is, more technically speaking, fibrous tissue. No matter in what organ or in what way this gap occurs nature fills it with scar tissue.

Fig. 11 is a rough sketch of normal liver viewed under the microscope. Note the geometrical arrangement of liver cells and the delicate supporting framework of normal fibrous tissue. In Fig. 12 the uniform arrangement of cells and framework has been sadly altered. Here and there are irregular patches of fibrous tissue in place of liver cells. The individual from whom this specimen was taken suffered from chronic alcoholism which in time acted as a poison and caused the death of the liver cells, which disintegrated and left a gap. Nature filled the gap with scar tissue. The older a scar is the more it contracts. It was the same with this liver which finally formed a small hard contracted cirrhotic liver.

A number of agents may be active in producing this death of cells, disintegration and replacement fibrosis. Thus: 1. Alcohol, lead and other chemical substances. 2. Toxins elaborated by the presence and growth in the body of various microorganisms. 3. Toxic substances absorbed into the system from the alimentary tract. An

interesting example of this is the young broker, who at the age of 25 lays the seeds of chronic indigestion and at 50 has Bright's disease.

It is a prevalent idea that Bright's disease comes upon a man suddenly in an acute manner. Rather is it a term to be applied to a set of symptoms the culmination of a series of changes which have been going on for many years. The elimination by the kidneys of the toxins absorbed through long years of indigestion result in the death of kidney cells and replacement fibrosis, until finally the preponderance of fibrous tissue is such that the few remaining kidney cells are unable to eliminate the various excrementitious substances which normally seek an outlet. Then the train of symptoms appear to which the name Bright's disease has been applied.

To recur to the appendix. There is still another agent which may cause replacement fibrosis: functional disuse. The section through the appendix of the infant shows the innermost layer rich in adenoid and glandular tissue. Later in life these disintegrate from disuse and allow replacement fibrosis. The same holds good in regard to the muscle cells. So that in the old the appendix is often in a condition of marked fibrosis. Chart No. 13 shows this change. The lumen is practically obliterated.

We also find that nature is not uniform in her work. In one case the fibrosis begins at the tip and gradually extends to the base, thus progressively obliterating the canal. In another case the process may begin in the middle or in several places at once. Sooner or later the scar tissue contracts, forming strictures, and in places even complete obliteration of the lumen, leaving portions beyond in which the contents are dammed up forming a stagnant pool. It is an interesting fact that the germs which normally inhabit the intestine and appendix are harmless so long as there is no stagnation. When this occurs the intensity of the poison elaborated by them increases to such a marked degree as to excite inflammation with all its attendant changes in the tissues of the appendix. If the inflammation subsides there is a marked addition to the fibrous changes already present.

The inflammation causes a more rapid death of tissue with replacement fibrosis. This is a difference in the degree and not in the nature of the process. Chart No. 14 shows the various conditions of appendix described.

The condition is well illustrated by the frequent cases of constantly recurring attacks of slight appendicitis, which, when finally operated upon, reveal the presence of a little, snarled up, atrophied

looking appendix with strictured lumen and thickened walls. The surgeon in these cases is often condemned by the casual observer for removing normal appendices. Those of us who have suffered from the constant nagging of the digestive tract with the attendant symptoms of auto-intoxication are only too glad to have the miserable little reptile transferred to a realm of innocuous desuetude in a bottle of alcohol and be freed from the symptoms.

An interesting point in connection with some of these cases, which no doubt will be clearly demonstrated before long, is that the almost neuralgic pain complained of, in cases where it is apparent that there has been no acute inflammation, is due to a sort of pressure neuritis, the terminal filaments of the delicate nerves being squeezed by the contracting scar tissue in the same way that a painful stump is often accounted for.

It will be seen by the foregoing that a person may be preparing for a number of years for an acute attack of appendicitis which is really an accident due to nature's poor workmanship.

Having considered what may be termed the main predisposing cause of an attack of appendicitis I cannot refrain from speaking of one of the most potent exciting factors in many of the gravest cases. The food after undergoing the process of digestion in the stomach and small intestine is passed into the large bowel in semi-solid state. During its passage through the colon the remaining fluid is absorbed until at its termination it is practically solid. If the bowel does not regularly rid itself, it accumulates until the whole colon is loaded with it.

Chart No. 15 shows that it is almost inevitable that some of the putty-like material should be forced into the appendix. If strong and active it may empty itself; if in one of the predisposing conditions already described, the putty-like contents are squeezed through the strictured part and accumulate in the little cul-de-sac beyond. The weakened appendix is unable to empty itself, through lack of power to overcome the opposition of the loaded cecum. The longer the material remains the drier and harder it becomes, finally forming little stones or enteroliths, formerly often mistaken for cherry and date stones. They may remain for some time without causing any great trouble, but sooner or later, as they become harder, and larger, by fresh accumulations, the appendix continuing to atrophy, a time comes when they irritate the lining of the appendix and excite inflammation. The stimulus of the inflammatory action may cause the appendix to give

forth greater efforts to dislodge the stone which becomes impacted in the strictured part.

The appendix is supplied by one little main artery and if the meso-appendix is short and narrow it may well happen that the impacted enterolith will exert pressure upon and shut off the blood supply to the part beyond. The condition is then analogous to a strangulated loop of bowel; there follows rapid death of tissue with a perforation as the weakened tissues part, allowing the escape of the contained gases and foul contents to carry infection in every direction. Nature, owing to the lack of blood supply, is unable in many cases to throw up any adhesions. These are the cases in which we are so often misled by the lack of fever and absence of an inflammatory mass into an optimistic view of the case, until suddenly, when the perforation occurs, the entire aspect of the case changes and at the operation a few hours later we find a gangrenous perforated appendix with no adhesions and the pelvis full of pus. I never fully appreciated the part the contained gases play in the perforation until recently when we operated upon two cases in the perforative stage.

Specimen No. 7 shows the greatly distended appendix. An enterolith was impacted at its junction with the cecum. The pelvis was filled with turbid serum, there were no adhesions and it was only a question of a few hours before a perforation would have occurred and the patient died of a general peritonitis. The operation was made 24 hours after the attack began. There was no elevation of temperature, and the patient was walking around the room when seen an hour before the operation.

Chart No. 16 shows the same condition of affairs.

Specimen No. 8 shows in an interesting way the vermicular action of the appendix when stimulated by inflammatory reaction, the egg-sized cystic tumor, attached by its pedicle to the mesentery of the small intestine, being twisted three times and strangulated by the squirming appendix.

Before closing there are one or two points of interest, especially to the surgeon, which the study of embryology teaches in regard to the position of the appendix in the abdomen and its peritoneal investment.

1. In the process of development of the alimentary canal in the embryo the cecum occupies the left iliac fossa. As development proceeds the cecum and colon ascend to the splenic region and then across the abdomen to the hepatic flexure, finally descending to the right iliac fossa. Occasionally this change does not take place or is retarded at any point so that it is possible to have the cardinal signs of appen-

ditis on the left side and at the operation to find the appendix there. These cases are of sufficient frequency to emphasize the importance of bearing this point in mind whenever we see a case with left-sided symptoms.

Chart Nos. 17 and 18 show the changes in position which the cecum undergoes.

Embryology unravels for us the mysteries of the peritoneum. In the earlier stages there is a comparatively simple arrangement. As development advances it is altered by a process of fusion and adhesion of various peritoneal surfaces until finally we have the complicated structure of the adult. The subject is too complex to more than merely mention it in order to show the various possible peritoneal relationships of the appendix. Charts 19 and 20 show these points.

Chart No. 21 explains the supposed absence of the appendix in certain cases where the surgeon is unable after careful search to find it. Such cases are exceedingly mortifying to the operator. The cardinal symptoms are present, and yet on opening the abdomen the blunt end of the cecum is found without any sign of the appendix. I recently operated on such a case in a farm house at night. Handicapped by the lack of assistance and light I was unable to find any sign of the appendix. The acute symptoms had been so marked that I was convinced that the appendix was at the bottom of the trouble. After burrowing up behind the cecum and ascending colon as far as possible with the finger, a gauze drain was inserted and at the first dressing the gangrenous tip of the appendix with an enterolith was found on the gauze drain when withdrawn.

In presenting my subject I have refrained from wearying you with a mass of statistics showing the percentage of cases of appendicitis following influenza, typhoid fever, and the like. Most certainly a complete exposition of the etiology would include a consideration of the various agents which excite inflammation in other parts of the body—the tubercle bacillus, the fungus *actinomycotica*, the ameba, the various pyogenic organisms, the *lumbricoides*, the agent which produces cancer, the possible effects of trauma. The rôle which these various factors play is insignificant compared with the one great underlying principle of functional disuse, degeneration and replacement fibrosis.

The proper appreciation of the etiologic factors of a disease should indicate the line of procedure to be adopted for its prevention or cure. In no condition is this more true than in appendicitis. By

no means do I advocate the wholesale removal of appendices to prevent the possible occurrence of an attack of appendicitis. Nature is successfully obliterating, amputating if you will, thousands of appendices. Here and there, like the surgeon, she has the misfortune of infection entering into the field of operation, and unless free drainage is established disaster threatens. Fortunately the shrill alarm, the call to arms is so distinct and unmistakable, that even the layman is quick to make the diagnosis of acute appendicitis in the majority of cases. The situation is clearly defined, there is in that particular appendix which nature has been trying to amputate since birth, an infection or gangrene. The indication is plain; the prompt assistance of nature by removal of the appendix before this new factor, this infection has made sufficient headway to jeopardize the life of the patient by involving the peritoneal cavity.

To my mind the physician, who, having charge of a case of appendicitis from the outset, and being within call of surgical assistance, allows the disease to progress to the point where there is one drop of pus in the peritoneal cavity, is derelict in his duty to the patient whose life he has jeopardized just as much as though he had deliberately injected a syringe full of pus into the abdominal cavity. As the golden hours of opportunity slip by there are sown the seeds of peritoneal sepsis, intestinal obstruction, and all the various terrible complications of an acute inflammatory septic process. How often does this occur to the consulting surgeon as he stands by the bedside, gazing upon the Hippocratic countenance, the distended belly with thighs drawn up—too late! But there was a time in the progress of this case when it was in the power of many to save a human life. Others may not see it, but the surgeon reads from afar the raised letters on the tombstone. "Sacrificed on the altar of ignorance and stupidity." These are hard words, but truth, even as murder, will out.

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**How to Kill a Baby with Pneumonia.**—"Crib in far corner of room with canopy over it. Steam kettle, gas-stove (leaky tubing), room at 80° F. Many gas-jets burning. Friends in room, also the pug-dog. Chest tightly enveloped in waistcoat poultice. If child's temperature is 105°, make a poultice, thick, hot, and tight. Blanket the windows, shut the doors. If these do not do it, give coal-tar antipyretics and wait."—DR. W. P. NORTHROP.

## THE EARLY DIAGNOSIS OF CONSUMPTION.\*

RUSSELL J. C. STRONG, M. D.,  
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The following paper is a collaboration of the best and most recent material I have been able to gather from American, German and French sources.

There is no one pathognomonic sign of incipient tuberculosis, but a close and careful investigation of constitutional and local manifestations will often give a positive diagnosis. The one thing necessary is to consider a number of symptoms, knowing that the presence of a few of them in the same individual must be considered evidence of the disease. Many of these early symptoms seem of slight significance and only careful attention will lead to their recognition. During the true incipiency of the malady—anatomically characterized by the formation of a few isolated tubercles in lymph glands or in lung tissue—no symptoms or only vague general symptoms exist, and none on which to base a *positive* diagnosis of the disease.

Tuberculosis is most likely to occur in those under weight, those lacking in normal thoracic development and normal respiratory power. If such individuals have been exposed to contagion from tuberculosis—if they exhibit beginning loss of weight together with heightened temperature and pulse rate in the afternoon or evening, with or without persistent dry cough and even without the presence of tubercle bacilli in the sputum—we cannot offer a negative diagnosis. Always carefully investigate the history of a patient as to tuberculosis in the family or among intimates, as to unhygienic mode of life, dusty and confining occupations, and the like.

Disturbance of the pulse and temperature, usually well balanced functions, is necessary for the diagnosis of an active tuberculous process. The morning pulse and temperature are usually unchanged in the early stages of the disease, although, occasionally, there is a slightly subnormal temperature. Excessive mental or physical exercise increases the temperature and pulse ratio in excess of that produced in a healthy individual. In some patients it will be found that the pulse shows this disturbance *only* after exercise and that the temperature is elevated *only* at the time the patient is tired or after exercise, or at such periods of physical stress as before and during menstruation.

Fever is the most constant symptom of beginning lung disease and may precede cough and expectoration for weeks or months. An

\*Read before the Central Wisconsin Medical Society, Madison, August 29, 1905.

increase of one-fifth to one degree in temperature is usually to be noted after midday. When tubercles are confined to one lobe or portion of a lobe it rarely exceeds 100.5 degrees. Elevation usually begins toward evening and the ascent is very gradual, but a hearty meal and physical or mental exercise may temporarily increase it and may also cause it to begin earlier. The maximum may be reached in 3 or 4 hours and the decline may be rapid or gradual; as a rule the temperature is again normal at bedtime. More rapid rises and higher degrees are readily induced by physical exertion or mental application, as by playing cards, a social evening, a heavy meal, or a slight attack of indigestion. Absolute rest in bed reduces the ordinary maxima. In many cases the whole period of elevation comes within a few hours and the entire rise is less than one degree Fahrenheit. This so-called eruptive fever stops entirely when, after a period of from several weeks to as many months, the reactive inflammatory changes peripheral to the tubercles have subsided. Recurrence of the fever may indicate a new eruption of tubercles or the beginning softening of a caseous focus.

Chilly sensations are not so uniformly present in the eruptive stage; usually they are indicative of destructive processes or suppuration. There may be only a little shiver, a "goose-skin" sensation, the hands or feet get cold, or perhaps the finger nails turn blue, but we always find these sensations to correspond to the beginning rise of temperature.

A small rapid pulse is an *important* and a common symptom in the course of pulmonary tuberculosis and may precede the advent of fever and cough. Though at times present in the early stage it is more frequently observed as the disease progresses. An increase of ten to thirty beats of the heart is usual after midday—the pulse being weaker or softer than normal. In the earlier periods the condition may become apparent only toward the close of the day or on even slight exertion.

Among the early symptoms may be a slight hacking cough unexplained by any evidence of elongated uvula or tonsillar or faucial irritation. This may not be present. The truly early stage cough corresponds to the first formation of tubercles in the lungs. Cough is most frequently produced by irritation of the sensitive mucous membrane of the respiratory tract. This irritation may be due to the formation of tubercles, acrid or excessive secretions, ulcerations of the mucous membrane, congestion of the bronchial mucous membrane, or inhalation of irritants. The minute centers of inflammation induce



catarrh of varying degree. When with deep inspiration the alveoli are rapidly distended and again emptied, the catarrhal secretions present may thereby be caused to enter the bronchioles and thus cause cough, the occurrence of which under such circumstances may be suggestive, if not diagnostic, of tubercular lung disease. If the alveolar catarrh extends to the bronchioles or if the mucous membrane of the latter is the seat of tubercle formation, more constant cough will naturally result. In all these cases, however, in which the alveolar catarrh is slight and the secretions are not sufficient to enter the bronchioles, there is no cough in the truly early stage and in such a tubercular deposit may form, become limited, latent, encapsulated, and may heal, without the patient having either cough or expectoration or experiencing any other symptoms referable to the lungs.

Expectoration can hardly be claimed as a symptom belonging to the truly early stage of pulmonary tuberculosis. Like the cough, expectoration is either absent or insignificant in the stage of tubercle formation and its more marked appearance coincides, as a rule, with the beginning of destructive changes in the lung.

Careful questioning will usually elicit the occurrence of sweating, often at night, varying in appearance and amount. Possibly these "night sweats" are of an earlier appearance than we appreciate and in the great majority of cases are so slight as to be unnoticed or their significance overlooked by the patient. Night sweats, at times one of the earliest clinical manifestations of the disease, belong usually to that period when destructive changes are initiated or in progress and they are then associated with hectic fever. Night sweats appear to indicate the absorption of dead disintegrated tissues, exudates, pus, etc.—are not pathognomonic of pulmonary tuberculosis and may occur in the convalescence from acute diseases, in malaria, with septic processes, and with exhaustion from suppuration in any part. Except in acute miliary tuberculosis, in truly septic cases, and in acute phthisis, phthisical patients rarely sweat while awake. The sweat in phthisis contains nothing characteristic and the claims of its containing tubercle bacilli or specific toxins were never substantiated.

Hemoptysis, a symptom of fairly frequent occurrence, in the absence of other causes, is one of the greatest signs. Apart from the admixture of blood with the sputum, the expectoration of pure blood may be the first symptom of pulmonary phthisis. Its occurrence often coincides with some unusual physical exertion. In many cases the patient has enjoyed perfect health prior to its occurrence. The so-called initial hemorrhages are, as a rule, slight or moderate and vary from one or a few mouthfuls to four or six ounces.

Tubercle bacilli and elastic fibres in the sputum always indicate an open ulcer or a cavity even though we fail to confirm it by physical examination—it means destruction of tissue and not a pathological period in its incipency. The tubercle bacillus in the sputum is of indisputable accuracy. It appears only after the caseation and breaking down of a tubercle near a bronchus or a bronchiolus—therefore it is certain that tuberculous changes have occurred previous to the appearance of the bacillus in the sputum. This is borne out by the clinical observation of a recognizable stage of tuberculous lung involvement before bacilli are found in the sputum. The clinician who waits until he can clinch his diagnosis of tuberculosis by the sputum test has lost the most valuable weeks or months in the whole history of the disease and nearly half his chances of a cure. While inability to demonstrate the presence of bacilli in the sputum does not necessarily negative the existence of tuberculosis, their presence demonstrates it conclusively.

By the febrile reaction from small doses of tuberculin we can diagnose early tuberculosis. Those experienced in its use and only those are able to confirm their clinical diagnoses by its use in the initial stage or at least in the very early stages. Those unfamiliar with it derive little or no benefit whatever from its use either remedially or for diagnostic purposes. Practically all those who see many tuberculous patients at sanatoriums are agreed that, in some cases, a positive diagnosis can be reached *only* by the use of tuberculin. Koch, in 3000 cases, claims positive results in diagnosis in 99 per cent. In his experience they must be apyretic and uncomplicated cases. The use of tuberculin necessitates great care in its application and a complicated apparatus. The tuberculin test may properly be employed in suspicious cases of recent development, in which only indefinite conclusions can be reached by other means. Tuberculin is a specific irritant to both the tubercular focus and the susceptible individual. The tuberculous foci are rendered hyperemic and give up large quantities of toxins which, entering the blood, cause the reaction. Violent and oft repeated reactions may weaken an organism in the advanced stage of the disease. There is no proof that the injection of tuberculin is prejudicial in incipient cases. *Careful* application of the tuberculin test will do no harm to the tubercular subject and probably will have no influence of any sort upon the present or future health of those who are free from the disease. The question as to the absolute reliability of the test is not finally settled. There will be occasional failures in medical as well as in veterinary practice. Syphilis, actinomycosis, and leprosy, are said to give reactions to tuberculin.

It is a common experience that pulmonary tuberculous may exist in a latent form for months and years, during which the patient may enjoy entire freedom from symptoms. However this latent deposit may become active signaling, as a rule, the initiation of softening. When such softening of caseous tubercles is not extensive—with its final outward discharge, the symptoms may again subside; the patient improves, grows stronger, and increases in weight—cough and expectoration, as well as fever, diminish and may entirely disappear; but we would not feel ourselves justified if we called such a patient even “apparently cured.” How shall we *know* this latent disease which is liable to become active and even to threaten life? In all such cases we can obtain, as a rule, quite satisfactory and trustworthy evidence by a properly applied *tuberculin* test.

Chief among corroborative disturbances is probably a slowly progressing anorexia, irregular in type, with persistently coated tongue and progressive loss in body weight—due to lessened food ingestion with metabolic and assimilative changes. The most common cause of anorexia is fever if coincident with the hours for meals. Progressive loss of weight, however it may be induced, is always a symptom demanding our greatest attention. There may be early hoarseness or a condition resembling chlorosis or neurasthenia, bronchitis or dyspepsia.

A peculiar pallor, a pseudo-anemia, is often present—due to a vasomotor disturbance of the peripheral vessels, for repeated counts evidence conclusively that this is not due to diminution of the red blood-corpuscles, leucocytes, or hemoglobin, these elements remaining close to normal percentages until influenced by the profound disturbances of the later stages in which we observe a true anemia.

Among other symptoms occurring with infrequent regularity may be noted (a) pleuritic pains beneath the scapulae or about the upper part of the chest, (b) repeated chilly sensations, (c) flushing of heat, (d) fleeting neuralgic or rheumatic pains in various portions of the body, (e) the “glistening” appearance of the eyes, (f) the “ hectic ” flush often apparent in the cheeks, (g) prolongation of the expiratory act, (h) altered vocal resonance, (i) inability to inspire deeply without inducing cough, (k) a subjective sensation of resonance when talking, (l) a widely dilated state of both pupils—not a paralyzed pupil—due to some irritation in the oculo-spinal region or perhaps an irritation of the sympathetic brought about by some blood change associated with very early tubercular infection and not yet fully recognized. These vague symptoms assume diagnostic value only when considered together with the results of a careful physical examination.

Labbe states that the great majority of women twenty to thirty years of age who come to his clinic with pulmonary tuberculosis have had a decided history of anemia which may or may not have disappeared before the tuberculous manifestations. He thinks these patients have a larval state of consumption—a state existing before the appearance of the bacillus. Such a condition is manifest, often, merely as a neurasthenia, polyarthrititis, asthma, bronchitis, etc. Many of Labbe's patients come to his clinic as chlorotics with pulmonary lesions that are improving. It would seem as if chlorosis was often simply a manifestation of arrested pulmonary consumption or, frankly, a symptom of tuberculosis—a mask that tuberculosis assumes at the epoch of puberty in the female. Of all the causes of anemia likely to give rise to an apparent chlorosis none is more important or more frequent than tuberculosis.

The symptoms on the part of the nervous system are chiefly due to the decline in general health and vigor and in the earlier stages, when the nutrition and blood state are good, patients suffering from pulmonary tuberculosis have no special nervous symptoms that are attributable to their disease.

The sleep is usually undisturbed except through fever, cough, night sweats, or other complications which are painful and prevent sleep on that account.

The urine in the early stages is usually normal in quantity and quality with only such changes as we observe in other diseases that are attended by fever, gastro-intestinal complications, loss of weight, etc.

Excluding the true tuberculosis lesions which are extremely rare complications in phthisis, the skin and its appendages present no important symptoms.

The physical examination of the chest by inspection, palpation, percussion, and auscultation—carefully done—offers most direct evidence. Remember the advantage in a physical examination of (a) removing all clothing to the waist for accuracy in percussion or auscultation, (b) the advantage of open-mouth breathing during percussion or auscultation, (c) the advantage of forced inspiration and expiration during the examination of suspicious areas, (d) the absolute necessity of an examination of the sputum in all suspicious cases.

By inspection we find conditions of stature and physical development indicating a predisposition to the disease. Length and weight of body, circumference and expansion of chest—by correlation—show the bodily condition and the state of nutrition. The classical "habitus

phthisicus" or paralytic thorax is not often found. A retardation of respiratory movements over the affected portion of the lung may be observed, especially over one apex—the more pronounced the more recent the involvement of the lung portion. Foci of greater extent diminish the excursion of the diaphragm of the affected side—demonstrable by the fluorescent screen or equally well by Litten's shadow.

Painstaking percussion of the chest, comparing the two sides, is of the greatest value. Marked dullness is rarely found. Percussion will sometimes elicit a significant retraction of one apex as compared with the other. Even the most expert diagnostician must realize that only when the pathological alterations are near enough to the surface can he expect to obtain evidence of their existence by percussion or auscultation. If the formation of tubercles in the lung is peripheral or approaching the pleural surface, and is of recent date or just occurring, the recognition of such a process by auscultation is one of the most delicate tasks in physical diagnosis, and percussion, especially when not forcible, is of no avail at this period.

Painstaking auscultation of the chest, comparing the two sides, is of the greatest value. Examine particularly with the stethoscope the upper portions of the lungs, also the lower borders and the axillary regions—also the lingula over the heart dullness. Many of the signs are subject to considerable variation. Râles easily discoverable in the morning may regularly be absent in the afternoon. They may be found on damp and rainy days when absent in dryer weather. In women pulmonary signs are accentuated at the time of menstruation. In the recently involved area the inspiratory murmur is either weakened or it is more or less rough, sometimes both, and it may sometimes be interrupted, but the prolongation of the expiratory murmur is as yet absent. One who is not thoroughly practiced is very apt to disregard this weakened or rough quality in the inspiratory murmur and to acquire the ability to recognize it we must first get a physiological standard by persistent practice upon healthy subjects. The rough murmur is produced by slight inflammatory changes in the bronchioles—the air passing over the uneven surface and through a slightly narrowed lumen. It is principally audible during inspiration over the apices and below the clavicles. This murmur precedes the râles (not the case, as a rule, with the puerile murmur) and this is the earliest auscultatory manifestation of consumption. The appearance of râles over the apices (also in the axillary region) is next to it in importance. In the earlier stages there are usually fine crackling râles

which can often be heard only directly after the patient has coughed. The rough murmur must not be confounded with the sharp (puerile) respiratory murmur which is more a sign of increased function than of swelling of the mucosa—both are vesicular murmurs. The rough character is produced by a succession of sounds following each other too rapidly for aural differentiation—the respiratory sound loses its smooth character and becomes impure and roughened. If the succession be less rapid, we speak of an interrupted respiratory murmur which suggests much coarser changes. When these adventitious sounds become audible beside the vesicular murmur, we speak of rales. Rales indicate catarrhal conditions—with them the intensity of the vesicular murmur is usually diminished; this is also produced by the more pronounced swelling of the bronchial mucosa. If one or several interruptions during inspiration correspond to the area where the murmur is weak or rough, it is a corroboration that the lung is structurally altered. Very often but not always the skilled auscultator can recognize an incipient case before tubercle bacilli appear in the sputum.

Pleuritic friction is often heard at an early stage—most frequently in or near the axillary line between the sixth and eighth ribs.

Chronic bronchitis, chronic bronchopneumonia, and the interstitial pneumonias, require differentiation, usually, from the advanced stages of tuberculosis. Chronic bronchitis caused by the inhalation of dust when interrupted by acute bronchopneumonia may show consolidation, fever, emaciation, and cough, but the tubercle bacillus is never found in the sputum. Chronic interstitial pneumonia of an upper lobe with bronchiectatic cavities has, at times, severe hemorrhage, emaciation, pallor, and cyanosis, but tubercle bacilli are never found in the sputum.

Pleuritic exudates, by pressure on the lung, may cause rales at the apex but tubercle bacilli cannot be demonstrated in the sputum.

Sarcoma, e carcinoma, lymphoma, of pleural sac or mediastinum—also actinomycosis and echinococcus of the lung—may all give rise to violent hemorrhage with chest symptoms, pallor, and emaciation. The absence of high fever, absence of the diazo-reaction, with presence in sputum of bits of tumor or actinomycosis grains or portions of echinococcus sacs, point the way. Tubercle bacilli are never found. The physical evidence of actinomycosis, echinococcus of the lung, and tumors of the chest—including aneurism—is usually not confined to the upper lobe. Actinomycosis, alone of these, may react to tuberculin.

Aortic aneurysm may show cachexia, cough, hoarseness, and bloody

expectoration with symptoms of consolidation, but there is no fever and no tubercle bacilli.

Valvular affections of the heart with which there are pulmonary infarctions, brown induration, or diffused catarrh—usually well characterized—may coexist with tuberculosis. Then use tuberculin. Pulmonary infarctions show absence of tubercle bacilli.

Mitral stenosis usually shows slight pulmonary hemorrhage with dyspepsia, cyanosis, and cough. Frequently the anterior border of the left lung shows fine bubbling râles, or, in the apices, sibilant rhonci. The absence of fever and of tubercle bacilli, the presystolic murmur at the apex of the heart, and the doubling up of the second sound, reveal the disease.

Ulcerative endocarditis may show remittent fever, night sweats, emaciation, dyspnea, cough, bloody expectoration, but there is absence of tubercle bacilli together with evidence of endocarditis at the mitral, aortic, or pulmonary valves.

Chronic gastro-intestinal affections are not attended by fever—at least not by that daily rise which we see in this stage—and if pus should be present in some hidden locality, as for instance in the female pelvis, the liver or the kidneys, there are usually other local symptoms that point that way.

Masked or walking cases of typhoid fever may show cyanosis, sibilant rhonci in the upper and moist rales in the posterior portion of the lower lobes. The diazo-reaction of the urine speaks for tuberculosis of the lungs as well as for typhoid. The favorable termination of the illness or autopsy will throw light on such obscure cases. Enlargement of the spleen, meteorism, and roseola, large morning remissions of fever, and presence of miliaria crystallina speak for ileo-typhus.

Diabetes mellitus will reveal itself by examination of the urine.

Syphilis may keep us in suspense in those cases where there are no cutaneous lesions and in which the patient denies its contraction. Even in the last stages of osseous lesions fever may be present and, though rare, there may be physical evidence in the lung of syphilitic gummata with consolidation and cough. The cutaneous and osseous lesions when present, enlarged spleen, with antisiphilitic treatment and tuberculin, clear the diagnosis.

Study chlorosis and leukemia microscopically—if in doubt use tuberculin.

The clinical difference between the acute and the chronic form of consumption is one of degree in rapidity of progress and severity of attending symptoms.

## ARTERIO-SCLEROSIS.\*

BY L. A. POTTER, M. D.,

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We do not always take into account the important rôle that arterio-sclerosis exerts upon the system, and the essential understanding of it in the successful treatment of many diseased conditions, for it is not only the arteries that are affected, but through lack of nutrition, the various organs and tissues also, thereby causing degeneration in local areas.

Vascular strain, or hypertension in the arteries, is one of the most potent causes of arterio-sclerosis. Under normal conditions the blood pressure is of considerable magnitude, being about  $2\frac{1}{4}$  pounds per square inch. This, continued through an ordinary lifetime, is bound to tell upon the coats of the arteries, and if from any cause the strain is greater for any considerable time, it will cause their breakdown.

Heredity plays an important part in the production of hypertension, some families showing a marked tendency to its early development, continuing into a condition of arterio-sclerosis. If we can detect the hypertension early we can do much to lessen its effects on the arteries, and thus ward off the developing arterio-sclerosis; but we can do little for the disease except retard its progress after it has once become thoroughly established.

Between the ages of forty-five and fifty some persons begin to show the signs of the wear and tear of life, while many others are in their prime. They show high tension of the arteries, and soon symptoms of arterio-sclerosis. The disease is frequently caused by certain forms of gastro-intestinal intoxication, this tendency being present in two distinct types: one representing the large, plethoric individual who eats inordinately and poisons himself with excess of digestive products; the other, the poorly nourished and sallow dyspeptic whose elimination is defective and causes a condition of chronic toxemia.

Other toxic agents that promote arterio-sclerosis by increasing blood pressure, are chronic alcoholism, plumbism, syphilis, diabetes, etc. Chronic alcoholism has always been considered one of the leading agents in promoting arterio-sclerosis, though recent investiga-

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tions seem to prove that the conclusions were not true. Dr. Richard C. Cabot, of Boston, in a paper read before the last meeting of the American Medical Association, with reference to alcohol as a cause of arterio-sclerosis, in summing up his investigations, says:

“Only 6 per cent. of two hundred eighty-three cases of chronic and excessive alcoholism under fifty years showed any evidence of arterio-sclerosis. Of forty-five cases of arterio-sclerosis examined by me at the Massachusetts General Hospital, only 13 per cent. gave any history of alcoholism. Of six hundred fifty-six autopsy cases of arterio-sclerosis, only ninety-five, or 14.5 per cent. were under the age of fifty. Out of these ninety-five cases under fifty in which arterio-sclerosis was found—post-mortems—only 21 per cent; and if we exclude cases complicated by chronic nephritis, only 17 per cent. appear to have consumed alcohol to any notable excess.”

As alcohol is a vasodilator and does not cause hypertension we can see why it does not play as important a part in causing arterio-sclerosis as has been assigned to it in the past. Possibly the kind used may make some difference, as, for instance, beer, from the amount of fluid ingested, keeping the arteries and tissues surcharged with fluids. Indirectly alcohol could be a cause, from the indigestion that accompanies chronic alcoholism. Tobacco, by causing hypertension, when used in excessive amounts can be a causative factor in arterio-sclerosis, and it is quite probable that it plays as great a rôle in its production as alcohol, or even greater. Lead is a toxic agent that has been frequently given as a cause. Dr. Frank Billings, of Chicago, in a paper before the last meeting of the American Medical Association, says that “lead intoxication may lead directly and indirectly to arterio-sclerosis, though it is quite evident that lead cannot be a very frequent cause for arterio-sclerosis.” Syphilis is frequently a cause, either from the direct effect of the poison or the long continued use of mercury and iodides in the treatment of the disease. It is quite probable that any agent that is foreign to the blood plasma, if left circulating in the vessels for a long time, is conducive to this disease. The increase or excess of strain above the normal accelerates the breakdown of the arteries. Hence, laborious occupations, excessive muscular exercise, mental or physical overwork and excitement, all contribute to the cause.

Usually arterio-sclerosis develops slowly and insidiously through a period of months and years. It may be divided into a localized and a diffuse form, though both may be blended in some cases. The circumscribed or nodular form of the disease, that characterized by the development of scattered patches of atheroma or calcification of arterial

walls, is usually associated with old age, while the diffuse form, or arterio-capillary fibrosis, affects specially the small vessels, causing a thickening of the arterial walls and less calcification. It is this form that develops at an earlier age and is caused more especially by toxic agents. Age is an important factor in the development of arterio-sclerosis, between forty-five and fifty being the time of life it usually begins, while all individuals who have reached advanced years have acquired the condition. The thyroid gland begins to atrophy at about the age of forty-five, and the secretion from this gland has the properties of a vasodilator; may not this be a cause for hypertension in arteries at this time of life? Also, the secretion from the adrenals raises the blood pressure very much, and any irritation or diseased condition of those glands, by causing hypertension, might be the beginning of an arterio-sclerosis. In the last issue of the *Journal of the American Medical Association*, there was recorded an important experiment in which adrenalin was injected into a rabbit and in a short time the animal showed evidences of arterio-sclerosis. Upon killing the rabbit, two or three months later I believe, the aorta and some other vessels showed positive arterio-sclerotic conditions.

The few very early cases before the age of forty are usually due to syphilis.

The presence of arterio-sclerosis in one gland or set of arteries does not necessarily indicate that it must exist in other parts; therefore, when it has reached a considerable degree of advancement in the brain, heart, or some of the intestinal organs, the peripheral arteries, or those that are easily accessible may not show the least indications of the disease. For this reason we may have quite distinct clinical types, as the cardiac, renal, cerebral, and gastro-intestinal.

The cardiac type is evident from the arterio-sclerosis commencing in the finer branches of the coronary artery; and by the time the gross lesions appear in the trunk of the coronary and aorta, numerous smaller branches in the heart muscles and their territory have undergone degeneration. In the earlier stages of this process, clinical examination is negative; it is only in the later stages that heart murmurs, the signs of angina pectoris, dilatation and myocardial insufficiency become manifest.

The renal type is also quite well defined, the process beginning in the arterioles and progressively involving larger portions of the kidney. It is not recognized in the earlier stages. As now understood, Bright's disease does not cause arterio-sclerosis, but is the result of it in most cases. In the cerebral type the symptoms, such as the

disturbance of memory, irritability, senile dementia, dizziness, etc., are caused by a more or less progressive arterio-sclerosis of the arteries, and especially of the cortex. The gastro-intestinal type is deserving of consideration from the changes that have been found in the arteries of the stomach, intestines, pancreas and liver, and should be considered when making a differential diagnosis between ulcer, carcinoma, intestinal obstruction and gastric or intestinal neurosis. Evidence of arterio-sclerotic changes in other tissues would lead us to suspect gastro-intestinal arterio-sclerosis.

Arterio-sclerosis of the extremities is not an infrequent occurrence in the form of senile gangrene, caused by obstruction of the arteries from thrombus, also by intermittent claudication, a condition occasionally seen due to arterio-sclerosis in the parts affected, which causes a local deficiency in the muscles of the lower extremities when an unusual vascular demand is made in these muscles by attempts at active service.

The general systemic manifestations in arterio-sclerosis are due to impairment of the nutrition, general or local, by the damage done to the circulatory system. The tissues are flabby and wasted, the skin loose and wrinkled, and the condition of asthenia, anemia, cachexia, and the familiar aspects of senility are present.

Arterio-sclerosis is undoubtedly the fundamental cause of a considerable number of nervous diseases, and should always be taken into account when making our diagnosis. Starr says that in two hundred consecutive cases of apoplexy of which he has records in private practice, in eighty per cent. there were distinct prodromal symptoms which had been regarded at the time as neurasthenic, but which were more readily explainable under the law of malnutrition due to arterial disease. He thinks if the condition of the blood vessels and the heart muscles were thoroughly investigated for the possible existence of an accentuated second sound, and the tension in the arteries not only in the wrist, but elsewhere, and the condition of the kidneys were studied, the so-called neurasthenia would be more apt to yield to treatment other than the use of remedies directed particularly to the nervous system. He also remarks that it is not so commonly known that the majority of diseases of the spinal cord are equally traceable to the vessel wall where the direct infection is not shown. Vascular disease is found in poliomyelitis, bulbar palsy, myelitis, spastic paralysis, so-called senile paraplegia and combined sclerosis, all of which can be traced often to arterial degeneration.

The most that can be hoped for in the treatment of arterio-

sclerosis, is the arrest of its progress when once under way. Much can be done if it is taken hold of in its incipient stage, or it may be possible to prevent the disease in those who are predisposed to it. The causes that produce the disease in each individual case should be carefully studied and methods taken to eliminate them, and as they have usually existed for a long period of time, whatever treatment we institute should be carried out faithfully for a considerable period of time, if we expect results. As habits and modes of life are among the principal causes, so a careful regulation of the daily regimen is one of the most important elements of treatment, and should be continued indefinitely.

Those persons who have a predisposition to arterio-sclerosis or who have already acquired the disease, should give up all hard muscular and mental work, and a more moderate life should be lived. They should avoid all mental strain, excitement, and worry; plenty of rest and sleep must be taken; the diet to be moderate, plain and digestible, and the amount of proteid food diminished; all excesses and irregularity in eating and drinking avoided; the skin, kidneys, and bowels kept active. The elimination of all toxins from the system should be promoted in every way. The drinking of plenty of water and frequent bathing will conduce to this end. The hot air bath is probably better than the hot water bath, because it dilates the arterioles and lowers blood pressure to a greater extent.

In the medical treatment of arterio-sclerosis, one of the important indications is to lower arterial tension enough to obviate the injurious effects on the vessel walls though we should maintain enough pressure to properly propel the blood through the stiffened arterial vessels.

Among the drugs the vasodilators are the chief ones used to bring about this condition, and chief among these are the nitrites. Amyl nitrite is used in emergencies when a prompt and powerful action is desired, as in angina pectoris. Nitroglycerine has a more prolonged effect, though this should be given every one, two or three hours as the case may be, until the desired effect is obtained. Sodium nitrite in from two to five grains is said to keep up a more prolonged and continuous effect on the blood pressure than either of the above. Veratrum viride is claimed to be very valuable as a permanent vasodilator where a prolonged effect is desired.

Depleting the circulation by free catharsis, diaphoresis, and diuresis, is a great aid in lowering blood pressure; at the same time it eliminates toxins. Bleeding is a prompt means of lowering hyper-

tension in emergencies, like threatened apoplexy. When arterio-sclerosis is caused by special conditions, such as syphilis, gout, diabetes, plumbism, etc., the treatment should be instituted according to the various conditions and the stage of the disease.

The iodides are very valuable and have acquired a favorable reputation in the treatment of arterio-sclerosis. They seem to act in an alterative manner on the diseased vessels. Their use is not as an antisyphilitic, but should be given in smaller doses and for longer periods—sufficient to accomplish results. They are very valuable in the cases accompanied by vertigo, headache, motor, sensory and mental abnormalities, and other morbid cerebral conditions arising from the disease.

Trunecek's inorganic serum is recommended highly for the treatment of arterio-sclerosis. It is a solution of alkaline salts in blood serum in their relative proportion but in tenfold strength. These salts are in greater proportion in the young, while in the old the tissues become more acid, and this serum seems to establish the equilibrium, and is indicated in all cases of arterio-sclerosis in which the hyperacidity of the urine and the desquamation of the skin indicate a deficiency of alkaline salts in the blood. This serum is said to markedly relieve dyspnea, asthma, palpitation, vertigo, motor and sensory symptoms of cerebral origin, etc., arising from arterio-sclerotic conditions.

In conclusion, I think the various instruments for measuring blood pressure will be of great value in the early detection of hypertension, and give us warning of the first symptoms of arterio-sclerosis. Also that in any chronic disease in a person who has reached the age of forty-five or older, we should bear in mind the rôle that arterio-sclerosis is liable to play. Frequently it is not the heart alone that is so much diseased, as it is the vessels of the general circulatory system, and the same may be said of the nervous system, the kidneys and other organs. The old saying that "a man is as old as his arteries" is a true one.

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**Closure of Tracheotomy Wounds.**—T. C. HOOVER (*Journal A. M. A.*, June 3, 1905) reports a case of low tracheotomy for removal of a foreign body that was treated by immediate closure with fine catgut throughout, beginning with the trachea. No drainage was used, and the healing was prompt and uneventful. He sees no reason why, with surgical cleanliness, there should be any need of the open method in non-infectious cases of tracheotomy.

THE NECESSITY FOR THE ANNUAL SYSTEMATIC EXAMINATION OF SCHOOL CHILDREN'S EYES, EARS, NOSES AND THROATS BY SCHOOL TEACHERS.\*

BY J. P. McMAHON, M. D.,

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This is an age of prevention rather than an age of cure. The hope of being able to contribute some small part toward the alleviation of the conditions suggested in the subject which we are about to consider, is one which I have cherished ever since I became a medical student. At that time, through the kindly observation of a medical professor, my own spherical aberrations were recognized and corrected, thereby relieving me from a condition of most acute suffering and giving me complete optical relaxation. And you will be surprised no doubt when I state that up to that time I had been a victim of neglect in this respect as long back as I could remember, which was during a period of nearly twenty years.

Everywhere are to be found federal, state, and municipal laws of the most stringent kind regulating quarantine and isolation of acute contagious and infectious diseases, and providing for the segregation of some of the chronic, and all of this is very laudable. But let us reflect for a moment and see whether or not our zeal for warding off disease has not in a measure at least blindfolded us to the existence of anomalies which are not only a menace *per se* to the welfare of the individual, but which complicate the previously suggested acute diseases to which all are predisposed, and breed many chronics, some of whom sooner or later become state charges, thus affecting society at large in a more concrete way. The existence of these state charges constitutes a strong ground for any attempt at the correction and eradication of existing conditions in the health of school and other children.

It is estimated that there are in the United States over fifteen millions of school children. Three million, or one in every five of these, are suffering from either eye, ear, nose or throat difficulty, and some suffer from two or more of these difficulties at the same time. All of these abnormal conditions are remediable, and if remedied those suffering from them are certain to be placed in a much better situation to undertake life's battles, and to achieve a reasonable

\*Read at the Annual Meeting of the District School Board of Racine County, at Burlington, Dec. 6, 1905.

degree of that success which produces self-sustaining citizens and obviates the necessity on the part of the state of maintaining schools for the blind and deaf and other state charges. To bring the matter nearer home, precaution in this direction might remove the necessity of towns and counties caring for burdensome paupers and criminals to the great extent which is required at the present time. It is certain that a child whose educational progress is embarrassed, and in some cases almost totally arrested by reason of physical defects and afflictions, may very easily become a truant whereby the habits of idleness and indolency are sown at an early age. These same habits may, unless the children are energetically and skillfully cared for by parents and teachers alike, multiply and result in characters fertile for evil, contagion and infection. If, therefore, these defects can be mitigated, controlled or eliminated—and we hope later to show that they can be—by parental authority, or, where parental authority fails, by state authority, is it not within the state's province to intervene and place such afflicted children in a position of reasonable equality with their more healthy and fortunate companions and afford them the same opportunity for educational attainment, so far as reasonably possible, at least so far as the more common, curable, physical defects are concerned? Would it not be a laudable and economical investment of public funds? Is it not the state's duty to do this? The answer to these questions must certainly be in the affirmative when we reflect that the state would thereby and at the same time minimize the possibility of having to care for these afflicted, in a more expensive way, at a later period of their lives.

As the wording of the subject of this paper and what I have said thus far indicate, we are to direct our attention more particularly to abnormal conditions of the eyes, ears, noses and throats, which we will now take up separately only to learn how closely allied and interdependent they are found to be. We will at the same time try to indicate the ease and effectiveness with which they can be dealt with if attended to early and systematically.

In every school one will find near-sightedness (*myopia*), far-sightedness (*hypermetropia*), astigmatism of varying proportions, cataracts, inflamed lids (*conjunctivitis*), turned-in lashes (*trichiasis*), and more or less winking (*blepharospasm*), any one of which will cause the child headache or pain and result in the inability to see distinctly. It may be that the afflicted child can not see the black-board or print without great effort, or that he does not readily recognize his companions or teacher. A child afflicted in this way is apt

to be generally indifferent and backward in his school work. Such indifference and backwardness is certain to develop later into a hatred for school life from which he will secede to engage in truancy and at times lawlessness, all because of a disease which can be easily corrected if attended to at the proper time. In the same building and not infrequently in the same pupil, we observe a stupid, expressionless face, wide nasal arch, protrusion of the eyeballs and an open mouth, the whole picture being commonly described as "frog-face," due to adenoids in the vault of the pharynx, enlarged tonsils and large turbinated bones or nasal polypi, making it necessary for the air to pass in through the mouth where it is not nearly so well warmed, moistened or sifted as it should be, and as it would be, were it passing through its natural channel of ingress—the nose. Breathing through the mouth is much more irritating to the delicate lung tissues, the ultimate recipient of the air. But this is not all. Congestion and catarrh of the Eustachian tube and middle ear are also present, which often leads to catarrhal deafness or the forming of pus about the middle ear structures or to perforation of the ear drum, the latter very often being a defect which can never be repaired. This latter condition is the cause of a constant and highly offensive discharge of matter from the ear. Sometimes it gives rise to a much more hazardous condition, a brain abscess. The general lack of intelligence of a child afflicted in this way when coupled with deafness makes him a hopeless student if not an imbecile. He too often acquires a distaste for school work, hates his books and teachers, becomes an idle if not dissipated street urchin, and finally he is apt to become a strong candidate for a criminal record which can be prevented by timely intervention.

We say that these conditions are interdependent because it is a well known fact that polypi and catarrhal conditions of the nose interfere with the patency of the outlet of the different accessory sinuses or cavities, causing them to become distended, and they in turn cause displacement of the eyeball which results in interference with refraction and causes optic nerve lesions. This also produces obstruction of the lachrymal ducts, which in turn causes the retention of irritating mucous in the conjunctival sac, giving rise to what is called conjunctivitis. Diplopia, or double vision, and exophthalmos are other conditions caused by sinus enlargements.

The foregoing picture may seem to the casual observer to be a little extremely drawn. It may occur to some that it describes the exception rather than the average case. But it does not. These are true, living, positive facts capable of demonstration in every country school that has an attendance of any account.



I shall not burden you with statistics except to give you these general deductions. In Germany fifty per cent. are found to be afflicted with nearsightedness (myopia); and it is estimated that twenty per cent. would be approximately the percentage found in the United States—and it is on the increase from generation to generation, and even from year to year, the percentage increasing with the advance of civilization.

We believe it to be a natural and most sacred right of every child in this great land of ours to have these defects corrected or cured at the earliest opportune moment, in order, if for no other reason, that he may be placed in a position affording him all possible means of acquiring at least the equivalent of a high school education. It is to education that we must look for the solution of the problems of sociology and criminology as well as the other absorbing problems of the day. It is peculiarly the moral and urgent duty of the state—and when I say the state I mean the public acting through the agencies of government, even if the particular agency of government be but the school district—to take any steps which augment educational possibilities; and surely it is within its function to remove existing impediments and obstructions of a physical as well as of a moral or mental nature.

A large part of a child's life is spent in the school, and teachers should and do take a watchful and anxious interest in the physical as well as the mental condition of the children under their charge. I believe that this is more especially true with reference to children who are often necessarily not so well looked after by their busy and over-burdened parents. Because of these facts, it appears to me, we are justified in looking to the school for relief from the conditions which I have attempted to indicate.

The examination of school children's eyes by regularly appointed physicians is no new departure. It has been carried on in Germany and in certain parts of the United States during a considerable period of time. As far back as 1893 the American Medical Association adopted the following resolution:

*"Whereas, The value of perfect sight and hearing is not fully appreciated by educators, and neglect of the delicate organs of vision and hearing often leads to disease of these structures, therefore*

*"Be it resolved, That it is the sense of the American Medical Association that measures be taken by boards of health, boards of education, and school authorities, and where possible legislation be secured, looking to the examination of the eyes and ears of all school children, that disease in its incipency may be discovered and corrected."*

The state medical societies of New York, Michigan, Minnesota, Montana, Colorado, Delaware, South Dakota, and our own Wisconsin, have since passed the same resolution.

In Connecticut it is made a statutory requirement that certain simple tests, the nature of which will be outlined presently, be made by the teachers. Blanks are provided to be filled out indicating the nature of the difficulty with which each pupil is suffering and the same is sent home to the parents, in cases where the pupils need attention in the way of medical treatment. These blanks, when filled out, serve to suggest and recommend medical examination by the family physician or by a specialist. This particular plan is a very good one because a medical examination conducted in the school and by the school authorities, while theoretically satisfactory, has the one disadvantage of being a great and probably unnecessary expenditure of public funds. The term 'unnecessary' is used here because it has been found that, by means of a chart and a few pointed questions, the intelligent teacher can, according to the figures of Dr. Frank Allport, of Chicago, who is a pioneer and an authority in this work in the west, detect the presence of abnormalities in eyes, ears, noses and throats in approximately ninety per cent. of the cases. The method devised by Dr. Allport is now in operation in Minneapolis and St. Paul and other Minnesota cities. It is in operation in Illinois, including the city of Chicago under direction of the state board of health, in New York under the state board of health, in Connecticut under the state board of education; and it is in use in other places. Some work of this kind is being done even in far-away Asia. If we cannot have it in Wisconsin under some state authority, why should it not be adopted in Racine county under the supervision of the county superintendent of public instruction? There is no reason, I hope and believe, though there are numerous reasons why it should be introduced here. The time has come when we should no longer accept the dictum of Mark, "If thine eye offend thee pluck it out," but rather should we have it remedied and hope to enter the kingdom of God with two good eyes.

The need of the proposed tests being now fairly well established, it remains to point out a particular means of accomplishing the results which are necessary and desired.

The tests as recommended by Dr. Allport are absolutely harmlessly and painlessly performed without instruments or appliances, the examiner not even touching the person of the child. This examination is conducted from a chart containing instructions to teachers and questions to be answered by those being examined, all of which

would cost each district the small sum of twenty-five cents; and that amount would include blanks to be filled out and sent to parents of children found to be in need of further medical examination. This chart which is recommended to you contains the ordinary test letters of Snellen, so arranged with respect to size that certain letters are seen by a normal eye at certain definite distances. The letters on the line containing the number 20 are seen by a normal eye at twenty feet, known as 20-20 or normal vision. The distance between the child and the chart is indicated by the numerator of the fraction, the smallest line which is readable is indicated by the denominator. To illustrate: Should an eye be able to read only the line marked seventy at twenty feet the vision would be expressed by the fraction  $20/70$ . The reason for taking twenty feet is simply because this is a convenient distance, and for this reason is universally employed. Below the test letters on the chart is a detachable card containing instructions to the teacher. This should be separated from the test type and preserved for guidance during the examinations. The test card itself should be hung on the wall twenty feet from the pupil under examination.

The instructions to the teacher are as follows:

1. "Do not expose the chart except when in use as familiarity with its face leads children to commit the letters to memory."
2. "First grade children should not be examined."
3. "The examinations should be made singly and privately."
4. "Children already wearing glasses should be tested with glasses properly adjusted on the face."
5. "Place the vision chart for schools on the wall in a good light. Do not allow the face of the card to be covered with glass."
6. "The line marked twenty should be seen at twenty feet, therefore place the pupil twenty feet from the card."
7. "Each eye should be examined separately."
8. "Hold a card over one eye while the other is being examined."
9. "Do not press upon the covered eye as pressure might produce an incorrect examination."
10. "Have the pupil begin at the top of the test card and read aloud as far as he can, first with one eye and then with the other."

The questions with comment upon them are as follows:

1. "Does the pupil suffer from inflamed eyes or lids?" An affirmative answer to this question will indicate iritis, scleritis or conjunctivitis.
2. "Does he fail to read a majority of the letters in the line containing the number '20' on the test type with either eye?" An intelligent answer to this question will reveal the absence or presence of nearsightedness (myopia), a majority of the cases of farsightedness (hypermetropia) and astigmatism. It will also suggest the possibility of the absence or presence of cataracts, corneal opacities, optic neuritis and vitreous and retinal disturbances.

3. "Do the eyes and head tire and grow painful after study?" An affirmative answer to this question is another indication of the last mentioned conditions.

4. "Does the pupil appear to be cross-eyed?" This is a condition which is practically self-evident.

5. "Does the pupil complain of ear ache?" An ear ache indicates acute ear troubles.

6. "Does matter or a foul odor proceed from either ear?" An affirmative answer to this question will indicate a previously inflamed middle ear and a rupture of the drum.

7. "Does the pupil hear an ordinary voice at a distance of twenty feet in a quiet room, sounds being excluded from one ear while the other is being examined, the eyes being closed during the examination?" A negative answer may mean either catarrhal trouble or deafness due to destroyed conducting apparatus, wax or trouble in the auditory nerve.

8. "Is the pupil subject to colds in the head and discharges from the nose and throat?" An affirmative answer to this question would suggest enlarged turbinated bones and frontal sinus congestion.

9. "Is the pupil an habitual mouth breather?" An affirmative answer to this question may disclose what is called deviated septum, or it may disclose enlarged turbinated bones, polypi, adenoids or tonsils.

It must appear to all that these questions are the embodiment of simplicity, yet comprehensive in their character. The ease with which they can be answered is commensurate only with the urgent necessity of this system of tests being introduced in every school. And benefits are certain to accrue from such an examination.

If, upon examination, an abnormal condition is believed to exist, a card of warning is sent to the parents suggesting and advising that the family physician or some specialist be consulted. While the teacher cannot and should not attempt a surgical diagnosis of any case, she will by the examination become aware of at least the more serious troubles; and this alone is quite sufficient. The family physician will do the rest where, through the united efforts of teacher and parent the patient shall have been presented to him for a final diagnosis of the case.

Naturally there have been some objections, not of very serious nature, however, offered to the plan which I have outlined; and it is not at all surprising that there should be these objections, as every new scheme, especially when it touches the public school system which is so dear to every American heart, is bound to be received in a conservative way, and it usually encounters objection. Some parents are apt to object for reasons which are trifling and not well founded, but in the majority of cases these objections can be overcome by an

explanation of the method and its purposes, and often a better understanding will result from admitting the parents to the room or office, as the case may be, during the examination. The incompetency of teachers to conduct the examination and interpret their findings has been offered as an objection. In reply it may be said, with conclusiveness, that any person capable of taking charge of a school room can not possibly have difficulty with that which is so extremely simple. That it is an urgent tax upon the time and energy of the teacher has also been suggested as an objection. This objection is not well founded, as the extra work is quite inconsiderable. The examination may be conducted after school, a number of examinations being conducted each evening until all are examined. Another and better way is to have a time set apart at the beginning of each school year, by the county superintendent of schools or the school principal to be devoted to the examinations. However or whenever the examination be conducted, I am certain that the results will in the end greatly diminish the labors of the already over-worked instructors and teachers, instead of being an undue imposition on them. This will be found true because many afflicted children will be benefited by the fitting of glasses or by other suitable treatment. Through the relief given, pupils of apparent denseness will be transformed into students with increased mental acuteness and efficiency. In this way, not only will the pupil be benefited, but the instructor will be relieved of the hopeless task of trying to keep the afflicted pupils up to the same standard of scholarship as is maintained by their more fortunate and healthy companions. In fact, the extra burdens thrown upon the teacher as a result of the abnormal conditions, existing in the particular manner that has been indicated, will be in a very large measure totally removed. These burdens constitute the source of a large part of the physical and mental fatigue of the average teacher at the present time. The benefits resulting to the teacher alone will serve to prompt the teacher to make certain that the tests are annually executed in a thorough manner, and this independent of the benefits accruing directly to the pupils under the teacher's charge. Some have urged, as an objection, that parents will not avail themselves of the advice and recommendations given for the pupils' benefit. Undoubtedly many parents will, through lack of appreciation, indifference or neglect, fail to seek medical advice after the cards of warning have reached them, but the great majority will do as they are advised to do, and in most cases they will be grateful for the information and will hasten to profit by it.

On the other hand, it has been observed that a goodly number of those, who at the outset oppose the plan and ignore the warning, eventually seek treatment for their children, as a result of seeing the sometimes marvelous results produced in their neighbors' children. These same parents eventually become enthusiastic advocates of the system.

It is encouraging to note that there are those who advocate this system so ardently as to maintain that there should be a legislative enactment requiring the enforcement of submission to tests similar to these which I have outlined. They maintain that the tests will not be performed unless under compulsion. To say that the success of a plan such as this under consideration must necessarily depend on compulsion, under the law, is to discount to an extreme extent the intelligence and benevolence of our citizenship. The result of experience in directions similar to this is that if you convince the American citizen that a particular line of conduct is necessary to the welfare of his children and the public, he is certain to do it without the compulsion of law.

Some suggest that the tests will be abandoned after having been used for one or two seasons, and they even go so far as to brand the whole scheme as a "fad." This is not exactly a fair criticism, and does not in any adequate way argue against the utility of the plan. The fact is that when people can not find a substantial rational objection to a new scheme they seek to characterize it as a fad, and thus arouse the prejudice of conservative people. For my part I am here to urge that you who are in authority in this county do not leave the matter to the option or caprice of the individual, but that you insist to the extent of requiring that the plan be uniformly adopted, and the tests performed. The general adoption of this system of tests by the schools of this county would certainly give the whole movement momentum, and possibly result in the tests being accorded a permanent place in the school curricula throughout this state.

As a more important objection some critics have raised the question of increased expenditure. This is an error. The expenditure resulting will not be appreciably large. Even if the expenses were multiplied many times, the actual amount will not be found to be enough to constitute an objection deserving of much serious consideration, when the enormous possibility for good, resident in the tests, is considered. I am informed by your superintendent, that there are about one hundred school rooms in this county, excluding the schools of Racine city, which are maintained and conducted independently of the other schools of the county. The cost of the charts, when pur-

chased in lots of one hundred, is seven cents a piece. Thus the cost of the charts for the whole county would be \$7.00, and one set of charts, if properly taken care of, will last an indefinite time. In reckoning the total cost there are still left the cards which bear the messages of warning to be sent to the parents. Three dollars' worth of these would supply a liberal number, which would last even longer than the charts. It is seen that the plan can be placed in operation and maintained in every school room of this county under the jurisdiction of the county superintendent during a considerable period of time for the small sum of \$10.00.

A further word about these cards of warning. As has been indicated they are sent by the teacher to the parents, and they are so gotten up as to explain themselves. The cards read as follows:

"After due consideration it is believed that your child has some eye, ear, nose or throat disease for which your family physician or some specialist should be at once consulted. It is earnestly requested that this matter be not neglected."

The teacher draws a line through the words eye, ear, nose or throat, as the case may be, leaving only the word or words designating the parts where disease is suspected. As will be observed the words of warning are not mandatory or obligatory in their nature. They simply inform the parent of the probable existence of a disease, thus placing the responsibility upon the parents, where it belongs; and he is at perfect liberty to take notice of the information or not as he may please.

In conclusion, and by way of brief summary, I have shown that there is a necessity for the annual systematic examination of school children's eyes, ears, noses and throats by the school authorities; that the existing condition of school children, in these respects, impedes seriously the work of the school in numerous ways; that it is within the province of the state or municipality to take steps toward remedying these abnormalities which I have fully indicated; that it is peculiarly within the province and the duty of the state to inaugurate needed remedies along the lines indicated through the school; that examinations corresponding to those for which I contend have been provided for in other leading states, in most instances under supervision of some school authority; that the American Medical Association and certain state medical societies including that of Wisconsin, recommend action looking toward the amelioration of existing conditions; that the plan devised by Dr. Frank Allport of Chicago, the plan which I have outlined in detail, seems to be the most feasible one

which has thus far been devised; that this plan can be easily introduced in Racine county; that no serious objections have been offered against it; that it is inexpensive; and that if it be introduced great benefits are bound to follow.

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### CONVALESCENCE.

BY J. H. VOJE, M. D.,

OCONOMOWOC, WIS.

Convalescence is a very important, if not the most important period in the life of a patient.

“Convalescent at last! The doctor says so!” What a feeling of relief is experienced by the members of a household when that stage is reached by one of their loved ones, who has been down with a severe illness! Anxiety and fear give way to the other extreme. But not so with the doctor and the experienced and conscientious nurse. They know that convalescence means *getting* well, but not *being* well, and they increase, if possible, their vigilance and care, knowing and fearing the dangers of this stage. They know that the patient, exhausted by the disease, is now extremely vulnerable, that life is at a low ebb, and that the recuperative powers must yet be developed. Because of these conditions there often occur fatal relapses, destroying the results of the work and care of long and tedious weeks.

Convalescence is slow in the aged and in those over middle age. It is slow after severe hemorrhage, suppuration, catarrhal pneumonia, influenza, and gun-shot wounds of the vital organs. It can often be shortened by skillful professional help as compared with the methods of nature. For example, in the removal of foreign bodies, of frozen or gangrenous parts, of dead bone, and the like, nature would often be too slow in her efforts at regeneration or demarcation, for the vitality of the patient.

In many instances convalescence is only apparent, giving rise to false hopes, even, at times, on the part of the physician. We may mention the intermissions of pyemia and sometimes of septicemia, the frequent improvements in pulmonary tuberculosis, diabetes, nephritis, etc. The lucid intervals of dementia paralytica are often sufficiently prolonged to cause the discharge of the patient from the asylum, although a relapse always follows, sooner or later, dangerous to the patient, to his friends and to the community.



Convalescence, ordinarily very welcome, is not always so. A wounded or sick condemned murderer does not care to recover. The very poor mother would rather remain in the warm, clean hospital; so would the convict. Soldiers often retard recovery as much as possible, and the army surgeon must ever be on the alert to detect feigning. Unmarried mothers recover slowly, after confinement, because of their mental state.

Convalescence is often indefinitely prolonged by secret grief or unfulfilled wishes—as in the case of a girl with a hopeless love. Very often things may be brought to a quick and pleasant ending if the physician is a psychologist and mind-reader, and can take everything connected with his patient into consideration. If he can gain the confidence of his patient and can remove the mental obstacle, a quick recovery will often result without the aid of medicine.

Many patients, especially hospital patients, fear convalescence. They are yet so dependent, and nurses often become lax in their care of a case as soon as the temperature and pulse-curves are “down-chart.” Alas—that such should be the case just at the time when the patient needs so much encouragement, sympathy and care, weakened and exhausted as he is from fever and pain.

Now and then convalescence is prolonged and full recovery is retarded by a lack of will-power on the part of the patient, or by an unnatural fear of relapse. Over-anxiety on the part of relatives and over-care by the nurse sometimes produce the same result. Under such circumstances an earnest and firm word in the form of a command from the doctor often works wonders. I know of an excellent physician whose plan is to be very firm and even severe with such patients, becoming more and more amiable, pleasant and appreciative as the patient's efforts are increased.

Many physicians, and especially the younger members of the profession, are apt to too soon discontinue their attendance upon an acute case. The patient, not entirely recovered and barely convalescent, thinks himself discharged, even if careful instructions are left. He assumes his duties in life too soon, and a relapse is the consequence.

Some of the saddest moments in the life of the physician are those when he finds himself powerless to conduct his patient through a safe and carefully guarded convalescence. The factory-worker, the mechanic or the clerk, who is the support of a family and whose funds have run to a low ebb during an attack of la grippe, for example, is eager to earn again and to return to his work, regardless of the urgent warnings of his doctor. A relapse is the common consequence, in

which event the physician again goes over the same ground. This is always less pleasant than the first time, and is frequently without the same good results.

The medical profession in general is well aware of the great importance of the convalescent period, and so is the enlightened laity. We find, therefore, all over the country, beautiful homes and quiet retreats for the convalescent. Unfortunately, those most in need of these institutions cannot avail themselves of such luxuries, not having the means. It is true that we have a number of free homes, but far from enough.

I have by no means exhausted my subject. My chief purpose has been to draw attention to the importance of the matter, and I shall add only a few rules for our guidance.

It is wise to be very guarded in pronouncing a patient convalescent, for a number of reasons. Many a physician has seen his ease go to another doctor on account of a too early discharge. In most acute cases with fever, convalescence should not be pronounced until the temperature has been normal and subnormal constantly for at least three days, other conditions being favorable. If asked to discontinue his visits, "because the patient appears so well," the physician should inform the relatives clearly of the dangers yet lurking. Some physicians will not be thus discharged, but will rather continue their visits free of charge until they know that all danger is really over. Many physicians discontinue their visits too soon out of false modesty, fearing to run up high bills, or that the relatives of the patient may think that he is making unnecessary visits for his own benefit. A clear explanation, as indicated above, is the best course to pursue under the circumstances.

A beginner may of course quit a case too soon from want of experience, but it is better to call too often than not often enough. All patients with a temperature above the normal, no matter how slight, after an acute attack, belong in bed, and should not be permitted to get up until the temperature has remained normal for at least three consecutive days. The only exception to this rule should be in cases where a second physician has been called into consultation, and both agree that the patient may safely leave his bed. The system can best cope with disease and fever when it is allowed perfect quiet. Any exertion makes additional labor for the system which is fully occupied in getting rid of poisons.

When the period of convalescence has been reached, both the nurse and the family should be warned of the dangers attending this stage

of the disease, and that their vigilance should by no means be relaxed. The system must be carefully and gradually guided back to health. It is during this period, that the services of a good nurse are most appreciated by the patient. Her duties are to bridge over in a diplomatic way any peevish spells, carefully prepare the diet, adjust the pillows, move the bed to a bay window, protect her patient from exertion, teach him how to walk, prepare (if it be in the summer) a cosy corner on the piazza for him, with blankets well adjusted around the legs and feet, read his wishes, keep visitors away, if necessary, and keep a careful record of the symptoms for the doctor.

The doctor will aid according to prevailing conditions, use kindness or firmness, as the case may require. He will not pronounce his patient cured and ready to resume his accustomed avocations until all animal functions are normal, the blood test correct, or nearly so, a deep inspiration causes no cough, no soreness exists anywhere, and until the patient can walk a mile without exhaustion, can climb stairs without materially increasing the heart-beat, and has regained approximately his normal weight.

But, alas! this high standard cannot often be attained, and we must, in consequence, be content with a less perfect condition of health.

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#### Treatment of Fractures of the Femur in Infancy and Childhood.—

WARE (*Annals of Surgery*, August, 1905) recommends a device consisting of a right-angled triangle constructed of one strip of bookbinder's paste-board, the width of the triangle adapted to the width of the thigh. One length is obtained by measuring the trunk from the level of the lower angle of the scapula to the inguinal fold. The length of the other side of the right angle is the length of the thigh. The hypotenuse is always a few inches longer.

The single strip of cardboard is then bent to the shape of the desired triangle and the overlapping edges secured by adhesive plaster. The triangle may be made more rigid by reinforcing it on all sides of this inner aspect with small pieces of cigar-box wood. The outer surfaces in contact with the trunk and thigh are to be padded with non-absorbent cotton. A muslin spica secures the triangle embracing the trunk and the thigh in a flexed position. Over the muslin bandage several turns of a dextrin bandage are placed, giving additional security to the splint. The leg is left to move freely.

It is surprising how comfortably the infants may be carried about, how clean they may be kept during the three or four weeks that the splint is kept in place, and how uniformly successful the perfect healing of the fracture results. (A. W. M.)

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## EDITORIAL COMMENT.

## THE LABORER IS WORTHY OF HIS HIRE.

The Marathon County Medical Society has registered its vigorous protest against the reprehensible practice of which so many physicians are guilty, of accepting the position of club or lodge physician for inadequate compensation. We know not how extensive this practice is, but that it is very general, there can be no question.

The resolutions (printed on page 432) call attention to the evil, and doubtless many who voted for their passage knew from personal experience how little there was really "in it," how their own feelings of personal dignity and manhood had been kept in subjection

while in this business. At best, working for no or starvation returns, doesn't pay, because the expense incident to the practice of medicine is considerable, surely enough to equalize the returns from a lodge or club practice. Better do out and out charity work, because it has, at any rate, the one compensation—gratitude—and precious little of this commodity at best ever comes to the physician.

Most lodges are made up largely of artisans and mechanics whose incomes are sufficient to enable them to enjoy certain luxuries of the home. Why then, can they not pay adequately for medical services rendered? How galling it must be to a self-respecting physician to be compelled to treat such families for a few paltry dollars per annum.

And what about the quality of work done by an underpaid agent? How can a physician render to those who are able to pay, the same services—for little or nothing—that he would give for a decent fee? Small wonder then, that while the lodge doctor is in demand for many illnesses, because he serves at bargain prices, he is not always retained throughout, and that the larger legitimate fees go elsewhere. The cheap doctor soon becomes cheap in the patient's estimation, and the respect in which he is held is in proportion to the low value he puts upon his own services.

It is in Germany that the contract practice system (*Kassenarzt*, *Vereinsarzt*) originated, and it was imported into this country with German emigration, as an institution that had the sanction of the fatherland. That the system has been fraught with disastrous consequences is shown by the frantic efforts now being made in Germany and Austria to, in a measure, curtail or regulate the practice. Will not our physicians who allow themselves to be thus employed, soon too realize that they are playing a losing game, that they are giving more than they are taking, that they are drifting farther and farther away from that for which they are striving—a competency?

The laborer is worthy of his hire. So thinks the lodge member when he draws his pay envelope. Does the medical college or university graduate think himself no laborer, and less worthy?

#### **OPIUM-CONTAINING INFANT PACIFIERS.**

In response to an inquiry from one of its readers, the *New York Medical Journal* analyzed a bottle each of Kopp's Baby Friend and Dr. Bull's Cough Syrup, and found that the former contained approximately 1-3 grain of morphine to each 100 cc. of contents, and the

latter 1-4 grain. *Collier's Weekly* also recently mentioned Mrs. Kopp's cure for colic of babies.

It is probable that the notoriety that has thus come to these preparations will prevent the indiscriminate sale they have thus far enjoyed. No one can have a conception of the enormous distribution of these preparations. That of Mrs. Kopp is especially known to us. This party's plan of action is to secure through the newspapers a list of birth records, and to the addresses so obtained small sample vials of their opium containing medicine are sent with a prospectus telling of its pacifying qualities. That it has a quieting effect upon crying babies is easily demonstrated, and we know from personal experience that, after using the sample, the 25 cent bottles are purchased in enormous numbers by people of moderate and poor means.

On several occasions we have suspected that some infant deaths might be traceable to the use of this drug, but had no means of verification. Now that physicians are aware of the fact that these much-used preparations contain opium, it is possible that their further use may be in a measure restricted, and that any fatalities that may occur in such cases will be carefully inquired into.

#### THE "APPROXIMATE MEASURES" OF THE UNITED STATES PHARMACOPEIA.

In a recent article under the above title (*American Medicine*, Dec. 2, 1905), M. I. Wilbert, Apothecary to the German Hospital of Philadelphia and a well known writer on pharmacology, takes the eminent members of the Committee on Revision of the United States Pharmacopeia to task for perpetuating a blunder that has only its age to recommend it, and not a particle of fact. The new Pharmacopeia directs that the following values for approximate measures be used:

- 4 cc.=1 fluid dram =1 teaspoonful.  
 8 cc.=2 fluid drams=1 dessertspoonful.  
 16 cc.=4 fluid drams=1 tablespoonful.

Now, it is a known fact, and one easily verified, that the average capacity of a teaspoon is approximately 5 cc., a dessertspoon 10cc., and a tablespoon 15cc., and thus it is evident that the capacity of a tablespoon is the equivalent of that of three (3) teaspoons, and not four (4). Mr. Wilbert well says that "the inconsistency in this connection is particularly evident when we remember that a large number of drugs and preparations are directed to be standardized, and in some

cases are not permitted to vary more than the fraction of 1 per cent., while in this table of approximate measures the Pharmacopeia itself directs equivalents that are known to vary from 20 to 60 per cent. from the normal."

It is to be hoped that this deeply rooted, fallacious teaching will not continue to be imparted to students of medicine, and that Mr. Wilbert's protest will be accorded due recognition.

#### GONORRHEAL ARTHRITIS.

Until within recent years arthritis was thought to be nearly the only infection produced by the gonococcus. Its field, however, has gradually been enlarged until now it is known to be one of the most widespread and serious of infectious diseases, vying even with syphilis in its importance. Of the different forms of infection produced by the gonococcus, none is more disabling and serious than gonorrhoeal arthritis. We have come to recognize that this form of arthritis is not infrequent, and we no longer look upon it as being essentially a monarticular, but rather as a polyarticular arthritis. This affection, which apparently occurs much more commonly among men than among women, is usually found during or soon after an acute attack of gonorrhoea, though the attack may have become very chronic or have entirely disappeared; then the primary disease may be denied.

With women it is not so very uncommon to find no evidence of gonorrhoea either in the history or upon examination, and this fact should not be forgotten. The husband may be suffering simply from an old gleet. The inflammation is rarely confined simply to the articular surfaces but is usually found also to be periarticular and extending along the sheaths of the tendons. Nor must we always look for an effusion, as many cases are nothing more than a simple synovitis. An effusion, when it does occur, rarely becomes purulent except in the smaller joints of the hands and feet. In most cases it is not difficult to demonstrate the gonococcus in the exudation by simple aspiration and microscopic examination of a smear stained by Gram's method, counterstained for a few seconds in a saturated aqueous solution of bismark brown.

Clinically the disease is distinguished by its obstinacy and variability. Relapses are common and it may become chronic and last for years. Cardiac involvement may occur and should be sought for especially in the more severe cases.

A number of articulations not usually involved in acute rheu-

matism are frequently attacked, such as the sterno-clavicular, intervertebral, temporo-maxillary, and sacro-iliac.

A form of pododynia, which is most painful and disabling, is now recognized as being definitely gonorrhoeal in origin, Baer having grown gonococci from the exostoses which are formed on the os calcis. But few cases of gonorrhoeal perichondritis of the larynx are on record; one such has recently been reported by Barker.

A correct diagnosis of gonorrhoeal arthritis is of the greatest importance not only because this disease is usually much more intractable than ordinary rheumatism, but also because its treatment is so very different. The local treatment is all important. The different methods of applying heat are beneficial in the milder cases, while in the chronic forms massage and passive motion are to be used.

However, in the severe cases, and especially in those in which a considerable exudate is present, surgical treatment is the only satisfactory method.

The painful heel of gonorrhoea, Baer states, is readily cured by removal of the exostosis.

#### ECONOMY IN HOSPITAL MANAGEMENT.

The large deficits which occur annually in the larger hospitals of the country, present a matter which should demand serious consideration from those interested in institutions for the care of indigent sick. The difficulty seems to lie, not so much with an inadequate amount of funds supplied by an uncharitable public, as with the enormous waste of which incompetent management is guilty. A comparison of the per diem cost per patient in the larger European hospitals and those of America will hardly sustain the reputation for keenness and shrewd business sense of which Americans have been justly proud. The average cost per patient in six of the large London hospitals, as computed from a table supplied by Arpad G. Gerster (*New York Medical Record*, Dec. 2, 1905) is \$1.50 per diem; in the two large Paris hospitals, \$0.58; in the larger hospitals of Germany, \$0.35; in America, of 13 hospitals, \$1.80; in the six large New York hospitals, \$1.90. Admitting that the purchasing power of money here is much less than abroad, even then the difference is so great that some other explanation must be sought.

In the communication to the Hospitals of Greater New York by the Committee on Hospital Needs and Hospital Finances, Nov. 1, 1905, the following valuable suggestions were offered:



"1. Our first suggestion is the adoption of less expensive materials and methods than those commonly in use, which we are assured can be done without lessening efficiency.

*Ether.* Surgeons of large experience, whose results are nowhere surpassed, use ether costing considerably less than the article which now practically monopolizes the New York institutions. The open method of inhalation, as compared to the closed method (the results being the same), consumes 100 per cent. more of ether.

In addition the use of ether as a washing fluid for preparing the skin in the field of operation is unnecessary. By these economies the cost of ether alone can be reduced fully one-half without any lessening of efficiency.

2. Dressings. Towels which can be easily washed and re-sterilized can be used time and time again in the place of gauze which is more expensive and only once employed.

The same material used on clean wounds for dressings should be re-washed and re-sterilized and repeatedly used.

Gauze swabs used in clean surgical wounds should also be saved, washed and re-sterilized for repeated use.

Plain cotton wadding which costs one-fourth as much as absorbent cotton can be employed in a large number of instances where the more costly material is now wanted. Cotton itself can even be employed where gauze is now used.

3. Bandages. What is true of gauze is true of bandages since bandages are less apt to be soiled, can be re-washed, re-sterilized and used dozens of times instead of being thrown away, as is now the common practice after being once applied.

4. Alcohol. Probably the most flagrant and unnecessary waste of material in hospital management is that of alcohol. The demonstrations are clear that the quality of alcohol now used in the hospitals might be reduced by two-thirds and not lessen efficiency.

When alcohol is needed as a local application the 25 to 50 per cent. alcohol should be substituted for the costly 90 per cent.

Suggestions are further made to reduce the cost of coal by its purchase in "cargo;" to compel light to be furnished at the same rate at which it is furnished to the municipal government; the co-operation of the hospitals in the purchase of various commodities.

These recommendations (signed by Drs. John W. Brannan and John A. Wyeth, and Mr. T. D. Callendar) have the authoritative sanction of men well versed in the management of hospitals, and the economies suggested can well be adopted, and with profit, by institutions elsewhere, without in any way impairing their efficiency or hazarding results.

## ITEMS OF INTEREST.

**A Correction.** Under a misconception as to the method of appointing the Committee of Arrangements for the Annual Meeting of the State Society, such a committee was recently appointed by President Currens, and the list sent to the *JOURNAL* for publication. According to the rule of the State Society, and long established by precedent, this committee is to be appointed by the Society in whose county the meeting is to take place. We desire, therefore, to make this correction. The committee appointed by Dr. John W. Coon, President of the Milwaukee County Medical Society, is as follows: Dr. A. T. Holbrook, Chairman; Drs. H. E. Dearholt, W. B. Hill, F. Pfister, N. M. Black and A. W. Gray.

**William H. Bartran, M. D.**, a pioneer physician of Green Bay, died Nov. 22, of paralysis, aged 67. Dr. Bartran was a native of Barton, N. Y., was graduated in 1865 from the University of Michigan, and practiced medicine in Green Bay for 33 years. He was a veteran of the Civil War, a member of the Legislature in 1873 and 1874, mayor of the former city of Fort Howard, county and city physician for twelve years, and a charter member of Brown County Medical Society.

**Dr. John R. Currens**, President of the State Medical Society, met with a painful accident recently by being thrown from his carriage. He fractured several ribs and suffered some cerebral concussion. He is now convalescing.

**Dr. C. C. Crittenden**, of Madison, member of the State Board of Dental Examiners, and recently President of the National Dental Association, died on Dec. 15th, at the age of 63 years.

**Dr. J. C. Bell**, of Cottage Grove, Dane County, was found dead by the roadside near Deerfield, Dec. 5. At the inquest it was decided that death was due to an accident.

**Dr. W. B. Ford**, formerly of Norwalk, has moved to Sparta to join forces with Drs. Milligan and Williams. Dr. Williams is spending the winter in Colorado.

**State Board of Medical Examiners.** Gov. LaFollette has made the following appointments: Dr. P. H. McGovern of Milwaukee, Dr. J. B. Stevens of Jefferson, Dr. Milton A. Barndt of Milwaukee, and Dr. C. U. Jorris of La Crosse.

**Dr. George W. Corbett**, of Plymouth, a well-known practitioner, has been seriously injured by being thrown from his buggy.

The **Nobel Prize** for medicine is understood to have been awarded by the committee to Prof. Robert Koch.

**Dr. J. F. Randall** has removed from Monroe to Missoula, Mont.

**MEDICAL NOTES.**

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**THE PHYSIOLOGY OF THE DIGESTIVE PROCESS.  
GASTRIC DIGESTION.**

The alkaline saliva which is swallowed with the food causes a flow of gastric juice. This contains the pepsin-hydrochloric acid which acts upon the proteid food, converting it first into acid-albumen or syntonin, then into primary (proto- and hetero-albumose) and secondary albumoses (deutero-albumoses), and finally into diffusible peptones. Gelatin is converted into bodies called gelatin-peptones. Some of the sucroses, as cane sugar, are hydrolised by the free hydrochloric acid into glueoses such as dextrose and levulose. Maltose is hydrolised into dextrose. The proteid envelope of the fat molecule is digested, and so the fat is set free. There is no direct action upon fat itself, which is the chief reason why pork is so indigestible, the muscle fibres being protected from the action of the gastric juice by the fat particles around them. More recently, it has been suggested that the acid gastric juice does cause some chemical change to take place in fat itself. Peristaltic movements, which take place in the stomach, aid gastric digestion, by bringing the particles of food into contact with the gastric juice, and it is well known that, if these movements are deficient, dyspepsia soon follows. The gastric juice, in virtue of the free hydrochloric acid which it contains, acts as an antiseptic, and is then capable of killing micro-organisms which are swallowed with the food. Should the amount of hydrochloric acid be deficient, then pathological bacteria are more likely to gain access to the small intestine, where they multiply in the alkaline contents. Some of the cells, lining the stomach glands, secrete a ferment called rennin, and this causes the caseinogen, the most abundant proteid of milk, to be converted into insoluble casein. The first action of the rennin is to convert the soluble caseinogen into soluble casein, which combines with the soluble calcium salts present to form insoluble casein, or, as it is sometimes called, caseate of calcium. This is precipitated in a gelatinous form. It has been shown, by experiments upon dogs, that the composition of gastric juice varies somewhat with the kind of food taken. The larger the amount of proteid in the diet, the more abundant is the gastric juice, which is also richer in pepsin and hydrochloric acid. Dextrin also produces an increased flow of juice rich in pepsin-hydrochloric acid. The vagus appears to be the nerve which contains the secretory fibres for the stomach. These may be paralyzed by atropine. It has recently been shown that the epithelium, lining the stomach, produces an anti-pepsin, which neutralizes the pepsin, so that the mucous membrane of the stomach protects itself from being digested by its own juice. Gastric digestion is completed as a rule in about three hours. (Reprinted from *Practitioner*, June, 1905.)

## THE STATE MEDICAL SOCIETY OF WISCONSIN.

ORGANIZED 1841.

## Officers 1905-1906.

J. R. CURRENS, Two Rivers, President.

A. W. GRAY, Milwaukee,  
1st Vice-President.A. GUNDERSON, La Crosse,  
2d Vice-President.

W. E. FAIRFIELD, Green Bay, 3rd Vice-President.

CHAS. S. SHELDON, Madison, Secretary. S. S. HALL, Ripon, Treasurer.

A. T. HOLBROOK, Milwaukee, Assistant Secretary.

## Councilors.

## FOR SIX YEARS.

1st Dist., H. B. Sears, - - Beaver Dam  
2nd Dist., G. Windesheim, - - Kenosha

## FOR TWO YEARS.

3rd Dist., F. T. Nye, - - Beloit  
4th Dist., C. A. Armstrong, - - Boscobel

## FOR THREE YEARS.

5th Dist., J. F. Pritchard, - - Manitowoc  
6th Dist., J. S. Walbridge, - - Berlin

## FOR FOUR YEARS.

7th Dist., W. T. Sarles, - - Sparta  
8th Dist., T. J. Redelings, - - Marinette

## FOR FIVE YEARS.

9th Dist., D. L. Sauerhering, - - Wausau  
10th Dist., E. L. Boothby, - - Hammond

## FOR SIX YEARS.

11th Dist., J. M. Dodd, - - Ashland  
12th Dist., A. T. Holbrook, - - Milwaukee

## NEXT ANNUAL SESSION, MILWAUKEE, JUNE, 1906.

The Wisconsin Medical Journal, Official Organ.

## SOCIETY PROCEEDINGS.

## CRAWFORD COUNTY MEDICAL SOCIETY.

At the annual meeting of the Crawford County Medical Society, held at Prairie du Chien, Nov. 23d, the following were admitted to membership: Drs. P. L. Seanlan, by card from the Grant County Medical Society; F. J. Antoine, Prairie du Chien; A. E. Dillmann, Steuben.

Dr. G. W. Perrin read a paper on *Appendicitis*, which was discussed by all present.

Dr. F. E. Farrell, of Seneca, presented a paper on *Pulmonary Tuberculosis*, the discussion of which was opened by Dr. Seanlan.

The election of officers for 1906 resulted as follows: President, Dr. A. J. McDowell; vice-president, Dr. D. M. Cook; secretary and treasurer, Dr. F. J. Antoine; censor, Dr. G. H. Perrin; delegate, Dr. A. J. McDowell.

F. J. ANTOINE, M. D., *Secretary*.

## GREEN COUNTY MEDICAL SOCIETY.

The annual meeting of the Green County Medical Society was held at Brodhead, Nov. 14. Sixteen physicians, about one-half the membership, were in attendance.

The following papers were read and discussed and much interest was manifested by all present:

1. A Peculiar Case of Pneumonia, Dr. G. W. Roberts, Albany.
2. The Field of Internal Medicine, Dr. S. R. Moyer, Monroe.
3. The Life History of the Malarial Parasite, Dr. H. D. Murdock, Brodhead.
4. Surgical Diseases of the Liver, Dr. E. S. Smith, Elroy (by invitation.)
5. Medical Diseases of the Liver, Dr. E. J. Helgeson, New Glarus.
6. Broncho-Pneumonia in Children, Dr. G. S. Darby, Brodhead.
7. Glaucoma, Dr. J. Sutherland, Brodhead.

While the attendance was not what it should have been, yet what we lacked in numbers was made up in enthusiasm. "The best County Medical Society I ever attended in my life" was the way one visiting physician from another county expressed himself.

Our medical society has been organized and in good running order for two years, and we have much cause for congratulation at the work that has been accomplished. Still there are quite a few physicians who have thus far shown but little interest in the meetings. How any doctor can stay away and not take advantage of the great benefit to be derived from a well conducted medical society is hard to comprehend.

This was our annual meeting and an election of officers was held which resulted as follows: President, Dr. G. W. Roberts, Albany; vice-president, Dr. E. J. Helgeson, New Glarus; secretary, Dr. S. R. Moyer, Monroe; treasurer, Dr. H. D. Murdock, Brodhead; delegate to State Society, Dr. E. W. Fairman, Brodhead; censor, Dr. H. B. Gifford, Juda.

Other business transacted at the business meeting was a new fee bill adopted and a committee appointed to prosecute illegal practitioners in the county.

Dr. Murdock and Dr. Darby were elected members of the society.

The social feature consisted of a banquet at the Young House at which forty-seven sat down to the table, consisting of the physicians and their wives and invited guests. Toasts were responded to by Drs. Richards, Fleck, Mitchell, and Nuzum of Brodhead, and Dr. Moyer of Monroe. Dr. E. W. Fairman presided.

S. R. MOYER, M. D., *Secretary*.

#### LA CROSSE COUNTY MEDICAL SOCIETY.

The La Crosse County Medical Society held its regular monthly meeting on Dec. 6th.

The following officers were elected: President, Dr. Adolph Gunderson; vice-president, Dr. D. S. McArthur; secretary and treasurer, Dr. C. H. Marquardt; censor, Dr. E. Evans.

Through the courtesy of Dr. J. A. L. Bradfield a venison lunch with refreshments was served the members, of which 16 were present at the meeting.

C. H. MARQUARDT, M. D., *Secretary*.

**LANGLADE COUNTY MEDICAL SOCIETY.**

The annual meeting of the Langlade County Medical Society was held at Antigo, Dec. 1st. Dr. Geo. W. Williamson was elected president, Dr. Helen Beattie, vice-president, and Dr. Geo. W. Moore, secretary.

A resolution was adopted to the effect that the editorial departments of the various papers be requested not to mention the names of physicians in connection with medical services, operations, or accidents, and the secretary was instructed to clip any such notices from the papers and present them to the society at the next meeting.

A resolution was adopted that no outside physician shall be allowed to see any case in the Mercy Hospital without the consent of the attending physician, and the superintendent of the hospital is to be so instructed.

After considerable other routine business had been transacted the society adjourned.

FRED V. WATSON, M. D., *Secretary.*

**MARATHON COUNTY MEDICAL SOCIETY.**

At the regular annual meeting of the Marathon County Medical Society held on Friday, Dec. 1, the following officers were elected for the coming year: President, Dr. D. Sauerhering; 1st vice-president, Dr. L. E. Spencer; 2d vice-president, Dr. F. S. Wall; secretary and treasurer, Dr. S. M. B. Smith.

Dr. L. E. Spencer was appointed delegate to the State Medical Society, Dr. A. W. Trevitt, alternate.

The following resolutions were adopted, and a printed copy of same will be sent to every physician and every fraternal society in Marathon County:

Wausau, Wis., Dec. 1, 1905.

At the regular annual meeting of the Marathon County Medical Society the following resolutions were passed by the society, and the same will take effect on and after Jan. 1, 1906:

*Resolved*, Inasmuch as a certain organization, one of whose objects is to furnish medical services to its members and their families at a certain fixed price per year, has become more or less prominent in our community, and as this service is to be rendered by only such physicians as may be chosen by the society, and as the amount paid per member for this service is very small; therefore, be it

*Resolved*, 1. That the Marathon County Medical Society condemns this practice and considers it unwise for any physician to accept an appointment with such an organization.

2. That it is below the dignity of any self-respecting physician to place himself at the beck and call of each and every member of an organization for a certain fixed price regardless of the amount of service rendered.

3. That the physicians who encourage this tendency of societies to organize themselves into groups for the above object, strike a blow at the future high standing of our profession.

4. That the experience of the profession in Europe, where "Club Practice" originated, justifies these resolutions. And be it further

*Resolved*, That we hereby mutually agree not to enter into any contract with any society, organization or corporate body, except with the County Asylum, or render any medical or surgical service to any of their members for less than the schedule fees. And

*Resolved further*, That we also mutually agree not to make any life or fraternal insurance examinations for a fee of less than \$2.00.

Signed: MARATHON COUNTY MEDICAL SOCIETY.

S. M. B. SMITH, *Secretary*.

### MEDICAL SOCIETY OF MILWAUKEE COUNTY.

Meeting of Nov. 11, 1905.

Thirty-nine members were present; Dr. U. O. B. Wingate presided. The following resolutions were adopted:

WHEREAS, It has been stated that certain preventable abuses in regard to the admittance of patients exist in the management of the Emergency Hospitals of the City and County of Milwaukee, and

WHEREAS, The said abuses affect the purposes and the aim of the Charity Hospitals of the City and County of Milwaukee, and

WHEREAS, The methods said to be pursued in procuring patients for the Emergency Hospital affect the private practice and the pecuniary benefits derived from such practice by the physicians and surgeons of Milwaukee County, be it

*Resolved*, That a committee of three members of this society be appointed by the President to investigate the abuses said to exist and to confer with the trustees of the Emergency Hospital with a view to abolishing them.

Dr. N. M. Black read a paper on *Otitis Media and Its Treatment*. He pointed out the vulnerability of the temporal bone in infants and the ease with which infection travels to contiguous structures. Scarlet fever is responsible for the most severe and destructive inflammations; next cerebrospinal meningitis; otitis frequently complicates diphtheria, pneumonia, bronchitis, pertussis, measles, influenza, and typhoid fever; also a low grade inflammation is not uncommon in connection with gastro-intestinal disease; teething may set up enough irritation to cause otitis by extension; of great importance are the frequent, usually mild, attacks of otitis, dependent upon adenoids or hypertrophied tonsils, which lead to the establishment of chronic inflammations.

The pathological process is characterized by acute engorgement of the lining membrane of the tympanum and tympanic membrane, serous exudation into the cavity, causing tension and pain; and, with closure of the tube preventing drainage, the proper conditions are present for growth of bacteria and a purulent exudate results. This seeks an outlet. Most frequently it breaks through the membrane, but if this resists the pressure, the pus may involve the mastoid antrum, or may escape through the cartilaginous fissures in the posterior wall of the external canal and involve the post-auricular glands, forming an abscess immediately over the mastoid; meningitis, with epidural or subdural abscess may be produced by escape through the imperfectly closed roofs of the antrum and tympanum, or along the communicating

lymph and blood vessels. In older children (the mastoid process not being developed in the very young) there may be extension from the antrum into neighboring cells of the mastoid, which, by carious softening or extension by contiguity, may result in thrombosis of the overlying lateral sinus. In fact, as Kenefick says, "So subtle is the method of extension of infective micro-organisms, especially along the sheaths of nerves and the walls of lymph and blood vessels, that one might say that there is scarcely a single intracranial infection of otitic origin which may not occur without rupture of the drum membrane and the shorter, wider Eustachian tube, which gives better drainage of the skull."

Diagnosis of acute otitis is not always easy; the exudate may not be apparent through the drum membrane; and perforation is not as common in children as might be supposed, because of the comparative toughness of the membrane and the shorter, wider Eustachian tube, which gives better drainage than in adults. The most important symptoms are those caused by congestion and exudation, that is, bulging of the membrane and pain, though the pain may be little more than a sensation of fulness. Diminished hearing and tinnitus are almost always present. Febrile reaction is important.

Treatment calls for rest in bed, with head and trunk elevated, purgation, cleansing of the nose and naso-pharynx, and the use of protective dressings about the ear. The frequent instillation of a few drops of the following, warmed, into the external canal will often cut short an attack of otitis, even when there is considerable exudate in the middle ear and some bulging of the drum-head: carbolic acid (95 per cent.) 2, alcohol 2.5, and glycerine q. s. ad 20 parts. When perforation has occurred, the canal should be wiped out with an antiseptic solution and discharge facilitated by a wick of gauze placed in the canal in contact with the drum-head, leading to a piece of cotton in the outer ear which can be changed as often as it becomes moistened, the wick being left in place 24 hours. Syringing is risky; sweet oil, etc., should not be used. If the abortive treatment fails in 24 hours paracentesis should be done. In infants and children a general anesthetic should be used, but complete anesthesia is not necessary. The incision should "extend from the lower pole of the membrane upward and backward, following the posterior peripheral attachment through the posterior fold and well upward into the tympanic vault." It should be carried well outward into the superior wall of the bony meatus if there is any swelling of this part. The use of a Politzer bag, or the like, to force out discharge, is to be condemned.

Dr. H. B. Hitz read the report of an *Unusual case of double mastoiditis complicated by an intercommunicating suboccipital abscess*, which he said was unique in his experience of 130 mastoid operations and to which he could find no parallel case in literature. The man, aged 57, of good general health, no luetic history, referred to him Aug. 5, 1904, had an attack of grippe in April, 1904, followed by a complicating otitis of the left ear, which ruptured spontaneously through the drum head, after several days of severe mastoid pain. Pain and purulent discharge have continued. Examination showed a copious, fetid, purulent discharge, issuing from the perforation, and peculiarly, rigidity of the neck and elicitation of an unlocalizable pain in the neck on forcible rotation, without any external evidence of trouble in that region.



Examination of the right ear at this time revealed nothing. A Stacke-Schwartz operation on the left ear was done Aug. 6th at the Knowlton Hospital. Extensive caries was found, down to the dura. Recovery was apparently rapid, but there was continuance of rigidity of the neck muscles, referred to both sides of the neck. Repeated examinations of the right ear revealed nothing, but eleven days after the first operation, paracentesis was done in the right ear because of dull pain in that ear and temperature of 99, but with negative results. Eight days later, during his absence from the city, Dr. Hitz's associate, Dr. Seaman, did a radical mastoid operation of the right ear, symptoms having arisen demanding it. Extensive necrosis, and a large sequestrum involving the inner table over the lateral sinus, with much thick creamy pus, was found. Progress was satisfactory thereafter, temperature ranging after the first week between 98 and 99, except for continued rigidity of the neck muscles. On Sept. 26th deep pressure over the site of the occipital artery caused pus to ooze into the right mastoid wound cavity, which up to this time had been perfectly clean, and further pressure showed it to come up through a small opening in the innermost part of the antral floor. On the following day an incision was carried from the right mastoid wound back to the lambdoidal suture, the base of the occiput explored, and by a blunt probe a pocket of thick pus was revealed beneath the occipital attachment of the deep muscles of the neck. During the exploration the anesthetist called attention to pus oozing from the left mastoid wound, which was almost healed. The right wound was carefully explored to reveal the communication, but unsuccessfully, and a large counter-opening then made in the back of the neck. Drainage was good and until Oct. 12th, when the temperature went to 100, occasioned by pus which was evacuated under local anesthesia from a deep swelling on the left side, corresponding to the drainage opening on the right side, progress was supposedly satisfactory. On Nov. 16th temperature again rose to 100.8, the patient complaining of inability to rotate the head and of deep pain in the left side. On Nov. 13th, swelling was noticed in the left occipital region, extending almost to the mastoid scar and down the back of the neck. Under ether a free vertical incision, 3 inches long, was made along the course of the drainage sinus, down to the base of the occiput. Exploration almost to the left condyle, opened a pocket of pus extending laterally under the periosteum to the partially obliterated digastric fossa, one recess of this pocket going up on the occiput to the middle of the lambdoidal suture. Pressure again forced pus from the left mastoid wound which had to be reopened. All the denuded occipital bone was carefully curetted. The occipital wound was allowed to heal by granulation; the mastoid wound was closed by pressure dressing after the first. Subsequent recovery was complete and uneventful.

Peculiar features of the case:

1. Complete absence of classic symptoms or physical signs of mastoid disease on right side.
2. Involvement of adjacent suboccipital region without previous development of intercranial lesion.
3. Remarkable burrowing of pus beneath occipital bone from one temporal region to the other, probably behind the os magnum and beneath the occipital attachment of the deep neck muscles.

Dr. Hitz made further remarks upon the lesson to be pointed by this case as respects treatment. Early diagnosis of mastoiditis should be insisted upon. Chronic suppurative otitis and mastoiditis are the result of an uncured acute process, and the causes of acute otitis as detailed by Dr. Black, and also tuberculosis, are the causes of the chronic conditions. Many of the cases result from caries of the ossicles; carious material should be thoroughly cleaned out and antiseptic treatment used. Thoroughness is the essential point, whatever the details of treatment. If a limited trial fails, operation should be done and this should be thorough. Dr. Hitz went rather minutely into the details of radical mastoid operations.

Dr. E. W. Bartlett opened the discussion upon the two papers. He said that the number of otitis cases at the present time is immense, since they are recognized more than formerly, but he could not agree with the opinion that they are dangerous, for most of them are mild. Many cases would be cured by attention to general health. He approved of the treatment of acute cases by the mixture advised by Dr. Black to promote osmosis, to which he adds cocaine or morphine. He did not think that much was gained by large incisions in the drum head and he did not think that syringing the ear was dangerous, but was of benefit. He had been accustomed to open the mastoid widely wherever there was tenderness and swelling.

Annual Meeting, Dec. 10, 1905.

Forty-two members present. The election resulted as follows:

President, P. H. Jobse; vice-president, E. C. Grosskopf; treasurer, Joseph Kahn; secretary, A. W. Gray; member of board of censors, E. Copeland; delegates, F. E. Walbridge, C. H. Stoddard, G. E. Seaman, W. H. Washburn, L. G. Nolte; alternate delegates, J. J. McGovern, F. Shimonek, H. E. Dearholt, R. G. Sayle, U. O. B. Wingate. A. W. GRAY, M. D., *Secretary*.

#### OUTAGAMIE COUNTY MEDICAL SOCIETY.

The third quarterly meeting of the Outagamie County Medical Society was held at the Hotel Brothers, Kaukauna, Tuesday, Dec. 5th. The meeting was called to order by the president, Dr. J. T. Reeve.

Dr. Nolan presented two clinical cases: one a *Chareot's knee* in a developing case of locomotor ataxia, the other a finger showing a low grade of inflammation which has persisted for ten years following injury in a railway wreck.

Papers were read as follows: *Jaundice*, Dr. C. E. Ryan; *Cholelithiasis*, Dr. A. P. Holz; and *Surgery of the Gall-Bladder*, Dr. N. P. Mills. The papers were all excellent. They were discussed by Drs. Echols, Foster, Leith, Marshall, Holz, Ritchie, Ryan and Mills. After transacting routine business the meeting was adjourned. This was the best attended meeting of the year, there being twenty-three present. The annual meeting will be held at Appleton, March 6, 1906. M. J. SANDBORN, M. D., *Secretary*.

**RACINE COUNTY MEDICAL SOCIETY.**

The December meeting was held at Dr. McCracken's office, Union Grove, Dec. 7. In the absence of the president and vice-president the meeting was called to order by the secretary, and Dr. G. Windesheim, the Councilor of the Second District, was asked to preside.

Dr. Susan Jones, of Racine, was elected to membership.

The election of officers for 1906 resulted as follows: President, Dr. W. A. Fulton, Burlington; vice-president, Dr. L. P. Valentine, Corliss; secretary and treasurer, Dr. J. P. McMahon, Union Grove; censor for three years, Dr. Charles Flett, Waterford. As the delegate to the State Society holds over no election to this office was necessary. Racine was chosen as the place for the March meeting.

Dr. McCracken presented the following resolutions, which were unanimously adopted, and it was ordered that a copy of the resolutions be sent to the WISCONSIN MEDICAL JOURNAL, the *Journal of the A. M. A.*, *Collier's Weekly*, and the *Ladies' Home Journal*:

WHEREAS, the lay press of this country, notably *Collier's Weekly* and the *Ladies' Home Journal*, have been and now are exposing the nefarious and abnormal traffic in patent medicines in this country, be it therefore

*Resolved*, That we heartily commend their methods to our medical press in dealing with the so-called proprietary remedies, many of which are no better than the patent medicines which are so widely advertised and sold by drug and department stores, the so-called proprietary remedies often being more or less exploitations of the profession, developing into the patent class nostrums; and

WHEREAS, the better magazines and publications of this country have excluded all objectionable medicine advertisements of whatsoever nature, be it therefore

*Resolved*, That we appoint a committee to confer with the local press for the purpose of enlightening them and asking them to exclude like objectionable matter from their pages to the great benefit of the general welfare.

An informal discussion was entered into in which the members condemned the so-called Club or Contract practice.

On motion of Dr. Valentine the thanks of the Society was tendered Dr. Windesheim for his presence and wise council during the meeting.

The meeting was then adjourned from Dr. McCracken's office to his dining room.

J. P. McMAHON, M. D., *Secretary*.

**WAUKESHA COUNTY MEDICAL SOCIETY.**

At the meeting of the Waukesha County Medical Society, held Dec. 2, the following officers were elected: President, Dr. B. U. Jacob, Waukesha; vice-president, Dr. M. R. Wilkinson, Oconomowoc; secretary and treasurer, Dr. M. M. Park, Waukesha; censor, Dr. R. T. A. Nixon, Brookfield; delegate, Dr. B. M. Caples, Waukesha.

Dr. Margaret Caldwell read a paper on *The beneficial effect of violet rays of electricity on stubborn, chronic gynecological cases.*

M. M. PARK, M. D., *Secretary*.

**FIFTH DISTRICT MEDICAL SOCIETY.**

The fourth meeting of the Fifth District Medical Society was held at Sheboygan, December 7, 1905, in the operating room of St. Nicholas Hospital, where Dr. John Ridlon, of Chicago, reduced the dislocation in a case of con-

genital bilateral dislocation of the hip in a girl three years of age. After the clinic the society met at the Elks' Club rooms, the president, Dr. W. H. Gunther, in the chair.

Dr. Ridlon addressed the society on the subject of congenital dislocation, or, as Dr. Ridlon prefers to call it, *spontaneous dislocation of the hip*. He mentioned the three forms of dislocation—1st, where the head is posterior to the acetabulum in the gluteal muscles, without much twisting of the femur; 2d, where the head of the femur is above the acetabulum and the femur is twisted; 3d, where the head lies anterior to the acetabulum, the femur being still more twisted. Dr. Ridlon then spoke of the anatomical peculiarities of the acetabulum in these cases. Instead of being cup-shaped it may be flattened or saucer-shaped; again there may be a narrowed cartilaginous rim that prevents the head of the femur from slipping into the acetabulum; again the cartilage may be folded in so as to fill up the cavity of the acetabulum; or again a pocket or hymen of cartilage at the opening of the acetabulum may prevent the head of the femur from slipping in. In these last cases the cartilage must be cut and the head of the femur pushed into the acetabular cavity, the capsule being sewed around it.

In speaking of the results, Dr. Ridlon said that he expected perfect results in 20 per cent. of his cases, good in 60 to 80 per cent.

Dr. Ridlon thinks the amount of shortening limits the operation rather than the age of the child.

The risks of operating are: 1st, Fracture of the neck of the femur; 2d, fracture of the shaft of the femur; 3d, paralysis—temporary and sometimes prolonged; 4th, rupture of the femoral vessels with resulting hematoma or gangrene.

When asked when he would know whether the operation just performed was a success or not, Dr. Ridlon said that he would probably not be able to tell for two years.

A rising vote of thanks was given Dr. Ridlon by the Society.

The next meeting will be held at Brillion, Calumet County.

F. A. READ, M. D., *Secretary*.

#### MILWAUKEE MEDICAL SOCIETY.

Meeting of November 28, 1905.

Dr. W. C. Rucker of the Marine Hospital Service addressed the Society on the subject of the *Yellow Fever Epidemic at New Orleans*. He reviewed the work which had led up to the discovery of the mosquito transmission of the disease, and brought out the fact that Finlay of Havana wrote a paper in 1881 calling attention to the theory of mosquito transmission, but at that time he was unable to arouse any interest in his ideas. The work of Ross on the transmission of malaria by mosquitoes stimulated Reed, Lazear and their associates to undertake the line of work which terminated in such brilliant success. They demonstrated positively that yellow fever is carried only by a mosquito, the *stegomyia calopus*, formerly called *stegomyia fasciata*; that in order to become infected the mosquito must bite a patient suffering with yellow fever during the first three days of the disease; and that thirteen or fourteen days must elapse after the infected blood has been ingested by the mosquito before transmission is possible.

Dr. Rucker described the characteristics of the yellow fever mosquito and its cycle of development. He stated that the New Orleans epidemic began in May although it was not recognized until July. When the U. S. Public Health and Marine Hospital Service took charge of matters about the 10th of August, they found themselves confronted with a three-fold problem: first, to exterminate the mosquito, doing this by destroying their breeding places; second, not to allow mosquitoes to become infected; third, to destroy infected mosquitoes. The methods of screening and disinfecting were described in detail.

Dr. Rucker referred to the treatment of yellow fever and advocated the utmost gentleness in medication and treatment. Elimination should be favored by prompt emptying of the gastro-intestinal tract and the use of water in abundance, but no food. A mild case may be converted into a severe or even fatal one by injudicious or premature feeding. Sponging with warm water is useful for the reduction of fever, but cold applications or ice should never be used except perhaps over the stomach in gastric hemorrhage.

In answer to a question in regard to the use of arsenic as a preventative of yellow fever, Dr. Rucker said that he saw a number of cases of arsenical poisoning during the epidemic, and he also saw a number of yellow fever patients in the Emergency Hospital who had been taking arsenic systematically. He thinks it is useful simply as a general tonic.

Mr. C. T. Brues of the Milwaukee Public Museum addressed the Society on the subject of *The Natural History of the Mosquito*. Mr. Brues confined his remarks to the zoological aspects of the matter, although he referred more especially to those mosquitoes which are of interest by reason of their transmission of disease. Of the 475 species of mosquitoes recognized, 192 are found in North America. These are readily grouped into three sub-families according to the length of the palpi: these are as long as the proboscis in the Anophelinae, the group including the malaria mosquitoes; in the Culicinae, the group including the common annoying forms and the yellow fever *Stegomyia*, they are short in the female and long in the male; in a third small group they are short in both sexes.

In this country and in Europe malaria is transmitted only by *Anopheles maculipennis*, a species not occurring so far north as Milwaukee. A large harmless species of *Anopheles* (*A. punctipennis*) occurs here, but can be distinguished by the presence of a large white spot on the front of the wing toward the tip.

The eggs of the mosquito are laid usually in small pools of water since any roughness of the surface or waves prevent the proper surface respiration of the larva and also jeopardize the life of the adult at the time of its emergence from the floating pupa to assume the aerial habitat of the imago.

The geographical distribution of mosquitoes is unusually wide for insects. The yellow fever *Stegomyia* is common to the warmer regions of all the continents.

American entomologists have just cause to be proud of the fact that the species in this country have been so much better studied than those of the more thickly populated European countries.

H. E. DEARHOLT, M. D., *Secretary*.

**BOOK REVIEWS.**

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**Manual of Diseases of the Eye for Students and General Practitioners,** by CHAS. H. MAY, M. D., Ophthalmic Surgeon to the City Hospitals, Randall's Island, New York, Consulting Ophthalmologist to the French Hospital, and to the Red Cross Hospital, New York, etc. Four hundred pages, twenty-one colored plates including sixty colored figures, three hundred and sixty engravings in the text. Fourth Edition, William Wood & Co., New York.

This issue of May's well-known Manual is a distinct improvement upon the previous editions. Many of the illustrations in the former editions have been improved, and new illustrations added, including eight new colored plates, with many colored drawings of external diseases of the eye. Altogether this handy text-book is one of the best designed, and best executed that has ever been issued by an American author. It presents in simple, straight-forward, compact style, all that the student and average practitioner desire to know about the diseases to handle them intelligently in any emergency that may arise. The anatomy and physiology of the subject are particularly well presented at the beginning of each chapter, that deals with the diseases of the several structures of the eye, and the connection between diseases of the eye and constitutional conditions is fairly discussed. The last chapter of the book is devoted to ocular therapeutics and the general rules applicable to eye operations. While this in some respects seems too brief, it is one of the most immediately useful and practical chapters in the book. The work comes fully up to the claims of its author and publisher, and is deserving of all commendation.—(G. E. S.)

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**A Text-Book of the Practice of Medicine.** By WILLIAM OSLER, M. D., F. R. S., F. R. C. P. (London); Regius Professor of Medicine, Oxford University; Honorary Professor of Medicine, Johns Hopkins University, Baltimore, etc. Sixth Edition. (New York and London. D. Appleton & Co., 1905.)

This new edition of a deservedly popular text-book of the practice of medicine is probably the most important that has appeared during the sixteen years of its existence. As stated in the preface, "so many sections have been rewritten, and so many alterations made that in many respects this is a new book."

A larger page and a new type have been furnished by the publishers, and though there has been a considerable increase in the reading matter, there has been no enlargement of the volume. The main idea has been to make this work a reflex of current knowledge in symptomatology and treatment of disease based upon the literature and upon observations made in the Medical Clinic of the Johns Hopkins Hospital. The personal element and experience has always been a most valued part of the book, but its value has undoubtedly been enhanced by the contributions and help of many able colleagues and associates, and the great assistance received in this way is freely acknowledged. One who is familiar with the previous editions of this work will at once note the marked change that has been made in the book and the many important additions that everywhere appear. It would be entirely impossible to do more than notice a very few of these.

The section on "Diseases Due to Animal Parasites" has been rearranged and the many additions found here are a good indication of the great activity that has prevailed in this branch of medicine during the past few years, almost a new field of medicine having been opened up. The essential facts in regard to these newly discovered parasitic diseases are given concisely, and as full as space would warrant.

The chapters on typhoid fever, pneumonia and tuberculosis are especially strong as usual; the symptomatology is clear and understandable; the treatment is rational and as full as could be expected in such a work. Above all things the student or practitioner finds no encouragement for promiscuous drugging. We sometimes hear the criticism that Osler's treatment represents therapeutic nihilism, but it is far from that.

The section on "Diseases of the Nervous System" has again received special attention and forms one of the strongest parts of the book. In the general introduction we find a brief statement of the histology of the nervous system which comprises practically all that is of value in diagnosis.

Several new cuts have been introduced and there has been some rearranging of the diseases with careful revisions and additions here and there.

The publishers have done their work well, and this book—so concise, so readable, and representing as it does so much of the personality and experience of the author, we predict will maintain its present great popularity.

(J. D. M.)

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**Squint Occurring in Children.**—EDGAR A. BROWNE, F. R. C. S., Ed. Assisted by EDGAR STEVENSON, M. D., M. Ch. Aberd. An Essay. W. T. Keener & Company. Balliere, Tindall & Cox, London. 1904. \$1.00 Net.

This is an essay that should be in the hands of every general practitioner as well as specialist, for the family doctor is now the one who delays the treatment of squint by specious advice to "wait until the child is old enough for operation," *i. e.*, until amblyopia of one eye is established, until the fusion faculty is lost, and until nothing else but an operation will do anything, and that only give cosmetic results for a few years. I have ordered several to loan to my physician friends and to help with the needed missionary work. The general practitioner must be educated to know at least that the time to cure squint is in its incipiency—at the age of two or three years—and that binocular vision is of value and that it cannot usually be established after strabismus has existed for a number of years.

This little book represents the authors' teaching "for some years past." The nature of squint, arising from defects of the eye as an optical instrument, is clearly defined. The muscles are shown to be under the governance of their motor nerves, and the cause of squint to be non-development of binocular vision. The cure is that of the cause—correction of the refraction errors, development of the fusion faculty (although they do not so denominate it), and restoration of binocular vision by various orthoptic exercises. They give many methods of their own, but decry "elaborate contrivances" (p. 58), probably referring to the methods so successfully advanced by Worth, whom, however, they do not mention. They object to operation in all but otherwise intractable cases, and show that operation may only give a temporary result which leads later to the eye sliding out the other way.

The obstacles to successful orthoptic treatment are the ignorance and want of patience of the parents and the general practitioner. The time has come when we may say that no young case should be operated upon until full trial of all other means, and that for as much as several years.

The objects of treatment are: (1) To arouse and stimulate the instinct for precise vision; (2) to arouse and cultivate the desire for binocular vision; (3) to lessen accommodative effort. Savage, Stevens and Gould, who are in a sort of triangular disagreement, would not agree with the authors. "The muscles are not at fault, convergence is effected by the motor centres, the innervation of the muscles does not take place separately, the precise adjustment of the eyes to definite point can only be accomplished in obedience to the requirements of the retina. The adult is intolerant of incongruous images, but children beginning to squint do not present discomfort (p 47)." "There is no reason why we should allow the left hand to become more awkward than need be for want of use (p. 66)." The reviewer is inclined to espouse the views of Brovne and Stevenson. The after history of a number of squints treated without operation could be advantageously multiplied, for it is only the proof of results that will bring the tenotomists and faddists to their senses, as well as educate our general practicing brethren. The book is well printed and delightful reading. (H. V. Würdeman.)

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**Trachoma.**—By DR. J. BOLDT. Translated by HERBERT J. PARSONS, D. Sc., F. R. C. S., and THOS. SNOWBALL, M. B., C. M. 1904. W. T. Keener & Company, Chicago. Hodder & Stoughton, London.

A most comprehensive description of trachoma. Its history, distribution, disease description, with several hundred references to principal articles in its literature, comprise Dr. Boldt's original book. An introductory chapter by E. Treacher Collins gives its history from English eyes in Great Britain and the Provinces. The disease is denominated a filth disease, common in lower civilization and where people are huddled together; uncommon in savagery and in desert people, for they never wash, and as the disease is mostly carried by common towels, bedclothes, and wash-basins, the lowest forms of men escape. There, likewise, seems to be a special predilection for the disease in some races, notably the yellow and Semitic races. The recent epidemic of trachoma in our Eastern States and the danger we stand of its further importation from the inexcusable wholesale immigration of undesirable southern European elements now taking place, renders the book most opportune and well worth reading.

Under treatment it is noteworthy that verdigris (sulphate of copper) has been used since antiquity, so also with rubbing or scraping off the granulations. The work is largely statistical and although 19 pp. are given to treatment, details are not entered into. The various methods are described, preference being given to the mechanical forms—massage with boric powder, expression, etc. 35 pp. are given to prophylaxis.

The work is of great interest and a valuable acquisition to the library of the ophthalmologist. (H. V. Würdeman.)



MISCELLANY.

Stockholm has the largest death rate from the use of alcohol of any city in the world. The number of deaths from this cause is 90 in 1,000.

A broad clean ulcer on the soft parts often heals *per primam* if its surface is swabbed with iodine and its edges then brought together with adhesive straps. (*American Jour. of Surgery.*)

**Prevent Cow Tuberculosis.** It is reported that experiments just finished at Melun, near Paris, prove conclusively the truth of Prof. Behring's statement that he is able to render cattle immune to tuberculosis. Prof. Vallé, the best known veterinary surgeon in France, inoculated twenty cows with Prof. Behring's bovo-vaccine and then submitted them to conditions of infection. An autopsy performed on these animals has proved them entirely without tuberculous lesion of any sort. On the contrary, twenty other cows submitted to the same conditions without prior inoculation with bovo-vaccine all showed profound lesions, a number of them dying and others being found in advanced stages of the disease.

**Herpes Zoster.** The following treatment is said to be very beneficial: Cleanse eruption with diluted alcohol and boracic acid, and cover with opium and belladonna plaster, allowing plaster to extend about half an inch beyond affected area. The plaster should be applied hot to each new patch as it appears, and allowed to remain as long as it will stick.

**Directory of "Dead Beats."** St. Louis physicians are going to have a dead beat directory, which will contain 15,000 names of persons who have failed to pay bills. The book will bear the title of "St. Louis Medical Guide," and will be furnished to physicians, dentists, druggists, and undertakers. It will be kept up to date by the issuance of a monthly sheet, and will be revised once a year. The 15,000 names are chosen from lists used by a collecting agency for three years in collecting the bills of 500 physicians. The book also will contain the names of 70,000 persons who are "good," in the sense that they have property and are responsible.

**For Cough of Influenza.**

Benzol . . . . .	0.6	(m. X)
Tr. Aurantii . . . . .	2.0	(m. XXX)
Spts. Chloroform . . . . .	1.0	(m. XV)
Tr. Senegae . . . . .	4.0	(1 dr.)
Aquae q. s. ad . . . . .	30.0	(1 oz.)

This dose is to be taken every four (4) hours, between meals.

This emulsion is rather unpalatable, but is said to be very efficacious. The benzol must be absolutely fresh and colorless, or symptoms of intoxication with appearance of erythematous rash result.

**Pityriasis Versicolor.** Application of hydrogen peroxide, dabbed over the parts affected, is warmly recommended. The addition of borax (1 dram to 8 ounces of solution) is said to hasten cure.

**For Fissure of Anus.**

Ichthyoli . . . . .	6.0	(1½ dr.)
Cocaine Hydrochlor . . . . .	0.06	(gr. 1)
Ext. Belladonnae . . . . .	0.06	(gr. 1)

**Treatment of Uterine Hemorrhage.** H. L. Donovan (*British Med. Jour.*) was recently called to a case of severe hemorrhage after complete abortion in a multipara who always lost large quantities of blood after her labors. The writer plugged the vagina and gave ergot, but bleeding recurred about seven hours after the removal of the plug. The patient was then placed on her back with the pelvis raised on two pillows. The bed was firm and flat. The hemorrhage ceased immediately. The patient suffered no discomfort from this position and was kept in it for twenty-four hours.

**Now Classed as Liquors.** The Internal Revenue Department at Washington made public the following partial list of articles which will come under the Federal liquor tax ruling, to-wit:

Atwood's La Grippe Specific, Cuban Gingerie, Devitt's Stomach Bitters, Dr. Bouvier's Buchu Gin, Dr. Fowler's Meat and Malt, Duffy's Malt Whiskey, Gilbert's Rejuvenating Iron and Herb Juice, Hostetter's Stomach Bitters, Kudros, Peruna, and Rock Candy Cough Cure.

**A New Test for Blood.** According to Schilling, traces of blood in a fluid can be recognized by the addition of a few drops of a 20 per cent. solution of hydrogen peroxide. The blood promptly decomposes the reagent, and shows its presence by means of the production of numerous small bubbles of oxygen, while the solution is decolorized. The test is said to be positive if blood is present in the proportion of 1 to 1600. While there are more delicate tests for blood, this one certainly has the merit of simplicity and convenience. (*Interstate Med. Jour.*)

**Ointment for Burns.** The following ointment is recommended by Prof. Reclus, of Paris, as being antiseptic, analgesic, and hemostatic, and therefore satisfying all requirements in the treatment of burns:

Antipyrine .....	dr. 1
Boric acid,	
Salol aa .....	dr. $\frac{1}{2}$
Iodoform,	
Phenic acid aa.....	gr. 15
Corrosive sublimate .....	gr. 2
Vaseline .....	oz. 7

M. After washing the raw surface with hot water (130° F.), the parts are sprayed with peroxide of hydrogen and the ointment is applied to all the surface on antiseptic gauze, and the parts put up in absorbent cotton.

#### For Migraine.

Caffeinae .....	gr. 4
Sodii salicyl .....	gr. 8
Cocaine hydrochl .....	gr. $\frac{1}{2}$
Aquae .....	oz. 1
Syrupi* simpl .....	dr. 2 $\frac{1}{2}$

To be taken at once. Especially active where trigeminal neuralgia accompanies the migraine.

**Another Cure.** A correspondent sends us some interesting literature that tells of the wonderful efficaciousness of Dr. Jones' Grip Cure. "It stimulates the liver, opens the pores and the bowels and invigorates the nerves. It is unsurpassed as a nerve invigorator and a pain reliever. It contains no narcotics, minerals nor other poisons. It is perfectly safe to give to the most delicate constitution."

This is such a crudely worded advertisement, that it is hardly probable that this "all vegetable harmless as milk" preparation will separate many people from their cash surplus.

# THE WISCONSIN MEDICAL JOURNAL

JANUARY, 1906.

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## ORIGINAL ARTICLES.

### THE DIAGNOSTIC VALUE OF CYSTOSCOPIC EXAMINATIONS.\*

BY W. A. GORDON, JR., M. D.,

OSHKOSH, WIS.

In view of the voluminous literature that has developed since Dr. Max Nitze introduced his first cystoscope to the profession in 1877, in view of the multiplicity of improved instruments and improved methods that have been put forth since that time, in view of the extravagant claims of some of the advocates of the cystoscope as to its usefulness, and in view of the pessimism of some of its detractors, it is rather difficult to determine the consensus of expert opinion as to the precise rôle this instrument is to play in the diagnostics of modern surgery. We all agree that at present surgical diagnosis lags far behind surgical technique, that skilled operators are commoner than competent diagnosticians, and that our methods of treating surgical disease are more highly elaborated than our methods of investigation, and hence it is that every effort made to increase our knowledge of pathologic anatomy and physiology is valued by us all as tending ultimately to increase our therapeutic efficiency. Rational therapeutics is founded upon pathology and physiology, and therefore any instrument that widens our knowledge in these sciences will obviously be of service to therapeutics. And this is exactly the service that the cystoscope has rendered to genito-urinary surgery. But this debt to the genius of Dr. Nitze is historical. We are not so much interested now in what the cystoscope has taught us, as in the service that it may render us to-day.

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Discussion of the subject of this paper resolves itself into a consideration of the indications for the use of the cystoscope, and, therefore, that we may learn the present value of this instrument, let us take a brief survey of those conditions that demand its use for their elucidation.

Chief among the indications for cystoscopy is tumor of the bladder. Vesical tumors may be diagnosed in a vague way without the cystoscope by the symptoms, the urinary findings, and palpation; but these methods usually furnish no clue as to the number, exact location, and character of the growths, and, without an exploratory incision, these factors in the diagnosis can be determined only by the cystoscope.

In case the prostate or urethra do not permit the passage of the cystoscope, supra-pubic cystoscopy should be practised before resorting to an exploratory incision. Thus, in some cases of excessive hypertrophy of the middle lobe of the prostate, or in carcinoma of this gland, even a cystoscope with a prostatic curve cannot be introduced per urethram. In such cases the use of Fenwick's supra-pubic trocar cystoscope obviates not only these difficulties, but the dangers of traumatism to the prostate, besides affording a clear view of the deep post-prostatic pouch that often exists in these cases and that cannot be investigated with an ordinary cystoscope. In this way a sacculated calculus or other foreign body lodged behind the prostate, that would otherwise have been overlooked, will occasionally be revealed. The value of supra-pubic cystoscopy on old men to whom it would be hazardous to administer a general anesthetic for a cystotomy, can hardly be overestimated. If the examiner finds with the cystoscope that the hard mass he felt per rectum is a hard, infiltrating, malignant growth in the lower posterior bladder wall, he may be thankful that he did not make a perineal cystotomy. Drainage of such a bladder by the perineal route would mean agony to the patient, while if supra-pubic cystoscopy were practiced the cannula of the trocar could be withdrawn over a small drainage tube and such drainage would give the patient immediate relief besides sparing him the danger and shock of a cystotomy. Of course, operation further than cystotomy for mere drainage of the bladder would be futile in case of an infiltrating malignant growth.

The characteristic symptom of a new growth of the urinary tract is the so-called "symptomless hematuria." How this symptom must have embarrassed the clinician in pre-cystoscopic days! From the sudden appearance of bright blood in the urine and its sudden dis-

appearance without any accompanying pain or any other symptom, the surgeon was practically certain that a tumor of some sort had developed beyond its period of latency somewhere in the urinary system, but where and what kind it was he could not determine without an operation. The cystoscope readily answers these questions and the examination should be made at once, except when digital examination of the bladder per rectum has revealed pronounced, circumscribed, interstitial hardness of the base or posterior wall of the bladder—which condition indicates cancer and the uselessness of cystoscopy, except by the supra-pubic route, for drainage and confirmation of the diagnosis as indicated above. But in the absence of such a malignant condition, the cystoscope per urethram will reveal the nature, number, and location of the growths if they are in the bladder, and, if the bleeding is from the kidney, or from a papilloma in the pelvis, periodic jets of bloody urine will be seen issuing from the mouth of the corresponding ureter. Thus the information required for making a plan of treatment will be obtained. The patient should be prepared so that any operation required can be performed at once, as the most skilled cystoscopist is apt to cause severe hemorrhage from friable papillomata, or cystitis is likely to develop after manipulation of the instrument in the bladder. Probably the commonest difficulty that is met in the diagnosis of vesical tumors is the differentiation between benign and malignant villous papillomata. According to Keyes, "infiltration of the bladder wall, solidity of structure, and a duration of more than two or three years may be looked upon as suggestive of malignancy. On the other hand, villosity, pedunculation, and a short history favor benignity." The microscopic examination of fragments evacuated in the urine is inconclusive, as such fragments are usually necrotic and macerated beyond recognition. However, examination of a piece freshly cut from the tumor may settle the diagnosis.

Another field for cystoscopy is one that has been the ground for considerable contention rather than such unanimity as is manifested toward its use in the diagnosis of urinary tumors. I refer to ureteral catheterization. There is no more difficult task in surgery than that of separating the urines of the two kidneys. The number of methods now in vogue for accomplishing this end is evidence of the inadequacy of any single method. All the methods may be classed into two groups: those that employ the ureteral catheter and those that employ the urine segregator. With Fenwick, Guyon, and Harris as advocates of segregation, and Nitze, Kelly, and Casper as cham-

pions of the catheter, one finally reaches the conclusion that each method has its advantages and that the method should be adapted to suit the case. The greater technical skill required in the use of the catheter and the comparative ease with which the segregator is employed, will always be arguments in favor of the latter instrument, while the greater accuracy of the information obtained by ureteral catheterization will be sufficient reason for the continued favor of this method with the fastidious. Such conditions as intense cystitis, trabeculae, vesical tumor, stone in the bladder, or marked prostatic hypertrophy usually render segregation impossible, but it is also in these very conditions that ureteral catheterization is most difficult, yet in skilled hands the catheter will succeed here frequently while the results of segregation are worthless. It is only in the male bladder that the cystoscopist encounters much difficulty in obtaining separate urines. In the female it is nearly always a simple matter, with the patient in the knee-chest position, to hold the beveled end of a Kelly speculum first under one ureteric orifice, and then under the other, and thus collect sufficient urine from each kidney. In addition to the foregoing advantages over the segregator the ureteral catheter has a further advantage in diagnosing stone in the ureter or pelvis of the kidney. Moreover, to digress a little, the catheter in addition to its diagnostic advantages, has some therapeutic uses such as irrigating the pelvis and ureter, dilating ureteral stricture, dislodging ureteral calculus and draining, hydronephrosis, while the segregator is simply a diagnostic instrument. The principal indication for the use of the ureteral catheter is in the determination of the functional capacity of the kidneys prior to operative removal of either of them for disease. Of course, in the presence of cystitis, if ureteric meatoscopy should reveal pus issuing from one ureteric orifice and clear urine from the other, catheterization would be contra-indicated and unnecessary; but, even in the presence of cystitis, when the disparity between the two ureteric jets is not obvious, catheterization to determine the relative capacities of the kidneys is necessary to enable one to decide between medical and surgical treatment.

As to the indications for cystoscopy in urinary tuberculosis, there is considerable agreement among the authors. The fact that manipulations of any kind have an unfavorable influence on the course of this intractable disease condemns the cystoscope in the judgment of some surgeons without further consideration. Yet the frequent obscurity of the symptoms that denote tubercle of a system so large as the genito-urinary, renders rational and effective treatment impossi-

ble without an exploration of some sort to determine the site of the focus or foci of the disease. Radiography having failed to give the desired information in a given case, the most efficacious and conservative means of investigation left is the cystoscope. The symptoms in urinary tuberculosis are no true index of the nature or location of the disease. Thus, irritability of the bladder and penile pain are symptoms common both to tuberculosis originating in the kidney and in the bladder, and conversely renal pain may be due to renal tuberculosis or to pathological conditions originating in the bladder, such as ulcer of the lip of a ureteric orifice or septic infection ascending the ureter. It is only by looking into the bladder that the true source of the pain in these conditions may be determined.

The use of the cystoscope as a localizer of disease with obscure symptoms is not confined to the study of tuberculosis. Vesical epithelioma or benign papilloma narrowing the mouth of a ureteric orifice and thus giving rise to unilateral renal pain, pyelonephritis with cystitis that obscures the renal origin of the disease, or calculus impacted in the ureter and giving rise to the single symptom hematuria, are obscure clinical conditions in which a cystoscopic examination is a great help to the surgeon.

In cases of prostatic hypertrophy, in spite of the fact that some surgeons believe the cystoscope to be useless and dangerous, the instrument really has a definite field of usefulness. Keyes thinks that the condition ought to be diagnosed by other means, and concludes that 84 out of every 100 cases of prostatic hypertrophy may be diagnosed by rectal palpation. But the intra-vesical character of the enlargement he does not pretend to determine by this means. He maps out the prostate with a stone searcher, trusting to his sense of touch. Obviously this method causes considerable traumatism and is inaccurate. In fact the shape and size of the enlargement can be determined with accuracy only by cystotomy or cystoscopy. Dr. Young, in his classical monograph on Conservative Perineal Prostatectomy, says: "I wish to state again my belief in the great advisability of a careful preliminary cystoscopic examination. In this way only have I been saved from several serious blunders. The recognition of diverticula, incarcerated calculi, pedunculated prostatic outgrowths, and early carcinoma of the prostate cannot be made without the cystoscope, and an accurate mapping out of the prostatic enlargements is of great advantage in performing a perineal operation where careful preservation of important and non-obstructive structures is the aim of the operator."

From these facts it seems a conservative conclusion that in prostatic hypertrophy the cystoscope should be used per urethram whenever the instrument can be introduced without undue traumatic insult to the tissues, and supra-pubic cystoscopy should be practiced when the urethra does not admit the instrument. To quote Cunningham on this point (*Annals of Surgery*, April, 1905): "The cystoscope is the only means by which the exact character of the obstruction may be learned, and while perhaps it is more commonly used to determine whether or not the given gland is suitable for the Bottini operation, it also serves as an important means by which the intravesical character of the gland may be studied and thereby determine the nature of the obstruction and aid in determining which route should be employed in a more radical operation." In regard to the value of the supra-pubic cystoscope in prostatism he says: "The information gained by supra-pubic sounding and cystoscopy averts the more serious procedure of supra-pubic cystotomy as an exploratory measure, and, considering that indications for such procedures are in the aged in the majority of cases, the importance of supra-pubic cystoscopy is obvious."

Among the less common uses of the cystoscope may be mentioned the localization of the orifices of fistulous tracts that open into the bladder from foci of infection in the tubes, ovaries, uterus or bowel; the discovery of foreign bodies in the bladder, or of sutures passed through the bladder wall during abdominal operations and giving rise to obscure symptoms, and the findings of sacculations of the bladder that may contain calculi. The habit of always ascribing pain and tenderness at McBurney's point to appendiceal disease has led good surgeons to open the abdomen and find a normal appendix when the disease lay in the right kidney or ureter and the error might have been prevented by an examination of the urine and a simple inspection of the ureteric orifices. Conversely, appendicitis may so closely simulate renal colic as to render cystoscopy necessary for a correct interpretation even with a normal urinary finding.

To recapitulate briefly:

1. Cystoscopy is a conservative diagnostic procedure that renders unnecessary many exploratory operations on the urinary tract.
2. Its chief use is in the diagnosis of urinary tumors.
3. The cystoscope affords the best means of collecting the urine from each kidney separately.
4. As a localizer of disease it is useful in urinary tuberculosis.
5. It gives valuable evidence in cases of prostatic hypertrophy, renal and ureteric calculus, appendicitis, vesical fistula, vesical ulcer, sacculated bladder, and foreign bodies in the bladder.



In conclusion I would say that my purpose in rehearsing the foregoing familiar matter before this society is to emphasize the fact that there is at our command a diagnostic instrument of great value to the clinician, one that should be employed much more than it now is in the settlement of difficult diagnoses of urinary disease.

#### DISCUSSION.

DR. W. T. SARLES, of Sparta—My experience has been very limited in the use of the cystoscope, but I want to endorse that paper very heartily and I want to say that a time comes in the life of every man who does general work when he will be called upon to differentiate between the old man's prostatic hypertrophy, simple adenoid, and the possibility of malignancy. And here is where you will need your cystoscope. I have undergone a recent experience in such a case. I felt the necessity for this instrument, which I had neglected to use in this case. I had a man who developed at the age of 66 or 67 years, a prostatic adenoid hypertrophy, as I considered it; but there was quite a difference in the feel to the finger in the size of the two lobes, and some irregularity, which quite often is the case. I have not used the cystoscopic examinations as much as I should as an aid to diagnosis in these cases. He was examined later by some surgeons with the cystoscope, and upon such examination the surgeons stated that they believed the condition was malignant and that they would not operate. In this case they found hyperemia of the mucous membrane covering the prostatic region, there was no ulceration, and the density of the gland and irregularity of the surface by rectal touch were present, all of which indicated carcinoma of the prostate. The cystoscope was a very important aid in completing this diagnosis. This man then returned to me with the notification that he could not be operated on. Well, since then the man dropped into the hands of a magnetic healer, and says he is cured—absolutely cured. This all occurred within the past two months. The dilatation used in the necessary examination was followed by some relief of symptoms. The man, of course, is not well, and he has, I believe, a cancer, but it may take a year for him to understand that he is not cured by magnetic healing. In the hands of the speaker here yesterday, Dr. Young, this would be a good case for operation. The disease appears to be within the capsule, as yet. All instruments, such as this, as aids to diagnosis, should be more and more used by the general surgeon.

DR. C. J. COOMBS, of Oshkosh—There is one differential point that seems to me was very clearly brought out with the cystoscope in one or two cases I have had which bothered me a great deal, and that is a differentiation between pedunculated middle lobe of the prostate and stone in the bladder. As the symptoms are quite similar it is only by the cystoscope that we are always able to differentiate between the two conditions. The sound often fails to find a small stone, while by the cystoscope it can be located. Also, if we find a pedunculated middle lobe, by means of the cystoscope, we also have an indication of how we should attack it.

DR. C. S. SHELDON, of Madison—This paper is a very valuable one. I met the writer for the first time yesterday, and I asked him if he expected

ever to become as smart as his father. Since hearing his paper I am satisfied that he will surpass his father.

As an older practitioner I think it may perhaps not be out of place for me to say a word generally on the importance of the use of instruments of precision, particularly for the younger men of the profession. Of course, many times it requires a good deal of skill to use such instruments, and sometimes it requires merely a certain amount of practice; but in the minds of a great many of the younger practitioners this whole question of the use of instruments is surrounded with so much of difficulty and mystery that they may go through the whole of their professional career, perhaps, without learning what they should about them; when, if they should tackle the thing early, and learn their use, and use them with sufficient frequency as to gain a knowledge of them, they would not only become better practitioners, but would gain a reputation which they otherwise would fail to do. For instance, a young man who is doing obstetric work can learn pelvimetry and the use of the pelvineter, if he simply endeavors to learn it. I have known good men to go through their whole professional lives without learning to use the obstetrical forceps, calling upon other practitioners to help them out when, by boldly attacking the problem early, they might have solved it immediately. So with this whole gamut, so to speak, of instruments of precision. I believe it is good advice to young men to tackle this matter boldly, and divest these instruments of the mystery and the supposed difficulties which they think surround them. If they study them carefully and use them when required, in a short time they become very simple and a great aid in the scientific prosecution of the practice of medicine.

DR. W. A. GORDON, JR. (closing)—I thank you, gentlemen, for what you have said, and especially Dr. Sheldon for his kind words. I have nothing to add except in regard to what Dr. Sarles said concerning the differentiation between malignant and benign enlargement of the prostate. The asymmetry, the infiltration and the presence of nodules are the most important differential points suggesting malignancy that can be determined by rectal palpation.

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## THE PATHOLOGY AND NON-SURGICAL TREATMENT OF INJURIES TO THE STOMACH.\*

BY WILHELM BECKER, M. D.,

MILWAUKEE.

The object of this work is to determine the factors leading to the fatal issue in cases of injuries to the stomach; and further, to determine whether there are any injuries to this organ which are not necessarily followed by fatal results without surgical interference; and still further, whether surgical interference is in all cases advis-

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able. The conclusions arrived at in this work are based upon twelve autopsies of injuries to the stomach and two experimentations on dogs.

I realize that the material used is rather limited in number and I do not under-rate the difficulty of the task in attempting to convince some of the surgeons that not in all cases is immediate surgery, especially suture of the perforations of the stomach, necessary or even advisable.

In looking over the surgical literature and literature in general on injuries of the stomach, we find that the mortality of injuries of the stomach is not materially decreased during that antiseptic or aseptic period. On the other hand, we find quite a few instances cited where injuries—gunshot wounds for instance—of the stomach have spontaneously healed, and one of these cases I have found as early as 1754 in "Heuermann's Surgical Operations."

The injuries of the stomach may be divided with reference to their prognosis, into accidental, homicidal, and suicidal injuries. The prognosis is also influenced by the condition of the stomach at the time of the injury. In accidental injuries, the organ may be full or empty. In homicides—quite a number of which occur late at night, after times of drunkenness and debauch—the stomach is usually filled or partly filled with alcohol containing liquor and food. In suicidal cases, the stomach is usually empty. It is only rarely that a man with a full stomach and the consequent euphoria will commit suicide. The suicidal cases where the stomach is injured, however, are somewhat rare, as a rule, the head or heart being aimed at. The most important prognostic factor, however, is whether the stomach is the only organ injured or whether the neighboring viscera have suffered also. The peculiar location of the stomach, the close presence of the abdominal aorta, the spleen, the lungs, the liver, and above all, the pancreas, may bring about a number of complications which quickly lead to a fatal end.

The following, a case of homicide, may serve as an example:

A stab wound, inflicted with considerable force with a sharp instrument, and running through the skin at a point in the axillary line between the tenth and eleventh ribs. The tenth rib is smoothly cut through, the wound extends into the pleural cavity, the most dependent part of the left lung, through the diaphragm, through the spleen, through the stomach, piercing the anterior and posterior walls of the fundus in its upper portion, through the vertebral origin of the diaphragm, into the right pleural cavity. The direction of the knife

after entering was slightly upward and backward, the tract of the wound being at least twenty-one c.m. in length. It is clear that with such enormous complications there can be no hope of saving the life of the patient, although this patient lived five hours after the injury occurred. The patient's stomach was partly filled with food. Part of the gastro-ocolic ligament had been aspirated through the stomach into the pleural cavity.

In the summer of 1903, I performed an autopsy upon a young man who was supposed to have died from a rupture of the kidney. There were no marks of external violence in the region of the stomach. The boy had lost consciousness for only a few minutes and had been revived and taken to the hospital where he at once was fed with a considerable quantity of food. After the meal, he gradually became worse. He complained of considerable pain and soon shock set in. He lost all consciousness and died about seven hours after the accident. At the autopsy it was found that both kidneys were normal, but before examining the kidneys and upon entering the abdominal cavity, quite a quantity of food was found therein—particularly coagulated milk and pieces of toast and bread. The stomach was found to have been perforated through and through, and two considerably rough-edged wounds were present in the middle of the stomach. The boy had gotten between the driving piston and the boiler of an upright engine and he had been pressed so that his stomach was perforated by the end of the pivot grinding against the vertebral column. The boy's clothes protected his skin against external marks of violence. In this case, the cause of death was due to peritonitis which was caused by stomach contents passing into the peritoneal cavity. This case affords a striking example for cautious procedures in suspected abdominal injuries. It was undoubtedly the meal taken by the boy which was the cause of death. An exploratory operation with a liberal incision might have saved the life of the victim. The wounds of the stomach were rather sharply defined with a minute showing of inflammatory redness around them. They could easily have been pared and sutured. They were too large to heal spontaneously or to be sutured, the diameter being 18 and 15 c.m. respectively. Wounds of the stomach, however, do heal spontaneously under half-way favorable circumstances.

A striking example of the healing capacity of these wounds was demonstrated to me in a case of probable suicide, two years ago. A 32 calibre bullet passed through the stomach twice, *i.e.*, through the anterior and posterior walls near the fundus and penetrated at the upper edge near the middle of the pancreas. The posterior wound

had been pared and carefully stitched with a Lembert suture. The anterior wound had somehow or other been overlooked. The two wounds were rather close to each other, the bullet having passed through the stomach very closely to its border. The patient died on the seventh day after the injury. The pancreas was of a dark red color, the bullet hole in the upper margin was surrounded by an area of necrosis. There was considerable fat necrosis in the fat tissue of the pancreas, the gastro-colic ligament and also in the omentum and mesentery. Upon removing the stomach, it was filled with water, after ligation of both ends. It was seen that the sutured wound did not hold water while the wound left entirely to itself was absolutely water tight. The gap in the latter wound had filled out with a mass of fibrin and young connective tissue cells. The microscopic anatomy of the wound not sutured was the following: The wound being the anterior one, the serosa and muscularis show powder marks. The submucosa and mucosa did not show these specks of carbon. The severed edges had become approximated to each other to the extent of 1.5 m.m. on an average. In some areas, however, the fibrin plug measures 4 m.m. Immediately surrounding the fibrin plug throughout the wound there are immense numbers of young connective tissue cells. The most careful search reveals only a very moderate number of polymorphonuclear leucocytes. The mononuclear round cells present themselves in all stages of development, from the very youngest round cells to quite mature fibroblasts. The nuclei of these cells stain very readily and deeply. The fibrin is of a finely reticular variety—that seen in active inflammatory repair processes. The nearer to the centre of the gap the more reticular are the fibrin strings. Cells are getting more and more scarce in the very centre of the gap where we have the mass of fibrin most prominent. The new formation of blood vessels is going on quite actively. It goes without saying that the best developed blood vessels of the new formed kind are found in close proximity to the old tissue, right in among the degenerated fibrin of the muscularis and in the mass of detritus and the submucosa. The degenerative process of the wound is beginning to disappear. As before mentioned, there were hardly any polymorphonuclear leucocytes or pus cells. The tissues of the muscularis were perforated, also in the mass actively scattered throughout this proliferated tissue there are numbers of hyaline coils of muscle tissue, and in between them proliferated fibroblasts and also young blood vessels. Where we have this proliferation, the fibrin was originally thrown out for the purpose of healing these parts together, and during the process of healing it was clumped up and had lost its

reticular character. The changes in the mucosa were slight. The total interruption of the mucosa at this time measures one m.m. as an average measurement. The interruption is filled out with a plug of hyaline or fibrin, mixed with a few kariorhectic and kariolytic cells. The mucosa to right and left of the gap shows signs of simple degeneration and aseptic necrosis. The interstitial is only slightly proliferated. The oxyntic cells have disappeared altogether in the immediate neighborhood of the gap. A little further away many of them can be seen but considerably shrunken and atrophic, which makes a few spaces between these cells and the underlying membrane.

To the naked eye the wound of course appeared entirely closed. From the mucosa it had the appearance of a scar such as is left by peptic ulcers.

The condition of the sutured wound showed almost no attempt at healing. In spite of the ligatures being in good condition, none of them torn out, in spite of the serous surfaces having been approximated, the wound leaked considerably. There were a very few polymorphonuclear leucocytes at the extreme edges of the wound, but there were very numerous necrosed cells in the immediate neighborhood of the wound and stitches. The blood vessels in and around the wound that was sutured were filled with homogeneous caked blood.

The stomach of the last mentioned case contained no food at the time of the penetration of the bullet—a very favorable circumstance. After the operation of suturing the wound, and only one, rectal feeding was at once resorted to and the patient kept quiet under the influence of opium. He seemed to proceed very well except for moderate emaciation. How much he kept of the rectal feeding, I am unable to say, but at the autopsy the stomach contained food and solid food at that. This not having been my case during life, I am not able to say how that solid food got into the stomach. At any rate, it was a gross error to give him solid food. The patient died from extensive fat necrosis.

Experimentations on animals with a view of obtaining data in reference to this subject were not at all satisfactory. I have perforated the stomachs of two dogs with a 22-calibre rifle bullet, directing the shot so as to avoid other organs of the abdominal cavity, but I have found this to be a very difficult task. In both animals the stomachs were empty, but in one of them the left lobe of the liver was injured and in the other the spleen, and while these complications are, to my mind, not absolutely fatal, the dogs died anyway, but not without there having been a considerable attempt at healing in the stom-

aeh wounds. I left the animals entirely alone—as far as surgical interference is concerned—simply tying them on to a dog's operating table, and fed them rectally, keeping them well under the influence of opium, but even in spite of all the opium, the animals were rather restless, and I think this contributed to their eventual death, which was from peritonitis.

The non-surgical treatment of injuries to the stomach has two principal aims: first, the sustenance and prolongation of the life of the victim; second, putting the injured organ completely at rest. The first object is arrived at by the administration of opium suppositories with the addition of a small dose of belladonna. The immobilization of the stomach is also effected by these suppositories. Feeding of the patient is carried on through the rectum.

In the comparatively short time of my experience, I have witnessed some shocking methods of administration of rectal meals. I have seen nurses, relatives and even doctors administer these meals through all kinds of conductors, for instance—a large sized bulb ear syringe, introducing a considerable quantity of air with the meal. It goes without saying that these meals could not sustain the life of the patient, as they were ejected in a very short time, and from this source most of the bitter complaints against rectal alimentation are heard. I premised some fundamental rules for rectal feeding to be strictly adhered to:

1st. The rectum must be in a fairly normal condition. Inflammation of any kind, especially eczema, internal piles, or pressure by the fundus or cervix uteri upon the rectum, must be absent. If such conditions do exist, they must be ameliorated if possible.

2nd. The rectum and descending colon must be free from contents.

3rd. The composition of the food introduced must correspond to the physiological exigencies of the rectum and colon.

4th. The food must contain as much nutrition as possible, confined to as little volume as possible. The volume should never exceed 200—at most 250 c.c.

5th. The temperature of the food is of great importance. It should range between 42 and 45 degrees centigrade.

6th. The rectum and the colon should be quieted an hour before and a few minutes after the meal with an opium and belladonna suppository—not morphine, which has a tendency to produce vomiting.

Allow me to outline in detail the method of rectal alimentation which has done me great service.

The number of meals in twenty-four hours should not exceed two, one meal in the morning and one late at night. One hour before the morning meal, a suppository of opium and belladonna is introduced,

and then an hour later, the rectum is carefully cleansed with luke warm water to which some salt is added—it need not be physiological salt solution. The temperature of the cleansing water should range—like the other things introduced into the rectum—from 42 to 45 degrees centigrade. It should be introduced into the rectum with moderate force in moderate quantities, say 150 c.c. at a time, and the tube should remain in the rectum for the return of the soiled water. A good sized rectal tube should be used for the cleansing, and the tube should have a rather wide lumen, and should not be too flabby. The introduction and the letting out of the water are repeated until the water returns absolutely clean. Then the tube is turned and pushed in and out several times to ascertain and insure that all the water, or at least as much as possible, has left the colon and rectum. Now the patient is given a short time of rest, say fifteen or twenty minutes, after which the rectal meal is introduced. The same rectal tube is used and is introduced about 15 e.m., and then the meal, 200 c.c., at most 250 c.c., is slowly introduced at a temperature of from 42 to 45.

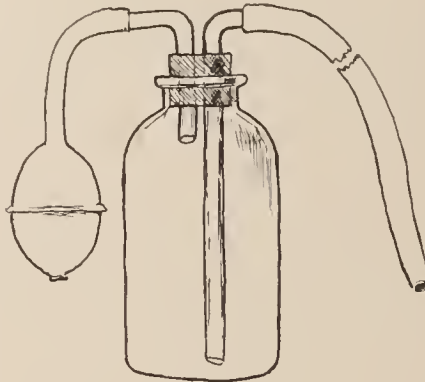


Fig. 1.

The simple apparatus which I have used for the introduction of the meal is shown in figure 1. Let me emphasize again the slowness of introduction, which is done in order to avoid irritation of the rectum. Rapid introduction frequently sets up spastic contraction of the organ. The tube is slowly withdrawn from the rectum, and after five or ten minutes' rest an opium and belladonna suppository is administered.

It is very rarely that one meets with failure if these simple directions are followed, but the composition of the food is also of very great importance. The one food mixture which has given me the most gratifying results, consists of the following:



Witte's Dry Peptone, 30 to 60 grammes,  
 Starch, 25 to 50 grammes,  
 Beef Juice, enough to make 200 c.c.

As a rule, I have administered this meal every twelve hours. I have fed one patient by this method exclusively—not a drop of liquid or solid getting into his stomach—for twenty-one days, and during that time he lost only eight pounds. There are other combinations of rectal meals, whites of egg, yolk of egg, etc., but these have not satisfied my patients or myself nearly so well. I have tried pancreas juice with cod liver oil; and pancreas juice with fancy unsalted butter; but much as I would have preferred the increased number of calories of the fats, the meal was not retained long enough to be of any effect. The subcutaneous nutrition with oils has very great disadvantages, the principal one being the many injuries to the skin by the point of the hypodermoclysis needle. Inunction of cod liver oil may be applied along with the rectal feeding, but it does not seem to be of much use in the cases here under consideration. I have seen results follow with glaring evidence in babies suffering from atrophy.

There is a most important point about the rectal feeding, however, and if that is not carried out your patients will be the sufferers, and the case will end sadly. That point is this: you must do the feeding



Fig. 2.

and rectal cleaning YOURSELF. Do not leave it to a nurse; do not leave it to an assistant or to the patient's relatives. The result is gratifying and you cannot expect the result unless these very minutest details are most scrupulously attended to.

One of the disagreeable features about rectal alimentation is the frequent interference with the patient's position in bed. I have devised a very simple apparatus—an inclined plane—(if anyone else has the priority to this simple thing, I gladly give it to him) which is a great comfort to the patient and also to the doctor. The pointed end is passed slowly under the patient's back from his pelvis, which will give the trunk a very gradual and almost unnoticeable elevation. It is pushed up to the shoulder blades—in lean patients especially it should not be pushed farther than the shoulder blades because it will hurt them. The apparatus can be made by any carpenter. (Fig. 2.)

Realizing my incompetence as far as surgical technique is concerned, nevertheless, even with some trepidation, I would ask your indulgence in listening to a few points conducive to changes in the operative procedures of injuries to the stomach.

If the entrance wound is through the thorax, the case is usually without any hope at all. If the wound, bullet or stab, is on the anterior abdominal surface above the umbilicus, the entrance point should be widened carefully with scissors and a grooved director. The incision may be carried upward and downward, and if thought of some advantage, diagonally. The incision should be a roomy one, and, after anchoring the peritoneum, inspection of organs of the abdominal cavity underlying the opening should be made. If a perforation is found in the anterior wall of the stomach, the gastro-colic ligament should carefully be perforated in a corresponding place and the space behind the stomach carefully packed with aseptic or antiseptic gauze. While doing this packing, the posterior space and surrounding organs may be searched and examined for wounds. The packing should be an extensive one, so that it would not only afford an easy access to the site and vicinity of the trauma, but would also help to prevent general peritonitis and fat necrosis, due to pancreatic injury. Now the space anterior to the stomach may be packed, leaving however the access to the space posterior to the stomach free to invade at any time. The wound of the abdominal walls should not be sutured, anyway not to any extent. The wounds of the stomach may be sutured, and I leave the technique to the surgeon for selection, but at all events, the external wound should be left open for inspection. After sufficient time has elapsed to make sure of recovery, the edges of the abdominal opening may be pared and the wound itself sutured.

I would like to emphasize that I do not wish to be understood as saying that the surgeon should abstain from treating injuries of the stomach—not in the least—but I hold that the internist who has a fair knowledge of gastrophysiology and pathology is entitled to raise his voice against too much indiscriminate surgical interference in these cases.

#### Discussion.

DR. WARREN B. HILL, of Milwaukee—The rectal feeding I regard as one of the essential points in the treatment of these conditions. Rectal feeding is a most difficult task, but the essential things are, first, that we have a clean bowel for the feeding to go into, so that it may be absorbed to the best possible advantage; second, that we must prevent hypersensibility of the organ, which we may do by giving a very limited amount of opiates; but while we are prone to give opium with rectal alimentation, we are apt to give either too

much or too little. The third proposition is what we put in. There are two methods employed: one is to take ordinary food, albumins, peptonize them, convert them partially into peptones, and then prevent the processes from stopping, and let them go on in the bowel. Or you may use pure peptones themselves in rectal alimentation. The case that the doctor describes was my own patient; and these peptones were given under the direction of Dr. Becker.

The essential thing in rectal alimentation is to feed the patient yourself and not to trust him to anybody else, and only feed him twice a day, giving the bowel ample time to rest itself between times. But I regard that the essential point in rectal alimentation is for the doctor to do it himself and not even trust it to a nurse.

He raises the question there how this food got into the patient's stomach. I long afterwards found out. The relatives of this man secretly stole some food in to him and gave him a nice free lunch and a bottle of beer the day before he died. I hope he died happy.

There is one other point in regard to artificial feeding that I wish to speak of, and that is inunctions of oil for feeding. We all of us have had more or less success and more or less failure from the administration of oil, either olive oil or cod liver oil, through inunctions, in the keeping up of patients, and I would suggest one practical point. Oil rubbed into patients who are fairly well nourished is absolutely wasted, because the oil tension is too great for any of it to be absorbed, but where we have extreme emaciation and the oil element is lacking, then by the laws of osmotic pressure you can get some oil through into the system and can keep up severely emaciated patients by oil. So much for the alimentation.

The point of spontaneous healing is a very interesting one to me. In a similar case to the one the essayist describes here, I found that we had spontaneous healing in one case, and also fairly good, but not as good as healing in a case of suturing; but I am satisfied that had this case been packed as the essayist has suggested, that spontaneous healing would have taken place, and the stimulus of the packing against the serous surface would have been sufficient to heal it over, and at the same time prevent any of the contents of the stomach from getting out into the peritoneal cavity, and thus endangering the life of the patient. So that I think that that part of the essay is a very important one, along the surgical side, that is, the walling off of the stomach, to say nothing of the possibility of its doing some good as regards the other wounded organs, is important in itself.

In the case which he describes of the person who died of necrosis of the wound of the pancreas, it is possible that had that stomach been packed we might have prevented that condition, because I cannot see exactly how the pancreas can go on and take care of itself, heal itself, while it is digesting its own substance. Still, it is worthy of consideration, and I believe it would have prolonged the life of this patient if it had not eventually healed the wound, if the packing had been done as suggested by the essayist.

DR. P. H. MCGOVERN, of Milwaukee—I have just read a work on chemical pathology where the author says that he has never given an oil in rectal feeding for the reason that it never does anything except irritate and set up peristalsis. He says further: Never rub oil into the skin, because never

a drop of oil gets into the system that way. I believe that in this case of posterior injury, the wound came so near the pancreas that we had peptonization of the posterior surface of that organ, and unless you could prevent that contact, action there would have caused death under any circumstances.

Dr. BECKER (closing)—The author denying, according to Dr. P. H. McGovern, that subcutaneous feeding by oil inunction is entirely useless, is mistaken. I have frequently fed infants by inunction of cod liver oil and I am sure that the oil was absorbed and made use of in the body economy. In one case, that of an infant about eight months old, suffering from grave atrophy (the degree may be realized when I mention that the cornea had already become turbid and had been so for several days), the absorption was shown with positive evidence. There was constant vomiting. I withheld all food, rectal alimentation was of no avail, and I resorted to inunction of cod liver oil. The baby vomited a few times thereafter, and the vomit had a distinct odor of cod liver oil. In order to make sure that the vomit was not contaminated by cod liver oil from the baby's skin or from the mother's hands, I gave concise directions of how the vomit should be saved for me. After the inunction, the baby was wrapped up in perfumed tidies, but still a few more vomitings that followed had a distinct odor of cod liver oil. I did not attempt to perceive the odor in the sick room for fear of being influenced by the atmosphere of cod liver oil, and so put the vomit into a screw top ointment jar, took it home and there the odor could be easily and instantly detected. I think this is positive proof that the oil had been absorbed through the skin and partly thrown into the stomach. Another condition that favors oil absorption, especially cod liver oil, is extreme emaciation, just as I had it in this atrophic baby. Where the body is well nourished and a layer of fat present, I do not think there is much absorption of oil. From the experience I have had with feeding adults (I am sorry to contradict Dr. Hill), I have never seen any results whatsoever.

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## WHEN AND HOW TO BEGIN SUBSTITUTE FEEDING.\*

BY L. BOORSE, M. D.

MILWAUKEE.

There is perhaps no problem in the whole domain of pediatric practice that has received so much attention and yet is so far from a satisfactory solution, as the proper nourishment of infants deprived of their natural food.

While I am conscious of my inability to add anything especially new to the general knowledge of the subject, there are certain phases of the problem, the importance of which I believe are not generally appreciated, and are worthy of further consideration. It is not my purpose to discuss at length the commonly accepted principles of infant

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feeding, nor dwell upon the details of preparing infant food, but rather to invite your attention to the necessity of a more careful study of maternal nursing, with special reference to a better understanding of the conditions and indications that render it advisable to resort to substitute feeding, and the best means of effecting a change in the dietary with the least danger to the child.

This particular phase of the problem of infant feeding has impressed me as being of the most vital importance, both in its bearing upon the mortality of early life and the standard of physical development of the increasing numbers of infants deprived, necessarily or unnecessarily, of what nature designed as their proper nourishment.

While it is true that scientific research and investigation has accomplished inestimable good in mitigating in a measure the evil effects, and in lessening the appalling fatality that formerly attended substitute feeding, still the results as attested by common experience and indicated by the mortality statistics, are not such as to justify a hasty abandonment of maternal nursing without good and sufficient provocation.

My observation has led me to believe that this feature of the subject has not appealed with sufficient force to the profession at large, and that, either through indifference or a lack of appreciation of a most important duty, the question of a change in the infant's dietary is too frequently left to the decision of an inexperienced mother, or relegated to others whose knowledge of the subject is based upon primitive ideas and who are wholly ignorant of the nutritive requirements of the infantile human organism.

Among some the modern methods of substitute feeding have seemingly encouraged a disregard of the importance of maternal nursing, with the result that infants are too often deprived unnecessarily and for insufficient reasons of their natural food.

Physicians should be impressed with the fact that every day of breast feeding, providing the milk is of a proper quality, is of the most vital consequence to the infant, even though it be wholly inadequate in quantity and requires to be supplemented by artificial food.

Injudicious weaning is largely responsible for the many cases of deranged digestion in early infancy, which too often either terminates in an early fatal issue or results in pathological conditions of the epithelial and glandular structures of the alimentary canal that render subsequent nourishment a most difficult problem.

The earlier in infancy a change is made in its alimentation from that of breast milk to an artificial food, the more likely is the infant

to manifest evidence of deranged digestion or imperfect nutrition. The beginning of substitute feeding should be deferred, if possible, until the digestive organs—in the natural course of evolution—have attained the powers essential for dealing with an artificial food. Unfortunately, however, the great majority of infants are deprived of their natural sustenance long before the termination of the physiological period of lactation, and it becomes necessary to substitute an artificial food, which, at best, is inadequately adapted to their digestive powers and nutritive requirements.

It is a notable fact that the ability of the American woman to nurse her offspring to the limit of what is generally regarded as the normal physiological period of lactation, is quite exceptional. The possession of this ability by a young mother from the higher walks of life, would almost entitle her to be regarded as a phenomenon. Among the poorer class, there is likewise a notable decline in the nursing capacity, although not to so great a degree as among the more affluent and highly educated.

According to my observation, not more than one-fourth of those among the better classes who are desirous of nursing and are willing to forego social pleasures in the interest and welfare of their offspring, are able to continue successfully beyond the third month, without supplementing the breast feedings. I have rarely found in my practice mothers who are averse to nursing or who absolutely refuse to make the attempt. Occasionally, it is true, a young mother is encountered who is disinclined to perform this important function on account of the inconvenience, restraint or interference with social obligations that nursing necessarily entails. I believe that where a mother is duly impressed with the sense of duty she owes to her offspring and fully appreciates the fact that a non-observance of this obligation may jeopardize the life of her child or mar its future physical and mental development, the maternal instinct will prevail and social pleasures will be subordinated to moral duty. It cannot be denied, however, that many who are willing and eager to nurse their infants are unable to do so.

In approaching the problem of maternal nursing, the first question for the physician to decide is the permissibility of nursing. Assuming that the mother possesses the ability, is her condition such that nursing will not prove detrimental to her own health or injurious to her child? There are certain conditions that are universally regarded as absolute contra-indications to maternal nursing, but aside from these, other conditions are met with in individual cases in which the permissibility of nursing can be decided only after the most careful investigation and study.

*Tuberculosis.* It is an established rule that a mother suffering from tuberculosis in any form, whether in the latent or active stage, should not be permitted to nurse her infant. Not only is there danger of communicating the infection through the intimate relations of her offspring, but the milk is usually of an inferior quality and the drain of lactation upon her own system tends to hasten in an unfavorable manner, the progress of her disease.

*Syphilis.* A syphilitic mother should not nurse an uninfected child. An infant suffering from congenital syphilis, infected through the father, should not be put to the breast of an uninfected mother without her consent after the facts have been fully explained to her. While, in accordance with Colle's law, the probability of immunity of the mother against infection by her syphilitic offspring may be assumed to exist, the exceptions to this law that have been recorded, render it incumbent upon the physician to inform the mother of the possible danger to herself, as well as the benefit that would accrue to her infant from breast feeding.

*Septic Infection.* Septic infection following parturition and attended with a high or continued rise of temperature is an absolute contra-indication to nursing. An infant should not be permitted to nurse an infected breast. In infection of one mammary gland, nursing of the healthy breast is permissible tentatively, providing there is no evidence of severe general infection.

*Acute Infectious Fevers.* Where the mother is attacked by any of the acute infectious or contagious diseases, as typhoid, diphtheria, scarlet fever, measles or variola, I consider that weaning is positively indicated. Under such conditions the infant is not only exposed to the danger of infection, but the milk from such a source is unsafe. This opinion, I am well aware, is not universally held. Some assert that if proper precautions are observed against infection, immunization of the child may be effected through the milk.

*Nervous Diseases.* The influence of profound nervous disturbances on the secretion of milk is well known, and as a general rule conditions attended by frequent and severe nervous perturbations, as epilepsy, chorea and hysteria, contra-indicate nursing. During periods of temporary mental excitation or depression, as anger, fright, grief or anxiety, the infant should be fed upon a substitute food and the milk drawn from the breast at the regular nursing intervals until the normal state of mind or nervous equilibrium is re-established, when breast feeding may again be resumed.

We cannot be guided by any general rule in the case of so-called "nervous" or excitable women, but must study the conditions in each

case and the effects of the nourishment on the infant and be governed accordingly.

Having decided in the affirmative that nursing is permissible, the question of ability to nurse then arises. Inability to nurse may be due to physical abnormalities, hereditary or developmental conditions, and improper methods of nursing.

*Physical Abnormalities.* Undeveloped and retracted nipples are undoubtedly the most common physical defects met with, and as a rule militate against successful nursing. Much good, however, can be accomplished by proper measures instituted before parturition with the object of moulding the nipples before the breasts become distended. Prophylactic treatment is also of great importance in rendering the nipples less liable to erosions and fissures, which are always a serious drawback to proper nursing and pre-dispose to infection of the mammary gland. In depressed or eroded nipples mechanical measures often serve a useful purpose and obviate the necessity of sudden weaning. The possibility of successfully rearing an infant on one breast, where it becomes necessary to relieve the other of its activity, should not be lost sight of; even if the quantity is insufficient and a supplementary diet becomes necessary, the infant should have the benefit of its mother's milk so long as it continues to be of a proper quality.

*Hereditary and Developmental.* Hereditary and developmental conditions appear to be the factors that are largely responsible for the inability of the young mothers of the present day to nurse their offspring. The conditions are represented in one class by the frail, highly strung, nervous young woman whose digestive and assimilative powers are unequal to the task of furnishing the material for sustaining her own vital forces and supplying the necessary elements for the elaboration of pabulum for her offspring.

In another class we find the robust young woman, rather inclined to corpulency, either of sedentary habits, or who devotes her energies to social functions. Her breasts, judged from physical proportions, should give forth a bounteous supply of nourishment for her child, but such is not the case. Her infant, usually under weight at birth, regains the initial loss of weight, if at all, only after several weeks of nursing; thereafter the weight remains stationary or there is but a slight gain with other evidence of a lack of adequate nourishment. The breasts remain large, perhaps tense at the beginning, but become flabby after a few moments of nursing; though of adequate proportions they consist chiefly of adipose tissue that has taken the place of the atrophied secreting glandular structure.

I have frequently found infants nursing under such seemingly



promising physical conditions, suffering from alarming degrees of inanition. Forced feeding or the ingestion of large quantities of liquid food with the object of increasing the flow of milk in these cases does not as a rule have the desired effect, but tends instead to increase the deposit of adipose in the mother.

Improper habits of nursing and congenital debility of the infant are causes that lead to an early suspension of the secretive function of the mammary glands. When the infant is feeble and unable to empty the breast or when the child is applied at irregular and too frequent intervals and the milk is but partially withdrawn, resorption of that remaining in the breast takes place, the gland becomes accustomed through the improper stimulus to secreting less, and the total quantity gradually diminishes until it becomes wholly inadequate, not only in quantity but also in quality, for the proper nourishment of the infant.

The possibilities of developing the function of nursing and the deleterious influence of improper or imperfect nursing in maintaining this function, is frequently seen in the case of wet nurses. In nursing a strong infant they have an abundance of milk, but when they change to nursing a feeble child, the lack of the accustomed stimulus of vigorous suction together with the ineffectual emptying of the breasts soon leads to a retrograde activity of the glands.

It is a common occurrence to meet with mothers who have great quantities of milk in the early period of lactation but whose infants are feeble and unable to supply the necessary stimulus for maintaining the full activity of the glands. The result is a rapid decline in the quantity of milk secreted, necessitating an early resort to supplementary feeding or entire weaning. Owing to the natural eyelie state of the female, there are two conditions that are liable to occur in the course of lactation, in which the physician's opinion is sought with reference to the advisability of continuing breast feeding. I refer to menstruation and pregnancy.

*Menstruation.* The recurrence of menstruation during lactation is not as a rule a contra-indication to continued nursing. While it is true that during the period of menstruation infants not uncommonly manifest symptoms of gastro-intestinal disturbance, I have rarely found it necessary to advise weaning on this account. It has been my practice, where the infant is affected by the re-establishment of the catamenia, to have the breasts emptied at regular intervals during the period, the infant being permitted to nurse for a shorter time and the breast feedings supplemented with artificial food. The change that occurs in the milk during this period is usually of a temporary

character and the equilibrium is quickly re-established on cessation of the menstrual flow.

*Pregnancy.* Pregnancy as a rule is a positive contra-indication to nursing. The possibility of the induction of abortion through the stimulus of nursing, I believe is remote, but the changed condition in the economy is inconsistent with the production of a milk possessing the adequate nutritive qualities. When pregnancy occurs in the early months of lactation the gradual substitution of artificial food is, in most instances, preferable to sudden weaning.

#### WHEN TO BEGIN SUBSTITUTE FEEDING.

Having decided that breast feeding is not permissible or cannot for any reason be adopted, the question as to the proper time to begin substitute feeding does not arise; it is of course imperative. In all cases where breast feeding has been adopted and is not contra-indicated by any physical defects or constitutional conditions of the mother, the time for beginning substitute feeding must be determined by a correct interpretation of the earliest manifestations of inadequate nursing. The indications for substitute feeding may arise at any time during the normal period of lactation and their early recognition implies a knowledge of the physiological functions, growth and development of the infant under normal conditions of breast feeding. This knowledge should not only be acquired by the physician but should be imparted to the mother, so that she may be in a position to realize the meaning and import of abnormal conditions arising from improper breast feeding at the earliest possible time, thereby avoiding the insidious development of those pathological conditions of the digestive organs that render the beginning of substitute feeding and the subsequent nourishment of the infant a difficult matter. Successful breast feeding is characterized by the following conditions presented by the child, the absence of any one or more of which should constitute sufficient grounds for an immediate and thorough investigation:

First, a steady gain in weight is the most important evidence of successful breast feeding. Stated in a general way, the average infant, properly breast fed, should show a gain of six ounces a week during the first quarter of the year, five ounces a week for the second quarter, three ounces a week for the third quarter, and two ounces a week for the remainder of the year. It must be borne in mind that the increase in weight does not occur with such absolute regularity as one might infer from the average weight tables or schematic charts. The rate of increase of the individual child is subject to the influence of

various conditions, as the season of the year, its environments, inherited vigor and the diet and habits of the mother. The gain in weight may be progressive from month to month with a gradual and regular decrease in rate; it may be progressive, but with a much greater increase during the first three or four months than in the succeeding months, or the increase in weight may be irregular, showing marked variations in the monthly gain. It may be laid down as a rule, that where a breast-fed infant fails to show a gain during a period of two successive weeks, in the absence of manifest illness, its nourishment is inadequate, either in quantity or quality. On the other hand, a gain in weight is not conclusive evidence of perfect breast feeding. It is not unusual to meet with infants who suffer from intestinal indigestion due to improper breast-milk, and yet show a gain in weight. Additional evidence of normal breast feeding is: Second, a happy and contented disposition; third, a gradual and regular development of muscular power; fourth, absence of constant vomiting after nursing; fifth, stools of normal consistency, color and odor.

Successful breast feeding implies an adequate quantity of milk of a composition adapted to the digestive powers of the individual child. When symptoms of disturbed lactation arise, we should at once make a thorough investigation of the milk supply in order to be in a position to intelligently direct the subsequent nourishment of the infant. We should ascertain the quantity of milk secreted and determine by microscopic and chemical examination its quality. The microscope will reveal the presence or absence of colostrum corpuscles and the uniformity or abnormal variation in the size of the fat globules. By chemical analysis we determine whether the percentage of the different elements is normal or abnormal. If we find that the fat, proteid and carbohydrate is present in normal relation, and approximate in amount the percentages of these elements in average breast milk, we can be reasonably certain that the disturbance is not due to the milk and must seek for other causes. If, on the other hand, we find a decided difference in the relationship of the different elements, either collectively or singly, from that of the average quality of breast milk, and it seems probable from the symptoms that the disturbance is due to the abnormal composition, we should endeavor by treatment, in correcting the diet, habits and hygienic surroundings of the mother, to so change the percentage of the elements as to render it suitable to the digestive powers of the infant.

I am thoroughly convinced that in many instances of abnormal lactation a thorough investigation will reveal causes that may be removed and thereby permit a continuance of breast feeding. We should

not lose sight of the fact that the first three or four months is the most critical period of the infant's life. It is then that the most rapid developmental changes take place in its digestive organs, and a suitable breast milk during this period will multiply its chances of survival many times over the infant deprived of its natural food from birth.

With the exception of those who are able to continue nursing to the limit of the normal period of lactation, the time at which it may become necessary to resort to substitute feeding is extremely variable and must be determined in the individual case by the evidence of abnormal lactation in the child.

The proper time to begin substitute feeding is before pathological changes have developed, and is best determined in the absence of subjective symptoms indicative of deranged digestion, by careful weighing of the infant at frequent and regular intervals. The weight record of a breast fed infant is the best index of the state of its nutrition. In the case of normal lactation, the precise time of instituting a change in the infant's diet is relatively unimportant. Authorities are generally agreed that if the child is thriving, as indicated by a satisfactory gain in weight and development, breast milk alone is adequate for the nutritive requirements until the tenth to the twelfth month.

#### HOW TO BEGIN SUBSTITUTE FEEDING.

The question, "How shall we begin substitute feeding?" cannot be answered in a definite way or decided by any general rule. We cannot classify infants for purposes of feeding with set formulæ; we must study the condition of the individual child. To illustrate my meaning, an infant at birth weighing five pounds, poorly nourished and with low vitality cannot be classified and fed according to some general rule, with one weighing ten pounds at birth, well nourished and vigorous.

The age, weight, inherited vigor and powers of digestion must constitute the basis for our calculation in the preparation of a food.

When it becomes necessary to place the new born on a substitute food, the problem is one that is frequently attended with great difficulties. Circumstances permitting, direct substitute feeding should be advised, especially in the case of infants below the average in weight and strength, as experience indicates that this method of supplying nourishment is far superior to artificial feeding and is attended with a much lower rate of mortality.

Wet nursing is a method that has not gained a high degree of popularity in this country, probably owing chiefly to the difficulty of

securing suitable wet nurses. There can be no question but that this method could be more generally adopted and made the means of saving the lives of many infants. When, for any reason, maternal nursing cannot be adopted and wet nursing is out of the question, I have obtained the most satisfactory results in the case of weak or premature infants by giving whey prepared from whole milk, during the first week. After this period, the percentage of fat and casein proteid is generally increased by the addition of cream or top milk, care being observed not to overtax the digestive capacity of the stomach, while at the same time the condition of the infant's nutrition is carefully watched and determined by frequent weighings.

In infants that are well developed and vigorous at birth, I have found that whey with the addition of cream or top milk in quantity corresponding to one per cent. of fat is usually well digested. The subsequent increase in the percentage of fat at one time should not, as a rule, be more than one-fourth of one per cent., while the increase of the casein will be relatively much smaller, depending upon the fat content of the cream or top milk used. After the first week, the percentage of carbohydrate should be increased one-fourth of one per cent., at intervals of ten days or two weeks, by the addition of milk sugar.

I have generally found it advantageous to continue the use of split proteids until the child is two or three months of age. Another method that I have adopted in these cases, where it is not feasible to make use of whey, is to partially peptonize a modified milk and gradually decrease peptonization as the infant's ability to digest casein increases.

In cases where breast feeding has been adopted and the infant does not thrive, the first essential is to determine the quantity and quality of the milk. When the quantity secreted is sufficient but the quality is at fault, and efforts to render the milk suitable are unsuccessful, weaning is usually indicated at once. When the breast milk is of a proper quality but deficient in quantity, mixed feeding should be adopted. Analysis of the breast milk will determine the composition which we should endeavor to approximate in the preparation of a substitute food; although in the beginning it is generally advisable to reduce somewhat the percentage of the fat and proteids below that of the breast milk. The number of bottle feedings should not be increased more rapidly than is absolutely necessary, and breast feeding should be continued so long as the milk remains of an adequate quality. By supplementing the breast feedings, nursing may often be continued several months with the greatest advantage to the infant. Sudden weaning should never be attempted unless positively indicated.

In conclusion, I desire to emphasize the following points:

1. The great superiority of breast feeding over any other method should be more generally recognized and this method earnestly advised unless absolutely contra-indicated.

2. The conditions that lead to abnormal lactation should be more thoroughly studied and efforts made to render breast feeding adequate before resorting to substitute methods.

3. A sudden change from breast feeding to substitute feeding should never be attempted unless the breast milk cannot be rendered adequate in quality, or breast feeding for other reasons is absolutely contra-indicated.

4. The proper time to begin substitute feeding is before pathological conditions of the digestive organs develop as a result of inadequate nursing.

5. The earliest indications of improper breast feeding are: failure to gain in weight, abnormal character of the stools, and vomiting.

6. In feeble infants direct substitute feeding should be advised when conditions permit and a suitable wet nurse can be secured, in preference to artificial feeding.

7. In beginning substitute feeding, the composition of the food, the quantity to be given at a single feeding, the number of feedings in twenty-four hours and the intervals of feeding, must be based upon the age, weight and general development of the infant; always starting with a food low in the percentage of proteids and fat, and increasing these elements as rapidly as the ability of the infant to digest them will permit.

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## REPORT OF A CASE OF MALFORMATION OF THE DUODENUM.\*

BY C. J. HABHEGGER, M. D.

WATERTOWN, WIS.

The following report consists of a short history of the case, together with the post mortem findings.

The malformation occurred in a new-born infant that lived about five days. Both of its parents are healthy, the mother being about 30 years of age, and the father 33. The mother had given birth to two other children, both of whom are well, their ages being respectively eight and five years. The last pregnancy extended over about 282 days, and was complicated during the latter months by a marked hydramnion, which caused considerable discomfort, such as shortness of breath, abdominal distention and swelling of the legs. At the time of labor

\*Read before the Jefferson County Medical Society, Dec. 5, 1905.

about five gallons of amniotic fluid escaped, and, owing probably to the over-distention, the labor was very slow, so that low forceps had to be applied. Otherwise the labor was normal.

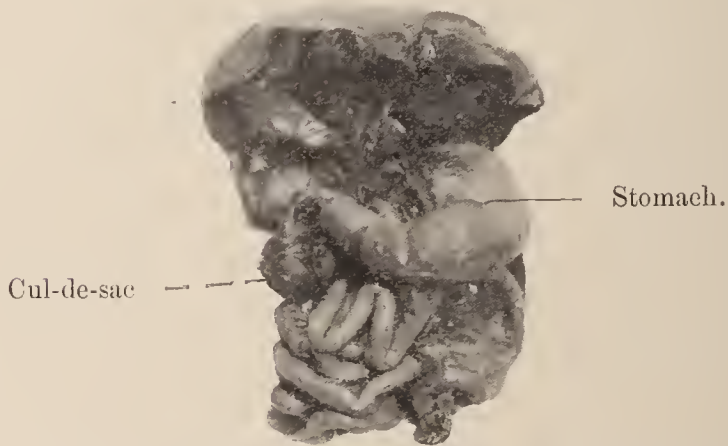
At birth the child weighed eight and one-half pounds, and measured twenty-two inches. It was fully developed and perfectly formed, cried lustily, and was apparently normal in all respects. Nothing abnormal was noted during the first two days of life, except that shortly after birth it cried a great deal, but after that it was quiet, and would suck vigorously at the breast, and occasionally took and retained small amounts of warm water. On the third day, about the time the mother's breasts began to secrete milk, it was first noted that the child vomited several times. This recurred constantly after this, the child nursing several times and then vomiting. The vomiting was preceded by great restlessness and crying, and followed by quite a long period of sleep. The vomitus at first consisted of curdled milk which had an intense sour smell, and contained free hydrochloric acid, but no bile. The quantity reached at times as much as five ounces. It would come out with a gush, and the entire stomach would be empty after two or three such gushes, the child subsiding into a quiet sleep directly afterward. About the fourth day the vomitus assumed a blackish color like coffee grounds, which persisted up to the time of death. This was due to decomposed blood. Nothing passed by the bowels, except a little greenish slime, despite large doses of castor oil and rectal injections. A physical examination at this time showed that the child was still well nourished, although the muscles were rather flabby. The chest was well formed, and expanded equally. There was no dullness anywhere. The breath sounds were pure, being of a puerile type. The heart showed no change in size, the apex being located in the nipple line in the 5th interspace. No abnormal sound could be heard over the heart which beat about 130 times a minute. The abdomen was soft and somewhat retracted. The stomach, as outlined by percussion, reached to about midway between the ensiform cartilage and the umbilicus. The liver extended about three finger-breadths below the costal arch. The spleen could not be palpated. Marked peristaltic movement of the stomach could be seen at intervals; no tumor could be felt in the epigastric region. On the fifth day the child quite suddenly became cyanotic, the breathing rapid and labored, and numerous fine râles could be heard over the entire chest. The case terminated lethally on this day. A clinical diagnosis of aspiration pneumonia as the immediate cause of death was made. The other condition was ascribed to a pyloric stenosis.

The post mortem was made shortly after death, while the body was

still warm. The body measured 22 inches in length. The thorax was not examined. An incision was made from the ensiform cartilage to the os pubis, and the organs examined in situ.

The liver was very large, and of a reddish brown color. The capsule was smooth and shiny. The right lobe extended about three finger-breadths below the costal arch. The gall bladder was distended with bile and projected downwards from its notch in the liver about one-half inch. The stomach was distended; its lesser curvature, and its pyloric and cardiac ends were covered by the liver. Both the large and small intestines were empty and contracted.

The stomach was now tied off and cut as closely as possible to the diaphragm. The ligamentous attachments of the liver were cut and the mesentery of the bowels severed near the spinal column. The abdominal organs were then removed in toto. A careful examination of the stomach now showed that it was about normal size, but that on



its lesser curvature there was a deep furrow which divided the stomach into two parts, and which, if a little more marked, would have produced the anomaly known as the hour glass stomach.

The musculature of the stomach was well developed and the pyloric ring well defined. Below the pylorus and in that part of the intestinal tract corresponding to the ascending portion of the duodenum, is a remarkable malformation to which I wish to call your attention. Just below the pylorus the stomach empties into a cul de sac, about the size of an orange, which has no communication with the rest of the intestinal tract. (See illustration.) This cul de sac is lined by a mucosa which differs from that of the stomach, and corresponds with that of the duodenum. That part of the intestinal tract corresponding to the descending portion of the duodenum again



commences in a narrow part as a continuation of the common duct. The mucous membrane of the stomach is covered with slime and black sediment, but shows no ulceration. The large and small intestines are collapsed and shrunken.

In conclusion I wish to say that this condition cannot be differentiated clinically from that of pyloric stenosis in infants, and which produces similar symptoms. Recently Scudder and Quinby of Boston (*Journal Amer. Med. Assoc.*, May 27, 1905), have made a study of 115 cases of pyloric stenosis, 55 by autopsy and 60 by operation. The symptoms of this condition are: vomiting, constipation, peristalsis, progressive wasting, dilated stomach, and a pyloric tumor.

The vomiting is the first symptom, and begins the day after birth, or it may be delayed for a few days or weeks. It is forcible and expulsive. The other symptoms must be taken into consideration in order to make a diagnosis.

The treatment of this class of cases is, of course, surgical, and the procedures that have been employed are gastroenterostomy, division, pyloroplasty, and pylorotomy. The results have been very good. As these cases are not uncommon it is well to think of this condition in the habitual dyspepsias and vomiting of children.

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**Are Gymnastics Injurious?** — The fact that the brain is brought into operation to some extent by every act of physical exertion has, of course, been known for generations, but it has been left to Prof. Mosso to show, by means of his ergograph, the comparative strain imposed upon the brain by physical exercise, mental study, and the play of the emotions. The facts thus established are, however, not generally known, and in these days of physical culture to hint that artificial forms of exercise, however scientific in theory, are not really beneficial at once attracts attention and protest. Thus Prof. Muirhead, of the Birmingham University, said that gymnastics were the most exhaustive and demoralizing kind of exercise that could be engaged in, and added that he had suffered from the exercise himself and knew what it meant.

What he desired to impress upon the managers of schools is that gymnastics are a brain as well as a muscular exercise, and can not be regarded as a rest for the student. "I think," said Prof. Muirhead to a Mail reporter, "that what we now know as to the physiological effects of different kinds of exercise demands an overhauling of the older systems of gymnastic training. Gymnastic trainers are often ignorant of the real principles on which physical exercise should be based, and our existing system is a compromise for open-air exercise. Indoor gymnastics are very exhausting, and in my view one of the best forms of gymnastics is the outdoor games, such as the public schools have in their field sports." (*U. S. Consular Reports.*)

## WISCONSIN MEDICAL JOURNAL.

OFFICIAL ORGAN OF THE STATE MEDICAL  
SOCIETY OF WISCONSIN.

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## EDITORIAL COMMENT.

### THE STATE MEDICAL SOCIETY OF WISCONSIN.

#### ANNUAL MEETING.

The next annual meeting of the State Society, the sixtieth in its history, will be held in June of this year. Now that there is such complete and harmonious organization in the professional ranks of the state, the importance assumed by this Society can hardly be measured by that of the past six decades. The influence for good of which the Society is now capable, is unlimited, and it must and will enjoy a gradual and natural increase in legitimate power.

To rest and gaze with complacency upon a success that is assured, is, however, dangerous policy, and the individual assistance of every member of the Society is needed to make the success already achieved, even more firmly rooted.

The meeting of this year promises to be a big gathering, but will fail of its real purpose if it is big in attendance only, but poor in enthusiasm and literary merit. We have every reason to believe that the program to be offered will be eminently satisfactory, and of a very high character. The selection of Dr. John H. Musser—foremost among physicians—of Philadelphia, needs no comment, and the announcement that he has accepted the invitation to deliver the address in Medicine, will doubtless be hailed with pleasure by all. A physician of national repute will be selected to deliver the address in Surgery, but the committee is not yet prepared to make a definite announcement.

Elsewhere in this issue appears an announcement of the program committee, and a call for volunteer papers.

#### STATE BOARD OF MEDICAL EXAMINERS.

The State Board, at its recent session in Milwaukee, effected a reorganization because of the expiration of the terms of Drs. Currens and Forsbeck. The newly appointed members, who were present and qualified, are: Drs. P. H. McGovern and M. A. Barndt, of Milwaukee. Dr. A. P. Andrus, of Ashland, was elected president, and, after prolonged balloting, Dr. J. V. Stevens, of Jefferson, secretary. The other members are W. T. Sarles of Sparta, F. P. Klahr of Horicon, L. F. Bennett of Beloit, and A. N. Jorris of La Crosse.

It is, naturally, with regret that we are confronted with the enforced retirement of Drs. Currens and Forsbeck. During their incumbency they did yeoman service for the good of the profession in this state. Both were untiring in their efforts, sacrificed much of their time in following up medical transgressors, were thoroughly conversant with the provisions of the medical law, and had a large acquaintance in the state.

While regretting their leaving, the profession is to be congratulated upon their successors. Dr. P. H. McGovern of Milwaukee, is well and favorably known, and his qualities are such that we can predict that he will uphold the law, mete out justice to applicants, and help prosecute the unworthy. Dr. M. A. Barndt, of Milwaukee, is also well known, and held in high esteem by the profession.

Now, if the Board will "get together," relegate to "innocuous desuetude" all factional matters, be mindful only of the common weal, adopt the same high standards as did their predecessors, and round up the miscreants who are sailing under false colors and doing incalculable mischief, we will sing paeons of praise in their honor.

The outgoing board preferred charges against two men using the title "doctor." We trust that, with their attorney's help, all offenders will be relentlessly pursued. And here a suggestion: will not the members of the State Society assist the Board and its attorney, by notifying them of the violators with whom they come in contact? If they will but do this much toward the general purification of the atmosphere, and assist further by helping gather evidence against offenders, they will lighten the work of these willing men, and make their efforts far more successful.

Then, too, employing attorneys to gather evidence is costly, and for this additional reason it is every man's duty to lend a helping hand.

The profession owes the retiring members, Drs. Currens and Forsbeck, a vote of thanks for their labors. They contributed much to the efficiency that characterized the last Board. There is hard work in store for the reorganized body, and we wish the members much success in their deliberations.

#### WARNING AGAINST TRICHINAE.

During the last few weeks there have been reported to the Health Department of the city of Milwaukee six authentic cases of trichinosis and a number of others, probably trichinosis, but not so reported.

Milwaukee is a city with a large German population. It is the custom of these people to make, at this season of the year, what is known as 'summer sausage.' This sausage, a mixture of varying proportions of pork and beef, is eaten raw after having been smoked. There are people, too, who eat raw ham.

The eating of raw pork in any form is dangerous. Wisconsin pork is probably as free from trichinosis as that found in any state of the Union, but at times infected hogs of our own growing are on the market, and much more frequently infected pork of this kind is to be purchased in our markets.

Upon knowledge of these cases of trichinosis the Commissioner of Health at once notified the public through the medium of the press, and made known to the people that pork which was to be used in

sausage or eaten raw as ham, would be inspected free of charge in the department laboratories. As an evidence of the number of people who eat raw meat it may be stated that in ten days nearly three hundred samples of meat and sausage were submitted, with three positive findings—a very high ratio of infected meat, and probably far in excess of the ratio of trichinosed to infected meat generally. These figures show the danger in the food.

The problem which presents itself is how to protect the people.

It is a fact that all pork for export is inspected by the United States Government, but that for home consumption is not examined. This is not just to our people. It is incumbent upon the national, state or municipal authorities to enact laws which will compel the dealers in pork to have it inspected and declared wholesome before its sale to the consumer. The expense of inspection would be a very small one and should not increase the cost of the product appreciably.

However, the custom of eating raw meat ought to be abandoned. It is not only trichinosis that is liable to be contracted by so doing, but tuberculosis and other parasitic diseases as well. Let us urge that the custom be abandoned, and the evil will be eliminated.

#### NOISE AND HEALTH.

It is worthy of note that increasing amount of attention is given of late to the subject of unnecessary noises in all the more civilized communities of the world, and especially in cities where noise-producing agencies are so concentrated.

Noise is known by the laity to have an injurious effect upon sick people, as familiarly illustrated to all the world by spreading the street with straw or tanbark in front of a sick person's house, and it is a fact that noise may be a torture even to persons apparently able-bodied who are nervously susceptible.

The savage does not dislike noise but rather revels in it, and the races of men may be said to be noisy in proportion to their savagery; the worse portion of every race is the noisier portion; the worse sex is the noisier sex; the young of all races are barbarians and are noisy. Silence has always been acknowledged to be golden, and it may be said to be golden in this sense—that it is expensive. Fortunes are expended in devices for suppressing noise; societies are being organized, and in many cases the aid of courts has been invoked to subdue the clangor of bells, whistles and wheels.

In a recent medical journal we read that after the Lord Mayor

of Birmingham, England, had refused to have the town clock muffled at the request of a patient recovering from an operation in the hospital near by, the city council ordered the apparatus of the clock adjusted so as to cut off the ear-splitting stridency from 7:30 P. M. to 5 A. M.

Another journal tells of the edict of the Board of Health of Mt. Vernon, N. Y., ordering that bell-ringing, switching of trains except for through traffic, etc., shall be prohibited between 10 P. M. and 6 A. M. We have all noticed the general complaint about pandemonium of New Year's night, and the efforts to stop it: *American Medicine* pertinently says of noise—"it is more than a nuisance, it is a menace to health."

A pathetic yet funny incident came to our notice illustrating both sides of the question, when a few years ago a boy of four who had been taught to keep quiet in the early morning for fear of waking his parents, and who was then convalescing from typhoid fever, being distressed by the whistle of a tug out in the lake whispered "stop," "stop," each time the fearful din was repeated.

We predict that a very few years will see a change in the attitude of the community toward noise, and that even the ears of the public servants who sit in the common council will become more sensitive in obedience to a general sentiment which will require those not naturally sensitive to noise- nuisance to consider the larger number who are.

#### THE GREAT AMERICAN FRAUD.

Mr. Samuel Hopkins Adams' latest installment in *Collier's Weekly*, entitled "Preying on the Incurables," follows worthily upon previous accounts of the many frauds perpetrated upon the sick and the gullible. In this article Mr. Adams tells of numerous bunco consumption cures, of their opium—chloroform—and cannabis indica-containing medicines, and of the very positive menace these preparations are to those in greatest need of good and honest advice and—health, not poison. The facsimile of a coronor's death certificate that accuses Dr. Bull's Cough Syrup of having caused the death of a child, is reproduced, as are also numerous pictures with the usual and characteristic "cure guaranteed" braggadocio, such as of Consumption, Fits, Cancer, Deafness, Dropsy and Rheumatism.

Mr. Adams' article not only reflects great credit upon himself but will always stand out as a lasting tribute to the disinterestedness and

devotion to truth that characterize *Collier's Weekly*. At this bunoemedicine period in history did *Collier's* submit to the seductive blandishments and allurements of fake advertisements, the bosoms of its proprietors would swell—less with pride, than with an accumulation of "swag" that would bring a smile even upon the faces of some insurance magnates and call forth their extended hand in brotherly greeting.

#### THE STATE TUBERCULOSIS SANITARIUM.

The Wisconsin Tuberculosis Commission, of which Dr. Gustav Schmitt of Milwaukee, is president, has selected a site for the location of the State Sanitarium. The appropriation of \$90,000 for this purpose by the last legislature, has embued the Commission with courage, and the first step in fighting the tuberculous scourge with nature's methods, has been taken. The site chosen, Tower (or Government) Hill—(the ruins of what was once a government observatory are still in evidence)—is the highest in this part of the state. It is eminently favorable for the location of a sanitarium, and offers a panorama that is exceedingly pleasing to the eye. It is but a few miles from Waukesha, and is in that region of the state so famous for its small bodies of fresh water lakes. Milwaukee is but about twenty miles distant, and railroad facilities are good. The site chosen permits of the erection of a building that will be well sheltered against the cold north and west winds, and will have an almost unobstructed southern exposure. Fortunately, the legislators accompanied their \$90,000 gift for site and buildings with an additional \$25,000 annual appropriation for maintenance, and thus the Commission will not, for the present at least, be handicapped by financial difficulties.

Doubtless the experience of others will be drawn upon by the Commission in the planning and erection of buildings, and we hail with joy the prospect now presented, and for the first time, of an opportunity to cure our own tuberculous within our own State.

#### THE WISCONSIN MATERNITY HOSPITAL.

Dr. G. A. Hipke, of Milwaukee, Professor of Obstetrics at the Wisconsin College of Physicians and Surgeons, has inaugurated a movement for the establishment of a hospital to be used solely as a maternity. It is to be an institution where rich and poor may find every modern facility and equipment for confinement, and is based somewhat upon the plan of the Chicago Maternity Hospital.

It seems to be a sad fact, that, while there is a most excellent charitable institution in Milwaukee, where unfortunate girls may find

an asylum before and during confinement, there is no place where poor but married women can receive attention at such a time. Our hospitals, while willing to accept a limited number of charity patients, are rather unwilling to accept many cases of confinement, and the poor have hitherto been compelled to remain in their own—and often in filthy surroundings, frequently attended only by midwives to whom cleanliness is very foreign.

A hospital, such as is now planned, will—if its equipment be adequate—attract not only the poor, but those of better means, and this will in time, make the institution self-supporting.

Dr. Hipke has practically the united support of the medical profession of Milwaukee, and we trust the movement will result in deserved support by the laity also.

#### A "FORCE" THAT FAILED.

"The Force of Life Chemical Company" is in trouble. Its director, Wm. Wallace Hadley, and his lady assistant, Mrs. Laura M. Wilson, were arrested in New York by the federal authorities on a charge of conspiracy to obtain money under false pretenses by the use of the United States mails. This concern advertised the "Wonderful Power of the Panopathic Professor" who "makes the Human Heart beat as before in Body of Woman threatened with Burial," in one or more Milwaukee papers.

It gave us some amusement at the time to follow up Prof. Hadley's method of doing business, and so we entered into correspondence with him. It is an awful shock to us now to discover how shamefully deceived we have been by this imposter who sent such pretty green pills in return for our hard earned cash; but, in as much as we gave information to the New York authorities that may have led them to put an end to this good and unselfish man's business, we really ought not grumble.

Our correspondence with Prof. Hadley has, it would seem, now ended, and in a future issue of the JOURNAL we will print some of the interesting documents for the benefit of our readers.

#### A WISE REGULATION.

Canadian importation of American hogs has been restricted by the following regulations:

"All swine must be accompanied by a certificate signed by a veterinarian of the United States Bureau of Animal Industry, stating



that neither swine plague nor hog cholera has existed within a radius of five miles of the premises in which they have been kept for a period six months immediately preceding the date of shipment, but such swine shall nevertheless be inspected, and shall be subjected to a quarantine of thirty days before being allowed to come in contact with Canadian animals.

Swine found to be suffering from contagious disease will be subject to slaughter without compensation."

Good. Some day, when the beef trust no longer dictates the adoption of laws for its own aggrandizement, our own government may, if compelled by other nations' demands, decide to safeguard our health as it does that of foreign consumers of American meat. Possibly there will then come a time when we, the producers, will enjoy the same immunity from certain diseases which we are now compelled, not of our own volition, but by the laws of foreign nations, to guarantee others.

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### NEWS ITEMS AND PERSONALS.

(The JOURNAL solicits Items of Interest and Personals from its subscribers.)

**Doctors to be Prosecuted.** F. X. Schaeffer, who has been practicing in Milwaukee about 10 years, is to be compelled to stand trial on the charge of having obtained his license to practice, by fraud.

A similar complaint is lodged against "Dr." Jas. L. Barber, now of Kaukauna. There seems to be much information of a damaging character in the hands of the Board against both these men. If substantiated by trial, we trust the recently passed law will be found effective.

**Dr. Albert F. Fuchs**, for many years resident at Loyal, and formerly a very active member of the State Society, has retired from practice. He has purchased a farm near Charlottesville, Virginia, and will devote himself to farming and stock raising. The good wishes of a host of Wisconsin medical friends are his.

Dr. M. McGonigal, a graduate of Queen's College, Toronto, will be Dr. Fuchs' successor at Loyal.

**The Ottawa Tent Colony**, of Illinois, concerning whose work such good reports have been received, has just dedicated a new \$15,000 structure. This colony was started one year ago as an experiment by the Illinois State Medical Society, and under the able management of Dr. J. W. Pettit, has been so successful that the need of a new building was soon realized. The Ottawa Colony is no longer an experiment, but an assured success.

**Dr. Stansmore Vivian**, a prominent physieian of Mineral Point, died on January 5th, of apoplexy. He was born in Mineral Point in 1850. He studied medicine at Ann Arbor and at the Bellevue Hospital Medical College of New York, graduating at the latter institution in 1885. At the time of his death he was attending physieian at the county poor house. He leaves a wife and three sons.

**A Correction.**—Our attention has been called to the fact that, in an editorial published in the last issue of this JOURNAL, we credited the *New York Medical Journal* with the analyses made of "Kopp's Baby's Friend," and "Dr. Bull's Cough Syrup." In this we were in error, as these analyses were made by the *Journal of the American Medical Association* and were published in that journal Nov. 25, 1905.

**Hospital Election.**—Dr. Wm. T. Lochemes has been elected president of the staff of the Johnson Emergency Hospital, Milwaukee. Dr. E. T. Cavanaugh, whose term as interne has expired, will be succeeded by Dr. M. D. Fyfe, of Chicago. Dr. Ralph Peairs also leaves this month, and will locate in this city.

The hospital treated 1268 cases during the past year, as compared with 1179 of the previous year.

**Donations to Hospitals.** A donation of \$500 by Mrs. Ferdinand Schlesinger, and of \$100 by Mr. Louis Allis, of Milwaukee, was recently made to the Children's Free Hospital of Milwaukee.

Mr. George Yule has sent \$500 to the Kenosha Hospital association to assist in providing for the running expenses of the institution.

**Tuberculosis** will be the subject of Dr. Gustav Schmitt's address on February 6th, at one of the ten parliaments to be held weekly at the University Settlement, First Avenue and Becher Streets, Milwaukee. The subjects selected are those in which the workmen of the city have an interest, and the addresses will be followed by general discussion.

**The Alpha Kappa Kappa**, a medical fraternity organized at Dartmouth, in 1888, held its eleventh annual convention in Milwaukee during the last days of December. Sixty delegates were present, representing twenty-two chapters in various states. The members were generously entertained by the Milwaukee chapter.

**The Milwaukee Tuberculosis Sanitarium Association** was made the beneficiary of the Christmas offering of Saint Paul's Church of Milwaukee. The donation approximates \$800.00. It is hoped that a building fund of \$10,000 may be gathered before active operations are begun.

**Milwaukee Hospital Report.** During the past year 1240 patients were treated at this institution. Extensive improvements in the grounds were made possible by the liberality of Mr. and Mrs. Frederick Layton, and a new rectory and deaconess' home were added.

**Dr. G. Rheingans**, of South Germantown, died on January 10th, at the age of 39 years, after an illness of several weeks. He graduated at the Milwaukee Medical College in 1898, and at Rush in 1899. Dr. Rheingans joined the State Medical Society in 1902.

**The Milwaukee County Insane Hospital** has requested that an ambulance be purchased in order to convey patients to the institution. In the future, employees of the hospital, and not the sheriff's force, will accompany such patients.

**Typhoid at Eau Claire.** Samples of water and ice used at Eau Claire, where there are a large number of cases of typhoid fever, have been examined

by the State Hygienic Laboratory, but no pollution and no typhoid germs were found.

**Dr. Marks able to be out.** The condition of Dr. Solon Marks, of Milwaukee, who fractured his thigh last year, is very satisfactory. Dr. Marks is now able, with the help of crutches, to be out of doors when the weather permits.

**The Milwaukee Isolation Hospital site** has not yet been decided upon. Strenuous objections have been raised by those living in the vicinity of the Fleming tract, which is favored by the majority of the City Council Committee.

**George W. Corbett, M. D.**, of Plymouth, Wis., died Dec. 16th, aged 38 years, after a runaway accident in which he sustained a severe concussion of the brain. Dr. Corbett was a graduate of the College of P. and S. of Chicago, 1901.

**Charged with Abortion.** Mrs. Minnie Bohm, of Milwaukee, midwife, is charged with having induced an abortion that resulted fatally. She is now under bail; proceedings against her will be begun in February.

**The Riverside Hospital of Wausau**, for 12 years under the private control of Dr. D. Sauerhering, has passed into the hands of the Sisters of the Divine Savior, under the name of St. Mary's Hospital.

**Dr. G. D. Ladd**, the well known Milwaukee surgeon, suffered an attack of apoplexy on January 20th, while operating at the Milwaukee Hospital. He is reported to be in a very critical condition.

**Dr. Edward H. Federmann**, of Pine Ridge, was married on Dec. 28th, to Miss Wilder, formerly nurse at the Cook County Hospital, at which Dr. Federmann was until recently an interne.

**Offices Burglarized.** Drs. Wm. and P. H. Jobse's offices were burglarized recently. Cash, gold dust, and valuable papers were taken. Part of the booty has been recovered.

**Dr. A. W. Rogers**, for several years assistant to Dr. Richard Dewey at the Milwaukee Sanitarium, at Wauwatosa, has severed his connection with that institution.

**Dr. G. E. Seaman**, of Milwaukee, attended the meeting of the Legislative Council of the American Medical Association at Washington, D. C., early in January.

**Dr. John W. Coon**, the recently elected Superintendent of the Milwaukee County Hospital, vice Dr. E. C. Grosskopf, has entered upon his new duties.

**Dr. Wm. Jobse** has been elected president of the Milwaukee County Medical Society, not Dr. P. H. Jobse as announced in the December JOURNAL.

**Dr. James Scott** succeeds Dr. Bock, of Sheboygan, as Assistant Surgeon with the rank of First Lieutenant in the Second Regiment, W. N. G.

**Dr. F. H. Munkwitz**, of Milwaukee, has returned from a three months' trip abroad. He visited Vienna, Berlin, and other medical centers.

Dr. Henry, of Muscoda, suffered considerable loss by a fire that destroyed the building in which his office was located.

The State Board Examination was held at Milwaukee, January 9th, 10th and 11th. There were 20 applicants.

Trichinosis. There are 14 cases of trichinosis in Milwaukee. All of these have been traced to a single source.

Dr. Edgar L. Northway, of Kenosha, was married on January 8th, to Miss Bastian of San Francisco.

Dr. H. A. Sifton, of Milwaukee, now occupies his beautiful new home on Astor Street.

Dr. Charles S. Smith, of Elroy, is now in Europe, and will return in Spring.

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#### FRATERNITAS ET SCIENTIA.

Seventy-five members of the Milwaukee Medical Society dined at the University Club, Milwaukee, Friday, Jan. 12th, in celebration of the 20th anniversary of the organization of that society. After the exact counterpart of the menu, which the thirteen hungry charter members of the society had partaken of twenty years before, had been served, Dr. H. M. Brown introduced the speakers in his inimitable manner. Dr. S. W. French, answering to the toast "Prehistoric Societies", gave a short talk on the conditions preceding the conception of the present society—the pre-natal influences so to speak. Dr. W. H. Washburn spoke on the "Bartlett Clinical Club," the kicking embryo in utero, to carry on the simile. Dr. G. A. Kaumheimer, with "Ten Years Ago" as his text, carried the society through the period of infancy and childhood, speaking of its growing pains, financial and otherwise, and turned it over, a lusty youth, to Dr. A. T. Holbrook who spoke on "The Present". Dr. T. L. Harrington then pointed out the straight and glorious path lying before the full grown, vigorous adult, in responding to "The Future".

After the set toasts, several impromptu speeches were made by members of the society. Mention must here be made of the relic of the "tin age" of the society—i. e. the Moderator who—armed with the implements of his office, and with hawk-like eye on his watch—cut off the speakers at the end of their ten minutes' allotted time with the music of his tom-tom.

The meeting was voted by one and all a most satisfactory birthday celebration and worthy of yearly repetition.

W. T.

## PRESIDENT'S ADDRESS, SEVENTH DISTRICT MEDICAL SOCIETY.

GENTLEMEN: As I did not have the pleasure of attending the first meeting of this society, and could find but little information in regard to the working plan, I wrote to Dr. McCormack for enlightenment, but received no answer. A second attempt met with no better result. In fact, the only information I have ever received was, first, of my election as president, and next, that given me last Saturday by Dr. Marquardt, that a meeting was to be held to-day.

I can therefore make only a few remarks in regard to my own opinions as to the necessity for this organization, for, as far as I have been able to learn, this society has been more of a theoretical organization than one with any real plan of action.

The practice of medicine has been rather humorously defined as "the art or science of amusing a sick man with frivolous speculations about his disorders, and tampering ingeniously, until nature either kills or cures him." In bygone days there were fewer tamperers, and but few schools, hence the difference of opinion and practice was as rigorously defined as the line between Calvinism and the Romanist faith.

Then the successful practitioner jealously guarded his secrets, surrounded his cures with a halo of mystery, explained his failures as the work of destiny, and maintained a decidedly lonely existence, as far as associating with those of his profession was concerned. In fact, the stand formerly taken by the majority of the doctors may be well illustrated by the story of the old man who constantly bewailed the scarcity of his friends. Investigation revealed the fact that his favorite occupation was to sit on a pile of rocks commanding a view of the four cross-roads, and from this vantage point, as he saw any one approaching, he would select a nice, sharp missile and observe as he playfully shied a stone, "all as I axes is leave me alone."

The physician of to-day has come to realize the necessity for a cessation of stone-throwing and the demand for a closer union of interests. Just as the Congress of Religions, meeting at the World's Fair in Chicago, decided that there must be a community of interest in regard to the saving of souls, so must the medical fraternity be brought to a realization of the crying need for a closer bond between members of our profession.

It is quite impossible to assume that all physicians shall form

close affiliations simply because of a common calling, for we are but human, and instinctive dislikes, strong antipathies, and differences of opinion flourish with us as with those in other walks of life. In our profession, however, as we are constantly brought face to face with the most solemn truths of existence, seeing in fact every phase of life from the first breath of the innocent babe to the last gasp of the hardened sinner, minor considerations should fade before that vital need which we all strive to fill by our service to humanity.

Loyalty in the profession is the firm foundation upon which our work must be built. "Let honor toward one another be as strong an obligation to *us* as necessity is to *others*," and good results must follow. Not only will there be a stronger comradeship, more matters of common interest, but—quite as important as anything—there will be more of material benefit as well. Brought face to face and shoulder to shoulder, we will positively find that after all our fellow-workers possess many excellent qualities which only a close acquaintanceship can reveal.

Much misunderstanding and many differences arise from the common habit of listening to the tales of other men's failures. From idle gossip such stories often grow to positive slander, and when the narrator is clever enough to weave a thread of praise for the hearer in with his story of the other man's shortcomings, the poison is doubly subtle. Diogenes, when asked of which beast was the bite most dangerous, replied—"of the wild beasts, the slanderer,—of the tame beasts, the flatterer." In the practice of medicine I am positive this quotation has a special significance. As a remedy for this common failing, I will quote again from one of our philosophers who answered the question of "when will talkers refrain from evil speaking," by answering, "when hearers refrain from evil hearing." The inference is most obvious.

In to-day's meeting I hope to hear expressions from all present in regard to the best plans in the direction of cementing and perfecting our plans for future work. I am positive that we all realize fully the necessity for such an organization, and I trust that by means of an informal discussion we may arrive at a consensus of opinion that will enable us to formulate a practical working plan. I would, therefore, suggest that after hearing the report of the secretary, such a discussion be held, remembering always that our idea is to form a union which—in the words of Senacour—"will satisfy desires, simplify needs, foresee wishes," and thus become a permanent aid to future endeavor.

A. A. MAURER, M. D., La Crosse.

## IN MEMORIAM.

J. E. SMITH, M. D.

At a meeting of the Juneau County Medical Society held in Mauston, December 5, 1905, the following preamble and resolutions were unanimously adopted:

WHEREAS, Under Nature's laws it is given to all mankind to die, it has come to our society that our esteemed professional brother and friend, Dr. J. E. Smith, has been removed from our midst the past year; therefore the intimate personal relations we have so many years held, render it proper that we should place on record an expression of our regard for him as a man and a physician, who, in imitation of the "Great Master," went about doing good. Be it

*Resolved,* That while we bow in humbleness to this will of the "Divine," we do yet mourn that he has been called from "Labor to Rest."

*Resolved,* That in the death of Dr. J. E. Smith the profession of Juneau County has lost an honest, upright man and friend, one who was wise in counsel, kind to the needy and suffering of mankind, and whose virtues not only endeared him to the profession, but to all his fellow-citizens.

*Resolved,* That this society tender its heartfelt sympathy to the family of the deceased, in this their hour of sorrow.

*Resolved,* That these resolutions be made part of the minutes of this society, and that a copy of the same be sent to the wife of our deceased friend.

E. H. TOWNSEND, M. D.

C. S. SMITH, M. D.

J. R. BRYANT, M. D.

*Committee.*

Dr. J. E. Smith, one of Mauston's leading physicians and prominent citizens, died on September 11, 1905, at the age of 57 years. He had been in poor health for about one year.

Dr. Smith was born in Washington, Ohio, on August 28, 1848. He commenced the study of medicine at the age of seventeen, first attending Ann Arbor and later the Ohio Medical College of Cincinnati, at which latter institution he graduated on March 1, 1870. After graduation he returned to Washington, Ohio, where he practiced six years. In 1876 he removed to Wauwoc, Wis., where he remained until 1884, when he established himself at Mauston. Here he had built up a large practice. On October 18, 1871, he was married to Miss Mary H. Michener.

Funeral services were held at Dr. Smith's home, under the auspices of the Masonic order.

## THE STATE MEDICAL SOCIETY OF WISCONSIN.

ORGANIZED 1841.

### Officers 1905-1906.

J. R. CURRENS, Two Rivers, President.

A. W. GRAY, Milwaukee,  
1st Vice-President.

A. GUNDERSON, La Crosse,  
2d Vice-President.

W. E. FAIRFIELD, Green Bay, 3rd Vice-President.

CHAS. S. SHELDON, Madison, Secretary. S. S. HALL, Ripon, Treasurer.

A. T. HOLBROOK, Milwaukee, Assistant Secretary.

### Councilors.

#### FOR SIX YEARS.

1st Dist., H. B. Sears, - - Beaver Dam  
2nd Dist., G. Windesheim, - - Kenosha

#### FOR TWO YEARS.

3rd Dist., F. T. Nye, - - - Beloit  
4th Dist., C. A. Armstrong, - - Boscobel

#### FOR THREE YEARS.

5th Dist., J. F. Pritchard, - - Manitowoc  
6th Dist., J. S. Walbridge, - - Berlin

#### FOR FOUR YEARS.

7th Dist., W. T. Sarles, - - Sparta  
8th Dist., T. J. Redelings, - - Marinette

#### FOR FIVE YEARS.

9th Dist., D. L. Sauerhering, - Wausau  
10th Dist., E. L. Boothby, - - Hammond

#### FOR SIX YEARS.

11th Dist., J. M. Dodd, - - Ashland  
12th Dist., A. T. Holbrook, - - Milwaukee

NEXT ANNUAL SESSION, MILWAUKEE, JUNE, 27, 28, 29, 1906.

The Wisconsin Medical Journal, Official Organ.

## SOCIETY PROCEEDINGS.

### ANNOUNCEMENT OF PROGRAM COMMITTEE OF THE STATE MEDICAL SOCIETY.

While the plans for the coming annual meeting have not yet fully matured, there is, we believe, sufficient in prospect to assure the members that the gathering will meet with their approval. As stated elsewhere, Dr. John H. Musser has accepted the committee's invitation to deliver the address in Medicine, and the announcement of the selection of a well known surgeon to deliver the address in Surgery will be made shortly.

Whether or not the literary program will be divided into two sections (one general, one special) will depend largely upon the number of papers presented, although the idea is not looked upon with much favor. The program committee will adhere to the plan adopted by previous committees, and will extend invitations to some to submit papers. This is done in an effort to have representation in



all parts of the State, and to avoid a preponderance of papers covering any one branch of medicine. But the committee also desires, and hereby makes a call for

## VOLUNTEER PAPERS.

All members of the Society who may desire to contribute, are urged to notify the chairman of the committee at once of their intention, and of the nature of their subject. The committee desires to keep in touch with those who are to present papers; this will facilitate its work, and enable it to arrange more satisfactorily for an acceptable program.

Early attention to this invitation is desired, because, to some extent, priority in submitting title and paper will count in the selection.

ARTHUR J. PATEK,

*Chairman Program Committee.*

Goldsmith Bldg., Milwaukee.

**ANNUAL MEETING OF THE COUNCIL.**

The annual meeting of the Council was held at the rooms of the Milwaukee Medical Society, Jan. 10th, and was called to order by the chairman, Dr. Sarles, at 11 A. M. There were present: Councilors Sears (1st Dist.), Windesheim (2d Dist.), Nye (3d), Armstrong (4th), Pritchard (5th), Walbridge (6th), Carles (7th), Boothby (10th), Dodd (11th), and Holbrook (12th); also President Currens, Treasurer Hall and See'y Sheldon.

The resignation of Dr. Redelings as councilor of the 8th District was read by the secretary. On motion it was accepted to take effect when the secretary has found an acceptable man to take his place. The secretary presented some communications from county secretaries regarding contract work engaged in by members in violation of resolutions adopted by the Society.

In regard to an appeal from Douglas County, it was voted that the action of the Society be sustained, but that this action of the Council shall not be considered a precedent. In a general way, since constitutionally "each county society shall judge of the qualifications of its own members," it was the mind of the Council that such matters should be adjusted within each component society—with or without consultation with the District Councilor—and without appeal, if possible, either to the Council or House of Delegates.

The treasurer, Dr. Hall, reported that 550 dollars had been paid attorney Bennett of Milwaukee, for services rendered the Committee

on Medical Legislation during the last session of the Legislature, and that 450 dollars still remains unpaid. On motion of Dr. Dodd the State Secretary was instructed to apportion this amount among the county societies with a request that each society respond as liberally as possible. Reports were then received from each of the ten Councilor Districts represented. These were—in the main—encouraging.

The organization, in most of the counties, has been well sustained, with a decided increase in interest in many localities. District society meetings were reported as extremely useful in stimulating interest in the county societies—a good plan being to take pains to furnish some special attraction at each meeting, such as a paper by some well known member of the profession from a distance, and including a banquet.

It was suggested and recommended that a definite program be made out and printed by each county society at the beginning of the year, with announcement of subjects of papers, place and date, monthly or quarterly, and that this program be then carried out to the letter; that each county society be made a school of instruction, with preparation on the part of the members and quizzes by some designated member of the society; that *one* paper, thoroughly discussed, is better than any more, and that, in many localities, evening sessions will be more successful, as affording better railroad facilities, and greater leisure for the members.

Drs. Hall and Sheldon were elected, respectively, Treasurer and Secretary of the Society for one year. On motion adjourned.

#### THE ANNUAL MEETING.

The date of the next annual meeting of the State Society is June 27, 28, 29—only about 5 months remaining. We need to be up and doing if the program shall represent, as it should, the very best thought and ability of the profession of the State. The plan of the Program Committee is the one adopted in recent years, *viz*: to secure a portion of the papers by invitation. While asking for volunteer papers, from the profession generally, sufficient to complete the program, it is desired, especially, to utilize the work in the County and District Societies. The councilors and the secretaries of the county and district societies are requested to forward to the chairman of the Program Committee, Dr. A. J. Patek, Milwaukee, such papers as have been unusually able, and considered worthy a place on the State Society program. Short, concise and practical papers, on subjects of general interest, will be most appreciated. The Annual Meeting should be the harvest—the ingathering—of the year's work and experience in all the State, and, as such, should be intensely interesting and inspiring.

Let us then, one and all, undertake this work in a spirit of unity and enthusiasm and then come together in June, in Milwaukee, to enjoy the fruit of our labors.

Dr. John H. Musser, of Philadelphia, will give the address in Medicine, and Dr. A. J. Oelshner, of Chicago, will deliver the address in Surgery.

#### THE ANNUAL COUNTY SOCIETY REPORTS.

The annual reports from the county societies will be due April 1-10. Active preparation for these reports should be commenced at once. Our fiscal year begins Jan. 1st, at which time the annual dues should be paid. "Eternal vigilance is the price of Liberty"—which means, if the county secretaries do not begin *at once* the necessary and thankless task of collection, the annual report will be tardy and incomplete. Make a thorough canvass of the whole county and don't overlook a single "eligible". This is a good work, and worthy our most strenuous endeavor. Please make out the report on the regular blank, and make the record as *complete* as possible. Report on the blank *only* those who have paid their dues, and whose money accompanies the report. If new secretaries have been elected in any society, kindly report at once to the State Secretary, that the blanks may be sent to the proper official.

C. S. S.

#### DUNN COUNTY MEDICAL SOCIETY.

The Dunn County Medical Society held its Annual Meeting and election of officers at the Royal Hotel, Menomonie, Dec. 19, 1905. Dr. Boothby of Hammond, Councilor of the Tenth District, was with us during the early evening and gave us a "rousing" talk on organization, how to improve our county societies, etc. We have his promise that he will come again soon, and stay longer.

After banqueting the election of officers was taken up with the following results: president, Dr. G. A. Barker, Menomonie; vice-president, Dr. W. H. Park, Downing; secy. and treas., Dr. F. E. Butler, Menomonie; censor for 3 years, Dr. N. L. Howison, Menomonie; delegate to State Society, Dr. E. H. Grannis, Menomonie; alternate, Dr. L. A. Larson, Colfax.

A communication with copy of resolutions regarding "lodge" practice from the Outagamie County Society was read, discussed and unanimously adopted. After discussing "poor accounts" and methods of collection at considerable length, the meeting adjourned to January 16th, 1906.

B. J. STEVES, M. D., *Secretary.*

#### GRANT COUNTY MEDICAL SOCIETY.

The Third Annual Meeting was held at Lancaster, Dec. 14, 1905. In the absence of the president, the vice-president, Dr. W. Cunningham presided. Eleven members were present.

An interesting paper on the *Treatment of Leg Ulcers* was read by Dr. J. Oettiker and was quite generally discussed. "Reports of cases" proved an interesting feature of the meeting—hernia, with radical operation for the same, being the chief topic.

Dr. R. H. Kinney of Lancaster was elected to membership.

The election of officers for the ensuing year resulted as follows: president, Dr. E. D. Orr; secretary and treasurer, Dr. M. B. Glasier; censor, Dr. J. C. Betz; delegate, Dr. S. W. Doolittle.

The next meeting will be held in May at Montfort.

M. B. GLASIER, M. D., *Secretary*.

#### GREEN LAKE—WAUSHARA COUNTY MEDICAL SOCIETY.

At the Annual Meeting held at Berlin, on Dec. 13th, 1905, there were 14 members present. Officers for the ensuing year were elected as follows: president, Dr. T. E. Loope of Eureka; vice-president, Dr. Geo. E. Baldwin of Dartford; sec'y-treas., Dr. B. E. Scott of Berlin; censor for three years, Dr. H. W. Morgeiroth of Berlin; state delegate, C. E. Thayer of Markesan.

The following resolutions were adopted:

WHEREAS, There is a tendency in this country and in the territory of this society, for men to organize into groups and societies one of whose objects is to furnish to their members and their families medical services at a fixed price per year, and as such service is to be rendered only by such physicians as may be chosen by the society; and as such services are paid for by the member at less than regular prices: therefore, be it

*Resolved*, 1st, That the Green Lake-Waushara County Medical Society condemns this practice and considers it unwise, unprofessional, and a breach of ethics for any physician to accept an appointment with any such group or society for less than the regular fee charged by all physicians for the same service.

2nd, That it is below the dignity of any self-respecting physician to place himself at the beck and call of each and every member of such organization for a certain fixed sum regardless of the amount of service rendered.

3rd, That the physician who encourages this tendency of society to organize itself into groups for the above purpose, strikes a blow at the future high standing of the profession.

4th, That the physicians of this society shall not compete, by bidding, for the appointment of Health Officer, or Poor Physician in the several towns, villages and cities within the jurisdiction of this society.

5th, That these resolutions shall not apply to the treatment of the transient labor employed in the quarries of Green Lake or Waushara County.

6th, That the experience of the profession in Europe where "Club Practice" originated, justifies these resolutions.

Dr. F. E. Walbridge, of Milwaukee, was present and read a very good paper on *Some Points Learned From Experience With Appendicitis*. Dr. Walbridge emphasized the uncertainty of judging of the pathological process present in any case from the symptoms and signs, illustrating his point by citing several cases in which such deductions must necessarily have been wrong and would have led the follower of "Medical Treatment" beyond the point where operative procedures would have been safe and productive of good

results. He therefore recommends early operative treatment of all cases of acute appendicitis. The technique of his operation was described as a very small opening, splitting the muscles, locating the appendix by passing the index finger into the abdomen and with the iliac artery as a guide pass the finger outward till the appendix is found. It is then engaged in a curved forceps and drawn through the opening together with enough of the cecum to facilitate its removal. The stump is inverted and the serous coats united to cover all raw surfaces. In his experience this method gave better results in rapid convalescence and lessened post-operative pain on account of the small amount of manipulation of the contents of the abdomen.

Dr. C. E. Thayer, of Markesan, read a paper on *Prevention of Puerperal Septicemia* which brought out a good discussion on its various phases.

The application of Dr. F. C. Wood, of Hancock, Waushara County was acted on favorably by the board of censors and by unanimous vote he was elected a member of the society.

B. E. SCOTT, M. D., *Secretary.*

#### **JUNEAU COUNTY MEDICAL SOCIETY.**

The Third Annual Meeting of this society was held at Mauston, Dec. 5, 1905, the president, Dr. J. B. Edwards, presiding. Eleven members were present.

Resolutions of condolence on the death of Dr. J. E. Smith, of Mauston, were read and adopted.

Papers on the following subjects were read and thoroughly discussed: Complications of Scarlet Fever, Dr. E. H. Townsend; Iodide of Potassium, Dr. F. T. Field; Surgery of the Liver, Dr. C. S. Smith; Arterio-sclerosis, Dr. A. T. Gregory; Diagnosis of Obscure Nephritis, Dr. W. M. Edwards.

Dr. J. B. Edwards declined re-election as president of the society. On ballot the following officers were elected for the ensuing year: president, Dr. C. S. Smith; vice-president, Dr. F. T. Field; secretary and treasurer, Dr. A. T. Gregory; delegate, Dr. E. H. Townsend; censor for three years, Dr. W. M. Edwards.

All present had a most enjoyable time.

A. T. GREGORY, M. D., *Secretary.*

#### **LA CROSSE COUNTY MEDICAL SOCIETY.**

The La Crosse County Medical Society held its first regular monthly meeting of 1906 on the evening of January 4th.

The newly-elected president, Dr. Adolf Gundersen, delivered an address in which he principally dealt with the position physicians should hold in their respective communities in matters relating to the public health and also the standing of physicians in courts, etc. His address was timely and well received by the society.

A committee was appointed, consisting of Drs. E. Evans, F. C. Sutor, and C. H. Marquardt, to bring before this society and our Common Council certain sanitary precautions which need to be brought up in order to be discussed by this society and the Common Council for action.

C. H. MARQUARDT, M. D., *Secretary.*

**MARATHON COUNTY MEDICAL SOCIETY.**

The meeting of the society held Dec. 20, 1905, was called to order by President Sauerhering, with twenty-seven present.

The following resolutions were adopted by the society:

*Resolved:* That we, the Marathon County Medical Society, do hereby express our hearty appreciation of the articles appearing of late on the subject of Patent Medicines, in the Ladies' Home Journal, and Collier's Weekly. And further

*Resolved:* That a copy of these resolutions be sent to the editors of these publications.

A paper was given by Dr. H. L. Rosenberry, of Wausau on *The Duty of the Physician to the Public and to His Patient.*

Dr. O. T. Hougen, of Grand Rapids, gave a very interesting paper on *Urinalysis*, and Dr. L. B. Collier, of Merrill, gave another on *The Physician's Duty to the Youth and Young Married Patients.* Drs. Hougen and Collier appeared by special invitation.

Dr. Schnaider of Whittenberg, and Dr. F. J. Doyle of Antigo were also guests.

Drs. E. B. Quade and L. C. Lucas of Wausau, A. S. Hartier of Marathon City, and F. J. Edmonds of Brokaw, were elected to membership in the society, giving us a total of thirty-one members.

After the meeting the society adjourned to the Hotel Bellis, where a five course lunch was served followed by toasts.

S. M. B. SMITH, M. D., *Secretary.*

**RICHLAND COUNTY MEDICAL SOCIETY.**

The second annual meeting of the Richland County Medical Society was held at Richland Center, Dec. 30, 1905, the president, Dr. De Lap, in the chair.

After the reading and approval of the minutes of the previous meeting the society listened to a very interesting paper by Dr. H. J. Wall on the *Principles and Practice of Medicine*, which was ably discussed by Drs. Jamieson and Beuson.

The election of officers for the ensuing year resulted in the following members being entrusted with the care and management of our society for 1906: President, Dr. Geo. Jamieson, Lone Rock; vice-president, Dr. A. A. Daugherty, Boaz; secretary, Dr. A. D. Campbell; treasurer, Dr. F. W. McKee; censor for three years, Dr. C. F. Daugherty; delegate to State Society, Dr. R. H. DeLap; alternate, Dr. Sara T. Elliott, all of Richland Center.

The secretary's report showed that eight meetings had been held during the year with two papers read and 26 clinical cases reported; that out of 25 physicians in the county 16 belong to the State and County Societies, with two belonging to the County but not the State Society, while seven are still not affiliated with either.

This society has been reorganized since June 20, 1904, and while it has taken considerable hard work to keep it running, yet the officers feel that now it is on a sound basis and is sure to be a success from this on. Within the last six months the members have shown an unusual interest in the meet-

ings and there is a better feeling among the profession as a whole than has ever existed heretofore.

The new officers feel that upon them rests the success or failure of the coming year, and they are determined to make every effort to get every physician in the county to become a member before the close of 1906. At our next meeting, which will be on Jan. 27th, a banquet will be given to which every doctor and his wife will be invited. This is in the nature of a farewell to Dr. and Mrs. E. P. Kermott, of Richland Center, who have lived in this city and county for 22 years and who expect to go to California some time in February. His property and practice here will be taken by Dr. C. F. Daugherty, formerly of Muscoda, Wis.

A. D. CAMPBELL, M. D., *Secretary*.

### TREMPEALEAU-JACKSON COUNTY MEDICAL SOCIETY.

The Annual Meeting of the Trempealeau-Jackson County Medical Society was held in the City Council room at Galesville, Wis., Dec. 12, 1905.

There were ten physicians in attendance, which is about one-half the number that should have been present, for there is no physician in Trempealeau or Jackson County that can afford to miss our meetings.

The following papers were read and discussed with much enthusiasm:

*Psoriasis*, Dr. G. H. Lawrence, Galesville.

*The Physician as a Business Man*, Dr. S. E. Hutchins, Independence.

The election of officers resulted as follows: president, Dr. S. E. Hutchins, Independence; vice-president, Dr. Jos. Lettenberger, Arcadia; secretary and treasurer, Dr. H. A. Jegi, Galesville; delegate, Dr. G. H. Lawrence, Galesville; censor, Dr. W. E. McFarland, Trempealeau.

A committee of three was appointed to formulate a fee bill, to report at the next regular meeting.

Dr. Higgins of Melrose and Dr. Sandbo of Whitehall were admitted to membership.

The next meeting will be held at Independence, in the early part of March.

At the conclusion of the meeting, Dr. G. N. Hidershide, the retiring president was given a vote of thanks in appreciation of his success in building up this society.

The social feature consisted of a banquet at the Commercial Hotel to which members of other professions and callings were invited.

Dr. G. H. Lawrence, the master of ceremonies, introduced Dr. W. T. Sarles of Sparta, the guest of honor, who responded to the toast, *Organization*. Dr. G. N. Hidershide spoke on *The Doctor in Politics*. W. S. Wadleigh spoke on *The Attitude of the Legal to the Medical Profession*; Editor Bert A. Gipple on *The Doctor and the Editor*; Dr. F. H. Gunn on *The Sunny Side of Country Practice*; Dr. H. A. Jegi on *Patent Medicines*; Dr. Jos. Lettenberger on *Our Society*; Principal of High School H. C. Almy, spoke on the *Need of Better Sanitary Inspection of Our Public Schools*; and Rev. O. D. Witherby responded to the toast *The Attitude of the Clergy to the Medical Profession*.

On motion of Dr. Hidershide, a vote of thanks was tendered the professional and business men of Galesville for the royal entertainment provided.

H. A. JEGI, M. D., *Secretary*.

**WASHINGTON COUNTY MEDICAL SOCIETY.**

The annual meeting of the Washington County Medical Society was held at Jackson, Dec. 27, 1905.

The following officers were elected: President, Dr. G. A. Heidner, West Bend; vice-president, Dr. J. E. Reichert, Schlesingerville; secretary and treasurer, Dr. C. Bossard, Richfield; censor, Dr. W. J. Wehle, West Bend; delegate, Dr. C. Bossard; alternate, Dr. H. H. Albers, Allenton.

Drs. G. A. Heidner, J. E. Reichert, and C. Bossard were appointed as a committee to draw up resolutions in regard to life insurance companies' examination fees, and a dead beat list. These were unanimously adopted as follows:

*WHEREAS*, The medical profession has been imposed upon by the old-line insurance companies in only paying a small fee for their examinations; be it, therefore,

*Resolved*, That we, the physicians of the Washington County Medical Society, are unanimous in our belief, that the insurance companies should pay the uniform rate of five dollars for each and every examination at the physician's office, and if requested to go into the country to have mileage added. And, be it further

*Resolved*, That the secretary shall send a copy of these resolutions to every member of this society, and to the secretaries of the adjoining County Societies to have their co-operation in this matter.

*WHEREAS*, The medical profession at large has suffered at the hands of the non-paying element throughout this land, in not being remunerated for their work done; be it, therefore,

*Resolved*, That we, the practicing physicians of Washington County, pledge ourselves to try to root out this evil amongst our patronage. That each member make out a list of names of all the dead beats in his practice and forward the same to our secretary, and he to put all the names together and forward a copy to each of the members in the profession in Washington County. And be it further

*Resolved*, That the secretary send a copy of these names to the neighboring County Societies and ask them to exchange lists from their counties.

The president's address was listened to with strict attention. His subject was "How to Produce and Maintain Harmony Amongst the Members of the Medical Profession."

The next meeting will be held at West Bend, March 28, 1906.

C. BOSSARD, M. D., *Secretary*.

**WAUKESHA COUNTY MEDICAL SOCIETY.**

The regular monthly meeting was held at Waukesha, Jan. 6, Dr. Jacob presiding. Thirteen members were present. The by-laws were amended, changing the date of meeting to the first Thursday in the month.

A committee of five was appointed to investigate the matter of fees in the county, and if practicable to draw up a fee table for the county.

Drs. O. E. Smith, of Mukwonago, and H. E. Levin, of North Lake, were elected to membership.



The president appointed the following committee on Health and Legislation: Dr. H. G. B. Nixon, Hartland, chairman; Dr. W. S. Wing, Oconomowoc, and Dr. A. J. Hodgson, Waukesha.

Dr. A. J. Hodgson gave an interesting paper on *Eating and Drinking, from a Medical Standpoint*. He considers oatmeal to be deleterious as a food, for the finest particles are covered with barb-like cellulose which irritates the stomach. Cold fruits should not be eaten in the morning, something warm and stimulating, such as hot water, tea, or coffee, should be the first article taken into the stomach. Anything fried in fat is indigestible and harmful. Sixty per cent. of glycosuria is due to overeating; reduction of diet, even without change in its character, will often cause the sugar to disappear.

M. M. PARK, M. D., *Secretary*.

#### WOOD COUNTY MEDICAL SOCIETY.

The Wood County Medical Society had a very interesting and successful meeting Dec. 19, 1905. The election of officers for the ensuing year resulted as follows: president, Dr. Karl Doege, Marshfield; vice-president, Dr. A. L. Ridgman, Grand Rapids; secretary and treasurer, Dr. Frank Pomainville, Grand Rapids; censors, Dr. H. H. Milbee, Marshfield, and Dr. W. D. Harvie, Grand Rapids.

The following program was carried out: Report of a Case of *Kidney Tumor* with presentation of specimen, Dr. Karl Doege, Marshfield; *Whooping Cough*, Dr. D. Waters, Grand Rapids; *Fetal Deaths due to Strangulated Cord in Utero*, with specimens, Dr. R. P. Potter, Auburndale; *Urinalysis*, Dr. O. T. Haugen Grand Rapids; *Toxic Amblyopia*, Dr. W. M. Ruckle, Grand Rapids; *Strangulation of Intestines from Remains of Omphalo-mesenteric Duct*, with specimen, Dr. J. W. Rockwell, Grand Rapids. Papers were also presented by Drs. J. J. Looze, Grand Rapids, and H. H. Milbee, Marshfield. All of the papers were very good and all present entered into the discussions. All members were well pleased with the meeting and look forward to the next one which will be held at Marshfield in February.

FRANK POMAINVILLE, M. D., *Secretary*.

#### SEVENTH DISTRICT MEDICAL SOCIETY.

The Second Annual Meeting of the Seventh District Medical Society was held at the La Crosse Club, Nov. 2, 1905.

After calling the meeting to order, Pres. A. A. Maurer, read his address (which will appear in the JOURNAL).

Dr. Sarles made a few remarks on "How to bring out a better attendance."

The following papers were read, and discussed with a great deal of interest: *Blood Findings and Their Clinical Significance*, Dr. W. B. Ford, of Sparta. *Pruritus Vulva*, Dr. S. D. Beebe, of Sparta. *Gastric Lavage in General Practice*, Dr. J. Lettenberger, of Arcadia. *Treatise on Tonsillitis*, demonstrating the use of several instruments, also some remarks on the use of Somnoform in his practice, Dr. J. A. L. Bradfield, La Crosse.

The following officers were elected for the coming year: president, Dr. A.

A. Maurer, La Crosse; vice-president, Dr. Chas. Trowbridge, Viroqua; secretary, Dr. H. A. Jegi, Galesville.

A general good time was had, but it is to be regretted that Buffalo and Juneau Counties showed their indifference by not being represented. There were in all twenty-five members present.

H. A. JEGI, M. D., *Secretary.*

#### WEST WISCONSIN DISTRICT MEDICAL SOCIETY.

The Annual Meeting of the West Wisconsin District Medical Society was held at Eau Claire, November 22. Dr. Edward H. Grannis, Menomonie, was elected president; Dr. Frank W. Epley, New Richmond, vice-president, and Dr. Hiram A. Fulton, Eau Claire, secretary. It was decided to hold the next meeting in Eau Claire, Nov. 3, 1906.

#### MILWAUKEE MEDICAL SOCIETY.

At the meeting held Dec. 12, 1905, Dr. O. H. Foerster presented a case of *anesthetic leprosy*. The patient was a man 41 years of age, a native of Ireland. He came to this country 30 years ago and entered the army 12 years ago. He served in Cuba during the Spanish War and afterwards spent three years in the Philippines where he probably contracted the disease. About two years ago he noticed a feeling of numbness in both feet, and somewhat over a year ago he observed spots on his body, yellowish-red in color, which appeared first on the legs, then on the trunk. Later a numbness of the hands was noticed.

At the present time a macular eruption is seen all over the body, on the arms and legs as well as on the trunk; it is yellowish-brown in color, very dark at the edges, with here and there areas of normal skin. There is complete tactile anesthesia in the distribution of the right ulnar nerve and partial anesthesia in the left, and also in the areas of the right and left peroneal nerves. Analgesia is most marked in certain regions on the back. It was possible to excise portions of the skin for examination without the patient's feeling anything more than a slight sensation of pricking. On various portions of the trunk and thighs areas of diminished sensibility to touch and pain are found and in some places thermal sense is lost.

The skin over the supraorbital ridges is somewhat infiltrated, while there is slight atrophy of the tissues below the eyes. The face as a whole presents a lowering and mask-like appearance.

There are no pupillary changes, the tongue and throat are normal, there is no huskiness of the voice, the hearing is acute, but the patient is probably duller and slower mentally than formerly. Of late there have been attacks of epistaxis from the right nasal chamber.

The hands are flat, the thenar and hypothenar eminences are wasted and the grip is weak. The ulnar nerves are enlarged and thickened to about the size of a lead pencil, and quite nodular. Pressure on them is acutely painful. The peroneal nerves show similar changes. There are no bone changes.

Both knee-jerks are decidedly increased but become easily tired. There is no ankle clonus. Romberg's symptom is absent. There is no loss of the stereognostic sense. The patient can localize his hands and feet in space with-

out difficulty. He has a rather hesitating walk, due to a feeling which he describes as that of pebbles under his feet.

Dr. V. H. Bassett described the microscopic findings in the tissues removed from this patient for examination and demonstrated the lepra bacilli which were present in all the sections in considerable numbers.

In closing the discussion, which was participated in by Drs. Reineking, H. M. Brown, Schiller, and Seaman, Dr. Foerster remarked that the danger of infection from a case of anesthetic leprosy was not great until it reaches the tubercular stage or ulceration takes place, or unless one comes in contact with the nasal discharges. The entrance of the infection is usually through some lesion of the respiratory tract, most often the nose. Lately the idea has been advanced that the disease is carried through the medium of fleas. Even in an early case isolation is the wisest course to pursue.

Dr. A. L. Kastner presented a paper on *Coli-pyelitis*, which will appear later in the JOURNAL. He reviewed the literature on the subject, and reported a case of pyelitis due to infection with the colon bacillus in an infant 7 months of age, who had been well previously, except for an attack of diarrhea a few days before the onset of the illness. The child for several days had a high fever and presented symptoms of a severe intoxication of some kind without any adequate cause being discoverable until the urine was examined. This was found to be acid, diffusely clouded, sp. gr. 1010, and contained a trace of albumin. Under the microscope pus cells were seen in great numbers and rod-shaped, motile bacilli in multitudes. A bacteriological examination showed a pure culture of the colon bacillus.

The course of the disease was marked by several relapses and an inter-current attack of scurvy, but eventually recovery was complete.

The treatment which seemed to be most effective was the alternating use of helmitol and potassium citrate.

The subject was discussed by Dr. P. H. McGovern.

Dr. A. W. Myers presented a report of *Two Cases of Membranous Urethritis probably influenzal in origin*. This report will appear later in the JOURNAL.

In the discussion Dr. G. A. Carhart called attention to the short period of incubation which is usually seen in non-gonorrhoeal urethritis and to the frequency with which constitutional symptoms and a distinct rise of temperature are observed.

Dr. G. A. Harlow referred briefly to urethritis due to the tubercle bacillus, and Dr. A. W. Akerly reported having seen in Montreal a case of infection with the Klebs-Loeffler bacillus in the adult in which there was the formation of a membrane involving the urethra and vulva to such an extent that Cæsarian section had to be performed when the patient fell in labor. Both mother and child lived.

H. E. DEARHOLT, M. D., *Secretary*.

#### BRAINARD MEDICAL SOCIETY.

The Brainard Medical Society held its last meeting at the Milwaukee Hospital, Jan. 10th, 1906. 35 members were present.

The Committee on Medicine reported as follows: Subject: Uremia: Etiology and Pathology: Dr. O. Fiedler, Milwaukee; Symptomatology and

Diagnosis: Dr. J. Madison, Milwaukee; Treatment: Dr. Stratton, Milwaukee.

The Committee on subject for discussion reported on *Extrauterine Pregnancy*; discussion was opened by Drs. Philip Rogers, Batchelor, and H. Reineking, of Milwaukee.

The second subject for discussion, "*The Neuroses*," was opened by Dr. D. W. Harrington on the "Surgical Neuroses," and Dr. C. Hardy on the "Medical Neuroses."

Three new members were admitted to the society at this meeting.

The next meeting will be held at the Milwaukee Hospital on April 11, 1906.

N. EDWARD HAUSMANN, M. D. *Secretary*.

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### MISCELLANY.

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**Good Advice to the Tuberculous.** Dr. W. H. Watterson (*Ill. Med. Jour.*) gives the following words of advice to patients whom it is contemplated to send to Colorado: "First, that they have at least \$500 bank account; second, that they know where they will be cared for before going; third, that there are none of the complications contraindicating a high altitude."

**Puzzle Picture.** On a certain street in Denver a certain medical man with unethical tendencies does business on a large scale. His patients are so numerous that often they are compelled to sit on benches outside the large office building. He agrees to cure tuberculosis at so much per, and, of course, the transaction is strictly on a cash basis.

Recently a poor unfortunate put up all his money but got no benefit from the advertiser's methods. He then sought out a member of the Denver County Medical Society, who listened patiently to his tale of woe and then out of pure charity agreed to treat him free, provided he would go each morning to the waiting multitude outside of the office of the advertiser and advise them to seek re-

lief from the aforesaid member of the Denver County Medical Society who doesn't advertise (in the paper).

Puzzle: Find the quack. (*Colorado Medicine*.)

**Dangers of Thyroid Medication.** This must be borne in mind, especially when thyroid is given in cases of obesity, because patients are so often prompted to continue treatment when not under medical surveillance. "The heart should be normal, and the medication should be discontinued immediately upon the appearance of vaso-dilatation, of nervous excitability, and of gastrointestinal or renal disturbance. This caution is insisted upon, lest the condition of iodism is developed."

"Among the toxic symptoms are: instability of the pulse, tachycardia (170 beats or more to the minute), vertigo, swelling and congestion of the face, headache, psychic troubles, hyperthermia (vasomotor in origin), insomnia, fatigue (mental and muscular) trembling, respiratory distress, pains in the limbs, and pruritus without eruption on the skin, wasting (sometimes very rapid), loss of

strength, mental depression, polyuria with phosphaturia, azoturia, chloruria, leucosuria, and sometimes albuminuria."—(*N. Y. Med. Jour.*)

**Angina Pectoris and Pseudoangina.** Broadbent recommends a simple diet, reduction in the quantity of animal foods, fresh air, exercise, judiciously taken, water to help elimination, iodides to reduce tension. Striking reduction of arterial tension is obtained by the administration of mercury every second or third night, followed by a saline aperient. As vascular relaxants, amyl nitrite and nitroglycerine are good for the relief of the paroxysm, but for more persistent vasodilator action, he has had a very good result from erythrol-tetranitrate.

**Goitre in India.** According to a letter sent to the *Medical News* by a medical missionary, goitre exists in great number among a certain savage tribe of natives. Many cures were obtained by several applications of gum camphor dissolved in tincture of iodine.

**Cough Mixture for Children.**

Syr. scillæ .....5 drachms  
 Ol. amygd. dulci.....1 ounce  
 Syr. Simpl. q. s. ad.....4 ounces  
 M. S. One teaspoonful every four hours.

A plaster dressing of the leg should always include the foot if the patient is to be confined to bed; otherwise "drop foot" will develop.—(*Amer. Jour. of Sur.*)

**Gargle in Tonsillitis.**

Pot. bicarb.....4 drachms  
 Spt. menth. pip.  
 Spt. camphoræ aa.....½ drachm  
 Aq. ferv.....4 ounces  
 Sig.: Use hot, gargle every hour.

**An umbilical cord clamp,** 1½ cm. wide, to be applied to the cord down to its root, immediately after cessation of pulsation, is being experimented with in Budapest. It is removed after 24 hours, and the stumps dressed as usual. In over three-quarters of the cases mummification of the stump followed, and in one-fifth of the cases it was cast off as early as the 4th day, usually without any reaction. In 16.3 per cent. of the cases complete mummification of the stump did not follow, but although 400 infants were treated with the clamp, no undesirable complications were observed in any instance.

**Treatment of Abortion.** S. W. Bandler, of New York, rarely uses uterine dilator and curette. In cases of abortion his routine practice is to introduce iodoform gauze, particularly into the cervix, and to pack the vagina thoroughly, and then to administer ergot. This method dilates the cervix and without any injury. If examination is necessary the finger is used.

**The Health of the Army.** The report of the Surgeon-General of the Army shows that last year, out of a force of 58,740 men, the total number of admission to sick report was 79,586, equal to an admission rate of 1354.89 per thousand.

Almost 23 men out of every 1,000 were discharged last year for disability, and almost 50 men out of every 1,000 were constantly non-effective.

"A Trip to the Land of the Midnight Sun" is an interesting little volume, written by Dr. Flavel B. Tiffany, of Kansas City. The author writes entertainingly of a most delightful trip; his descriptions are interspersed with anecdotes, and the

many illustrations make the brochure very attractive. It is dedicated to the students of the University Medical College of Kansas City.

#### Phosphorus in Rickets.

Phosphori . . . . . 0.01 ( $\frac{1}{2}$  gr.)  
Solve in Ol. amygd.  
dule. vel Olei oliv. 10.00 (fl. dr. 2 $\frac{1}{2}$ )  
Pulv. gummi arab. . . . . 5.00 (gr. 75)  
Syrupi simpl. . . . . 5.00 (min. 80)  
Aqua destill. . . . . 80.00 (fl. oz 2 $\frac{1}{2}$ )  
M. S. One teaspoonful daily.

#### An Expectorant Pill.

Codeinæ . . . . . 0.13 (gr. 2)  
Pulv. ipecacuanhæ. . . . . 0.19 (gr. 3)  
Pulv. camphoræ. . . . . 1.6 (gr. 24)  
Quininæ sulphat. . . . . 0.78 (gr. 12)  
M. Ft. Pil. vel caps. No. 12.  
S. One every three hours.

#### Potassium Iodide in Syphilis.

Potassium Iodide . . . . . 15 gr.  
Iron and Ammonium Citrate. 1 to 2 gr.  
Sulphate of Strychnine. . . . . 1/40 gr.  
Peppermint Water.  
Syrup of Orange, of each  
q. s. ad. . . . . 1 dr.

**Opium in Heart Disease.** Dr. J. H. Musser is a believer in the use of opium in cardiac disease. He advises its use for periods of many months in the form of the deodorized tincture or extract; in myocarditis to prevent angina pectoris; replacing exciting stimulants, such as strychnia and alcohol; it may be used in cases of weak heart after exhausting diseases or prolonged mental and physical pain; in cases of failing compensation; in the gradual engorgements from myocardial dilatation, in chronic parenchymatous nephritis, and in arteriosclerosis; the dyspnea of myocarditis is relieved or prevent-

ed by continuous small doses; tachycardia of Grave's disease is relieved.

#### Lead Water and Laudanum.

A simple and cheap method of prescribing this valuable lotion is as follows:

Tr. Opii.  
Liq. Plumbi Subacetat. aa  $\frac{1}{2}$  fl. oz.

M. Sig. Add entire contents of bottle to one pint of water and apply locally.

**Anthrax in Chinese Pigtales.** It is reported from England that the importation of Chinese pigtales was recently the subject of court proceedings in England. A laborer who was employed in preparing camel's hair, cheap foreign wool, and human hair, had been taken with fatal inflammation of the spleen (anthrax). In order to fix the cause it was ascertained that the pigtales, after being cut off the heads of Chinamen, were at once braided and packed, and imported into Europe in packages of 1,000 pounds each. Two previous cases of "milzbrand" have occurred among the workmen of the English establishment. It is therefore indicated that these pigtales should be closely examined, and the result may be to prohibit their importation. It is also considered possible that the plague and other contagious diseases may be distributed in this manner.

**Japanese Physicians seek Recognition.** An application has been made by the Japanese government to the British general medical council, asking it to recognize the degrees of Japanese medical practitioners in various parts of the British empire. It is in the Straits Settlements that the Japanese doctors particularly wish leave to practice at present.

# THE WISCONSIN MEDICAL JOURNAL

FEBRUARY, 1906.

## ORIGINAL ARTICLES.

### SOME POINTS LEARNED FROM EXPERIENCE WITH APPENDICITIS.\*

BY F. E. WALBRIDGE, M. D.,

MILWAUKEE.

The subject of appendicitis is without doubt one of the most if not *the* most important surgical topic that has occupied the minds of medical men during the past twenty years. The reason for giving it so prominent a place is the fact that more young adults are affected by it than by any other surgical disease, and also because there has been so wide a difference of opinion bearing upon many questions relating to the subject. Furthermore from its very beginning it is a source of danger to the patient and of anxiety to the physician.

The vastness of the literature would almost seem to make anything I can add superfluous, but every man has individual experiences that take root and determine his action, thus giving impressions which expand his horizon and fix some points, still under discussion, in a definite manner in his own mind. Had I not come to a definite conclusion on some of these disputed points, I would not presume to discuss so familiar a subject.

The time at my disposal will not permit me to even mention a large number of interesting points in connection with the subject, but I do want to present a few thoughts of fundamental importance which a somewhat extended experience has taught me.

My first point—and one that I desire to emphasize as forcefully as lies in my power—is a conviction of the impossibility of establishing

\*Read before the Green Lake—Waushara County Medical Society, Berlin, Dec. 13, 1905.

the nature of the pathological condition upon the basis of symptoms alone. The proof of this assertion is easily verified in a comparison of the findings at the bedside with those of the operating table, and the object lesson which the operating room brings is the best method of educating the general practitioner in the inconstant relation the active symptoms of the disease bear to its pathology. And note furthermore, that mildness of symptoms does not always warrant the assumption that the infectious process *is* mild, and that the disease is confined to the appendix. The symptomatology of appendicitis is so variable that we are absolutely unable to interpret and give proper value to the signs present.

Concrete examples serve so satisfactory a purpose in any argument that I may be pardoned a very brief citation of several illustrative cases. I have in mind the case of a patient who was seen several years ago, on the third day of the disease. The attending physician informed me that the symptoms had all subsided during the past twenty-four hours. It was decided that we await further developments. Improvement in the symptoms continued for three days. The boy walked about the room. The next day I was hastily summoned and found the boy in collapse. Operation was immediately done, but he lived but ten or twelve hours. At the autopsy, pus was found throughout the abdomen. Here was a patient in whose case everything in the symptomatology pointed to a favorable outcome, when, as a matter of fact, the disease was rapidly going on to a fatal termination. This picture is not overdrawn, nor is it a rare case. Every surgeon of even moderate experience has had such regrettable experiences. Four additional illustrative cases that recently came to operation are of interest. Three of them were operated upon in the night, all within eighteen hours of the initial pain. In all except one, vomiting, rigidity, and rise of temperature were absent, pain and tenderness the only symptoms, and yet in all the appendix was diseased throughout its whole length. In one there was a perforation at the base. In one there was gangrene of all the structures, and in the other two gangrene of the entire mucosa existed. In all there was beginning peritonitis. These were cases which from their symptomatology might have been called mild, but in which the pathological findings were such as to warrant us in saying that an additional forty-eight hours delay in any one of them would have produced such changes that an operation would then have been hazardous. These four patients were in the hospital at the same time, and the lesson they taught those who had observed them from the beginning is one that can be



seriously considered with much profit by any one who comes in contact with acute appendicitis. None of them were in the hospital more than eight days.

What is the outcome of cases presenting the clinical picture of those described? Many will recover from the first attack, some from a second or third; others succumb to these early attacks, but almost all who recover will be invalids, more or less, and constantly in danger of more serious trouble. Those who recover even from mild attacks are disabled for a longer time than those who are operated upon in the early hours of the attack.

Judging from recent literature and contact with men who see but an occasional case of appendicitis which they do not follow to its surgical outcome, I am convinced that there are still quite a number of physicians who believe that there is a medical treatment of appendicitis, and that operative interference is not called for until pus is detected or peritonitis develops. The so-called Ochsner or starvation treatment though appropriate in certain cases, has been misapplied, to the great detriment of the afflicted, and the discredit of the treatment itself. Ochsner's plan is recommended, not in lieu of early operation, but is indicated: first, where no competent surgeon is available; second, if the patient is in a condition in which he may not be able to bear the shock of an operation; third, if the patient refuses or the family physician objects to operation; fourth, where there is gangrene or perforation with beginning peritonitis; and fifth, in cases of doubtful diagnosis.

The second point—and one that deserves equally emphatic emphasis—concerns the selection of the proper time for operation. There is, unquestionably, in all surgical diseases, an opportune moment—the ideal moment—for operative intervention. The physician whose skill enables him to recognize and seize this moment when it is presented, will be rewarded with a lower mortality record, a shortened period of disability for his patients, and an increasing number of cures.

The interval operation, so much in vogue until a very recent date, found its justification in a desire to tide over an acute attack of appendicitis until the condition promised to yield with greater safety to operative interference. While the delay occasioned by this plan of treatment has cost many lives, it would seem that it was but a stage in the evolution of what is now generally conceded to be a better and more advanced procedure, and that it was essential in that we were thus taught how safely the operation of appendectomy could be done when the

disease was confined to the appendix. Having served its purpose, I now believe that the interval operation, as the operation of choice, has seen its day, and should be resorted to only in those cases which for lack of proper opportunity can not be operated upon in the early hours of the attack. Most fatalities are the result of the delay practiced in the desire not so much to avoid as rather to postpone operation; and from our study of the disease, we know how illusory are the symptoms, how insidiously or how suddenly—even while reserving judgment temporarily—the line of safety may be passed, and how quickly the risk to which the patient is subjected changes from almost nil to a desperate life and death struggle; and, sadly enough, death often wins out.

The radical view—to operate as soon as the diagnosis is made—provided this be early, is rapidly gaining adherents, and I trust the time is not far distant when the interval operation will have ceased to exist as a routine measure, and when the early operation will be found the only proper procedure for an acute appendicitis.

A further point that merits consideration concerns the relative periods of convalescence, without operation, with operation late, and when operation is practiced early. Patients who are treated medically recover slowly and their period of recuperation may be measured by several weeks. We must not fail to add that they remain in proud possession of their appendices, which have developed unusual attachments in the nature of adhesions, and attest by an increasing vulnerability of the part to the added seriousness of the condition. For this reason, too, the interval operation is not free from danger.

Contrast this picture with the speedy convalescence after an early operation, where the disease has not had time to progress beyond the appendix proper, and little more in favor of this procedure need be said. On the other hand, the many difficulties that harass the surgeon and endanger the patient's comfort and life in those neglected cases where gangrene has supervened, or perforation, abscess, peritonitis, or extensive adhesions to neighboring organs may complicate, and where the added risk of drainage with a possible resultant hernia must be considered, may well justify us in our endeavor to convince others of the logic of our own convictions. The physical exhaustion these complications entail, delay the period of convalescence greatly.

I would touch upon one other point, neglect of which has proven, and is daily proving disastrous, and that is—the need of competency on the part of the surgeon to perform that which he has undertaken to do. I make this in no spirit of carping criticism, nor with the

breath of egotism. A surgeon of large experience recently remarked that there were thousands of men competent to perform the ordinary operations in surgery, whom he would not permit to open his abdomen for the removal of his appendix. The operation of appendectomy is not especially difficult, but its successful issue is wholly dependent upon a knowledge of the proper method of dealing with the simple form of the disease, as well as its many complications. I am ready to admit that in many surgical procedures a moderate degree of care and skill may result in nothing worse than a delayed convalescence, but in the operation for appendicitis attention to detail and method counts for as much as in any other in the entire field of surgery. It is probably true that, as a recent writer puts it, "the death rate from appendicitis operations, in the hands of incompetent surgeons, is absolutely frightful."

Maurice Richardson, of Boston, voices my sentiments in these forceful words: "The trouble is that the man of small experience must rely upon his reading for guidance; and he, relying for guidance upon rules laid down by men of larger experience, will make mistakes. His mistakes, however, will be, not in making incorrect deductions from facts, but in incorrect observation of the facts themselves. It is in this way that teachers of surgery may do harm. The beginner seeing the ease with which appendicitis is diagnosed, the rapidity and efficiency with which the appendix is removed, the almost universal success of the operation, or, in case of palliation, the almost invariable success of palliation, is liable to errors in three directions: he will err in his interpretation of symptoms; in the prognosis based upon these symptoms; and in the performance of his operation. Instead of teaching that the diagnosis of appendicitis is always easy, we should teach that it may be extremely difficult; instead of saying that the prognosis may be clearly made, we should say that it can never be positively made; and that the operation, though often easy, is more often difficult. Illustrations of these facts are seen in the experience of every consulting surgeon. I have no doubt that my efforts in the past to lay down rules for guidance in acute appendicitis have done a certain amount of harm—perhaps more harm than good; for a man of small experience, relying upon his incorrect prognosis, would necessarily fail to apply the proper remedy. Even today shall we advise inexperienced men to follow such a rule as I have laid down for my own guidance? Assuming that the disease is correctly diagnosed, will not the patient's chance be better on the whole if, for such a man, the rule of medical treatment in all cases be followed rather than the

rule of surgical treatment in all cases? I am inclined to think that under these conditions the greatest good to the greatest number would be insured by a policy of universal medical treatment rather than by a policy of universal operations: for would not a slow, clumsy and inefficient operation be of greater injury to a patient than the possible complications of the case left to follow its natural course?"

This is strong language, but it comes from one whom we all recognize as a good teacher and close observer, a man of large experience and honest conviction. It certainly agrees with my own impressions, and I quote him at some length to impress upon you the necessity of a close observation of cases, and of learning the technic before operating, if you are honestly solicitous of your patient's welfare.

But a word more as to the technic, which counts for much in this operation. As you all know, a variety of incisions have been recommended and used by different operators, all of which have their advantages as well as their disadvantages. Having made so emphatic the desirability of early operation, I shall take time to consider only the technic of the operation in this class of cases, and this will apply equally well to the so-called interval operation. The two incisions most in vogue at the present time, are that through the outer edge of the right rectus muscle, and the muscle splitting operation of McBurney. The former has the advantage of giving more room, and I believe that is the only advantage claimed for it. The muscle splitting operation gives as much room as is needed for one who has mastered the technic and has had experience enough to be able to distinguish the contents of the abdomen by touch.

The space required for the removal of the appendix should vary inversely with the experience, skill and dexterity of the operator. I find that I am operating through smaller and smaller incisions, until now, for a simple appendectomy in a thin abdomen, I use a skin incision little more than an inch in length, one of the same size in the muscles, and an opening in the peritoneum just large enough to admit the index finger. My first landmark is the iliac artery. After this is located the finger is passed upward and outward until the cecum and appendix are reached. The appendix is then engaged between the finger and a pair of curved forceps (closed), and delivered. In this way the only contents of the abdomen seen or handled are the appendix and enough of the cecum for proper treatment of the stump. The mesentery is then crushed with a strong forceps and ligated, the appendix freed from the mesentery, and crushed with strong forceps

near the cecum. A purse string suture of number two celluloid linen is passed through the peritoneum of the cecum near the appendix. Another pair of forceps is attached to the appendix as near as possible to the one already in place, and the organ is severed between the two; the stump is inverted and the purse string suture tied. A row of Cushing's parallel sutures reinforces the inverted cecum, and the stump of the mesentery is carefully stitched over the suture line. (If the mesentery is short it is better to invert the edges of the stump with a few sutures of fine catgut.) In this way you leave no surfaces to form adhesions, and as there has been no manipulation of the peritoneum there is no peritoneal irritation to cause discomfort immediately following operation, or adhesions later.

One of the most important points in the operation is, I think, some systematic way of searching for the appendix. This will greatly facilitate its discovery and reduce the manipulation of the intra-abdominal organs to a minimum. Upon this point, I believe, depends largely the mortality, and besides, the discomfort following the operation is, as a rule, in proportion to the amount of manipulation. Adhesions also are much more likely to follow where the peritoneal surfaces are much handled.

When the general practitioner has learned the cost of delay as the surgeon has, the mortality of acute appendicitis will be reduced to almost nil. He will learn that while the operation in the early hours is safe, there is no problem in surgery that calls for more mature judgment on the part of the surgeon, than does a case of appendicitis which has passed the time when recovery seems impossible without operation, and when operation could have been safely done.

The greater the delay before surgical intervention is asked for, the more apprehensive am I of the issue. I am ready to acknowledge, after an experience of many years in the observation of the disease, that it is impossible to predict, with any degree of certainty, the outcome of an acute attack in any stage of the disease, no matter how mild the symptoms. I have therefore formulated the rule to treat every acute appendicitis as an emergency case, and operate at once, night or day, if the opportunity is offered early. Unfortunately, I have frequently been forced to operate too late, but I can recall not a single instance in which I felt that I had operated too early.

I have advisedly called attention to but two or three points upon the broad and ever broadening subject of appendicitis, and in placing this emphasis it has been my sole desire and intention to indicate

how fundamental they are to a proper surgical conception of the disease. I will be pleased if these few remarks of mine will serve as a text for further discussion.

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## BLOOD EXAMINATION AS AN AID TO DIAGNOSIS.\*

BY M. DVORAK, M. D.

LA CROSSE, WIS.

Blood technique is so comparatively recent a development that excepting in a general way but little literature is to be found on it. A few data which show the gradual development of this subject will, I think, prove interesting and proper here.

The red blood corpuscles were first demonstrated in man by Loewenhoeck in 1673. In 1738—65 years later—Hewson first distinguished the red blood corpuscles from the white blood corpuscles, and described them. Nucleated cells were not demonstrated in man until 1838, a century later, by Welker. Some years later, in 1868, Neuman found them in bone marrow. The first method for counting the red blood cells was introduced by Vierordt in 1824, and later modified by Welker. In 1877 the method now in use was introduced by Thoma. Hünerfarth, in 1885, first introduced his hemoglobinometer. The first work on the staining of blood cells and their differentiation was written by Ehrlich in 1891, and it is only since this recent date that blood examination has become of more general interest, has made rapid strides forward, and is now placed in the important relation to diagnosis, which, by right, it should occupy.

Blood examination is now generally conceded by physicians and surgeons to be of great value, and in some instances as the only means by which we are enabled to arrive at a diagnosis of a case before us. We must at all times, however, bear in mind that just as any of the other methods of physical or chemical examination at our disposal have their advantages and disadvantages, and aid us, they but rarely diagnose the case for us, each method adding a link to the chain, either because of positive or negative value; so it is with blood examination: with it we must consider the history of the case, and the physical and chemical findings, for without these and these alone, it is valueless.

Blood examination will furnish us with: 1. Findings which are

\*Read at the 59th Annual Meeting of the State Medical Society of Wisconsin, La Crosse, June 10, 1905.

pathognomonic of certain diseases. 2. Data, which if considered with other clinical findings, may prove either of positive or negative value in establishing the nature of the disease. In order, however, that the above be ascertained, the blood examination must be a thorough one. We must in our examination consider (1) The cellular elements, and (2) Plasma of the blood.

In our consideration of the cellular elements we must

- A. Estimate the hemoglobin per cent. present.
- B. Estimate the number of r. b. c. and determine the relative proportions of hemoglobin and r. b. c.
- C. Estimate the number of w. b. c.
- D. Determine from a morphological study of stained specimens, the variety of cells present, and their relative proportions if this be indicated.
- E. Demonstrate the presence or absence of parasites if this seems necessary.

In considering the plasma determine the agglutinating powers of the blood on certain bacilli, if from the history and other clinical evidences the case seems to be one which can be aided by this means.

- A. The estimation of H. per cent. by itself is of little value, but if considered in the relation it bears to the number of r. b. c. it becomes quite important:
  1. In primary anemias the relative decrease in H. per cent. is less than the reduction of r. b. c.
  2. In chlorotic types of anemia this decrease is relatively greater.
  3. In secondary anemias it is proportionate.

These facts thus suggest to us lines along which we are more particularly to seek. Bryant, in the London *Lancet*, says that recently Justus has studied H. per cent. in syphilitics and its relation to specific treatment in these cases, and concludes that its estimation may prove of value in the diagnosis of early syphilis. He claims that if H. be estimated in a suspected syphilitic, the patient then placed on specific treatment and H. again estimated, a fall in H. from 10 to 30 per cent. occurs in the first 24 hours, gradually rising after this time. Chlorosis, however, has been reported to cause this same fall. Yet it seems to be of value, since cases such as chlorosis, with the aid of history, can with a fair degree of certainty be eliminated. I have made use of this test in cases where the diagnosis was positive, and in all (4 or 5) the test was positive in its results, the fall never exceeding 10 per cent. I am inclined to think that a test of this kind, if properly

considered with the history and other evidences, would be of value. This needs more investigation.

B. Estimation of the number of r. b. c.

The cells are diminished in all anemias, the reduction may be either marked or but slight; it is marked, as a rule, in all anemias of the pernicious type, less so in chlorotic and anemias of secondary type. The count by itself indicates but little, but from a diagnostic view, and if considered in relation to H. per cent. present as above, it is of value as already stated.

More important than either of the above findings is

C. Morphological study of the stained specimen: because we can determine the character of cells present, whether normal or abnormal, nucleated or not, the varieties of cells present, the relative proportion of these different varieties, and also the existence of

a. Polychromatophilia—i. e., a condition in which the r. b. c. stain atypically with acid and basic dyes, the color changes not affecting protoplasm alone but nuclei as well; and

b. Poikilocytosis—i. e., an irregularity in size and shape of cells.

Accordingly we may speak of cells as pear-shaped, horse-shoe shaped, etc., or as microcytes or macrocytes. Or if nucleated we speak of cells as normoblasts, microblasts or megaloblasts. These changes, polychromatophilia, poikilocytosis, and the presence of nucleated cells, are found in pathological conditions only, and the intensity of these changes depends directly on the severity of the anemic process. In chlorotic and secondary anemias nucleated cells are not common, and if present are usually of normoblastic type. In progressive pernicious anemia they are always present, and in order that a diagnosis be made positive, megaloblasts must be found. Findings such as these will enable us very materially to reach definite conclusions, for in conditions in which anemia is the most marked symptom, an accurate diagnosis cannot be made unless we have the erythrocyte count, the hemoglobin, and morphological findings. In this way certain cases which resemble each other closely clinically, may be differentiated.

White (*Johns Hopkins Bulletin*) differentiates obscure cancer from progressive pernicious anemia as follows: In the latter the r. b. c. count is usually markedly diminished—1,500,000 to 1,000,000—when first seen. The hemoglobin is proportionately less decreased. Polychromatophilia is always present and marked, and nucleated cells and the type of cell known as macroblast are also present. Poikilocytosis is marked, macrocytes predominating.



In cancer the r. b. c. count is rarely low. Polychromatophilia and poikilocytosis less marked, microcytes predominating. Nucleated cells are less frequent, and if present are normoblastic in character; a leucocytosis exists. This latter is not true of progressive pernicious anemia.

Certain cases of prog. pern. anemia simulate Addison's Disease. The following case illustrates this.

CASE 1. J. H. H., age 41. Male. Farmer. Entered the hospital May 24, 1904; operated upon for cholecystitis with cholangitis. Discharged June 18, 1904. Recovered.

September 16, 1904. Patient returned, complaining of weakness, costiveness, and numbness of ankles and lower abdominal regions. The examination shows skin of face, genitals and about the old scar in the right hypochondriac region deeply stained a dark brown; similar patches are also found over legs, back, arms, and chest, also mucosæ of lips. Pigmentation has grown more intense recently. Heart and lungs are normal. Urine contains an excess of indican. Liver normal in size. Before the operation this organ was much enlarged. Spleen not palpable. Pupils react to light and accommodation. Reflexes normal. Speech slow and feeble. Stomach contents contained no HCl. No blood. No tumor to be made out in abdomen. Stools contained no blood. Ankles edematous.

September 13, 1904, hemoglobin, 20 per cent., r. b. c. 720,000, w. b. c. 3,200. Polychromatophilia and poikilocytosis marked. Coagulation good. Fibrin formation fair. Macrocytes predominating. No nucleated cells demonstrable. W. b. c. good. The hemogl. per cent. and r. b. c. lead one to suspect pernicious anemia, although the pigmentation is like that of Addison's Disease. Since no nucleated cells have been found diagnosis is deferred until a second examination.

September 14, H. 20 per cent; r. b. c. 760,000; w. b. c. 3,600. Findings as above and in addition a few normoblasts and a couple of megaloblasts.

Patient was given arsenic. One week later, September 21, H. 15 per cent, r. b. c. 693,333, w. b. c. 2,800. Findings as above. Macrocytes predominating. Cells poorly stained.

September 28, H. 30 per cent., r. b. c. 1,040,000, w. b. c. 3,200. Patient improving rapidly.

October 6, H. 40 per cent., r. b. c. 1,070,000, w. b. c. 3,800.

October 19, H. 50 per cent., r. b. c. 1,616,000, w. b. c. 4,900. Patient went home in spite of advice to the contrary, feeling quite well.

November 1st, returned for examination. H. 50 per cent., r. b. c. 1,200,000, w. b. c. 3,100. In all above examinations the morphological findings were about the same, excepting for the number of nucleated cells found.

January 30, 1905. Returned for examination. H. 40 per cent., r. b. c. 1,800,000, w. b. c. 4,600. Stained specimen as above. Nucleated cells in larger numbers. Feeling fine.

Patient returned on March 4, 1905, with history as follows: Since his last visit in January he has not been feeling as well. He

has since his return home in January indulged quite freely in raw beef. About the middle of February, first noticed small sections of a tape worm in stools. In March, after his return, these were examined and showed beef variety. March 9, 1905, treatment instituted. No success. Blood on this day: H. 40 per cent., r. b. c. 1,240,000, w. b. c. 3,000. Nucleated cells as before. Patient very weak, no second attempt made because of his very weak condition. March 15, 1905, notes show: has had fainting spells, very weak, very dull. March 17, blood one-half hour before exitus: H. 10 per cent., r. b. c. 650,000, w. b. c. 1,500. Coagulates readily. Poikilocytosis very marked. All macrocytes. Many macroblasts. No eosinophiles. No myelocytes.

This case is of particular interest because of its resemblance to Addison's disease at first sight, the complication with tenia, and because it shows conclusively that the diagnosis was clinched by means of the blood examination.

CASE 2. Is typical of progressive pernicious anemia.

W. M., 53. Male. Saloon-keeper. No venereal history. Family history negative. Habits good.

One year ago, on June 5, 1904, patient first complained of feeling quite weak; had fainting spell about this time, no convulsions; second attack two months ago; third attack two weeks ago. Attacks are described as follows: Patient suddenly feels very weak, eyes grow dim, tinnitus and vertigo come on; he has, as a rule, time to find a place of safety and falls unconscious, remains so from three to five minutes.

Examination: he appears about 60 years of age. Little emaciation, weight 132 lbs. Skin icteroid, tongue furred. Mucosæ very pale. Ankles edematous. Speech slow and feeble. Spleen not palpable. No tumor demonstrable in abdomen. Stomach contents: no HCl, no blood. Stools dark, no blood. Heart: systolic basic murmur. Lungs normal. Urine: excess of indican, otherwise normal. Blood: H. 50 per cent., r. b. c. 2,100,000, w. b. c. normal. Marked poikilocytosis and polychromatophilia. Nucleated reds are mostly normoblasts and few megaloblasts. Macrocytes predominate. June 16, r. b. c. 2,000,000. Other findings as above. Went home some better. On August 10, returned, and has been failing gradually.

August 10, H. 30 per cent., r. b. c. 1,200,000.

August 23, H. 30 per cent., r. b. c. 1,100,000. Went home.

Sept. 5th, H. 30 per cent., r. b. c. 1,064,000.

Sept. 15th, H. 20 per cent., r. b. c. 900,000.

More macrocytes found. Death was gradual. Patient had not been seen for two or three weeks before his death. This case, excepting for the anemia present, has nothing of special interest and shows the course of a progressive pernicious anemia that is typical in its duration and in its periods of improvement. However, it also shows the value of blood examination.

CASE 3. May 1st, 1904. F. J. N. Male. Saloon-keeper. No venereal history. Habits good. Family history good. Six weeks ago

friends first remarked about his pale and yellowish appearance. No complaint. Ten days later complained of feeling tired, with dyspnea on exertion. Kept at work two weeks longer. Yellow color more intense. Nauseated almost constantly. Vomits frequently. No pain.

Examination: Panniculus good. Skin icteroid, dark brown in patches. Mucosæ pale. Spleen not palpable. Liver normal in size. Urine contains no bile. Four days later, very weak, went to bed, drowns almost constantly, dizziness and nausea very marked. Asthenia profound. Emaciation little. Liver normal. Ankles edematous. Eyes dull. Vomitus contains no blood. Involuntary passage of urine and feces. Patellar and other reflexes good. No clonus. May 1st, 1904, H. 30 per cent., reds 960,000, w. b. c. 600. Poikilocytosis and polychromatophilia marked. Microcytes, macrocytes, and megaloblasts many. Coagulation fair. Fibrin formation poor. May 13, two days before exitus, H. 15 per cent., r. b. c. 720,000, w. b. c. 1,600. Findings as above. More macrocytes present. This case was seen only a few weeks before death, and no complaint was made until six weeks before death. The termination was rapid, counting from the time when first seen. The blood examination in this case also clinches the diagnosis. From the above three cases we can see that at times and in certain cases a positive diagnosis can be reached only with the aid of the blood examination, and if the diagnosis is strongly suspected this can be verified and will aid us in foretelling the course of the disease.

D. Estimation of the number and percentage of white blood corpuscles. Normally we have about 7,500 cells per c.m.m. This, however, varies largely under different conditions. The cells may be either (1) Increased—leucocytosis, or (2) Diminished—leucopenia.

Leucocytosis in general is due to a large variety of causes; it may be either a. physiological, or b. pathological.

Physiological leucocytosis occurs in (a) the newborn, (b) after digestion, (c) during pregnancy, (d) parturition, (e) after cold baths, and (f) after exercise.

Pathological leucocytosis occurs (a) after hemorrhages, (b) in all inflammatory conditions, (c) malignant diseases, (d) toxic states, and (e) in the leukemias.

A leucocytosis may be, according to DaCosta, of two varieties: The first variety is that in which all the cells are affected; in the second a relative increase in polynuclear neutrophile cells occurs, and a resulting decrease in the relative proportion of mononuclear lymphocytes. A leucocytosis of the first variety occurs as a rule in physiological conditions only. A leucocytosis of the second variety is pathological. Judging from this it is evident that at times it is necessary to make a differential count by means of the stained specimen in order to determine whether the increase of w. b. c. is physiological or patho-

logical in character, and also in order that we may determine the variety of cells present.

Under normal conditions we have the following varieties and their proportions, according to Ewing: Polynuclears, 60 to 76 per cent.; small lymphocytes, 20 to 30 per cent.; large lymphocytes, 4 to 8 per cent.; eosinophiles,  $\frac{1}{2}$  to 5 per cent., and under pathological conditions only do we find myelocytes present.

A differential count, in my opinion, is not always indicated from a diagnostic view point, since the history of the case, together with the other clinical findings, will determine whether the increase of the cells is pathological or physiological in origin. In some cases, however, such a count becomes necessary, as for example in the leukemias, and also in certain conditions, acute in character, which are not accompanied by a leucocytosis, as: typhoid, influenza, malaria and tuberculosis, etc., more particularly in the first mentioned. In some cases of typhoid fever the Widal reaction appears rather late; in such, if a leucocyte count be made and found about normal, and at the same time the lymphocytes are found proportionately increased, a diagnosis of typhoid can be made with considerable certainty. Then, too, any one of the varieties of leucocytes may be relatively or absolutely increased and in such cases can be determined only by means of a differential count.

Depending upon the variety of cell, we may have a lymphocytosis, or eosinophilia, or polynuclear leucocytosis.

Lymphocytosis is always a relative condition, excepting in cases of lymphatic leukemia. This condition is physiological in infants and young children. With this exception an increase in lymphocytes is always pathological and occurs in (a) conditions of cachexia and great debility, as in the severe anemias, Addison's disease, etc. (b) It accompanies severe infections, as typhoid, malaria, Malta fever, scarlet fever, measles, diphtheria and tuberculosis. It is found in (c) lymphatic leukemia in which the increase is both relative and absolute, and is pathognomonic. Lymphatic leukemia may be simulated by Hodgkins disease, as is seen in:

CASE 1. Boy, age 13.—when first seen, had swelling of left cervical glands in anterior and posterior triangles. Blood: H. 60 per cent., reds 3,500,000 whites 11,000. Polynuclears were the variety increased. At this time diagnosis was fairly easy. Later glands of neck, left axilla and bronchial glands were all very markedly enlarged. Boy very weak and anemic. At this time blood examination was of considerable value: H. 15 per cent., R. 1,200,000, W. 10,350. No abnormal leucocytes found. Polynuclears 62 per cent.

CASE 2. C. S., male. Entered hospital February 27, 1905. Always well until two weeks ago. Since then has complained of feeling tired, no ambition, is chilly, has slight headaches, no appetite, and no sleep. Stayed at work but was able to do but little. One week later the symptoms were worse. No vomiting. No epistaxis. No diarrhea. Very nervous. Examination: Temp. 102°. Lungs, heart, urine normal. No diazo reaction. Skin very dark. Reflexes good. Spleen not palpable. Tongue coated. Expression listless. H. 80 per cent. w. b. c. 5,200, polynuclears, 40 per cent., lymphocytes 50 per cent., r. b. c. 4,400,000. No changes. A diagnosis of typhoid was made, and in order to verify this diagnosis a Widal test was made, but with negative results. The diagnosis made was somewhat doubtful. On March 4th, a second blood examination was made: H. 80 per cent., w. b. c. 5,700, r. b. c. 5,000,000. Results similar to above. A third examination was made on March 11, with like results. At this time the Widal test was again made, this time with positive results. Here the lymphocytic increase, the history and findings made the diagnosis of typhoid very probable, and this was verified by means of a blood examination. In this case definite conclusions could not have been reached by any other means at as early a date, and the blood examination, from a diagnostic standpoint, was of the utmost importance. However, at all times, in cases similar to the above, the examination of the blood must be a complete one; that is; not alone the blood count, but the serum reaction must be determined as well. Case 2 will explain.

CASE 3. Mrs. K. January 24, 1905—patient gives history as follows: The husband was ill in December, 1904, with typhoid. January 1, 1905, patient herself first complained of distress in bowels, loss of appetite, chilly sensations, and fatigue. January 8, first retired because of weakness, backache and headache. On January 10th, she entered the hospital. Examination: Urine, no diazo; heart and lungs good. Spleen not enlarged. No rose spots. R. b. c. 3,000,000, H. 50 per cent. W. b. c. 8,200. Lymphocytes predominate—about 52 per cent. A diagnosis of typhoid was made. In this case the history of typhoid in the husband, and the gradual onset, the negative physical findings and the blood examination seemed to justify a positive diagnosis of typhoid. Patient went along for several weeks. Temperature rather irregular during this period, when the general progress of the case made the former diagnosis doubtful. On February 6th, a second examination was made with like results; the blood was also tested for Widal with negative results. Tubercular peritonitis was suspected. On February 15th an examination of abdomen showed dullness in flanks, changing with change of position; this gradually increased and on February 30th patient was tapped, under local cocaine anesthesia. The abdomen was irrigated with normal salt solution and sutured in layers. After this gradual improvement set in. Patient gained in weight and was reported well.

The subsequent history of this case is of interest. Patient returns July 5, 1905. Is feeling very well. Gained 10 to 12 lbs. in weight. Examination shows a large mass in pelvis, uterus and adnexa bound

down in dense adhesions. Tuberculosis of uterus and adnexa. Hysterectomy. Recovery.

In this case, had the examination of the blood been made more complete earlier, an earlier diagnosis would in all probability have been made. It shows, however, as has already been stated in this paper, that the examination must be complete and carefully considered, for the treatment of a tubercular peritonitis and of typhoid fever differs.

A third and very interesting case occurred in the practice of Dr. Marquardt, who has kindly allowed me a blood examination.

Mr. B., age 55. Brick-layer. Two weeks before the present illness (he is now ill ten days), patient was struck on the right malar bone by a falling brick. Worked for about two weeks longer. Taken sick with chills, fever, headaches, no diarrhea, no nose bleed. Temp. 104°-105°. Examination; lungs and heart normal. Urine gives diazo reaction. Patient is very pale, bleeding is constant from gums since onset of illness. Spleen not enlarged. No rose spots. Delirious. November 17th, H. 20 per cent., r. b. c. 776,000, w. b. c. 4,200. Lymphocytes 45 per cent. November 18, Widal positive. Diagnosis of hemorrhagic typhoid was made. This case is of extreme interest because of its rarity and the difficulty of early diagnosis without blood examination. The history could not be more complete because of the delirious state of the patient.

Under certain pathological conditions we have the type of cell known as the myelocyte, and the most striking example in which this cell is found, is myelogenous leukemia. In this condition these cells appear in the blood in greater absolute and relative number and with greater constancy than in any other condition. Ewing says that one rarely finds them in Hodgkins disease, but their occurrence is inconstant and their increase trivial.

CASE 1. Mrs. W. J. B., age 50. Los Angeles, Cal. Patient comes on Dec. 3, 1904, with this history: Three weeks ago, she first noticed the abdomen becoming prominent, hard and tense. A large mass in the left half of the abdomen could be felt. Severe backache. Ankles edematous. In the last two months she has lost 15 lbs. in weight. No hemorrhages from stomach or bowels. No appetite. Examination: Heart and lungs normal. Tumor extends from the left hypochondrium down into the pelvis, and to right to the navel, and below its level to the right inguinal region. It is notched, and can be felt per vaginam. It is very tender, dull on percussion and continuous with splenic dullness. Urine: some albumen, no casts. Blood H. 80 per cent., w. b. c. 206,000, r. b. c. 5,000,000. Myelocytes in very large number. Some eosinophiles, not many. Few large lymphocytes present, and several nucleated r. b. c. This case had been seen by a very able surgeon at Los Angeles, Cal., and a diagnosis of splenomegaly was made and removal of spleen advised. Patient returned to La Crosse, her former home, with this object in view. A correct diagnosis was made by means of blood examination, and necessarily no

removal attempted. She returned to Los Angeles and died 8 or 10 weeks later.

A second case of this kind occurred in Dr. Gundersen's practice, who has allowed me a blood examination. In this case the diagnosis was also clinched by means of the blood examination. Patient was born in South Africa, had typhoid 10 years ago. Also had yellow fever.

Leukopenia may be present and may, like leucocytosis, be physiological or pathological. It is physiological after cold baths, in malnutrition, and in starvation. It is pathological in typhoid, measles, r otheln, influenza, malaria and tuberculosis, or in acute infections which are ordinarily accompanied by an increase of *w. b. c.*; however, the combined influences of an intense infection and feeble resisting powers, on the part of an individual, may produce a distinct decrease or may prevent the characteristic increase. As examples of this we had the cases mentioned above.

E. Study of the Plasma. In our studies here we must determine the agglutinating powers of the blood on certain bacilli, if from the history and clinical findings this seems necessary. This will aid materially at times as shown in the cases above mentioned. Besides the Widal typhoid test a similar reaction occurs in the blood of patients suffering from dysentery, due to Shiga's bacillus, and is the only means by which this form of dysentery can be differentiated from the amebic variety. Lately we have promises of good to follow from a similar reaction in Malta fever, tuberculosis and a few others. However, no definite conclusions have yet been reached, excepting in the first two mentioned diseases, but I believe this to be only a question of time, since in recent years more work is being done along these lines than heretofore, and some good will undoubtedly follow.

Other cases have come under observation in which the reaction was of value, but they are of no special interest except as they show the necessity of blood examination.

Conclusions. The value of blood examination as an aid to diagnosis may on first thought be entirely theoretical, but the above facts, taken from actual cases show it to be of actual, at times of great value and importance, and of absolute necessity in many instances. The value is not alone in the positive findings but in negative as well. It is true that in some instances blood examination with our present knowledge reveals nothing, but this is just as true of any other means of clinical diagnosis, medical or surgical, at our disposal. The time required for blood examination is not very great. If some of the

older practitioners are already too busy, let them take an assistant, give him a chance, let him do the work, and in this way help the young man along and work for the betterment of the profession as well.

#### DISCUSSION.

DR. OTTO A. FIEDLER, Milwaukee—The paper of Dr. Dvorak has been so complete with regard to findings in the blood, that he has left little to be said.

With regard to pernicious and secondary anemia, chlorosis and the leukemias, the diagnosis is always easy and certain from the blood examination. If the technique is proper and experiments properly conducted, you can be in no doubt in your diagnosis. I thought formerly there was great significance in differential diagnosis in estimating leucocytosis, and in many instances it is of great value, but because of the fact that in so many physiological conditions we have leucocytosis, our evidence is not so absolute as we have at times thought.

That leucocytosis is significant at times is borne out by certain cases. A case is reported in which a man came into the hospital for a chancre, developed a phimosis, the operation was performed of slitting up the foreskin; the man made a rather rapid recovery, but in the course of about a week developed temperature which gradually ascended like a typhoid temperature. At the same time the man developed enlargement of the spleen, and had nose bleed, there was more or less diarrhea, the tongue was brown, coated and dry, and a tentative diagnosis of typhoid was made. The Widal test was negative, but that did not signify much, and the blood examination followed which revealed leucocytosis of the polymorphonuclear variety. That at once excluded typhoid unless there were complications, and it was too early to expect complications; and consequently that diagnosis was abandoned. A puncture was made into the spleen and some of the splenic material was withdrawn and inoculated in culture tubes, and an abscess of the spleen was found with colon bacilli.

Also, in cases of psoas abscess, leucocytosis is of significance in differentiating between tubercular conditions and those due to other germs, because there is no leucocytosis accompanying tuberculosis, except when you have mixed infection and complications.

Those cases might be elaborated and many of them given in which the leucocytosis is of significance.

I wish particularly to supplement the very excellent paper of Dr. Dvorak with regard to the bacteriological examination of blood. In the main, examinations of blood in dried preparations directly are not satisfactory. Bacteria are not numerous enough in the blood stream to enable you to find them with a microscope; and heretofore when we have taken perhaps a drop or two drops of blood and inoculated culture material, very commonly we did not have a sufficient number of the germs, or perhaps no germs present in those drops; in consequence of which we got no growth.

Now, however, in opening up one of the superficial veins of the arm and withdrawing 2 to 10 c.c. of blood from it, your patient very rapidly recovers, the blood count going to normal again in 12 to 14 hours, or at most in 24 hours, and you can thus inoculate large quantities of media; you will



find in this work that if you use small quantities of media with large quantities of blood, often the hemolytic and bacteriolytic action of the blood destroys the germs, but if one c.c. of blood be added to 200 c.c. of bouillon, the growth will be such that in from 12 to 24 hours a diagnosis can be easily made. In this way diseases like pneumonia, typhoid, erysipelas, or osteomyelitis, whether due to any one of the three or four germs which cause it, or septic conditions are readily diagnosed, and the nature of the infection determined.

In the case of typhoid fever blood cultures from the rose spots are valuable. The technic is rather important. The point of a scalpel is pushed through the rose spot, immediately withdrawn and washed off in bouillon. In a great majority of cases positive results were obtained by this method by Morgenroth and Ehrlich.

In typhoid, when large quantities of blood are used, this method almost invariably gives positive results.

The work on the blood has heretofore been very largely cellular work, and the plasma has received less consideration. I am sorry we did not hear the paper of Dr. Bessel yesterday in which he was to speak of the newer pathology, the test tube pathology, in differentiation from the microscopic pathology of the past. We have given all of our consideration practically to cellular elements, to the structure and arrangement of cells. We have now something else to consider. We have to go back of that cell structure and arrangement to determine causative factors in these conditions, and they are to be found, I believe, in the chemical constituents of these tissues and of the fluids of the body.

Beginning with Bordé in 1898 and carried out by a number of workers like Bellefontaine, Ehrlich and Wassermann, work has been done on the plasma of the blood rather than with the cellular elements. Work on hemolysis and cytotoxicity, specific precipitins and agglutinants, and especially the last, has been practised extensively.

The Widal reaction has had considerable prominence as a diagnostic measure in typhoid. I do not find in the laboratory that the Widal reaction appears quite as early as it is sometimes said to occur. I got a great many more reactions in the second week than in the first week and it is very common to find reactions delayed beyond the 15th day. You may say that by that time you can make the diagnosis from the general symptomatology, and so you can in ordinary cases, but in obscure cases (and typhoid is liable to run a very atypical course) it assists very materially.

The technic of the Widal reaction I believe to be of great importance. Undoubtedly this reaction is a quantitative chemical reaction, and in consequence of that it is necessary that the dilution of your blood and number of bacteria present, should be approximately constant, and of such proportions that there will be enough of the agglutinant in the blood solution you use, to completely react with the chemical elements of your bacterial solution. Mallory, of the Boston City Hospital, has found that in order to be positive of the Widal reaction, it is necessary to have a dilution of the culture so that not more than 5, 6 or 8 bacteria appear in a single field, and that while you may set your reaction first with 1 to 20 or 1 to 40, if there is a doubt

in diagnosis the dilution of blood must be as high as 1 to 80. Then if you get positive agglutination and absolute cessation of motion in the bacilli present you may be sure you have typhoid. Not only has this reaction been used in typhoid, but in the closely associated species which cause similar infections, *i. e.*, infections from paratyphoid and colon and paracolon bacteria, where specific reactions are found.

The Shiga work has not been as satisfactory as we thought it would be. It is rather unpleasant, and it is necessary to use very high dilutions to make it absolutely positive in differentiation. More work along this line will undoubtedly follow, and results will be secured, I believe, in all those diseases in which we have toxins, so that ultimately the chemistry of those toxins will be determined and positive chemical reactions will follow by which we can say with absolute certainty that a definite toxin is present.

The work on the hemolysins or cytolytins has unfortunately not been productive of much practical value, but there is undoubtedly a reaction between the toxin of scarlet fever, for instance, and the kidney cell, and if we could preserve those macerated kidney cells and treat them with the blood serum of scarlet fever patients, undoubtedly we would get an agglutinating effect, and probably cytolysis.

With regard to specific precipitins in blood work, we get practical medico-legal results. In three cases which I have had in Milwaukee in the courts, we have been able to differentiate human from other blood by the action of specific precipitin. It is not possible to say that the blood is human blood, that is, that the corpuscle that you have is a human corpuscle, by the specific precipitation, as it is with the hemolysin; but it is possible to show that the albumen of that blood is human albumen.

The technic in this test is simple: You open the veins of a man and draw off 20 or 30 c.c., let it clot, inject the serum into the abdominal cavity of a rabbit and carry it out through six inoculations at intervals of four days. Then the rabbit is bled to death, when the rabbit serum becomes a specific precipitin. In the test for human blood a drop of the serum is added to the blood solution—1 to perhaps 500 or 600—if it is any other material it causes no precipitation but does in human blood. In hemolysins a drop of this rabbit serum added to a dilute solution of human corpuscles, results in immediate agglutination of corpuscles, and gradual solution in 10 to 15 minutes.

Those are some of the lines of work done in chemistry of the blood and plasma, which I believe will be productive of great results ultimately.

DR. J. H. SURE, Milwaukee—Anemia in children differs materially from that of the adult. Normally the number of red cells exceeds five million. Hemoglobin does not reach 100 per cent. until the tenth year. The white cells number  $8\frac{1}{2}$  to 12,000 in health, while their formula is entirely different from that of the adult. The lymphocytes may reach 59 per cent., while the neutrophils fall to about 40 per cent. Besides, we often find in normal children's blood, myelocytes, normoblasts, and may find megaloblasts. I mention this for too often the diagnosis of pernicious anemia or leukemia has been made on the evidence of a couple of megaloblasts or myelocytes.

These diseases are rare in infancy, and when we learn that the secondary anemias of childhood may give us such a blood picture we will be careful.

We have been told that a high color index, a low red blood count, a leukopenia, poikilocytosis and polychromatophilia, are indicative of pernicious anemia. Yet authorities like Osler admit that these findings may occur in the secondary anemia of tapeworm disease, especially the *bothriocephalus latus*, and a case reported this morning has shown tapeworm segments. It is needless to say that a diagnosis of pernicious anemia should not be made until the stools have been examined microscopically.

The presence of eosinophiles in increased numbers has helped to diagnose a good many diseases, and particularly anchylostomiasis. It is unfortunate that the tapeworm anemia does not show eosinophilia. Eosinophilia has been made use of in other diseases. It is said to occur in bronchial asthma, in scarlet fever, not in measles, and in specific urethritis, when it has extended to the posterior urethra. The latter statements require confirmation.

DR. M. DVORAK (closing)—When Dr. Sure speaks of the tapeworm he has in mind, I think, a case which we have had under observation for about seven months, and I think that had a tapeworm been present during that time it would most likely have shown in the stools before the time mentioned. In one of the other two cases of pernicious anemia reported, the stools were not examined, but in the second case they were. I have no doubt that the case mentioned by the doctor was one which was complicated later by tenia, because the patient gave a distinct history of eating fresh raw beef on one occasion after his last visit, and never had done it before, and only six or eight weeks after that he commenced passing a portion of a tapeworm.

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## THE RELATION OF CHRONIC APPENDICEAL DISEASE TO NEURASTHENIC CONDITIONS.\*

BY L. H. PRINCE, M. D.

PALMYRA, WIS.

I use the term "neurasthenic condition" advisedly and in its most elastic sense, inasmuch as many cases of so-called neurasthenia would not respond to what is ordinarily known as the typical form of the disease.

In considering appendiceal disease in this connection, I would also state, we are not concerned with the acute process, nor with typical evidences of the disease in any form, but mostly with cases presenting little or no definite evidence of disease of the appendix, and even, in some cases, where the presence of abdominal disease of any kind is obscure, or, when present, is supposed to be one of the nervous mani-

\*Read before the Jefferson County Medical Society, Dec. 5, 1905.

festations. In short, we are dealing with the nervous manifestations of chronic appendiceal disease.

In a large number of cases, if not in all, neurasthenia or the neurasthenic condition, is *not* a disease entity, but a symptom-complex, the result of either *reflex irritation*, *toxemia*, or *nutritional disturbances*, arising from an organic lesion somewhere in the body, sometimes easily demonstrable, at other times obscure, and often impossible of demonstration. In my mind there is no doubt regarding the truth of this proposition. And I am fully convinced, after having carefully studied the subject by close observation in quite a number of cases, that *chronic appendiceal disease* is responsible for a not inconsiderable percentage of cases of so-called neurasthenia, ranging from ordinary crankiness, through nervous prostration and hysteria, to actual insanity.

*Reflex* irritations may produce nervous manifestations from the simplest to the most grave. The lesion responsible for the reflex irritation may be insignificant in extent, such as a single, small, adhesive band distorting or fixing the appendix, to the most extensive matting together of the abdominal organs. I believe, in regard to this, that the amount of irritation depends more upon the location of the adhesion than upon its extent. The reflex gastric disturbances, for example, are more often caused by adhesions than due to other causes.

*Toxemia*, the result of absorption through the portal veins and the lymphatics, may result from insufficient drainage of an appendix with a constricted base. And this toxemia, being more or less constant, will act upon the nervous system more or less constantly and seriously, as is the case with other toxemias. I have a case in mind in which the patient, originally a very strong, well-balanced man, twelve years ago had a very severe attack of "peritonitis," which, as developments have shown, was undoubtedly an acute appendicitis. Since that attack he has gradually changed in temperament and health. He has become a veritable crank, has been laid up time and again with nervous prostration, and has not been able to eat as he should, on account of the always unsettled condition of his stomach. He became anemic and weak, and totally unfit for good work, and suffered almost constantly from abdominal distress, and the general pains and aches of the neurasthenic. Of late his blood examination shows pretty clear evidences of a beginning pernicious anemia. No operation has been performed, and in the condition the man is in nothing of the kind can be attempted, so of course the case will remain unproved so far as the possible origin of his pernicious anemia in a damaged appendix is

concerned. I merely mention this case in passing to show to what an extent I believe trouble may result from neglected appendicitis.

*Nutritional disturbances* may arise from chronic appendiceal disease, either indirectly from the action of the already mentioned reflex and toxic causes, or more directly through extension of the inflammatory condition to the intestinal tract proper.

All of these causes may act together to finally bring about the deplorable conditions we not infrequently meet with.

One cannot say, from the appearance of the appendix, prior to its removal, that it is a normal appendix, nor that it has not been responsible for more or less existing trouble. The appendix, after the subsidence of an acute catarrhal attack, may present externally nothing abnormal, and still be so changed as regards its mucosa and musculature as to make a succeeding attack a fatal one.

There are still some well-known surgeons who believe they are not justified in the removal of an appendix, after the abdomen is opened, unless it presents its abnormal condition externally, regardless of the history of the case. I have seen a number of cases where the history of the case and the physical examinations from time to time pointed with suspicion to the appendix; in these cases I have seen the surgeon open the abdomen, do a conservative or other operation on a cystic ovary, perhaps, examine the appendix, pronounce it normal, and leave it; I have seen these same cases make a good recovery as far as the operation was concerned, but have taken care of them just the same for the same mental and nervous conditions, with the same stomach and bowel disturbances; a little later I have seen the surgeon again open the abdomen, and remove the innocent-appearing appendix, and then find, on dissection, that it was anything but innocent. I have then seen these cases make good recoveries from all of their neurasthenic symptoms.

The following three cases will suffice to illustrate a number of factors bearing upon the subject, each case representing more or less distinct groups.

In the case of Mrs. T, we have an excellent example of a group where the nervous manifestations are so marked and so out of proportion to the local trouble as to easily mislead the physician. It will also illustrate a point which I wish particularly to emphasize, namely, that *inspection of the unremoved appendix during operation is valueless in determining as to its normal condition.*

Mrs. T. came to the sanitarium on May 20, 1902. She was 31 years of age, had been married five years, and had never been preg-

nant. Aside from painful menstruations, she had, as a rule, always been pretty well up to about a year and a half before she came to us for treatment of her neurasthenia. There had been no history of appendiceal attacks. She had had two attacks of quinsy. In January of 1901 she began having backaches which at times were quite severe, and she lost energy and ambition. A month later she had an attack of severe pain in the region of the left kidney, the pain running down to the left heel. At the same time she developed pain, with swelling, in the right side of the abdomen. This swelling may have been tympanites. The history of this is indefinite. She was up and down with these symptoms for over a period of three weeks.

During the following month, March 1901, feeling better, she made a trip to a neighboring city, where she had a return of the left sciatica, together with rightsided abdominal pain, accompanied by vomiting, these symptoms lasting three days and three nights. She was up and down again for three weeks. She was better for a time, and then had another three weeks siege of being "up and down," as she styled it, suffering more or less constantly from pain in the right side of her abdomen, usually in the upper part, getting relief "when she felt something slipping down from under the ribs."

After this she began to get very nervous, could not sleep well, ate poorly, and continued to suffer a great deal of the time from the pain in the right hypochondrium. At that time, in May, 1901, she was examined by a number of excellent men, and probable diagnoses of enlargement of the liver, gall stones, floating kidney, and ovarian disease were made.

In July of 1901 she was operated upon by two surgeons, who agreed, before operation, on floating right kidney, cyst of right ovary, and possible appendicitis. The right kidney was accordingly anchored, and the right ovary, which was cystic, removed. No gall stones were found, and the appendix, on account of its normal and innocent appearance, was left in situ. After this operation she was better for two months, when she had a return of the abdominal pain, the attacks being severe, but lasting only a few minutes at a time. Aside from this she remained fairly well, for her, until January, 1902, when she had what was supposed to be a 10-days' attack of acute nephritis. From this time until she came to the Sanitarium, May 20, 1902, her troubles increased rapidly. She became extremely nervous; had severe pain in the cardiac region about once a week at first, then more frequently. Palpitation was frequent and easily produced, and at times was quite marked. She became almost continuously bed-ridden, suffering from manifold mental and nervous symptoms. Vomiting was frequent, and it was difficult for the patient to retain sufficient nourishment to sustain her. She was never jaundiced, but vomited bile.

At the time of her admission to the sanitarium she weighed 91 pounds, being emaciated; the skin was of bad color, and poorly nourished. There was no edema. The heart and lungs apparently normal, as were also the kidneys. Examination of the abdomen showed the right rectus muscle more resistant than the left, with some tenderness

on deep pressure in the right iliac region.

Vomiting became of daily occurrence, recurring at frequent intervals, so that nutritive enemata became necessary. There were hiccoughs also, and patient would awake from sleep with vomiting and hiccoughs. Temperature, usually normal, occasionally 99.5, pulse 72 to 108.

The abdomen was occasionally tympanitic, but there was at first very little in the way of abdominal pain. This attack lasted ten days, during which the patient became very much exhausted. Then she was better for a time, and then had recurrence of heart pain, palpitation, and the like, with only an occasional attack of vomiting, with slight rises of temperature. She was very nervous, however, at all times. The bowels were moved with difficulty each day. Then a little later there was considerable general abdominal discomfort, with occasional pain in the right lower part of the abdomen. Whenever she complained of this particular pain there was increased tenderness on pressure, which tenderness lasted only during the pain.

On June 18, 1902, her menstrual period being due, and as her last serious attack of vomiting, etc., had followed the menstrual period, it was decided that the appendix be removed, sufficient evidence having been collected to warrant at least the presumption of appendiceal disease.

Exploration through a McBurney incision discovered no pelvic or abdominal trouble, and the appendix appeared as innocent and benign as it did at the time of the operation of the year before. After clamping the appendix near its base, a purse-string suture was placed, the appendix amputated, and an attempt made to invaginate the stump. This was found to be impossible, and careful search for the cause showed that fully an inch of the proximal end of the appendix was so crushed down upon its base—much as you would crush a stove-pipe hat—and this so hidden by dense organized adhesions as to become apparent only upon the most careful dissection. This crushed portion was liberated, removed, and the stump invaginated in the usual way. Dissection of the appendix showed thickening of its walls, the presence of small punctate hemorrhages; there were also constrictions at different points, aside from the almost complete obliteration of its lumen at the base.

The patient remained in the Sanitarium until August 8, 1902, returning to her home seven weeks after operation. The surgical convalescence was almost ideal, and there was a rapid disappearance of all nervous and mental manifestations. Before leaving she passed two menstrual periods without distressing symptoms. During the past three and one-half years, since her return home, I have heard a number of times from her and from her physician, the last time very recently, and the reports have always been that she has had no return of any of the old symptoms, and that she has remained very well indeed.

The next case, that of Miss C., will show how far-reaching and serious may be the effect of a few adhesions.

Miss C., aged 21, a student, came to the Sanitarium on March 18, 1901, giving the following history: She had a severe attack of "inflammation of the bowels" when four years old, which lasted four months, and when ten years old had an attack of "peritonitis." She menstruated at 14, this recurring normally up to the time she was 19. Had always suffered from leucorrhœa from the time of first menstruating, and also had had numerous attacks of sciatica after the age of 14, these recurring nearly every winter. Had always had an easily upset stomach. After graduating from high school in 1898 she rested a year, as she was very tired and nervous. During the year previous to this she had local treatments for pelvic disease, but without benefit, and mostly accompanied by pain. Her work at the university was interrupted on account of the pelvic pain. Soon she commenced to have severe pain in the back, this extending from the lower ribs to the sacrum. This was thought to have been caused by lifting something heavy. On account of this backache and the pelvic and abdominal pain that accompanied it, patient went to bed in November, 1899, and remained there most of the time until January, 1900. She could walk very little on account of the pelvic pain, and was very nervous during this time. From January to the middle of March, 1900, she was up and about most of the time, but was very miserable and nervous. She was obliged to go to bed again in March on account of increase in severity of the abdominal and pelvic pain and stomach disturbances. The pelvic pain was confined to the left side, and there was a discharge of pus from the cervix after each paroxysm of pain. About the first week in April of 1900 she began to suffer from severe pain in the epigastrium, lasting for an hour or two after eating. There was also considerable gas formation, after the belching of which she would get relief. Later it became necessary to feed her by rectum, and the stomach received daily washings. Then there was persistent vomiting in spite of the absence of food in the stomach. She became very much exhausted and her nervous condition became deplorable. The bowels were with difficulty made to move every day, and she suffered from tympanites. This attack finally subsided, and she was able to take a little nourishment.

On May 12, 1900, the abdomen was opened, at her home, and the right ovary and tube, part of the left ovary, and the left tube were removed. The condition of these organs at the time of operation I have not been able to learn. The appendix was not investigated. After recovery from the operation, which was slow, the patient was better for six months, though not entirely well.

In November, 1900, six months after her operation, she was taken sick again, and up to the following March, 1901, a period of six months, she suffered from frequent attacks of left sciatica, of abdominal distension, gastric distress, and vomiting, and extreme nervousness.

She was then (March 18, 1901), admitted to the sanitarium. For a month after admission she was some better, but ate very sparingly, and lost weight and strength. She had some gastric pain and nausea, but vomited only once or twice in this time. There was con-



siderable difficulty experienced in getting her bowels to move and she suffered at all times from tympanites. There was a slight enlargement of the thyroid, but no lymphatic enlargement anywhere. The pulse was rapid, but the heart and lungs apparently normal. The skin was generally hyperesthetic. The abdomen was sensitive to pressure everywhere, the muscular resistance, however, being more marked on the right than on the left side.

About the 12th of April she began to vomit again, and it became necessary to resort to rectal feeding. From this time to May 2d, there was normal temperature. The pulse, however, was weak and rapid, ranging from 100 to 155. In spite of rectal feeding and gastric lavage, the vomiting continued, recurring many times a day. The vomitus consisted of mucus and sometimes of bile. She became very much reduced in strength and flesh, and her nervous symptoms became more marked daily. There was considerable pain in the pelvis and abdomen, as well as in the legs and joints. While there had been at no time evidence of complete obstruction of the bowels, it finally became evident that a partial obstruction was possible as accounting for the persistent vomiting and distension, and operation was advised as holding out the most hope, though the patient was almost moribund when operation was finally consented to.

On May 2d, 1901, under ether anesthesia, Dr. Keenan opened the abdomen through the right rectus muscle. Nothing abnormal was discovered anywhere except in connection with the appendix. This organ was found behind the distended cecum, buried in a mass of easily detached adhesions. It was four inches in length, with thickened, bulbous extremity, but very narrowly constricted at its base. A band of adhesions passed from the appendix to the ascending colon, which it partially encircled, forming at this point a well-defined kink. The colon was liberated, and the appendix removed.

The patient made a good recovery from the operation, and went home four weeks later. There has not been, at any time since the operation, any return of any of the symptoms with which she suffered prior to operation. She became strong, fleshy, and to all appearances, perfectly well and is so at the present time.

In this case I believe that the attack of "inflammation of the bowels" at four, and the "peritonitis" at ten years of age, were both attacks of acute appendicitis, and in all probability the constantly disturbed stomach, the increasing nervousness, the neurasthenic and hysterical states, which became more frequent and more marked, and finally the months of nausea and vomiting, tympanites and constipation, etc., and possibly the pelvic disturbances as well, were by-products of the chronic appendiceal disease. The findings at the time of operation, and the patient's condition for the four years following the operation, certainly go far toward proving this.

The last case I have to report shows how a continuous appendiceal irritation may cause a profound nervous breakdown and keep

it up for several years without permanently damaging the nervous system, and how quickly a normal condition may become established after removal of the cause.

Mrs. H. came to the Sanitarium the first of last April, a good example of the almost constantly weeping, hypochondriacal, impossible-to-walk, bed-ridden, helpless, chronic neurasthenic. She was 36 years of age, had been married 16 years, and had one child 15 years old. She had always been rather delicate and of a nervous organization. Her perineum was lacerated at the birth of her child. She had a fall, when 14 years old, which stunned her, and caused her to menstruate every two weeks for three or four months. At that time she was weak and anemic, and has not been very well at any time since. There has always been considerable pelvic trouble, with great nervousness, *baekache*, loss of appetite, constipation.

Two years after her child was born, 13 years ago, she had a miscarriage at two months. Following this she was sick with "nervous prostration" three years. About ten years ago she had a series of operations over a period of three months, these operations being undertaken for the purpose of remedying her broken down condition. First, uterine curettage was done, six weeks later the American operation, at that time, I believe, considered by its author to be a sure cure for all forms of nervousness, and at the same time a tracheloperineorrhaphy; several weeks later, the patient not having improved, the uterus, tubes, and ovaries were removed via the vaginal route. Following this she was very ill with peritonitis. She did not get even temporary relief. She has suffered ever since from a large number of symptoms referable to the wrecked nervous system. She has slept little, always nauseated after eating, has been constipated, and complained of all kinds of pains and aches of the whole body, weakness generally, and especially of the legs. There was no history of her ever having had an attack of acute appendicitis, but had always complained of general abdominal soreness. On examination on admission, March 1, 1905, we found the heart and lungs negative. There was considerable resistance to pressure over the abdomen, especially marked in the right iliac region. The eyelids were swollen and the conjunctivæ congested from frequent crying. We kept the patient under observation and treatment for her general symptoms for a month without any evidence of improvement. Believing that we had a chronic appendiceal trouble to deal with I advised an exploratory laparotomy. This was consented to, and so operation was performed on May 1st, 1905, through a McBurney incision. The appendix was found buried in a mass of adhesions, bent upon itself at an angle of 45 degrees, and was thickened and congested. The organ was removed, and the abdomen closed. Recovery was complete in every sense, there being no return of any of the symptoms from which she had been suffering for ten years. She is to-day well and strong, does her own housework, and is quite a different individual. She reports that she has not had a day's illness since the operation, and feels happy and well.

## THE EVILS AND ABUSES OF SO-CALLED LODGE PRACTICE.\*

BY P. J. CALVY, M. D.,

NORTH FOND DU LAC, WIS.

I see I am on the program for a special paper. Some of you, no doubt, were wondering of what that article was going to treat. I will tell you; it is an exposition of the evils and the abuses of a so-called club or lodge practice. I, for one who has had considerable experience with this so-called club or lodge practice, wish to make a few explanations with regard to the evils of it, which cannot be appreciated except by those who have had to deal with it. Are you aware of the proportions to which this evil has grown in this country? You may, when I tell you that in one particular organization there are nearly 200,000 members. Fifty per cent of this number are men who have families, and as our American families average about five to each household, you can make your own estimate as to the number who receive medical aid for the small sum of \$2.00 per year, which is the paltry amount stipulated in the by-laws and which each member is to pay.

Gentlemen, for those of you who feel above discussing the fee in this form of practice, here is another and the most important phase of the subject. Money is not the question, but when you have to sacrifice your natural pride and personal feelings every day of your life to the selfishness and caprice of the people, it is more than any honest, self-respecting man cares to do. Yes, the caprice and selfishness of your patients—they would make a footstool of you and use you as a messenger boy, just simply because they knew it would not cost them extra.

Returning to the subject of fee, the medical profession does not want to be accused of forming a trust; our object in combatting this form of practice is far above it. The greatness and safety of the medical profession are shielded beneath its dignity, and this dignity is demanded of it by the very people who would drag it into the gutter of sordid commercialism. They expect to see a friendly spirit existing and honest deals observed between members of the profession; still they will put professional service on the block and knock it down to the lowest bidder.

Speaking about a friendly spirit and honest dealings between brother professional men, I am fully convinced that in most cases the

\*Read before the Fond du Lac County Medical Society, Jan. 10, 1906. See Resolutions passed at this meeting, on page 556

seeds of discord and contention are sown by the wagging tongues and personal prejudices of the laity. If, as often happens, you have a case, another physician is called in, be he as careful as he may, he will say something that the patient will seize upon and exaggerate to justify himself as he thinks in his action, and nine times out of ten it will reflect discredit upon the first physician. You all know this to be true, if you think about it, and it proves, if facts were known, that we are all too prone to charge broken faith and treachery to our brother, when, in reality, the trouble comes altogether from a different source. These are evils we cannot eliminate or right unless through a unity of action among ourselves and the cultivating of a spirit of liberality and fairness, which are the first essentials to the growth of a true brotherhood.

Returning to the subject of lodge practice:

Here we find the laity assuming a dictatorship over the medical profession, to its detriment in this country, as well as in Europe. You, who are conversant with conditions in the old world, are aware of the fact that this so-called club or lodge practice has assumed proportions where it is a veritable curse to the profession; that royalty itself pays its paltry club fee for no other purpose than to receive free medical attention. In Germany we find this form of practice assuming enormous proportions. We could naturally expect this when we consider that a large minority of the voters last year exercised their right of franchise in furthering the cause of socialism, which I cannot refrain from characterizing, but I do not presume to speak dogmatically, as a smouldering breath of anarchy. They would level all rank and influence to their own low standard of estimating what constitutes right between man and man.

I am sorry to say that I have had to perform the humiliating duties a lodge practice entails, and my experience has been a bitter disappointment. I unwittingly signed a contract, as many another physician has done, to perform lodge practice for one year at double the rate fee provided by the order. What was the result?

After a year of humiliating experience, and to say it was humiliating is putting it mildly, I found all the large families, who had previously been my patients, in the lodge and congratulating themselves, saying that the order was a good thing and must live. I found all the single men had dropped out, as they had no use for a physician. I found myself doing work at fifty per cent below the regular rate; the order I had helped create now became a bomb, as it were, which I was afraid to drop, fearing it would annihilate me. I remonstrated and told the lodge I would rather not do the work at all, but if I did, they

would have to compensate me fairly. The next thing I knew, they were casting about for a physician who would do their work at the fee prescribed in their by-laws. Well, they got one, through a broken promise and a slight misunderstanding, and, as I thought, with injustice to me, but as this matter is settled at the present time, I am content. But to show you the trouble it may create between physicians, I will tell you our experience reminded me of the fable of two sterner sex members of the mule tribe in separate pastures each gazing with longing eyes through the fence, and thinking that the other fellow's grass was the sweeter.

When I stated my case to the lodge and told them what I was trying to do, I found myself browbeaten and bullied by a burly Knight of the Bowl for daring to thwart the exalted aims of their noble order.

Now, somebody may think I can afford to do that kind of work at forty or fifty per cent below the regular rate, it will advertise my business—it will keep my office full of patients, but you forget the injustice you do to your fellow practitioner, as it is always the fellow who is under that hollers the loudest for fair play. Those of you who are on top of the heap with fat pocketbooks can afford to be magnanimous, and I claim the man who does work below the regular rate solely for the purpose of getting business, or from a false sense of charity, is unprofessional and should be declared so.

Such is an exposition of the abuse as I have found it. It being an abuse and evil, what is the remedy?

Outagamie County Medical Society has condemned it, but from correspondence which is not yet complete, I believe it still exists. The Physicians' Club of Oshkosh condemned it over a year ago, but still it prospers. Milwaukee County Medical Society has fought it for years, but they cannot eliminate it. This being the case, it remains for the Fond du Lac County Medical Society to take one step further in what is destined to be a national move, and not only condemn it, but brand it as quackery, and make such practice a disqualification to belong to any medical society. Gentlemen, is this asking too much?

I am afraid that the medical profession does not appreciate the gravity of its position as a power in the progress of the human race from a moral, social, educational and economic standpoint, but if you will consider it seriously, you will find it is one of the greatest forces at work today in the struggle of mankind toward light and truth in their fulfillment.

The education of the physician is by common consent termed liberal; his aim is far above the sordid spirit of commercialism of the

day, and it should rightly be so. Then are you going to let the services of this profession be put on the block? If you do you will some day look for professionalism in the gutter, and there you will find it.

There is no use in appealing to the sense of justice possessed by the laity. They have no sense of justice in matters of this kind, as I have found out. Their only motive is their selfishness, their only impulse emanates from their pockets.

Gentlemen, I do not wish to insult your manliness, nor detract from the spirit of my own, by leaving the impression in your minds that I wish my argument to savor of a spirit of selfishness, and above all, as an appeal to your sympathies, but I will admit that I am so embittered against the abuses in this abominable form of practice, that I will fight anything like it before this society, as long as it exists in Fond du Lac County, and will relinquish my right to combat it only when it is driven from the country. It is high time in these days of reform, that we consider the peril of our noble profession, when there are only a few things under the sun in God's heaven but what are subject to the influence of graft and booze.

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### PNEUMONIA.\*

BY PETER L. SCANLAN, M. D.,

PRAIRIE DU CHIEN, WIS.

Pneumonia is an acute infectious disease, self-limited, caused by the pneumococcus, lasting from three to thirty days, and showing constitutional symptoms with usually localization in the lungs.

A large number of cases begin with a severe chill. Pain referred to the nipple is a common occurrence. High fever in all sthenic forms is the rule. Cough, delirium, an ashy colored flush of the cheek of the affected side, herpes and dyspnea, are apt to be present. Rusty sputum is said to be pathognomonic but is not always observed. Loss of appetite, vomiting, wakefulness, coated tongue, rapid pulse, accelerated breathing, tympanites, headache, backache, scanty and high colored acid urine and constipation are nearly always seen.

The time of incubation is hard to make out, but is probably from one to five days—the average being five. The sputum is the source of

\*Read before the Grant County Medical Society, Bloomington, May 12, 1905.

the infection. Pneumonia is now supposed to be an acid intoxication caused by the ptomaines (like cholera) robbing the blood of its natural alkalinity.

The virulence of the type exerts a decided influence upon the result. It is said that the death rate is greater now than it was fifty years ago. If so, it is not capable of being demonstrated. Vital statistics are not sufficiently reliable to warrant the statement. Too many conditions enter into the matter. There is no doubt but that cities have a greater number of cases and a higher mortality than the country. This is because owing to overcrowding encouraging infection and increasing social excesses, the vitality of every organ and the whole system is undermined. Besides, city life is more strenuous.

In Grant county the recorded deaths from pneumonia for the first two months of the year 1901 were seven; in 1902, seven; in 1903, four; in 1904, nine, and in 1905, ten. This shows an average of 3.7 a month during the epidemic season. With the exception of 1903, the number of deaths is very uniform. There is another factor in the death reports that must be considered—nine are straight cases, the others are so modified as to raise a question as to whether they are under the subject we are discussing. Here are some of the terms used as qualifiers of the pneumonia: Senility (2), cold (1), congestion (1), pleurisy (3), meningitis (1), exhaustion (1), collapse (1), la grippe (1), pleuro-pneumonia (1), brain fever (1), lung fever (2), apoplexy (1), malnutrition (1), spinal disease (1), rheumatism (1), general debility (1), broncho-pneumonia (1), heart disease (1), asthma (1), measles (3), congenital dementia (1); total 28 out of 37 cases. The average monthly death rate is about 35, and nine straight cases would make an average of less than one, reducing the average mortality to 3 per cent. during epidemic months. In the cities the records are more accurate, and their average is 8 per cent. for the whole year.

The diagnosis is not always easy. It requires skill and thoroughness of investigation. The old physician with his large clinical experience and his early education at a time when the greatest stress was laid upon the symptoms as related by the patient, is less likely to make a mistake than the late product of our medical colleges who puts all his faith in laboratory or objective signs as he discovers them in his physical examinations. The microscope has more than once led men astray. Physical signs have been seen that the future progress of the case proved were not present.

Examine the patient as to his general condition, appearance, color, breathing, cough, sputum, tongue, mouth, throat, lungs, heart, abdomen, skin, finger nails, urine and stools. Do it carefully, and record the same as well as every other detail of your cases. It pays for diagnostic and prognostic purposes.

The treatment divides itself into prophylactic, local, abortive, specific and symptomatic. Physicians are undecided whether it is the patient, the disease or the general public that needs treatment.

The disease being contagious and the infection being transmitted by the sputum to the air and finally reaching the respiratory passages of the person exposed, the case should be treated like diphtheria, enforcing isolation and disinfection of the sputum.

If brought in contact with a case, cleansing of the air passages with antiseptics serves a useful measure of prevention. Not every person develops the disease. During an epidemic over 36½ per cent. of healthy individuals have the germs present in their upper air passages. This suggests that some constitutional cause must favor the disease; therefore, avoid catching cold, mental depression and physical overwork, and put the system in the best condition possible. A National Commission has been appointed with a view to study the malady and check its spread. It is said that transmission of the pneumococcus by the lymphatics produces pleuro-pneumonitis; by the blood, by metastatic process, and by the air passages, the usual way, either lobar or lobular pneumonia. The latter is often caused by other germs, and perhaps lobar pneumonia may occasionally be due to localization of an influenza germ or a pus microbe. The pneumococcus was found in the blood of 145 out of 175 patients examined by Rosenow, and 40 per cent. of these cases died.

I am not a believer in local applications, but think in suitable cases dry cold applied may prove beneficial, relieving the pain, lowering fever, stimulating the heart and nervous system, and often preventing delirium. I favor cold to the head for headaches and delirium. A flannel cloth is a useful protection to the chest.

Abortive treatment has many advocates. It is not a classical method. The agents used are blood letting, and calomel in large doses. These act by abstracting blood from the system. It would seem to lower the blood pressure, but often we find the opposite effect.

Ergot and digitalis given early and in large doses are supposed to jugulate the disease. Both increase the heart's force and contraction and raise the blood pressure.



The specific treatment has its advocates; many different drugs are used, and their action is varied. Of these, quinine given in large doses is being urged. Galbraith reports cases in one of which he gave 385 grains of quinine, 175 on the first day; 715 minims tinct. chloride of iron, 10 grains of salol, and six grains of guaiacol. This case got well as also did eighty-six consecutive ones treated in the same way.

The alkaloidal treatment consists in giving laxatives, calomel, podophyllum and salines in small, oft-repeated doses, rendering the intestinal canal antiseptic by means of the sulphocarbolates (Waugh's), using veratrum to combat fevers, and calcidin (iodized calcium) for its specific action. It is also advised to use local applications of antiphlogistine and a cotton jacket. The purpose is to lower the fever and slow the pulse. Strychnia is added later for its specific stimulation of respiration. Abbott claims that by lowering the temperature he renders the system a poor culture soil for germs—a statement that is controverted by good authority. It has been advanced that high fever is nature's way of destroying the germs. Stress is laid upon nutrition. Milk, bovine, panopepton and albumen water are endorsed. Galbraith lays great stress upon drinking large quantities of water; he also noted that many of his patients vomited.

The serum treatment so far is unsuccessful, and many other specifics are only in the experimental stage. It is no wonder we cannot agree on remedies when we cannot agree upon what condition we want to bring about. One man believes in lowering blood pressure and lowering fever; one advocates the use of ergot, digitalis and cold baths; still another believes he will lower blood pressure with aconite or veratrum and at the same time lower fever; still another advises to leave the case alone, using drugs only to combat urgent symptoms. Some use local applications of heat, others of cold, and some neither. All seem to agree on liquid feeding, fresh air, cold water and believing in elimination, use drugs to stimulate excretion by means of the skin, kidneys and bowels. Others go farther and render the alimentary tract sterile, and some give antiseptics for their direct action on germs in the system, hoping to poison them without destroying the patient. Again, remedies are given to increase phagocytosis or give added resistance to the tissues, while some give drugs they know not why. Who gets the best results?

Cresote appeals to me as the best of all drugs. I believe its early use will prevent a crisis, shorten the duration of the disease, relieve many symptoms and prevent death more often than any other

drug. I follow Van Zandt with slight modifications. In addition to creosote I use calomel at the beginning, strychnia near the end, and a liquid diet from first to last.

Sodium salicylate, salicylic acid and aspirin, are used as specifics by some. Small doses have an appreciable effect on the heart, full doses cause it to beat faster and stronger, increasing arterial tension, but later it is lowered. It may act like bicarbonate of soda, which is now being used by Billings of Chicago on the theory that an acid intoxication has to be overcome.

The symptomatic treatment varies with each patient and each physician. It will be useful to take notice of the drugs commonly used. Of these, veratrum, aconite and coal tar products are used to combat fever. They all lower blood pressure, but blood pressure is very low in pneumonia especially in its early stages (what I said about Abbott applies here). In giving these drugs you help Nature to do what it is already doing lowering the blood pressure. Here are two diametrically opposed theories. The only way to decide must be upon experience, and upon this matter we are nearly equally divided.

It is claimed by some that the lower the blood pressure in the earlier stages the more fatal the disease. If this deduction is correct, aconite and veratrum are contraindicated and under no circumstances should coal tar products be used.

Lying supine with head low raises blood pressure and slows the pulse, also ergot, digitalis and cactus raise blood pressure and appear to be indicated, but only a small part of the profession endorses their use.

Strychnia stimulates the heart muscle and nerve centers and slightly increases the pulse rate. Alcohol and adrenalin act in much the same way. These are most often used to protect the failing heart in pneumonia.

Nitroglycerin lowers the blood pressure, and some argue its use where aconite is indicated; others use it with strychnia and digitalis to give the combined action of the three kinds of stimulation at the same time—a shot gun effect. It is said to act on the right side of the heart, relieving its condition of overdistension, and would be indicated along with digitalis and ergot to aid in relieving this symptom at the beginning of the disease, but at the close, where embarrassment is due to weakness, it is contraindicated.

To relieve the cough, ammonium chloride, ammonium iodide, potassium iodide, and calcium iodide are useful and indicated remedies. Codeine and morphine can be used some times for cough. For

pain, cold and morphia are best at the beginning of the disease. Laxatives, diuretics and diaphoretics are all useful.

It is well to compare quinine, bicarbonate of soda, and creosote as to their action on the heart. Creosote in health, in large doses first depresses the heart and accelerates the pulse. Quinine in small doses increases the force, in large doses slowing and weakening it. Bicarbonate of soda depresses the heart and lessens the force of the circulation.

Hot drinks, oxygen, and normal salt solution are used, and when with a proper understanding of the case, do good.

What remains to be said is the most important part of my paper. It is about the management of the patient, securing rest and nutrition. Drugs are of value, but without food and fresh air they would be useless. Rest in bed is absolutely demanded. All changes of position should be brought about by the attendant. An intelligent person or a nurse should be present day and night to administer medicine, regulate heat and ventilation and attend to the needs of the patient. Sleep should be secured at any cost. Fresh air and a uniform temperature with a sufficient amount of moisture are indispensable. These are things that the physician must regulate and not only order to be done but carry out in every detail. Excretions should be removed from the sick room at once. Moist gauze cloths for the sputum should be supplied and burned. Plenty of cold fresh water is useful to relieve the thirst, but if there be stagnation or retention in the stomach it is contraindicated as it only increases the vomiting.

A good bed with a light woolen blanket adds to the comfort of the sick and protects against sudden changes in the air. Clean beds, clean underwear, clean hands, face and body, aid in the well-being of the patient.

Of the greatest importance is the feeding. A liquid diet is demanded, and if predigested it helps more, because it keeps up nutrition without taxing the system with work to prepare it for absorption. To this end bovine, liquid peptonoid, trophonine, grape juice and alcohol should be given. Next comes Eskay's food, malted milk, milk, broths, eggnog, soups, gruels, oysters, and perhaps crackers and toast. There is another point: the patient must not be disturbed every few minutes to be given something. There should be as long an interval of rest as possible. Never arouse a sleeping patient. Food and medicine should be as acceptable to the sick as possible, and to that end select what pleases if it will do the work required. Do not kill your patient with medicine or food. Let nature do her share of the healing and give her due credit for it.

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## EDITORIAL COMMENT.

### MEDICINE AND MYSTERY.

Time was, as Ex-President Cleveland rightly said in his recent address before the Medical Society of the State of New York, when Medicine and Mystery enjoyed the closest relationship. The distinguished speaker referred to this, and deprecated the fact that, with newer scientific advances that have so thoroughly altered the theory and practice of the medicine of to-day, we have hardly gotten beyond the stage of surrounding ourselves and our art with a halo of sanctity;

that we draw a veil of secrecy over our work to the end that we keep a knowledge of medicine to ourselves; and that, by means of horribly sounding and prohibitive names, we accentuate still more the mystery of our art, refusing to be drawn into arguments that would expose our erudition (or ignorance?). He pleaded that his clients (the people) are worthy of confidence in the treatment of their ailments, and that this ought to be accorded them in greater measure; that they do not care to be taken into consultation in all their illnesses, but would appreciate a little more intimate knowledge of the wherefore of the things that are done to them; and finally he complained that there exist "additional mystery and additional inclination on the part of our doctors to remind us of their stately superiority".

Is the distinguished gentleman altogether justified in his position? We hesitate to believe that his own experience has given him pabulum for his thought. Probably there was an occasion when, lost in mystification at the meaning of some slight and concealed spot of discomfort in corpore magno, there was aroused in him gentle protest against the coddling of his own medical advisor. Time was when Grover Cleveland practiced the Missourian "show me" policy in everything undertaken by him, and we hesitate to believe that his infirmity is such that now—any more than then—he would permit his physician to bluff away any attempt at explanations with high sounding airy persiflage. We venture to affirm that this protesting gentleman allows himself to be thoroughly enlightened upon the meaning of all names, Greek, Latin or 'pidgin', that are thrust upon him.

But is it a fact that physicians are making themselves so mysterious in their handling of patients and their ills? It must be conceded that our argument concerns only the intelligent class, not the ignorant mass. The latter need the comfort of classic terms to hasten their recovery from Greek and Latin diseases. As a fact, among them mystery is invited rather than repelled, and the physician who dilates lengthily in an attempt to give an honest explanation often finds himself superceded by the man whose disquisition is of the bluffing mysterious type.

We candidly believe that Mr. Cleveland found the selection of a fitting subject for an address to a body of physicians a difficult matter, and, unfortunately, chose this topic and expressed views that cannot reflect his own experience. For Mr. Cleveland's intercourse is with the intellectual only, and we will vouch for the fact that his physician, whoever he be, is an educated man, and among this class the barrier of mystery is unquestionably being swept aside. Explanations *are*

sought for, and are given; frequently the names of drugs are asked, because there exists a desire for better acquaintance with the disease and the nature of its treatment; and—better still—explanations given often satisfy so well that the patient's confidence in his physician is not shaken if he (the physician) adopt a waiting policy in an obscure disease, and if he deems it best that little or no medicine be administered.

We believe there is a tendency to educate those who are able to digest it, in matters pertaining to medicine; that the "greater publicity between physicians and patients" pleaded for already exists; and that the "medical trust in mystery" is a mere specter born of a brilliant mind at a moment when its possessor pondered long and wearily, seeking an inspiration with which to gracefully and graciously illumine a gathering of New York doctors.

#### WORK FOR THE FOOL-KILLER.

If the "fool-killer" should kill all the fools that are fooling with killing, or seeking new employment for the hangman, the "electrocutionist," the "chloroformist," and all that ilk, he would certainly earn his salary!

Capital punishment is not permitted by the laws of Wisconsin, even for the most flagrant "Wisconsinners," so that perhaps there is only an academic interest here in the question (much agitated in the press of late) of conferring the gift of an agreeable death on persons not wishing to live longer on their own account, or not deemed fit to live longer by wise would-be reformers of this wrong old world. Nevertheless, it is worth while to glance at the state of opinion on this subject as shown by the curious bills from time to time presented to law-makers and discussed in and out of legislative halls.

It is generally proposed, by the ardent reformers, who would tinker the legal machinery of the state so as to kill off undesirable citizens or relieve death of its terrors to those inevitably doomed, that the power over life and death shall be given to a board of commissioners of some sort, for the purpose of procuring "euthanasia" in cases where death is imminent, or kindly and gently killing people who for any reason ought not to live. A recent example is the crusade organized by a woman physician of Ohio, for the purpose of inducing the legislature to enact a law whereby a "person of sound mind who is sick unto death and suffering unbearable agony," can ask a physician to chloroform him or her, "to a finish," so to speak. This lady is said to be prompted by love of humanity and by the

sympathetic sufferings she endured in seeing her own mother, who died of cancer, beg day and night before her release came, that an end be put to her lingering sufferings.

We can imagine a lively debate when this bill comes up for discussion. People are always ready to talk on some new method of bringing about the millennium. We have often heard those whose readiness to give their opinion was in inverse ratio to their knowledge of the subject, insist that most, if not all, of the inmates of our asylums, alms houses, etc., should be gently but firmly sent to a better world. Nine out of ten such theorists would be perfectly willing to have "all" their "first wives' relations" (as Artemus Ward remarked) led to the executioner, but I never heard any of them recommend this for their own immediate family.

The lower house of the Ohio legislature voted down a motion to reject the above mentioned bill by a majority of 78 to 22. Miss Hall was in the gallery during the roll call and "wept" (we suppose for joy) when she learned the result of the vote. The bill provides that a physician who is going to send his patient "to the other shore," shall consult with three others, inform the patient, and, after the desired result has been achieved, "notify the coroner."

The fact is apparently overlooked that the law permits the death sentence to be given by a court for punishment of premeditated crime only. Anything like Miss Hall's proposition involves a fundamental change in the law of the land and an amendment to the Constitution. The tendency of all modern legislation, however, is toward diminution or disuse of the death penalty. One hundred years ago there were more than 200 crimes calling for the death penalty in England; today there are but 4; and in this country many commonwealths do not employ the death penalty at all. On the other hand, when it comes to a law changing death from a penalty to a *privilege*, it is safe to predict that our fallen nature will need to be mightily "sweetened and lightened" before any community will place new powers over life and death within reach of its citizens promiscuously, or of any "board" of semi-political philanthropists.

The law *now* forbids us to kill ourselves and hedges about the possibility of our killing anybody else most assiduously.

So far as the sad case of the lingering death from cancer or other painful disease is concerned, we must be satisfied with abolishing pain as far as possible, for which there are many legitimate and efficient means.

In the case of imbeciles, incurably insane and incorrigible crim-

inals, the normal part of humanity will be benefitted by exercise of skill in repressing, ameliorating or reforming rather than slaying; and if all were put to death today, new generations would spring up to replace them until our hereditary vices and taints are refined away by right living and healthful breeding in the masses of the community.

There is a humorous side to the gloomy subject, and we see a certain parallel between the advocates of easy and agreeable death as detailed above, and the philanthropist—described not long ago in a French medical journal—who was reported to have projected a “suicide parlour” in Chicago.

We translate the language ascribed by the French editor to the Chicago exploiter of suicide, as follows:

“I have come to Chicago,” (says M. le Dr. Jacobs, specialist in nervous diseases) “to render suicide easy if not attractive. We are constantly shocked by discovery of bodies of drowned unfortunates in the lakes or hanging from the trees in the parks. There are at this moment hundreds of persons in the city and suburbs who have decided to kill themselves. They accomplish their purpose by ropes, revolvers, virulent poisons, etc. Is it not inhuman *not* to provide them a less horrible method? For this reason I occupy myself in founding an establishment where death shall be more rapid and less painful. The man who has decided to die and who sees no help for it, can come to my establishment, seat himself in a comfortable easy chair, push a button and we do the rest. His soul is launched into the other world with elegance and despatch.”

#### THE FORMALDEHYDE AND POTASSIUM PERMANGANATE METHOD OF GENERATING FORMALDEHYDE GAS.

This method, first suggested and described by Dr. G. A. Johnson of Sioux City, Iowa, has received the sanction of, and is now recommended by, the Illinois State Board of Health. After careful investigation it has been found superior to any other in use. The gas is generated by pouring the formalin (40 per cent aqueous solution of formaldehyde) over the crystals of potassium permanganate, in an open vessel. Because of the heat generated, this dish must be placed in some other vessel, such as a pulp or wooden bucket. To every pint of formalin (sufficient to disinfect 1000 cubic feet of air space)  $3\frac{1}{2}$  ounces of the permanganate are used. The salt must be placed in the dish and the solution added: all preparations having been completed in advance, a hasty retreat is in order, because of the enormous volume of gas that is quick-



ly generated. The entire cost of this mixture (sufficient for the treatment of a space of 1000 cubic feet) is about 75 cents—surely not prohibitive if effective.

The Illinois State Board of Health has published the results of its experiments in brochure form, and deserves very great credit for the excellent service it is rendering the community.

#### INTESTINAL ORIGIN OF PULMONARY TUBERCULOSIS.

An article of much interest and importance (abstracted in the *Journal of the A. M. A.*) has recently appeared in the *Annales de l'Institut Pasteur*, Paris, under the above title, by Prof. A. Calmette. The author's reputation is such as to make us feel confident that any conclusions drawn by reason of his experiments are well worth being received, if not with credence, yet not with discourteous scepticism.

Calmette concludes that in the great majority of cases, pulmonary tuberculosis is contracted by the ingestion of infected dust, and not by its inhalation. Behring believed that "tuberculosis in the adult is the result of the tardy evolution of intestinal infection contracted during infancy." Calmette dissents from this opinion. His investigation with goats leads him to the conclusion that the adult animals are not so well protected by their glandular apparatus as are the kids, and that the older animals contract tuberculosis by way of the intestines more easily than do the young; that in the adult the ingested bacilli penetrate the intestines, enter the lymphatic system of the mesentery, and thence lodge in and infect the lungs; that the swallowing of tuberculous sputum accounts for numerous reinfections—autoinoculations—in various parts of the lungs.

Calmette draws the important conclusion that all consumptives must be particularly enjoined not to swallow their sputum, and as an additional precaution, should thoroughly rinse their mouths before partaking of food, and even, if possible, after every attack of cough and expectoration.

#### FOOD ADULTERATION.

The recent widespread agitation, still so prominently in our minds, against the use of preservatives for meat, has, it seems, not prevented the sale of goods treated with borax and boracic acid. The fact that it has not been satisfactorily established that the quantity of this adulterant ordinarily used is harmful and injurious, does not negate the law's provisions. But, with customary lawlessness so char-

acteristic of many of our freeborn Americans, the forbidden practice continues. The Wisconsin Food Commission is deserving of much praise for the pure food campaign it is carrying on. Recently seven retail meat dealers at Wausau were proceeded against, and others have been successfully prosecuted at Madison, Janesville, and elsewhere.

Food adulteration is so very prevalent, that, turn where it will, the Commission will be confronted with evidences of the adulteration of every class of food in common use. It is indeed fortunate that we are living in blissful ignorance of the degree to which this adulteration is carried on.

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### NEWS ITEMS AND PERSONALS.

(The JOURNAL solicits Items of Interest and Personals from its subscribers.)

The Childrens' Free Hospital, of Milwaukee has submitted its annual report. 263 patients were admitted during the year ending Jan. 31st, 1906. Of these 92 were medical cases, 77 surgical, 23 skin, 56 ear, nose and throat, 15 eye—an increase over last year of 36 cases. Since the establishment of this worthy charity in 1895, there have been treated 501 medical cases, 403 surgical, 185 eye, 180 ear, nose and throat, 109 skin—or a total of 1378 cases. When it is considered that this institution was started and is maintained by private subscription the showing is very good. With the present large, well equipped hospital building, which they now possess, the number of cases seeking relief will be greatly increased. The hospital makes no distinction, either as to sex, race, nativity or religion, the sole restrictions being that the patient shall be under fifteen years of age, and that the parents or guardians be unable to pay for medical attendance. This sentiment has changed somewhat, however, and now pay patients are taken provided that there be room.

The American Journal of Clinical Medicine, successor to the *Alkaloidal Clinic* will doubtless prove a most helpful journal to its large number of readers. The mass of queries on medical topics with which the editorial department is besieged, testifies to the usefulness of the magazine. The new journal is neat in appearance, contains much condensed reading matter, and unquestionably meets a demand that is real.

Dr. Joseph Erlanger, a graduate of, and until recently Associate Professor of Physiology at Johns Hopkins University, has been appointed to the chair of physiology at the State University. This appointment is in line with the policy of this institution to organize a pre-medical course under the supervision of a personnel of exceptional ability.

The State Board of Health, at its recent meeting, re-elected Dr. White of Watertown, president, and Dr. Harper, of Madison, secretary. It was decided to begin an educational campaign against tuberculosis. Circulars will be sent to all health boards in the state, and suggestions that will aid in the eradication of the disease, will be offered.

**Dr. Joseph Luce**, a well known physician, died at his home in Chilton on January 31, at the age of 56 years. About one week previously he fell on the ice and fractured his hip, and his death resulted from the injuries sustained.

**St. Mary's Hospital**, Milwaukee, is to have a new building at a cost of \$200,000. As the new hospital is to occupy the beautiful site of the present structure, the opportunity is given for a building which can not be excelled in point of location.

**Dr. Joseph Foulke**, for many years a practitioner of medicine in Philadelphia, died in Milwaukee, at the residence of his daughter, with whom he had of late made his home. Dr. Foulke was graduated at the University of Pennsylvania nearly fifty years ago.

**S. R. King** was found guilty at Beloit, on Feb., 6th, of practicing medicine without a license. He was fined \$50 and costs. He will carry the case to the supreme court to test the constitutionality of the law. King is a medicine vender, and it was shown that he prescribed and collected fees.

**The New Marinette County Insane Asylum** will soon be completed. It is being erected near Peshtigo, upon a site consisting of 400 acres of farm land, is to cost \$115,000, and will accommodate 150 patients. It is to be ready for occupancy on March 1st.

The new **Milwaukee Isolation Hospital** site, long under negotiation, has been purchased. The tract of land is large, and this will enable the city to build a thoroughly modern hospital, equipped with every safeguard, both for patients and the public.

**The Iowa Medical Journal** has printed in its January issue, a very complete and carefully corrected Directory of Iowa Physicians, with data covering the county societies, and other state organizations.

**"The Quarterly Journal of Inebriety,"** edited by Dr. T. D. Crothers, has passed into the hands of R. G. Badger, publisher also of *"The Archives of Physiological Therapy"*.

**Plan Tent Colony for Consumptives.** Physicians of Beloit and Rockford are planning a tent colony for the treatment of consumptives. It is expected that the new colony will be located near Rockford.

**The Kenosha Hospital Association** has received \$340.59 as its portion of the recent charity ball receipts. A similar amount was turned in by the Elks.

**Rest Haven Sanitarium**, of Waukesha is soon to be finished, the additional \$75,000 needed for its completion having been subscribed. Dr. U. O. B. Wingate, of Milwaukee, is to be its medical director.

**Racine physicians** have decided no longer to accept work by contract for low annual fees, from insurance companies, benevolent and fraternal organizations.

**Tuberculous cattle** have been found in large numbers by the State veterinarian, Dr. Roberts. In the town of Lima 52 head were discovered, and 22 in Deerfield. Dr. Roberts plans making his tests throughout the State.

**Dr. L. A. Winn**, of Poynette, was painfully though not seriously injured in a runaway accident.

MEETING OF THE LEGISLATIVE COUNCIL OF THE  
AMERICAN MEDICAL ASSOCIATION.

Editor WISCONSIN MEDICAL JOURNAL.

My Dear Sir :

I beg leave to make a brief report of the work of the Legislative Council of the American Medical Association, which met in Washington, D. C., Jan. 9-10-11, 1906, in which I had the honor of a seat as the delegate from the State Medical Society of Wisconsin. The Council consists of one delegate from each State Medical Society, and representatives of the medical corps of the Army, Navy, and United States Public Health and Marine Hospital Service. The sessions were presided over by Dr. C. A. L. Reed of Ohio, the Chairman of the Legislative Committee of the American Medical Association. Dr. Reed delivered an able address in which he pointed out the necessity of an enlargement of the Medical Corps of the Army, and urged that the profession throughout the country urge upon their Congressmen and Senators the passage of the Medical Reorganization Bill now before Congress. This Bill has already been the subject of a general referendum to the entire Medical profession and there seems to be no valid objection to its passage. Dr. Reed also spoke strongly for the passage of the Pure Food and Drug Bills which have the active and able support of Senator Heyburn of North Dakota, Congressman Hepburn of Iowa, and other leading members of the Senate and House. This legislation is meeting the same opposition that it has met in the past, principally from the manufacturers of fraudulent patent medicines and adulterated drugs, liquors and foods, and this opposition derives its chief strength from the support of newspapers which are purchased by advertising contracts. The Bill has for its purpose the securing to the people of honest drugs, foods and liquors, and it merits the active support of every member of the medical profession in the United States. After thorough discussion of the subject the report of the Committee on the question of the creation of a Department of Public Health was adopted. The report commends and endorses the work done by the Public Health and Marine Hospital Service and especially commends the valuable services rendered to commerce, and the vital interests of this country during the recent yellow fever epidemic in the South, and recommends that the Marine Hospital and Public Health Service be placed upon a more independent basis. It was declared to be the sense of the National Legislative Council that a Department of Public Health to embrace an expansion of the present

public health agencies and such other departments of the government, and such additional agencies and functions as might properly be added there to, be established. Such department of Public Health to have representation in the Cabinet. The Committee on Legislation of the American Medical Association was requested to prepare a Bill for this purpose, and the Trustees of the Association were requested to provide the necessary funds to defray the expense involved in the preparation of the Bill. The subject of the patent medicine traffic was discussed with a great deal of thoroughness, and the efforts being made by Collier's Weekly, the Ladies Home Journal and other publications toward the enactment of laws regulating the traffic were commended and endorsed. Delegations representing the Council made official calls upon the President, the Secretary of War, the Secretary of Agriculture, and various Senators and Representatives in the furtherance of the matters above referred to, and a strong delegation appeared before the Military Committee of the House in the interest of the Army Reorganization Bill, and before Congressman Hepburn's Committee having the Pure Food Bill under consideration and argued for the passage of these bills. I may state that the Council was courteously received and entertained in Washington, and I believe it to have been a successful meeting.

Respectfully,  
GILBERT E. SEAMAN.

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#### A CANCER QUACK.

Shullsburg, Wis., Jan. 3, 1906.

EDITOR WISCONSIN MEDICAL JOURNAL,  
Dear Sir:

Nine miles west of this place, in the village of Benton, there once lived an Irishman who pretended to cure cancer with a plaster. He claimed that his plaster was made from herbs that he collected in the woods. He got quite a local reputation, and when he died a few years ago, he left his receipts for making the plaster to his daughter. Since then she has kept up her father's reputation and probably excels him from a business point of view. I know a number who have gone to her, some of whom were my patients. A young married man with a small sebaceous cyst on his nose went to her; she pronounced it cancer and applied a plaster the effects of which left an ugly scar. One man with a black mole on the left temple was treated in the same manner.

These two cases, with several others which were under my observation—all of whom had benign growths—were pronounced cancers, and treated with her plaster, which left unsightly scars. This experience taught me that she did not know a cancer when she saw one. So convinced was I of this fact that it occurred to me to send her a test case. Mr. Guy Marey, a sophomore medical student of Iowa University, who was spending his vacation at my home, was brought into service, in the presence of Miss Mary Peebles, a sophomore student of the Illinois Medical College. I shaved Mr. Marey's left arm on its outer aspect half way between wrist and elbow, applied a little absorbent cotton dipped in beef's blood, and covered the same with flexible collodion; the center of the collodion was punctured so as to make it appear that there was an opening in it. When completed it had quite an ugly, sore appearance. I wrapped it carefully with a bandage and sent him to Benton to the lady Cancer Doctor. As quickly as she saw it she pronounced it a "Rose Cancer" of the worst type, pitied Mr. Marey, because he was so young, but entreated him not to worry, because she could cure it with her plaster—for which she wanted \$50.00. Of this amount \$25.00 was to be paid at once and the remainder when the cancer was removed. Mr. Marey plead poverty and she finally agreed to \$30.00 which was the lowest figure she would take. Mr. Marey offered her \$5.00 for a plaster but this she flatly refused. He then came away. Last June I obtained a small part of one of her plasters which had been used. I sent it to a prominent chemist who wrote me that it contained arsenic in considerable quantity. Four cases of true carcinoma of the lower lip that came under my observation were treated by this woman's plaster; they were not helped in the least, and lost all chance for a cure by surgical means, dying sooner than they would have had they been left alone. These four cases were not hunted up by me but came under my observation by chance. If one meets with four disastrous cases under such circumstances, what an appalling number would an investigation disclose. What a number lose all chance of living and are sent to an untimely death, to say nothing of the unsightly scars left upon those treated. This woman is illiterate, and has no knowledge of medicine. Through her ignorance she calls all sores—whether benign, malignant, or of cotton, beef's blood and collodion—cancer, puts her plasters on and does an immense amount of mischief. She does quite a business and her terms are cash.

It seems that our State Board of Medical Examiners could make such people responsible to the law. But this woman is only a tithe of

what one has to contend with in the practice of medicine. The cheapness with which patients can have their surgery done in the large cities—patients who can pay what surgery is worth—is a disgrace to the medical profession. I know of some who, by agreeing to appear at a clinic, are operated upon gratis. I will write more of this in the near future and will point out where such work is done.

Respectfully,

C. C. Gratiot, M. D.

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## IN MEMORIAM.

JOSEPH E. LUCE, M. D., OF CHILTON, WIS.

Dr. Joseph E. Luce, a well known and highly respected physician of Chilton, Wis., died Feb. 1st, 1906. Dr. Luce was born in Coles County, Ill., Dec. 28, 1849. His parents removed to this state while he was yet an infant. He attended the primary schools in Grant County, and the Platteville Normal School, from which institution he was graduated in 1873; from that time until 1882 he followed the vocation of a teacher. In 1882 he entered the College of Physicians and Surgeons in Chicago as a student of medicine, graduating in 1885. Shortly thereafter he took up his residence in Chilton where he practiced medicine until his death. He was a member of the State Medical Society. Dr. Luce was a plain, unassuming, charitable man, a competent and resourceful physician and a splendid citizen. He served his city as mayor, was a member of the County Board and member of the School Board, and showed ability and devotion to duty in these positions. In all the relations of life Dr. Luce may be said to have been a help and a credit to his home community and to his profession. Dr. Luce was a widower and left three children to mourn his untimely death.

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## THE STATE MEDICAL SOCIETY OF WISCONSIN.

ORGANIZED 1841.

### Officers 1905-1906.

J. R. CURRENS, Two Rivers, President.

A. W. GRAY, Milwaukee,  
1st Vice-President.

A. GUNDERSON, La Crosse,  
2d Vice-President.

W. E. FAIRFIELD, Green Bay, 3rd Vice-President.

CHAS. S. SHELDON, Madison, Secretary. S. S. HALL, Ripon, Treasurer.

A. T. HOLBROOK, Milwaukee, Assistant Secretary.

### Councilors.

#### FOR SIX YEARS.

1st Dist., H. B. Sears, - - Beaver Dam  
2nd Dist., G. Windesheim, - - Kenosha

#### FOR TWO YEARS.

3rd Dist., F. T. Nye, - - - Beloit  
4th Dist., C. A. Armstrong, - - Boscobel

#### FOR THREE YEARS.

5th Dist., J. F. Pritchard, - - Manitowoc  
6th Dist., J. S. Walbridge, - - Berlin

#### FOR FOUR YEARS.

7th Dist., W. T. Sarles, - - Sparta  
8th Dist., T. J. Redelings, - - Marinette

#### FOR FIVE YEARS.

9th Dist., D. L. Sauerhering, - - Wausau  
10th Dist., E. L. Boothby, - - Hammond

#### FOR SIX YEARS.

11th Dist., J. M. Dodd, - - Ashland  
12th Dist., A. T. Holbrook, - - Milwaukee

NEXT ANNUAL SESSION, MILWAUKEE, JUNE, 27, 28, 29, 1906.

The Wisconsin Medical Journal, Official Organ.

## SOCIETY PROCEEDINGS.

### BROWN COUNTY MEDICAL SOCIETY.

The annual meeting of the Brown County Medical Society was held at Dr. Slaughter's office in Green Bay, January 11th. Ten members were present out of a membership of 25, not a very good showing numerically, but still the spirit of fraternal feeling and mutual helpfulness shown made the meeting one long to be remembered by those present.

A paper, *The Use and Abuse of Carbolic Acid*, was presented by Dr. Chloupek, and was very interesting. Also a paper, *A Case of Diabetic Gangrene*, by Dr. Slaughter was listened to with much interest. The discussion following the papers was general.

At the close of this the annual election took place which resulted as follows: president, Dr. A. C. Mailer, of DePere; vice-president, Dr. R. M. Burdon, of Green Bay; and secretary and treasurer, Dr. R. H. Sweetman, of Green Bay.

The Society decided to hold bi-monthly meetings during the ensuing year, the next one of which will probably be held at DePere.

R. H. SWEETMAN, M. D., *Secretary.*



**CLARK COUNTY MEDICAL SOCIETY.**

The annual meeting of the Clark County Medical Society was held at Loyal, December 12, 1905.

The following officers were elected for the ensuing year: president, Dr. D. R. Freeman, Colby; vice-president, Dr. H. R. Schofield, Greenwood; secretary and treasurer, Dr. Viola M. French, Neillsville; censor to fill vacancy, Dr. P. McKittrick, Thbrp; censor for three years, Dr. E. L. Bradbury, Neillsville.

Dr. A. F. Fuchs read an interesting paper on general subjects of interest, which was followed by discussion.

Dr. James Richmond read a paper on *Gastric Ulcer*.

The next meeting was to have been held at Neillsville, but will be postponed that we may hold a joint meeting with Wood and Portage Counties at Marshfield, on February 15th.

VIOLA M. FRENCH, M. D., *Secretary*.

**DUNN COUNTY MEDICAL SOCIETY.**

The Dunn County Medical Society held its regular meeting at Menomonie, January 16th, 1906, the president Dr. G. A. Barker presiding.

Dr. Grannis read a paper on *How we may best collect our accounts*, in which he advocated forming an association similar to the credit associations formed by merchants. The paper was thoroughly discussed and will be read again at the February meeting.

Dr. Decker reported a case of *Compound fracture of the femur*.

There was considerable discussion in regard to the fee for Fraternal Insurance examination, it being the sense of the meeting that the fee bill should be strictly adhered to, and upon motion the secretary was instructed to notify all absent members to that effect.

Adjourned to February 20th, 1906.

F. E. BUTLER, M. D., *Secretary*,

**FOND DU LAC COUNTY MEDICAL SOCIETY.**

The regular meeting of the Fond du Lac County Medical Society was held Jan. 10th. 1906, the president Dr. Wiley in the chair.

Dr. A. J. Pullen of North Fond du Lac read a paper on *Colles' Fracture*: Dr. Pullen said in his experience at North Fond du Lac that it was the fracture most frequently met with. His practice had been to reduce the fracture as quickly as possible, treat any abrasions or wounds antiseptically, and retain the fracture by anterior and posterior splints. As a rule he does not put on a cast till ten days to two weeks have elapsed. Passive movements of fingers he wished employed after a few days had elapsed and he thought the hand should be left free after three weeks.

The discussion was opened by Dr. Gavin, who said he thought all passive motion of the wrist should be restricted till four weeks had elapsed, quoting Dr. Senn as his authority. Dr. Gavin thought all patients with Colles' fracture should be anesthetized for thorough examination and reduc-

tion. He also considered the differential diagnosis between Colles' fracture, sprain, and epiphyseal separation.

The discussion was continued by Drs. Connell, Mears, Wyatt, Wiley, and Pullen.

Dr. P. J. Calvey of North Fond du Lac read a special paper which discussed the pernicious effect of contract practice upon the physician and upon the laity. This paper will appear in the *Journal*.

The following resolutions were adopted:

*Whereas*, There is a growing tendency amongst certain organizations to furnish medical services to their members and their families at a certain fixed price per year, such services being rendered only by such physicians as may be chosen by the organizations; and,

*Whereas*, This form of medical practice has been proven to be detrimental to the general welfare and dignity of the profession; therefore, be it

Resolved, (1) That the Fond du Lac County Medical Society condemns this practice and considers it unwise and a breach of ordinary medical decorum and etiquette for any physician to accept any appointment with any such organization;

(2) That it is below the dignity of any reputable physician to place himself at the beck and call of each and every member of an organization for a certain fixed price, regardless of the amount or nature of the services rendered;

(3) That a physician who encourages this form of practice strikes a blow at the present and future high standing and welfare of the profession;

(4) That the members of this society agree to accept no "contract" or "lodge" practice of this nature, under any condition or arrangement whatever;

(5) That a printed copy of these resolutions and Dr. Calvey's paper be sent to each physician in the County and to the Wisconsin Medical Journal.

Dr. Wiley asked for a report on so-called newspaper advertising of the physician. Dr. Gavin reported that it was very nearly abolished and asked that an additional member of the committee be appointed and suggested that that member be from North Fond du Lac. There being no further discussions the meeting adjourned.

F. A. READ, M. D., *Secretary*.

#### IOWA COUNTY MEDICAL SOCIETY.

The Iowa County Medical Society met at the Hotel Royal, Mineral Point, February 6, 1906. A most enthusiastic meeting was held; two members were present who had not been present since the organization in September, 1903.

Dr. Deahofe read the paper of the day, subject, *County Societies and their Usefulness*.

The meeting being called to elect officers all of the old officers were re-elected. The attendance, while not large (four were present) was enthusiastic and all promised their God to do better in the future.

The Iowa County Medical Society boasts of having the most enthusiastic workers in the State, and were it not for the fact that one-half are afraid they will lose a 50 cent prescription and the other half get it, we would have no

trouble in getting a quorum present, which is now a rare thing. Can not some benevolent member of the State Society send us a prescription that will arouse some of us from our lethargy? There is danger ahead and unless something can be done and done quickly a goodly number of our members will forget that there is a County Society, if not actually forget that there is such a thing as scientific medicine.

Awake ye slothful, there is work for every one of you! Iowa County has a right to have as good a society as any county in the State and if every man who pretends to be a doctor will arise, shake off his sleepiness, brush the dust out of his eyes, wake up to his calling, and do his part, and do it manfully, Iowa County will have a society the equal of any. Your president and secretary can not do it all, every member should shoulder his responsibility and do his part like a man. May we not have the response from every member, "from this time on we will not be found wanting"? Let us be men and do our part, then the success of our society is assured.

S. P. DEAHOFE, M. D., *Secretary*.

#### LA CROSSE COUNTY MEDICAL SOCIETY.

The La Crosse County Medical Society held its second regular meeting February 1st, the president, Dr. Gunderson, in the chair, with a large attendance of members present. An invitation had been extended to the Mayor of the City, the Committee on Health of the Common Council, Health Officer, City Engineer, and other prominent citizens. A committee appointed at the January meeting to report on the health conditions and sanitary needs of our City, rendered a report, which was discussed by members of the Society, and the invited guests. The object of this meeting was to consider these important matters with a view of aiding the Common Council in a proper understanding of these important questions, and if desired to lend the aid of the Society to this honorable body towards solving them.

A donation of \$40 was voted to be sent to Dr. C. S. Sheldon towards paying the bill incurred by the State Society for attorney's fees and other expenses in establishing a Medical Bill.

C. H. MARQUARDT, M. D., *Secretary*.

#### MARATHON COUNTY MEDICAL SOCIETY.

The Marathon County Medical Society met on Jan. 26, at the Wausau Club House in special session with 17 members present.

During the evening papers were read by Dr. E. B. Quade on *Suggestive Therapeutics* and Dr. D. T. Jones on *Mistakes by Myself and Others*.

Following the meeting the Society was invited by Drs. A. W. and M. J. Trevitt to a "smoker" at their home which was attended by all.

S. M. B. SMITH, M. D., *Secretary*.

#### MARINETTE COUNTY MEDICAL SOCIETY.

On January 23d the County Society elected the following officers for 1906: president, Dr. M. D. Bird; vice-president, Dr. S. E. Wright; secretary and treasurer, Dr. A. T. Nadeau; censor, Dr. T. J. Redelings.

Pneumonia was generally discussed at this meeting.

A programme has been arranged for the coming year. Joint meetings with the Menominee County Medical Society will be held every month, the place of meeting alternating between Marinette and Menominee.

A. T. NADEAU, M. D., *Secretary*.

#### WALWORTH COUNTY MEDICAL SOCIETY.

The January meeting of the Walworth County Medical Society was held at Elkhorn, Jan. 30. The attendance was good and great interest was taken in the program. The program, which follows, was entirely obstetrical and was made a sort of experience meeting, every member present taking some part in the discussions.

1. Pregnancy: Diagnosis, reckoning of time of confinement. Instructions to mother as to care of herself during pregnancy and preparations to be made for confinement, etc. Dr. H. N. O'Brien, Darien.
2. Abortions and Miscarriages: How to prevent them in threatened cases and how to treat them. Dr. A. E. Henby, Sharon.
3. Malpositions in Labor; face, breech, prolapsed limb, etc. Dr. G. H. Young, Elkhorn.
4. Placenta Previa. Dr. B. J. Bills, Genoa Junction.
5. Puerperal Infections. Dr. O. S. Canright, East Troy.
6. Eclampsia. Dr. J. F. Rood, Delavan.

The three hours devoted to this program was full of interest and vim from start to finish and the meeting was one of the best we have had.

Dr. W. H. Hurlbut of Elkhorn was made a member of the County Society and Drs. N. L. Seelye, Lake Geneva, R. H. Riee, Delavan, and F. E. Matter, Lake Geneva, became members of the County and State Societies.

The election of officers for the ensuing year resulted as follows: president, Dr. George H. Young, Elkhorn; vice-president, Dr. O. S. Canright, East Troy; secretary and treasurer, Dr. M. V. Dewire, Sharon; censor, Dr. N. L. Seelye, Lake Geneva; delegate to State meeting, Dr. J. C. Reynolds, Lake Geneva; alternate, Dr. Edward Kinne, Elkhorn.

The next meeting is to be held at Whitewater in May or early June.

Dr. Windesheim of Kenosha was with us and gave us a nice talk on the organization of county societies.

The society then adjourned to the Elkhorn House where a fine dinner had been prepared at the suggestion of Dr. Kinne, to which a lot of hungry M. D's did ample justice.

M. V. DEWIRE, M. D., *Secretary*.

#### WAUKESHA COUNTY MEDICAL SOCIETY.

The Waukesha County Medical Society met at Waukesha, Feb. 1st. Dr. A. J. Hodgson invited the society to meet with him Feb. 15, at a place to be designated later, to discuss and agree upon a fee system.

It was decided to assess each member fifty cents to help defray expenses of the Medical legislation of last year.

The following interesting and instructive papers were given:

*Albuminuria of Pregnancy*, Dr. Caldwell.

*The Mistakes of Moses and Those We Make Ourselves*, Dr. B. L. Campbell.

*Anesthesia*, Dr. Blumenthal.

M. M. PARK, M. D., *Secretary*.

#### WAUPACA COUNTY MEDICAL SOCIETY.

At an adjourned annual meeting of the Waupaca County Medical Society held at New London, January 11th, Dr. Pelton of Waupaca was re-elected president; Dr. Dawley of New London, vice-president; and Dr. Irvine of Manawa, secretary and treasurer.

Three new members were admitted: Dr. Burns of New London, Dr. Lee of Iola, and Dr. Moray of Manawa, and the attendance and the spirit manifested were very gratifying.

Dr. Sherman M. Kyes of Weyauwega, formerly a member of the Wood County Medical Society, joined by card.

Dr. Irvine read a paper on *Diphtheria* which was discussed by Drs. Dawley, Saunders, Loope, and Pelton.

W. IRVINE, M. D., *Secretary*.

#### FOX RIVER VALLEY MEDICAL SOCIETY.

The Annual Meeting of the Fox River Valley Medical Society was held at Green Bay, on Tuesday, January 16, 1906. A clinic was given at 9 a. m., at St. Vincent's Hospital, by Dr. J. R. Minahan. The morning session was devoted to routine business. The report of the secretary and treasurer showed a satisfactory growth during the year, the number of members being about 130, with a comfortable cash balance in the treasury. Regular quarterly meetings were held, at Appleton, Marinette, Oshkosh and Green Bay. Members were assigned subjects for papers by a committee at the beginning of the year, and no one refused the work put upon him.

At the afternoon session a paper was read by Dr. H. W. Abraham, of Appleton, on *Infant Feeding*.

Dr. Abraham emphasized the importance of breast feeding and showed by statistics its value in lowering infant mortality.

Very few mothers would be unable to nurse their children if their diet and hygiene were carefully regulated before and after confinement and their physical condition and nursing habits watched carefully. Most American pediatricists hold that 9 or 10 months of nursing is advantageous to the child.

The most important point in artificial feeding is that the milk be fresh and clean, and to procure pure milk is the most difficult phase of the subject.

There have been so many warnings against increasing the amount of proteids that there is often now great danger of our keeping them too low and producing nitrogen starvation resulting in delayed development.

Successful feeding consists in beginning with a weak mixture and gradually increasing its strength, studying the individual problem and not being bound too closely by a fixed set of rules. The addition of dextrinized cereal gruels as a diluent is often advantageous as they render the curd of cows milk more flocculent and add to the quantity of digestible proteid.

This paper was discussed with great fullness by about 25 members. Dr.

A. O. Olmstead, of Green Bay, opened the discussion. Fewer mothers refuse to nurse their babies than was formerly the case. Artificial foods, if judiciously used may give satisfaction, especially where intelligence is lacking to properly prepare modified cow's milk. Other food, such as crackers and milk, oatmeal gruel, etc., may be begun at about 6 months, when the teeth begin to appear. Puny children may be given bacon rind to suck. Be watchful and treat diarrhea, etc., promptly. Dr. R. E. Minahan thought that the trouble with cow's milk was often the fermentation it experienced from standing; mother's milk having the great advantage of being sterile, but not sterilized. Dr. Leith of Appleton recommended modifying cow's milk with soda, pancreatin and sugar of milk.

Dr. Robert Leith, of Appleton, read a paper on *Empyema*.

Dr. Leith said, in part, that in a child he would have everything ready for operating before introducing an exploring needle so that in case pus is found there may be no delay. He does not believe one is justified in using the needle on a child without chloroform, although in an adult an anesthetic is not always necessary.

Excepting in very young infants the prognosis is in inverse ratio to the age. The older the patient the poorer the chance for complete recovery. In patients over 18 years of age the condition is usually tubercular or becomes so.

Expectant treatment is of no avail and lessens the strength of the patient. Aspiration is ineffective as the pus usually reaccumulates. Thorough drainage should be secured and maintained until the discharge ceases. Great care and gentleness in the dressings are essential to success.

This was discussed by the surgeons present. Dr. J. R. Minahan called attention to the fact that tubercular patients with empyema are apt to be walking cases. Do not do a resection at once in those cases. Aspirate and inject with 10 per cent. iodoform emulsion. Resect later if this treatment is not satisfactory. In such cases the resection must enable the chest wall to fall in and obliterate the cavity. Recent cases will close by expansion of the lung, but old cases have too many adhesions. Dr. Thienhaus emphasized the importance of diagnosis. Always aspirate if there is any doubt. Some advocate resecting a rib high up—the 8th or even the 7th rib. A lower rib is usually better. Dr. Echols spoke of the advantages of prophylaxis. Delafield has shown that early aspiration often prevents the formation of pus. If the fluid is serous the question of tubercular infection is often settled by examining the fluid. The leucocytes in tubercular cases are apt to be mononuclear. Local anesthesia is often possible in operating, and to be preferred.

Dr. A. C. Harper, Secretary of the State Board of Health, was unable to be present and read his paper, but wrote promising it at another time.

The following physicians were elected to membership in the society: Drs. C. J. Chloupek, W. Webber Kelly and R. M. Burdon, of Green Bay, and W. M. Woehos, of Kewaunee.

A committee was appointed to draft suitable resolutions relative to the death of Dr. J. Frank Ford.

The following officers for the ensuing year were elected: president, Dr. R. E. Minahan, Green Bay; first vice-president, Dr. W. R. Hicks, Menominee, Mich.; second vice-president, Dr. H. W. Abraham, Appleton; secretary and

treasurer, Dr. C. M. Echols, Appleton; censor, Dr. W. E. Fairfield, Green Bay.

At the close of the meeting about forty members sat down to the annual banquet, served at Hotel Frontenac. At the close of the banquet Dr. W. A. Gordon read a most entertaining and instructive after-dinner address which was received with unbounded enthusiasm, after which the society adjourned, feeling that the past year has been one of the most successful in its history.

JAMES S. REEVE, M. D., *Secretary*.

### MILWAUKEE MEDICAL SOCIETY.

Meeting of January 9.

At the annual meeting of the Milwaukee Medical Society the following officers were elected for the present year: president, Dr. H. V. Ogden; 1st vice-president, Dr. A. J. Patek; 2nd vice-president, Dr. Geo. P. Barth; secretary, Dr. H. E. Dearholt; treasurer, Dr. R. C. Brown; librarian, Dr. A. W. Myers; curator, Dr. A. W. Akerly.

The reports of the secretary and treasurer showed the Society to have a larger membership than ever before in its history and to be in a most satisfactory financial condition.

Meeting of January 23.

Dr. O. H. Foerster presented a case of *Molluscum Contagiosum* in a boy. He advocated incision of the lesions and the application of pure carbolic acid to their centers.

Dr. U. O. B. Wingate presented a paper entitled *Adiposis Dolorosa, with report of a case*. The patient was a carpenter, 37 years of age, with a negative family and personal history. Eight years ago enlargement of the neck began and general weakness was observed. He now presents fatty growths over each mastoid region the size of a large hen's egg, and the neck under the chin is much enlarged by deposits of fat. There are also fatty growths in each axilla, on the under side of each arm just below the shoulder, on the upper part of the chest, in the groins and about the pubic region, the various deposits varying in size from a small to a large hen's egg or larger. He has lost considerable flesh and is weak and unable to work. For the past six months there has been pain along the course of the left sciatic nerve. There is some mental depression and loss of ambition and energy. Sensation is normal. Reflexes are not disturbed.

The causation of the disease is obscure and treatment so far has been unsuccessful in modifying its course.

The condition was discussed by Drs. Stoddard, Reineking and Foerster.

Dr. D. J. Hayes read a paper on *Veneral Diseases and Marriage*. He pointed out that a man with syphilitic antecedents becomes dangerous in matrimony in two ways: first, as a source of infection to his wife and children, and second, by his own risk of loss of health or life as a result of the disease, thus cutting off the material support of the family.

There is as yet no accurate test for determining the date of the extinction of the virulent principles in the human body. Dr. Hayes believes a syphilitic subject has not the right to marry unless the disease dates back

three or four year at the minimum and all this time has been devoted to the careful and scientific treatment of the disease. He emphasized the dangers of cerebral syphilis in insufficiently treated cases.

In gonorrhoea most of the tests commonly used in deciding the question of cure are inadequate. The condition of the prostate, the seminal vesicles, and the peri-urethral tissues must be studied. As long as there are pus cells in the urine danger is present.

In the discussion Dr. O. H. Foerster spoke of the inadequacy of much of the present day mercurial treatment by means of pills and tablets and urged the use of inunctions pushed to the therapeutic limit.

Drs. W. T. Nichols, G. E. Seaman, E. W. Bartlett, U. O. B. Wingate, and P. F. Rogers also participated in the discussion.

Dr. A. W. Myers demonstrated a specimen of urine from a case of *recurrent vomiting* which contained acetone, diacetic acid, and betaoxybutyric acid.

Dr. H. V. Ogden called attention to the relation between these cases and the cases of delayed chloroform poisoning and of pernicious vomiting of pregnancy.

H. E. DEARHOLT, M. D., *Secretary.*

#### THE JOHNS HOPKINS MEDICAL SOCIETY.

October 9, 1905.

Dr. Williams presented *Two Cases of Inverted Uterus*. Case 1. Patient went normally to term, and as far as the third stage there was nothing abnormal about the labor. The placenta would not come away even after the Credé method of expression had been attempted several times. It was finally manually removed. The child was born at one o'clock P. M. The woman, after the removal of the placenta, was very much shocked, and in spite of the administration of all of the usual stimulants did not rally. At one o'clock A. M. she was first seen by Dr. Williams and was then in deepest collapse, no pulse at the wrist and bathed in sweat. On examination there was made out low in the abdomen, a firm, hard mass. There was no blood on the vaginal dressings. The vaginal examination showed a round mass completely filling the pelvis very tightly. It could then be made out that the mass was the inverted uterus, and at its upper pole could be felt a hard ring, the cervix, through which the uterus had invaginated itself.

After some manipulation the cervix was dilated and the uterus replaced. The effect on the circulation was almost immediate, the pulse-rate began to drop and the pulse soon returned at the wrist.

Case 2. Primipara. During the last months of pregnancy she had a prune juice discharge. The labor was a long one and forceps were necessary for delivery. The placenta did not come away, and even after repeated attempts with the Credé method it was not expelled. It was finally removed manually. Soon after removal the patient's pulse began to rise and despite all efforts she soon showed signs of collapse. The patient's father attended her and did not call in another physician until the second day. The efforts of the consultant were also fruitless to bring her out of her collapse. On the fourth day Dr. Williams saw the case. Her condition at the time was as follows: pulse 142, temperature 100.5°. The patient was in a deep condition of shock. On vaginal examination, the pelvis was entirely filled out with a



mass. The cervix was hard and tense and surrounded the inverted uterus. It was impossible to dilate the cervix so it was decided to perform a laparotomy in spite of the extreme condition of the patient. The cervix was cut through and the uterus reverted. The patient made an uneventful recovery.

(H. F. H.)

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## MISCELLANY.

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**Hot Water Irrigations in Gonorrhoea** are recommended as superior to the use of antiseptic solutions. The urethra may be irrigated through a soft catheter with tepid water, gradually increasing its temperature until 110° is reached.

**Mexico Cleans its Capitol.** The Board of Health of the City of Mexico has secured the necessary authorization and intends making a campaign against unsanitary conditions. Householders must keep their premises clean and landlords must increase the supply of water in tenement houses. Bathhouses will be built at all police stations. Persist-

**Austrian. . Anti-Dust . . Society.** "Consul-General Rublee, of Vienna, sends the information that a society has been organized in Vienna, having for its object the abatement of the dust nuisance on streets and public highways. It has a large membership, including men of prominence in scientific, professional, and business circles, and it is hoped that by thorough study and experiment to arrive at some practical means of accomplishing the object aimed at. The society has completed its organization and will hold a series of public meetings in Vienna at which papers are to be read by university professors and other competent authorities possessing special knowledge on the dust question. These discussions will

be followed by practical experiments at Vienna and other parts of Austria. The Vienna engineering department has placed all its resources at the disposal of the society in order to facilitate practical tests, and similar offers have been made by other municipal and provincial bodies".—  
(*U. S. Consular Reports*).

**Adulteration of Wine.** The president of the Wine Growers' Association of Germany, who is also a large manufacturer and wholesale dealer in wine, has been convicted for using saccharine acids, and deleterious water in the production of wine. The court assessed a fine of \$700, all the costs of the trial, and confiscated the adulterated wine.

"**Magic Mechanic-physiological boots**" is the latest fake that, according to reports, has found as its dupes some wealthy New Yorkers. It is said that these "magic boots" sold at prices varying from \$1,000 to \$5,000. The complaint against the makers is that they practiced medicine without a license, and that the boots, the soles of which were sometimes soaked with drugs, often caused torture to those who were treated.

**A new Hypodermic Formula for Camphor and Caffeine.**

Caffeine,

Salicylate of sodium, aa grains 4

Distilled water, min. 15

Mix thoroughly and add of

Spirits of camphor (10%) min. 15

This formula remains clear for a long time.

**Vaccine Virus vs. Syphilis** An interesting report has recently been made by Dr. L. P. Herrington (*Georgia Practitioner*, Dec., 1905). He noticed that during the recent epidemic of smallpox in Georgia, successful intercurrent vaccination in cases of primary and secondary syphilis, caused in numerous cases the rapid disappearance of the syphilitic symptoms. This was also noted in cases in which the disease had proven itself resistant to the usual specific treatment.

**To Legalize Homicide.** A bill has been introduced in the Ohio House of Representatives, through the agency of Dr. Anna S. Hall, of Cincinnati, legalizing suicide, or homicide (at the hands of a physician) in cases of suffering from painful illnesses that are manifestly incurable.

**"Wore out Stomach on Wheel."**

From Racine comes the news of a man who is in a precarious condition as a result of excessive bicycle riding. The "special despatch" says: With body bent over he could be seen frequently running along the highways. Suddenly he was taken sick with fainting spells and physicians were puzzled. Thorough investigation revealed that the lining of his stomach was almost worn through, the result of being doubled up on his bicycle.

**Iodide of Arsenic for Scrofula in Infants.** This drug is highly recommended by a French physician, its efficiency having been tested in 200 cases. It is given in doses of 10 to 40 drops of a one per cent solution, night and morning.

**A Cardiac Tonic.**

Tr. Belladonnae.....5 drops  
Tr. Opii Deodoratae.....5 drops  
Tr. Nucis Vomicae.....10 drops  
Tr. Gentianae eq. q. s. ad. .1 drachm  
M. S. One teaspoonful every 4 hours.

(*The Post Graduate*).

**To preserve Instruments against Rust.** One part of paraffin oil is dissolved in 200 parts of benzine, and the instruments, after being thoroughly dried and warm, are plunged into the solution. Instruments with joints, such as scissors or needleholders, are worked in the fluid, so as to cause it to penetrate into all crevices, and the benzine is then allowed to evaporate in a dry room.

**Removing Plaster-Paris Bandages.** Acetic acid brushed in a line over the bandage will render it soft, and in a few minutes it may be easily cut with an ordinary knife.

(*Applied Medicine*).

**For Sexual Neurasthenia.**

Strych. sulphat.....gr. ½—1  
Acid. Phosphor. dil.....dr. 2—4  
Tc. gentian comp. q. s. ....oz. 3  
M. Sig.—Teaspoonful t. i. d. after meals.

(*H. M. Christian, Phila.*)

# THE WISCONSIN MEDICAL JOURNAL

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## ORIGINAL ARTICLES.

### DELAYED CHLOROFORM POISONING WITH A REPORT OF THREE CASES\*.

BY J. D. MADISON, M. D.

MILWAUKEE.

The main purpose of this paper is to report two cases of a condition of toxemia following the administration of chloroform, which condition is at present attracting wide-spread attention and is of such importance and obscurity that it seems desirable that all cases should be carefully observed and placed on record.

CASE 1. S. G., male, age thirty-two, book-agent by occupation. He was healthy as a child but was not a strong robust man, being of a distinctly nervous temperament. For the last three or four years he has suffered severely from indigestion. There is no history of a previous attack of appendicitis.

PRESENT ILLNESS. The first indication of the present trouble appeared on the evening of February 15, 1903, after the patient had returned from attending a funeral. He was taken with a pain in the lower abdomen accompanied also by a slight chill. He rested fairly well until three o'clock the following morning when moderate pain again appeared, this time with some nausea. When seen at 8 A. M. he was not in much distress. The pain was located in the lower abdomen just below the umbilicus and in the right pelvic region. In the latter region there was some tenderness on deep pressure. There was no distention, rigidity, or muscle spasm. Rectal examination revealed distinct tenderness in the right pelvic region. There was no pain on passing urine. Temperature per mouth was 99.4° pulse 84. At one P. M. (February 16th) there was somewhat more pain in the right pelvic region, the tenderness on deep palpation and on examination per rectum in this region was distinctly increased. The temperature was 100.5°, pulse 82. It seemed evident that the condition

\*Read before the Milwaukee Medical Society, October 24, 1905.

was one of appendicitis with the appendix over the brim of the pelvis. The patient at this time would not consider an operation. During the night he rested well up to two A. M. when the pain again became quite severe. When seen at 9 A. M. he was having a slight chill. There was little or no abdominal distention, but the tenderness in the right pelvic region was quite pronounced as was also the tenderness per rectum. Temperature per rectum,  $100.2^{\circ}$ , pulse 88. At ten thirty A. M. the patient was seen in consultation by Dr. A. G. White. At this time he was more comfortable. He was sent to the hospital. At two P. M. his condition seemed distinctly worse. There was beginning distention of the abdomen, the temperature was  $102.4^{\circ}$  and the pulse 88. At 3:30 P. M. the patient was more comfortable and was found asleep.

OPERATION performed by Dr. White at four P. M., February 17th. The duration of chloroform anesthesia was about one hour and thirty minutes. Anesthetic seemed to be taken well. The appendix was readily found extending over the brim of the pelvis. It was large, especially the distal portion, and bound down somewhat by adhesions. The appendix was deeply injected and the distal portion was dark and seemed to be in a partly gangrenous condition. At a point near its base the appendix had ruptured and at this point there was a small collection of pus, giving off a distinctly fecal odor. The cecum and small intestines near by were injected and covered by a small amount of fibrinous exudate. The appendix was amputated, the wound partly closed and a rubber drainage tube inserted well down to the inflammatory area. At the end of the operation the condition of the patient seemed excellent. There was no vomiting, and he spent a comparatively comfortable night. At 9 A. M. the next morning he was resting quietly with a temperature of  $100.8^{\circ}$  and a pulse of 78. At this time it was first noticed that slight jaundice was present. By noon the jaundice had become distinct and for about twenty-four hours it remained at this intensity and then began gradually to fade, and by February 21st it was no longer visible.

MENTAL CONDITION. The mental symptoms were at no time very pronounced. There was no wild delirium. He remained mentally clear, till about three days before his death. He then began to complain of headache which later became quite severe. Gradually he became dull and stupid, with thick slow speech, passing finally into a deeply comatose condition on the last day, from which he could not be aroused. The pupils were moderately dilated and equal and there was no evidence of any paralysis of his limbs.

URINE. A hasty examination of the urine previous to the operation revealed nothing abnormal. He had quite recently passed an examination for life insurance. During the first twenty-four hours after the operation sixteen ounces of urine were passed and after that it was not again measured until suppression of the urine was noticed on February 20th. Then no more than two to three ounces were passed daily. The first specimen of urine examined the morning after the operation showed a small amount of albumen,

but no casts were found. In the later specimens the albumen became abundant and a good many granular casts were present. Acetone and diaetic acid were not tested for.

**WOUND.** During the first three or four days the wound did well, and the general condition of the abdomen seemed entirely satisfactory. However, with the onset of the symptoms of severe intoxication the wound did not do as well, and toward the last the discharge became considerable and rather foul. There was no evidence of general peritonitis.

**TEMPERATURE AND PULSE.** Shortly after the operation the patient's temperature was  $102.4^{\circ}$  and the pulse 80. By 9 o'clock the following morning the temperature had dropped to  $100.8^{\circ}$  and the pulse was 78. At 9 P. M. the temperature was  $100.6^{\circ}$  and the pulse 68. February 19th both temperature and pulse were normal and after this both became subnormal and remained so until the last twenty-four hours when the temperature rose to  $100.6^{\circ}$  and the pulse to 88. The lowest temperature noted was  $96.4^{\circ}$  and the lowest pulse taken was 44.

**TREATMENT.** Patient was infused vigorously with normal salt solution. His bowels were moved freely with purges and enemata and he received strychnine in large doses with coffee per rectum. He suffered from nausea after the third day and took only small amounts of nourishment. He finally died February 25th at five P. M., almost exactly eight days after the operation.

**AUTOPSY.** Performed three hours after death; body still warm, rigor mortis not present. Body of a fairly well nourished man. No subcutaneous edema. *Abdomen.* There was an incision at the external border of the right rectus muscle, eight to ten cm. long and from this there had oozed a small amount of dark colored, rather foul discharge. There was no general peritonitis, but about the original site of the appendix the intestines were dark colored and stuck together by a fibrinous exudate. The pelvis contained a moderate amount of dark colored, foul smelling pus. The stump of the appendix was well closed and there was no fistula.

*Lungs.* Both pleurae contained from two hundred to three hundred c. c. of straw colored fluid, which did not seem to be inflammatory in character. The pleural surfaces throughout had not lost their gloss and evidently the fluid had been stored up here because the large saline infusions had not found egress through the kidneys. The lungs were negative with exception of a small amount of bloody froth in the larger bronchi and a small area of hypostatic congestion at both bases, but with no evidence of any consolidation. The heart and arteries appeared to be normal.

The *liver* was about normal in size or perhaps slightly enlarged. The striking thing was its decidedly pale and somewhat yellow appearance, this appearance being even more marked on section. It was firm in consistency and the lobules were quiet indistinct in places. The gall bladder contained a small amount of bile. There were no gall stones and the larger bile ducts were not obstructed in any way.

The *spleen* seemed slightly enlarged and was of about normal consistency.

The *kidneys* seemed to be a little enlarged. The capsule every where stripped with ease. They were distinctly pale. The consistency was about normal. The cortex was a little thickened and the markings seemed a little indistinct. No pus or blood in the pelvis. The *bladder* appeared normal and contained about three ounces of urine. The *pancreas* appeared normal. *Brain* not examined. The *stomach* and *intestines* were not abnormal except as already described.

Owing to a misunderstanding the specimens left at the laboratory were destroyed and for that reason no microscopic examination was made.

CASE 2. The notes of the following case were kindly given to me by Dr. Gutsch, of Sheboygan.

J. T., female, age 11. The patient had had one attack of appendicitis about six months previously, which entirely subsided after a few days rest in bed. When seen on Aug. 28, 1902, about six P. M. the patient was complaining of severe abdominal pain. She had vomited some during the day but her bowels had not moved. On examination a distinct swelling could be made out in the right inguinal region which was decidedly painful on palpation.

There was some distention of the abdomen but no evidence of general peritonitis. The temperature at this time was 105.5°, pulse 120, respirations 26. Immediate operation was advised but this had to be postponed until the consent of the parents could be obtained. The following day the condition of the patient remained about the same and she was taken to the hospital. Examination of the urine showed nothing of importance. She was operated upon at 8:30 A. M. August 30th, by Dr. Reineking. Chloroform anesthesia lasted about 45 minutes. An appendiceal abscess was found and evacuated, care being taken that none of the pus should escape into the general peritoneal cavity. The appendix was removed and the wound was partly closed and drained. She vomited a good deal after the operation but recovered from this, and towards evening of the first day she was in excellent condition and complained of no untoward symptoms. The pulse and temperature were about normal. On the day following the operation she was comfortable, clear in her mind, and appeared to be doing well. She had passed urine quite freely but her bowels had not moved. At one A. M. September 1st, about 40 hours after the operation, she suddenly uttered a shrill cry and was soon in a noisy delirious condition. At three A. M. when seen she was still very delirious and restless. The temperature was about 100° and the pulse was very rapid. The wound was normal and healthy in appearance. There was no evidence of a brain lesion. After a few hours the patient grew quiet, but soon passed into a comatose condition which gradually deepened, and she died at six P. M., about 58 hours after the operation. Jaundice was not noticed at any time. While in the comatose condition it was noticed that the breath had a sweetish odor.

There are no notes on the condition of the urine following the operation. No autopsy was obtained.

CASE 3. The notes of the following case were used by Dr. W. A. Batchelor in discussing this subject, and he kindly allowed me to embody them in the paper.

R. F., male, aged 8 years. On Sept. 28, 1905, patient was taken to the hospital with the usual signs and symptoms of an acute attack of appendicitis of short duration. There was also a slight bronchitis and some cough. At the time of admission to the hospital, the temperature was  $102^{\circ}$ , and the pulse 110. An examination of the urine showed nothing abnormal. The operation was performed at 4 P. M. under chloroform anesthesia. The appendix was easily found and removed. It appeared somewhat inflamed and was quite markedly distended by a serous fluid. No actual pus was present. The stump was closed and the operation seemed to be a clean and satisfactory one. The patient recovered readily from the anesthetic and that evening seemed to be in an entirely satisfactory condition.

At 11 P. M. the temperature was  $98.6^{\circ}$ , the pulse 112, and there was some coughing. The patient was fairly comfortable and slept at intervals during the night, but at 8 A. M. on Sept. 29th, pain was complained of in the upper part of the abdomen. During the day he was restless and vomited quite frequently. At 3 P. M. the pulse was 160 and the temperature  $102.5^{\circ}$ . At 8:30 P. M. the temperature per rectum was  $104^{\circ}$ . Sept. 30th, the patient was still quite restless, crying out occasionally and vomiting at intervals, the vomitus being brownish, and at times quite dark. It was now first noticed that slight jaundice was present. At 4 P. M. an examination of the urine showed considerable albumen, numerous granular casts, and acetone was distinctly present. During the night the pulse and respirations became more rapid, and the patient continued to cry out at short intervals.

Oct. 1st. There was considerable vomiting of black material. The jaundice had grown more pronounced. The temperature at 2:30 P. M. was  $104.4^{\circ}$ , and the pulse was 180. There was no evidence of general peritonitis. At about this time the patient passed into a comatose condition and died at 7:30 A. M., 74 hours after operation. An autopsy was not permitted.

This most remarkable and distressing condition, illustrated by these three cases, is one that was early recognized, but up to quite recent years seems to have fallen into obscurity or been well nigh forgotten. Indeed, very soon after the introduction of anesthesia, there appeared reports of cases resulting fatally some time after the operation. So much was this so that in 1862 Casper felt justified in stating positively that chronic chloroform poisoning did exist, and that when it does kill it does not always kill at once, but that hours or days may elapse before death finally takes place. Casper quotes

some cases which correspond quite accurately with the recently reported cases, while the precise nature of others is perhaps doubtful. During the following years the matter seems to have attracted very little attention, and it is not until about 1891 that the cases again begin to appear in the literature. Three cases reported by Bastionelli<sup>2</sup> in 1891 seem to have been about the first of this new series of cases. During the next ten years a number of cases appeared in the literature under a variety of titles, but the majority of these have been reported during the last three or four years. Up to quite recently the condition has been looked upon as a comparatively rare one. Bevan and Favill<sup>3</sup>, writing during the early part of the present year, were able to collect thirty cases. Since that time a number of others have come to light, and it does not seem at all improbable that the condition will be found to occur not so very infrequently. The matter has not only attracted attention from the clinical side, but evidence has also accumulated from pathological and experimental standpoints, so that now we have a much better understanding of these cases. However, it is needless to say that we are still in need of much enlightenment on the subject.

The *clinical picture* of these cases varies much as to detail, but the main features bear a striking resemblance. The immediate effects of the anesthetic are usually entirely recovered from, and there follows a period during which the patient is comfortable and appears to be doing well. At the end of this time, and especially in children, the symptoms may appear suddenly. The child begins to utter piercing cries, becomes very restless and often tosses and struggles so much that constant attention is necessary, lest the dressing be torn off. At all ages the cerebral symptoms are usually marked, often resembling maniacal delirium. This wildly delirious condition is not always present, and especially in adults the cerebral symptoms may not be very pronounced. The patient may have very few nervous symptoms and may pass into a dull, apathetic condition, and finally into coma. The pupils are often dilated, at times unequally. The face is flushed or pale, with an expression of greatest anxiety or terror. Consciousness may be soon lost and never regained, or it may be retained almost to the last. Vomiting in the majority of cases has been a marked feature, the vomited matter usually becoming brownish and in some cases actually black, and is described as resembling coffee grounds.

Jaundice is one of the most pronounced symptoms. It usually appears on the first or second day after the operation and grows in



intensity, though it may diminish and entirely disappear after a period. It is not present in all cases and seems to be decidedly less frequent with children than with adults. This may be because children have less vitality and death results sooner than in adults. However, jaundice has not been present in some children where death has not occurred until the fourth or fifth day. The temperature varies much. Fever is absent or very slight in the majority of cases. It may be practically normal or subnormal throughout the entire course or again it may appear early and remain high throughout. Usually there is a rise just preceding death. In several of the recent cases the sweetish odor of acetone was readily made out in the breath. The urine is usually normal or not much reduced in amount, though in some cases there is almost complete suppression, and in these the urea excreted may be almost nil. There is usually some albumen and this may be considerable. A few casts have usually been present. They may be very numerous and of almost any variety. In the cases of jaundice, bile was present (in the urine). Acetone and diacetic acid have been found in nearly all of the recent cases in which they have been tested for.

The great majority of the recognized cases have proved fatal. Guthrie<sup>4</sup> and Ballin<sup>5</sup> each report one recovery, Brackett, Stone and Low<sup>6</sup> claim to have had four recoveries following ether anesthesia. Doubtless there are mild unrecognized cases which recover.

Effects very similar to those we find in man, can be produced experimentally in animals. This has been known for many years. An experimental study recently published by Opfergeld<sup>7</sup> is especially interesting. He states that animals, chloroformed for one to two hours, after recovery from the anesthesia, seemed perfectly well for a time, playing about and eating as usual. On the second day they were less lively. They soon ceased to move about and usually at the end of 48 to 60 hours were dead. At autopsy fatty changes and parenchymatous degeneration were found in the heart, liver and kidneys. He found that the chloroform was especially injurious to kidneys which had been previously subjected to artificial injury. It is usually stated that the fatty changes are most pronounced in the liver. Schenk<sup>8</sup> found that the fat begins to appear in a few hours though it is rarely present in large quantities before the second day.

On account of the great importance which some attach to the presence of fat as an indication of hepatic insufficiency it might be well to state here that the researches of Rosenfeld<sup>9</sup> and others have made it clear that we rarely or never have fatty degeneration of the

liver cell in the old sense of the term. They have shown that the fat which appears in the different organs in phosphorus or chloroform poisoning does not come from the degeneration of the cell protoplasm, but is imported from the fat depots of the body. The presence even of large amounts of fat in a cell is not to be looked upon as being necessarily of grave significance, though it may be considered under certain circumstances as being in some way an index of cell injury. The really significant thing is the direct evidence of injury to the cell protoplasm or nucleus, and unfortunately this is too often of a nature not to be detected by our present methods of microscopic examination.

A variety of opinions exists as to the manner in which these symptoms are produced, and the following is a brief statement of the more important theories that have been advanced. One group of observers consider that the condition is essentially an acid intoxication, the acids concerned being diacetic, betaoxybutyric and possibly other allied fatty acids. They believe that there has existed in these cases some unknown underlying condition, and that only in the presence of this condition are these toxic substances produced. Chloroform, rarely ether, has usually been the means by which the condition of acid intoxication has been precipitated, but an anesthetic is not essential and they believe that some cases have been brought on by certain ill-defined causes other than an anesthetic. They say, "it can be stated positively that the symptoms are not the result of anesthesia, operation, or shock, unless in the presence of certain underlying causes, still undetermined." (Bracket, Stone and Low.)

Guthrie, who has done most in bringing this matter before the profession, has all along insisted upon the very important part played by a pre-existing fatty degeneration of the liver. In a recent communication<sup>10</sup> he believes that the fatty condition of the liver is probably not a fatty degeneration but a physiological fatty infiltration. He also accepts the acid intoxication theory as explaining more fully and adding new meaning to the condition of fatty liver. He now believes that the poisonous fatty bodies (diacetic, betaoxybutyric, and other fatty acids) arise almost exclusively from the disintegration of fat in the liver and that this disintegration "may be due to the direct action of chloroform and ether in altering normal metabolism or in some way they may favor the action of bacterial toxins present in the intestines in causing disintegration of fat."

There is still another view which coincides nearly with what seems most probable to me.

According to this view it is considered that the fundamental and primary thing is the destructive effect which the chloroform, or ether in rare cases, exercises on all parts of the body, very similar to the effects produced in phosphorus poisoning. The injury done to the liver is the most pronounced and the most important. As a result of this injury the liver cells are unable partly or wholly to functionate, and toxins collect in the system, coming either from the liver cells or as a result of the failure of the cells to eliminate certain poisonous substances which are normally found in the body. To the effect of these poisons is due the symptom-complex already described. The condition is believed to be one of hepatic toxemia, and as by-products in this toxemia, but not as the essential poisons, are found acetone, diacetic acid and betaoxybutyric acid in the blood and urine. Certain predisposing causes are mentioned, such as age—the younger the more susceptible; diabetes; recent anesthesia; certain infectious diseases; intoxication from a dead fetus in the uterus or a gangrenous mass in the abdomen; exhaustion due to hemorrhage; starvation, or wasting diseases; fatty changes in the muscles, as in infantile paralysis; and in chronic diseases of the liver and kidneys.

The acid intoxication theory is to me not very convincing, though one must admit that in the light of the role these acids are supposed to play in finally producing death in diabetes, it is at least very interesting and merits careful attention. However, it must not be forgotten that the real significance of these acids is still very uncertain, as in some fatal cases of diabetes they have not been found after an exhaustive search.

Nor does it seem to me that the clinical picture, and especially the autopsy findings in these cases, following the administration of chloroform, compare in any material way with the final symptoms and pathological findings in diabetes, though one cannot deny so readily that there is not a good deal of similarity in the final symptoms of the two conditions.

The significance of a preexisting fatty liver, it seems to me, has been overestimated. If one looks upon this condition as meaning that the liver cells have been broken down or injured to produce this fat and that it indicates a condition of hepatic insufficiency, there can be found little justification for the view. Because, as previously stated, it has now been fully demonstrated that practically none of the fat found in the liver cells, in any condition, has come from the breaking down of the cell protoplasm, but has either been derived directly from the ingested food or been imported from the fat depots.

The conception of a previously existing hepatic insufficiency must rest largely upon theory and not upon observed facts. And again I can see little reason why chloroform should act only upon the fat in the liver to produce these poisonous acids and not in a like manner on the fat depots. To my mind there is little reason to doubt that in the majority of these chloroform cases, the bulk of the fat found at autopsy in the liver and other organs, has come from the fat depots due in some way to the influence of the chloroform, just as has been proven to be the case in phosphorus poisoning.

I would like to introduce here a brief resumé of the condition found in phosphorus poisoning. In this condition we also find a delay of several hours before the onset of the symptoms during which the patient may move about discharging the ordinary duties of life.

Then nausea and vomiting with abdominal pain usually set in. The patient is restless, sleepless and wretched. Jaundice appears on the second to fifth day and is often accompanied by dark or coffee-ground vomit. The jaundice does not appear in all cases; these are usually children who die in from the first twenty-four to forty-eight hours, never having reached the stage of jaundice. It is to be noted that this very closely resembles what takes place with the cases under discussion, where the children die usually much earlier than adults and much more rarely have jaundice. The pulse is often normal or slow at first, becoming rapid at the last. The temperature varies much. It may be high, normal or subnormal. The nervous symptoms are usually pronounced, beginning with headache, restlessness and insomnia, they often pass into wild delirium, ending finally in coma; or coma may come on without marked cerebral symptoms. The urine may be much or almost entirely suppressed. Usually it is about average in quantity. It frequently contains albumen, casts, bile, leucin, tyrosin and acetone. Munzer<sup>11</sup> found the alkalinity of the blood reduced, owing to the increased production of acids within the body. At autopsy we find fatty and degenerative changes in all the organs, the changes in the liver being especially marked. Thus the two conditions, phosphorus and chloroform poisoning, are strikingly similar and it seems hard to avoid the conclusion that the sequence of events in the two cases have been approximately identical.

Briefly stated, then, our idea would be that in chloroform poisoning the primary and fundamental injury to the organs is due to the action of chloroform itself. The weight of this intoxication usually falls most heavily upon the liver, but in all probability in some cases, the chief injury may be done to the kidneys or to the heart or perhaps

to the nervous system. Should the heart or the nervous system be most seriously affected, death might result almost at once. When it is the liver or the kidneys, however, which are most seriously affected, it is a different matter. When they cease to functionate the effect is not felt at once, as would be the case with the heart, but, as in the removal of an only kidney, the effect is felt only when the retained substances, ordinarily excreted by these organs, begin to produce toxic effects. In the intoxication which ensues, following the hepatic injury, the fatty acids, diacetic, betaoxybutyric, and so forth, may or may not play an important part. It is at present impossible to say just what symptoms are to attributed to the primary intoxication and just what symptoms are due to the final intoxication. The whole condition is still very obscure and little understood and final judgment may wisely be withheld for the present.

Treatment has thus far been of very little avail. Those who believe in the theory of acid intoxication advocate the use of pure soda bicarbonate in large doses. Thorough purging is considered a wise measure. Normal saline infusions are usually advised, but when the condition seems to be mainly one of renal insufficiency this measure would perhaps be questionable. Many advocate venesection. Cardiac stimulants are usually administered but probably are of very little value. Various prophylactic measures are to be found in the literature depending largely upon the writer's individual ideas as to the essential cause of the condition.

In conclusion, we have here described one of the serious dangers in connection with taking an anesthetic, which in the past has not been generally recognized. It is a danger which seems to be almost exclusively met with in connection with chloroform—though in few cases it has followed ether. The condition is particularly prone to occur in children and following long anesthesia. These facts should be generally recognized when the selection of an anesthetic is made. The problem of how to prevent these deaths is an unsolved one. However, in the recognition of them we have taken the first step toward their solution, and it is to be hoped that future research will teach us how to prevent these distressing and fatal accidents.

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### COLLES' FRACTURE.\*

BY A. J. PULLEN, M. D.,

NORTH FOND DU LAC, WIS.

In presenting this subject it is not my purpose to introduce anything new in the treatment of fractures, nor to advocate any one particular method to the exclusion of all others. It is to advise you of the method I have adopted in the treatment of Colles' fractures—which form of break the railway surgeon most frequently encounters, and which requires his greatest ingenuity and skill in overcoming defects and preventing deformity.

The management of a fracture should begin at the place of accident. The patient should be warned against any motion lest he convert a simple into a compound fracture; if necessary, he should be restrained.

All fractures of the upper extremity should be set immediately if the surgeon is at hand, unless an anesthetic be required, in which case the arm should be bound to the side or to some temporary splint, the hand placed in a sling; then the patient can usually walk or be conveyed to his place of abode.

A fracture is properly set when the whole limb has been thoroughly cleansed, every wound of the skin sterilized and dressed, and the length of the bone and the normal relation of the fragments as nearly re-established as possible by a reasonable amount of manipulation.

The best splint is the one which meets all the indications of the case, with the greatest comfort and the least inconvenience to the patient. The splint should fix the joint on both sides of the fracture, and when plaster-of-Paris is used the fingers should always be left exposed.

\*Read before the Fond du Lac County Medical Society, Jan. 10, 1906.

Swelling should be controlled by elevating the limb. Powerful antagonizing muscles should be relaxed in setting fractures as well as in the reduction of dislocation.

Compound fractures vary in severity from the slightest puncture of the skin by sharp spiculae of bone, to the terribly mangled condition we sometimes find as the result of injury by machinery.

The treatment of these cases is the treatment of the wound of the flesh plus the treatment of the broken bone, the management of the external wound being the more important of the two. From the slightest puncture of the skin to the terrible lacerations of tissues sometimes seen, all have my respect, nor is it any wonder that some should go wrong in spite of the best efforts of the surgeon with poor, weak, vainglorious humanity for a patient, besides his friends, and the ever vigilant pus microbes, always ready to introduce their baleful blight. The fate of the patient depends largely on the first dressing, but more or less on the management of the case after that.

The wound should be first covered with sterile gauze and the whole limb sterilized thoroughly. All scratches of the skin should have special attention. The wound and protruding bone should then be sterilized and the fracture reduced; there being no hemorrhage, the external wound should be irrigated with a 1:2000 solution of bichlorid of mercury; a strip of sterile gauze placed in the wound for drainage; the wound covered with sterile gauze, followed by absorbent cotton, and the limb fixed in splints, elevated and watched. In no case is it well to seal the wound of a compound fracture. In case the bone has been reduced before it has been made sterile, or where there is hemorrhage, much laceration of flesh, comminution of bone or great difficulty of reduction, the wound should be enlarged, all fragments of bone removed, vessels tied, nerves stitched, edges trimmed and all foreign material removed. The wound should then be irrigated with boiled hot water, followed by a 2½ per cent. solution of carbolic acid or a 1:2000 bichlorid solution, ample through and through drainage provided, when necessary, and the wound dressed and fixed with splints.

Uncontrollable suppuration, wide loss of bone substance and injury of the vessels sufficient to cause the death of the part in compound fractures, all indicate amputation, which should be done after shock has passed. In all desperate cases of injury among laboring people, where one can only hope for an irritable and unsatisfactory limb at best, and that after a long drawn out convalescence, amputation should always be done with the consent of the patient or guardian.

Then there is that class that hover on the border line. What shall we do with them? Why, give them the benefit of the doubt, of course! Banish Mr. Pus Germ just as we did before, with hot water, carbolic acid or sublimate 1:2000, and cleanliness, drain thoroughly, protect by antiseptic dressing, making no pressure whatever on any part, place in a comfortable elevated position, and watch. A rise of temperature in the first 24 hours indicates ferment intoxication. After that time it suggests septic infection. If there is no infection the dressing need not be changed for ten days or longer, but should there be elevation of temperature after the first day that cannot be positively accounted for in some other way, the wound should be opened, irrigated and dressed with moist dressing.

Impaction should not be broken up to get crepitus. The diagnosis may be difficult, but when in doubt whether it be a bruise or a fracture, treat as a fracture until the doubt is cleared up. This is true of all the bones of the body as well. Fractures of one or both bones of the forearm are generally easy of recognition and are best set by extension midway between pronation and supination, except in fracture of the radius above the insertion of the pronator radii teres, when it should be set in supination on account of the action of the biceps on the upper fragment. I use light splints, padded to suit the case, and fixed with adhesive plaster.

In the fracture of the ulna, look out for dislocation of the head of the radius. The most important part of the treatment of Colles' fracture is the reduction. Restore the contour of the radius, and the beauty of the wrist will be restored. Sometimes simple manipulation will restore the parts. Extension with the hand in strong dorsal flexion and pressure on the back of the lower fragment with the thumbs will often unlock and force into position. Anesthesia and considerable force are sometimes necessary to effect reduction. For this reason, when there is impaction with only slight deformity, I very much doubt whether any manipulation is wise. There being almost no tendency to displacement, splints are of secondary importance. Light, narrow, wooden splints, properly padded, should be fixed from the elbow to the base of the thumb and fingers with adhesive plaster. The fingers are always left free from the start. I advocate early passive motion in these cases. The hand should often be turned loose after two weeks, almost always in three weeks, and always in four weeks. I am confident that much of the stiffness and lack of cunning in the fingers is due to lack of use and too long confinement in splints.



I have seen many a deformed wrist from Colles' fracture that never had been set or splinted, but I never saw one with almost useless and stiffened fingers unless it had been splinted. Every organ of the body will atrophy and weaken from lack of use; on the contrary, every organ is improved by use. Broken bones are no exception, and the instant they will stand the strain without deformity they should be made to resume their function.

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COLI-PYEELITIS.\*

BY A. L. KASTNER, M. D.,

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Coli-pyelitis is an inflammation of the pelvis of the kidney caused by the bacillus coli communis. This disease, though it may be justly considered as rare, owes, I believe, much of its reputed rarity to the fact that it is frequently unrecognized or called by some other name.

As the discovery of the colon bacillus itself by Escherich only dates back to 1885, the history of coli-pyelitis must of necessity belong to most recent times. A bacillus which was thought to be a distinct variety was found in the urine of patients suffering from chronic cystitis and pyelonephritis by Clado in 1887, by Albarran and Hallé in 1888, and by Rowsing in 1890, but it remained for Krugius in 1891, to identify the bacillus described by Clado and the rest, as the bacillus coli communis. His work was verified by Aehard, Renault, Schmidt and Aschoff. Between 1889 and 1894 about twenty-nine cases of pyelonephritis in which the colon bacillus was found, were reported by various authors, and in twenty of these cases, in pure culture. (There are some, indeed, who say that this bacillus is found more often than any other in surgical kidney).

In 1894, and this brings us closer to our subject, Dr. Emmett Holt of New York, reported three cases of acute pyelitis in infancy. Though the clinical characteristics of coli-pyelitis are given in this report, I find no direct mention made of the colon bacillus. Holt, however, recognized the presence of an acute primary infection. Huebner reported two similar cases. Dr. John Thompson reported a series of eight cases of coli-pyelitis in infants to the Obstetrical Society of Edinburgh in 1902, and Dr. James Ritchie reported a case to the same society in the same year. In the present year a case has been reported by Dr. Rowland G. Freeman.

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Though a little outside of our subject, it might here be stated that the closely allied affections of coli-cystitis and bacteriurias due to the colon bacillus, have in late years been thoroughly investigated by Eserich, Trumpp, Finkelstein, Holt, Comba, Cerchi, George Mellin and Leopold, and Levi and others.

Pathology: The investigations of Rowsing reveal that though we may have both a cystitis and a pyelitis due to the colon bacillus, the mucous membrane of the pelvis of the kidney seems to be the more easily inflamed by this bacillus. Thus it happens that a coli-pyelitis without a cystitis may exist. The inflammatory changes wrought by the colon bacillus are superficial. Neither the kidney substance nor the bladder are liable to its attacks, and Baginsky believes that "grave cases of pyelonephritis develop only when—simultaneous with the colon bacillus—some other microbes also affect the kidneys, as for instance, bacillus lactis, proteus, pyocyaneus, etc."

Vulvo-vaginitis is seldom met with and the nutrition in general remains good.

Etiology: The specific cause is, of course, the bacillus coli communis. Pre-disposing causes. In the fifteen clinical reports that I have been able to collect, the ages of the patients ranged from 7½ to 20 months. It is held, however, not to be uncommon in older children. Sex plays an important rôle, and, with but few exceptions, all of the sufferers have been girls. The reason for this will appear plain when the modes of entrance of the bacillus coli communis are considered. Constipation and diarrhea may likewise be classed as predisposing causes. Oftentimes a history of soreness or fissures about the anus is given.

The gate-ways by which the colon bacillus may enter the pelvis of the kidney are three in number:

First: The organism may enter the bladder through the urethra. It is either carried by septic foreign bodies or instruments, or, as happens most frequently in the short urethra of girls, the bacterium—without artificial assistance—makes its way into the bladder and from there passes on and to the pelvis of the kidney. Schmidt and Aschoff, by injecting a pure culture of colon bacilli into the ureter of an animal and ligating below the site of injection, obtained a pyelonephrosis in the corresponding kidney.

Second: The kidney itself may first be invaded by bacilli which have been carried from the intestines by the blood stream. This is most liable to happen in diarrheas and constipation. Experimental proof of this interesting mode of infection was given in the following

manner: The lower bowel and urethra were both ligated, the former close down to the anus, and, though the peritoneal fluid remained sterile, colon bacilli were found in the bladder and kidney. Posner even produced a pyelitis by ligation of the bowel.

Third: The colon bacilli may pass directly from the intestines to the bladder. Dr. James Ritchie reported a case in which he thought that a fissure of the anus was probably responsible for the admission of the bacillus to the system. I have not been able to find confirmatory proof of this mode of entrance to the pelvis of the kidney.

Filatov states that infection through the kidneys occurs oftener than infection through the urethra, but it would appear that the preponderance of females among those afflicted with coli-pyelitis would strongly suggest the opposite conclusion.

Clinical History: Filatov holds that coli-pyelitis sometimes exists in a form so superficial and benign that fever and other constitutional symptoms are entirely absent, yet that "impermeability of the ureters" and a consequent retention of urine and absorption of toxins," or perhaps because of "temporary increase of virulency of the bacillus," fever "may set in at any time."

Symptoms. The disease, as met with ordinarily, especially if undiagnosed, presents an alarming picture. As a rule the symptoms are suddenly ushered in by a high temperature which may or may not be preceded by a rigor. The fever is of a very irregular type, its elevations and remissions are rapid and marked, and its duration sometimes extends over as long a period as a month. Commonly, the temperature reached 103° F., and more rarely, 105°. Elevations such as these are liable to be accompanied by rigors. The temperature sometimes falls to normal, and though it may remain there for days, it rises to periods of pyrexia again. This may happen an indefinite number of times, so protracting the course of the disease into months. The digestive system is, as a rule, disturbed only when the temperature is high, but at such times we may expect abnormal bowel movements, indigestion, vomiting, anorexia, etc. So prominent and misleading do these symptoms become, that in the beginning a false diagnosis of some gastro-intestinal trouble is often made. The respiratory system sometimes suffers, and a cough, dry râles and rapid respiration give a coloring to the clinical picture which easily leads to error. In one of Holt's reported cases of pyelitis, a diagnosis of pneumonia had been made.

Pain and tenderness in the kidney region are symptoms that are extremely difficult to elicit with any degree of certainty in infants, yet there is good reason to believe that they very seldom exist.

Frequency of micturition attended by an increased amount of urine often draws the attention in the right direction in the beginning of the disease, but later these symptoms are absent. In spite of the severity of the fever and other symptoms, there is comparatively little loss of weight and strength.

Excepting pain or tenderness in the renal region, which are rare manifestations, and frequency of urination which appears only in the early part of the disease, the foregoing symptoms give—on the whole—no clue to the real condition. We must look to the urine for information that will allow us to make a correct diagnosis. A delayed diagnosis in this affection is invariably due to the fact that the urine has not been examined. This is one of the diseases that make a strong plea for the routine examination of urine in children.\*

To return to the properties of the urine: This is usually of a very light, straw color, and possesses a diffuse turbidity which is due to great numbers of colon bacilli and which does not disappear on filtration. The colon bacillus does not decompose urea, therefore the urine remains acid in reaction. The specific gravity ranges from 1008 to 1012. Albumin is present but hardly ever in greater amounts than can be accounted for by the pus cells. The amount of pus in the urine varies: it may on centrifugation equal only 1-100 or 1-50 of the volume of the urine, or it may be present in much greater quantities. Under the microscope the urine disposes multitudes of the motile bacillus coli communis, well preserved pus corpuscles and epithelial cells. Epithelial cells from the pelvis of the kidney have a great diagnostic value. Those from the deeper layers appear as round cells, a little larger than lymph leucocytes and reveal a nucleus when treated with acetic acid, while those from the superficial layers appear as very small, irregular tailed and double tailed cells. Caution is needed in

\*It is often difficult and troublesome to procure a specimen in these little patients, but several methods have been devised to partly, at least, overcome the difficulty. In male children it is a comparatively easy matter, for here a small bottle or an ice bag, or better still, a condom, can be fastened over the penis with adhesive tape or string; but in females, where unfortunately pyelitis and cystitis more frequently exist, other measures are necessary. If the child is small and urinates frequently a glass may be held over the genitalia by the mother or nurse shortly before the child is expected to urinate. This may seem to require much time and patience, but in the case I report, the urine was always collected in this way. Holt suggests that a small cup be tied in the napkin. Peculiarly shaped vessels of rubber or metal to be fastened over the vulva with adhesive straps have been devised. Simply putting the child on the vessel frequently is successful. Catheterization, though a very certain and rapid method, ought to be looked upon only as a last resort.

differentiating cells from the pelvis of the kidney from bladder cells of the deeper layers. According to Ultzmann, the bladder cells are always larger, nevertheless a great similarity exists between the two. We can be most certain of pelvic epithelium when the small cells appear massed in a regular, shingle-like arrangement. When a nephritis complicates the pyelitis, casts and blood corpuscles are seen.

The condition of the urine varies extremely. It becomes perfectly clear at times and remains so for a period, only to become cloudy and pus bearing again. In this fluctuation it resembles the course of the fever. During the seasons of normal temperature and clear urine, the patient is bright, laughs, plays, regains weight rapidly and seems entirely well so that one is led to suppose that a complete recovery has occurred; but a new rise in the temperature and the re-appearance of pus in the urine soon show the fallacy of the supposition. Relapses such as these are very characteristic of the course of coli-pyelitis.

Diagnosis: Though coli-pyelitis may be suspected in the presence of a high, fluctuating temperature accompanied by rigors, gastro-intestinal disturbances, local tenderness and frequency of micturition, its diagnosis depends entirely upon a thorough urinalysis.

Differential Diagnosis: Early in the disease, before a urinalysis has been made, coli-pyelitis may be mistaken for malarial fever, pneumonia and gastro-intestinal disturbances. Tubercular pyelitis resembles coli-pyelitis most closely. The differential diagnosis depends, of course, on the presence of tubercle bacilli in the urinary sediment.

Coli-cystitis is differentiated by the epithelium found in the urine, as previously described. In coli-pyelitis, we are also apt to find tenderness in the renal region, and when casts and a large amount of albumin are found in the urine, this will aid diagnosis by pointing out the extension of inflammation from the pelvis to the kidney substance.

Prognosis: Though the course of coli-pyelitis is very protracted, and fever is apt to recur again and again, on the whole the prognosis is favorable, for the pathological changes are not prone to wide extension unless a mixed infection sets in. Besides, much can be accomplished under the proper treatment.

Treatment: The patient should be put upon a liquid diet. Water must be given in large amounts, and this can be done most readily by diluting the milk and giving all medicines in plenty of water. High temperatures are combatted by cold packs, sponges and baths. The most important feature of the treatment is to render the urine neutral. To accomplish this end, alkalies are given. Potassium citrate is the remedy of choice, and in infants it is given in one or two grain doses, repeated often enough so that from 12 to 24 grains are ad-

ministered in 24 hours. This amount will be sufficient only in young infants or in very mild attacks. Sometimes 36 to 48 grains in 24 hours are necessary. The urinary antiseptics, such as urotropin, most authorities agree, do not give the satisfaction in this condition that they, on first sight, would appear to promise. If urotropin is given, it must be given alone and not combined with alkalies for it liberates formaldehyde best in an acid medium, but poorly in one of alkaline or neutral reaction. Furthermore, it has been found that some patients cannot take urotropin at all without experiencing ill effects. A preparation known as "new urotropin" or "helmitol," which is the anhydromethylen citrate of hexamethylen-tetramin, has been on the market for some time, and this, it is claimed, will act well and liberate formaldehyde no matter what the reaction of the urine is. Helmitol with potassium citrate may give a happy combination. Relapses occur with great readiness whenever potassium citrate is discontinued too soon.

Perhaps serum therapy may find a new field in this affection. We have a promise of this in the following: Comba reports a case of coli-cystitis which he treated with two subcutaneous injections of anti-coli serum of 10 e.e. each. The treatment was supplemented by bladder irrigations with 10 per cent. protargol solution. He remarks that the patient a girl of 1½ years, had a high fever and was very sick, but on the day following the injections the colon bacilli in the urine were found agglutinated and recovery soon followed.

History of Case. Patient is a baby, female. Age, 7 months, 6 days. Weight, 16 lbs. Parents healthy. Her previous health has been good, excepting a tendency to constipation and an attack of diarrhea from which she suffered a few days before the present illness. She has been fed on certified milk for six months. Trouble was experienced in finding a milk formula that would not constipate. Present illness: I first saw the baby on July 29th, 1905, at 3 P. M. She was drowsy, irritable and constipated. Temperature, 101° F., pulse 115. The tongue was uniformly coated, the abdomen slightly distended and tympanitic. She was on the following milk formula: Fat, 3%; sugar 6.50%; whey proteids, 0.50%; caseinogen, 0.25%; 5 % alkalinity, 8 feedings, 6 oz. to the feeding. Calomel in divided doses and salol were prescribed. On the day following, the temperature rose to 104° F. The patient vomited several times, had eructations of gas and a few green, fetid bowel movements. Milk feedings were discontinued and barley water given instead. Medication remained the same. On the third day of the disease, the temperature rose to 105° F. (All temperatures given are rectal temperatures.) The child was in a semi-stupor. I called Dr. Boorse in consultation and a careful examination was made. No abnormalities could be found outside of the slight digestive disturbances mentioned, and these seemed an inadequate cause for the high fever and the general

appearances of a deep intoxication which the patient presented. No diagnosis was therefore made, except that the child was suffering from an intoxication of some sort, probably of intestinal origin. Tepid baths, normal salt solution enemata, plenty of drinking water, calomel gr. 1-10 and guaiacol carbonate gr. 1-5 every 2 hours, were prescribed. On the 4th day, the temperature ranged from 102.8° to 105.2° F.; pulse 124 to 140; respirations 48 per minute. The 5th day witnessed no change. The feces were examined but offered nothing of interest except a large amount of mucus. A urinalysis proved more interesting: Color, light amber, diffusely clouded; specific gravity 1010; reaction, strongly acid; albumin, trace; pus cells present in great quantity; rod-shaped, motile bacteria in multitudes; no epithelium. Urotropin gr. ½ three times a day was then given. The temperature remained high for the next two days, twice reaching 105.4° F. On the 7th day Dr. Boorse again saw the baby with me and the medication was supplemented as follows: Urotropin, ¾ grs., potassium citrate 2 grs. To be given alternately, two hours apart. On the 8th day the temperature gradually fell to 100.8° F. and a severe sweat accompanied by sudamina crystallina occurred. Urination increased, the child became brighter, and the bowel movements improved. On the 9th day the respirations increased to 72 per minute, a cough appeared, and dry râles were heard all over the chest. The temperature ranged between 99.6° and 103.5° F. On August 8th, the 11th day of the disease, a few epithelial cells were found in the urine, some of them the characteristic, small double-tailed cells from the pelvis of the kidney.

From the 12th to the 23rd day of August, the patient enjoyed a normal temperature and general good health, but the urine never became free from pus. On August 16th, Dr. Fiedler reported colon bacilli in the urine in pure culture. On the 23d of August the temperature began to rise, and by the 28th had again reached 105.4° F. On this date, the 31st day of the disease, the urine disclosed much pus, granular casts, epithelium from the pelvis, a few red blood cells, and a large amount of albumin, marking the advent of an acute nephritis. I applied dry cups to the lumbar region and changed the treatment to helmitol. 2 grains every 4 hours, potassium citrate, 4 grains every 4 hours, to be given alternately two hours apart.

By Sept. 4th the temperature was again normal, the urine clear, of neutral reaction and free from casts. Pus and albumin still remained. The child weighed 14 pounds, 6 ounces, was bright but somewhat anemic.

On Sept. 9th the baby was suddenly taken with a chill, followed by a temperature of 104° F., and by the 13th of Sept. the fever touched 105.4° F. By September 15th the temperature was down to normal. At this time a purulent vulvo-vaginitis manifested itself which responded rapidly to a boric acid wash. At no time during the disease did renal sand, renal colic or tenderness in the renal region manifest themselves, but it was thought the part of wisdom to eliminate a possible renal calculus from the diagnosis, so that on September 20th I had 5 X-ray exposures made by Mr. Janssen. Not one of

the five negatives showed the least sign of renal stone. At about this time, slight tenderness in the lower extremities manifested itself, and, as the child seemed well otherwise, I was at a loss to account for it. For the past week she had been cutting teeth rapidly so that by October 4th she had seven in all. The mouth seemed sore and this was attributed to the teeth. Then the weight dropped to 13 lbs. and the vaginitis reappeared. On October 4th, a very faint red line was noticed in the upper gum. Taking into consideration that the child was on certified milk and that she had been teething, I thought infantile scurvy hardly a possibility, but told the mother to watch the gums for further developments.

I did not see the patient again until October 19th when Dr. Ogden saw her with me. The diagnosis of coli-pyelitis was confirmed and the treatment remained unchanged, but Dr. Ogden believed that the gums spoke of scurvy, and recommended that the therapeutic test be made. Orange juice was prescribed. In a week's time all tenderness had disappeared, the gums were greatly improved, the lips were red and the child was bright and happy.

As for the cause of the scurvy, it was ascertained that the certified milk had for some time been heated, prior to feeding, by placing the bottle in a pan of water and then bringing the water to a boil.

Present condition: The baby has had no rise of temperature since the 23d of October. Her gain in weight has been steady. At present she weighs 17 pounds, 10 ounces. The urine remains clear and free from pus. All in all, she presents the appearance of a healthy baby.

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### OTITIS MEDIA AND ITS TREATMENT\*.

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The subject of Otitis Media and its treatment has been so thoroughly discussed and described, that the only excuse that can be given for a paper of this character (which is necessarily a rehash) is to again bring to the attention of the general practitioner the importance

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of an early recognition of inflammatory processes in the middle ear, so that proper treatment may be instituted and the loss of life and the many pitiful results of neglect due to non-recognition of its existence, be avoided if possible.

Bryant<sup>1</sup>, speaking of the anatomy, calls attention to the fact that "at birth the temporal bone is loosely connected with the cranial bones, and is all made up of soft spongy bone, mostly diploic, and at first is very vascular, being traversed by many foramina containing blood vessels which allow free circulation of the blood between all surfaces of the bone".

The mastoid process is not formed at birth, but its development commences about the second year and it is well formed at puberty. The mastoid antrum is formed and nearly as large as in the adult. The tympanic cavity proper is about as extensive as in the adult, its contents are fully developed, and the drum head is as large as in the adult. The osseous eustachian tube is wanting, the tube itself is shorter and lies in a horizontal plane. "The middle ear and mastoid antrum of the infant contain much more mucous membrane and bony trabeculae than in later life." "The infantile lymphatics are nine times more permeable than those of an adult, thus allowing nine times readier transmission of bacteria".

From these anatomical facts the vulnerability of the infant's temporal bone is apparent.

Kencfiek<sup>2</sup>, remarks that "Under ordinary conditions the micro-organisms from food and inspired air may be carried into the tympanic cavity without special disturbance. If, however, the vitality is lowered from disease or active inflammatory irritation, conditions favorable to the development of these pyogenic organisms and the elaboration of their toxins are brought about."

Of the numerous general diseases complicated by severe otitis, scarlet fever stands at the head in rapidity of the inflammatory and destructive process, not only of the contents of the middle ear but involvement of the internal ear and cerebral structures. Next in importance comes cerebro-spinal meningitis. The invasion of the ear by this disease is from within outward, in contra-distinction to scarlet fever, and usually produces hopeless deafness. Diphtheria is a common cause, especially the naso-pharyngeal type. Pneumonia, bronchitis, whooping cough, measles, influenza and typhoid fever are frequently complicated by otitis. A low grade type of otitis is frequently found in connection with gastro-intestinal diseases.

The temporal bones of 100 infants under two years of age were

examined by Preysing; of these forty-four had died of gastro-intestinal disease; exudate was found in 153 of these 200 tympanic cavities, only 33 of which were found sterile.

Too much stress cannot be laid upon the production, in children, of mild and frequent attacks of acute otitis, and the establishment of a chronic inflammatory condition from hypertrophic tonsils and pharyngeal adenoids by extension through the eustachian tube. These are also a predisposing factor to otitis in acute infectious diseases.

Preysing says: "Otitis owes its origin to the same cause of most pneumonia cases", and he considers the two diseases closely related to infection of the pharynx and naso-pharynx by germ laden air.

Tecthing in young children often excites sufficient irritation to affect the ear by extension.

The pathological process in otitis is characterized by swelling of the lining, with closure of the tube, acute vascular engorgement of the lining of the tympanum with involvement of the tympanic membrane and serous exudate filling the cavity, which causes tension and pain. It becomes readily a culture medium for any micro-organisms that are in the cavity or may be forced into it, and a purulent condition results. This must seek an outlet and goes in the direction of the least resistance, the numerous unclosed fissures, sutures and foramina of the middle ear deciding the course, which fortunately is usually outward through the tympanic membrane; but if this membrane resists the pressure, the pus may escape through the cartilaginous fissures in the posterior wall of the external canal, and involve the posterior auricular glands, forming an abscess immediately over the mastoid process. The mastoid antrum may simultaneously be involved. Meningitis, epidural or subdural abscess, may be produced by escape through the imperfectly closed roofs of the antrum and tympanum, or along the communicating lymph and blood vessels. In older children there may be extension from the antrum into neighboring cells resulting eventually through carious softening, or through the medium of contiguous structure in thrombus of the underlying sinus.

As Kenefick says: "So subtle is the method of extension of infective micro-organisms, especially along the sheath of nerves and the walls of lymph and blood vessels, that one might say there is scarcely a single intra-cranial infection of otitic origin which may not occur without rupture of the drum membrane and without apparent lesion of the internal protecting structures of the skull."

Many cases of otitis are not easily diagnosed because the contents of the middle ear are not visible through the membrane, and per-

foration in children is not so common as might be expected. This is due, according to Jacobi, to: "1st, The greater resistance of the drum membrane in the young, the external cutis layer often thicker than in the adult. 2d, In the young the eustachian tube is short but wider both at the isthmus and at the tympanic orifice, and the direction of the canal almost horizontal," so there is better drainage; again, "the copious network of lymph vessels in the young is always very active and the absence of the pavement epithelium permits of rapid absorption. This condition is a sufficient explanation of the readiness with which absorption may take place from the interior of the ear into the lymph and blood circulation, and lead to deposits in distant organs, to mild or serious sepsis, to persistent exhibitions of temperature with no tangible cause, to death or to slow recovery."

The most important symptom of acute otitis is that produced by the congestion and exudate, which may give rise to only a sensation of fulness or diminished hearing or to the most acute lancinating pain. The diminished hearing and subjective sounds (tinnitus) are almost always observed. In children delirium and convulsions are frequently manifested. "In all cases there is some febrile reaction which in children may be quite pronounced, constituting the most important symptom. In fact, fever when of sudden development particularly in children may at any time suggest ear trouble."

As a means of protection, Jacobi recommends "nasal, post-nasal, and pharyngeal catarrh should be treated before they can do harm. Adenoids removed, enlarged tonsils resected, and hypertrophy of the mucous membrane of the nose attended to."

The treatment of an attack of acute otitis calls for the same as that of any other inflammatory condition—rest and position. The patient should be in bed with head and trunk elevated, a purgative should be given, the pain controlled by application of heat, and the instillation into the ear of a solution of: Carbolic acid (95%) 2 parts, Alcohol 2.5 parts, Glycerine q. s. ad 20 parts.

This when warmed and dropped into the canal, which should be plugged with cotton, will in many instances abort an impending attack of acute otitis media (together with the other antiphlogistic treatment), even when there is exudate in the middle ear and some bulging of the drum head. The temporal bone should be kept warm by a layer of cotton, and the head bound up. Detergent, hot douches or sprays to the nose and naso-pharynx will tend to relieve the congestion and ameliorate the symptoms and tend to prevent the production of a purulent condition, by freeing the nose and naso-

pharynx somewhat of pus-producing micro-organisms. After using these douches the nose should be blown with both nostrils open to prevent forcing any fluid into the eustachian tube. If there has been perforation of the drum head the canal should be wiped out with an antiseptic solution and kept clean, the discharge being facilitated in its escape by means of a wick of iodoform or sterile gauze moistened in the above mentioned solution, placed in the canal in contact with the drumhead, discharging into a piece of cotton in the outer ear; the gauze should be changed daily and the cotton as often as it becomes moistened. Hot grease, sweet oil, tallow and other substances should not be dropped into the ear as they usually contain pyogenic organisms; the solution above mentioned is antiseptic and promotes absorption of the exudate by osmosis.

Syringing an acutely inflamed ear with a recently perforated drum head is a rather risky undertaking as deaths have been known to result from it.

The instilling into the canal of a discharging ear of a few drops of argyrol, protargol or collargol, after wiping it out, or moistening the gauze with it, is often beneficial.

If the otitis complicates some acute infectious condition, the above treatment should be instituted in conjunction with general systemic treatment.

If the abortive treatment fails after twenty-four hours application and there is a continuation of symptoms, pain, fever, bulging drum head, etc., or if when first seen there is intense pain and bulging of the membrane, immediate paracentesis should be done under thorough antiseptic precautions. In children and infants a general anesthetic should be given, preferably chloroform. Nitrous oxide may be used, or better, the new dental anesthetic, Somnoforme. Complete anesthesia is not necessary. A free incision should be made, one that will not close up too rapidly; this should "extend from the lower pole of the membrane upward and backward, following the posterior peripheral attachment through the posterior fold and well upward into the tympanic vault" (Dench). The incision should be carried well outward into the superior wall of the bony meatus if there is any swelling of this part. After wiping out the discharge with some antiseptic solution, the gauze drain should be placed in the canal, a large piece of cotton placed in and over the ear, and the head bandaged up for ten to twelve hours, when the gauze should be changed.

The use of a Politzer bag or a catheter to force out the discharge

is attended with danger of forcing the contents of the tympanum into the mastoid antrum, or through some of the sinuses or dehiscences, and setting up mastoiditis, meningitis, brain abscess, etc. The after-treatment consists in keeping the canal clean and the middle ear well drained, with attention paid to the nose and naso-pharynx. The perforations when spontaneous are usually insufficient to allow of free drainage and should be enlarged by paracentesis. The opening, whether spontaneous or by incision, closes up in from a few days to six weeks unless there is considerable destruction of tissue as is frequently the case when complicating scarlet fever and diphtheria. The gauze drain does not have to be changed so frequently in the latter stages. In teething infants in whom there is a complicating otitis, the lancing of the gums will very frequently stop the process.

In the majority of cases early and proper attention paid to the ear will bring about resolution in a short time, and it is not a difficult task to look into the external canal and see if there is bulging of the drum or if it is the seat of a severe congestion; or, even if one fails to see these indications, the application of the abortive treatment can do no harm and may prevent some of the disastrous results of middle ear disease, or even save a life.

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### ADIPOSIS DOLOROSA WITH REPORT OF A CASE.\*

BY U. O. B. WINGATE, M. D.,

PROF. NERVOUS AND MENTAL DISEASES, WISCONSIN COLLEGE OF PHYSICIANS AND SURGEONS; VISITING NEUROLOGIST TO THE MILWAUKEE COUNTY HOSPITAL.

MILWAUKEE, WIS.

H. K., 37 years of age, carpenter by occupation, entered the Milwaukee County Hospital, May 31, 1905. He was born in Germany, came to this country when quite young. Family history negative, his father is still living, and healthy. The habits of the patient are fairly good, he is a moderate drinker, no specific history. About eight years ago, or when he was 29 years of age, he began to have enlargement of the neck and to grow weak. At the time of his entrance to the hospital there was a fatty growth over each mastoid region the size of a large hen's egg or larger, and the neck under the chin was much enlarged by deposits of fat; there were also fatty growths in each axilla, on the under side of each arm just below the shoulder, on the upper part of the chest, in the groins and about the pubic region. These various deposits of fat varied in size from a small to a large hen's egg or larger. The face, lips, nose, hands and feet were not involved.

\*Read before the Milwaukee Medical Society, Jan. 23, 1906.

He had lost considerable flesh and was weak and unable to do any work. For the past six months or more there has been pain along the course of the left sciatic nerve. There were no other sensory symptoms. The knee-jerks were about normal, no ankle clonus, no Babinski sign present.

The fatty deposits felt soft though firm. The patient did not appear to be unusually nervous in temperament; there was some mental depression, and he appeared rather indifferent and without ambition. He was placed on thyroid extract, beginning with 5 or 6 grains and increasing slowly, three times daily. There was a slight improvement, the deposits began to be reduced in size, but at the end of a month he left the hospital because the surgeons declined to operate upon him.

This is considered a rare disease, though quite a number of cases have been reported. In 1888, Dercum of Philadelphia called attention to it as being "a peculiar dystrophy occurring in adult persons, and characterized by the deposit or formation of fat in various parts of the body, and usually accompanied by pain of a neuralgic type." There is quite frequently diminished cutaneous sensibility, and excessive muscular weakness. Other observers have reported cases undoubtedly belonging to this class, namely: Henry, Peterson and Loveland; and probably the cases termed "symmetrical adenolipomatosis" by Launois and Bensaude belong to the same group. Peterson and Collins of New York, as well as some others, consider the condition due to a rudimentary polyneuritis. Sciatica, neuritis, herpes zoster and optic nerve symptoms, have been observed in connection with the cases reported. The pathology varies in different cases that have been examined. Dereum demonstrated an interstitial neuritis, and this condition has been confirmed by Burr, and both observers found suggestive changes in the thyroid gland. In two cases a diseased condition of the thyroid gland was found post-mortem. The pain in the cases observed assumes a varied form, in some it was burning or tearing as in neuritis, in others it occurred only on pressure. There may be a sense of coldness in the parts affected, and a dull aching pain.

As the fatty accumulations increase there are loss of muscular power and lessened cutaneous sensibility which may go on to complete anesthesia, especially where the deposits of fat are greatest. In some cases there were observed headache, epistaxis, pigmentation of some parts of the skin, atrophy, reaction of degeneration in the thenar and hypothenar muscles, absence of perspiration, lessening of the patellar and triceps reflexes. In four cases there was progressive mental weakness, and in one of these four there developed complete dementia.

The patient, usually between twenty-five and thirty-five years of age, first notices enlargement of some parts of the body, about the neck, arms, or in the axillae, groins, ankles or legs, also about the shoulders or trunk. These enlargements increase to enormous size in some cases, and are accompanied with pain and weakness.

The enlargements have not been found on the hands, face or feet. The swellings have a pultaceous feeling, somewhat elastic though quite firm.

It seems safe to say that the nature of this disease is, up to the present time, unknown. In a microscopical examination of his two cases, Dercum found connective tissue and fat cells present in varying degrees, the former was decidedly embryonal in type, the cells being large and prominent. The fat cells for the most part were associated with these connective tissue cells, and occasionally individual fat cells were seen in which fatty metamorphosis had not been complete.

The disease differs from myxedema, for which it has been mistaken, in the absence of the peculiar physiognomy, the spade-like hands, the infiltrated skin, the peculiar slowing of speech, and many other symptoms observed in true myxedema. It differs from lipomatosis perimuscularis circumscripta by the fact that the latter is painless. Syphilis or alcoholism seems to have entered into the history of most of the cases reported, and this suggests the view held by some that the disease is a polyneuritis with hyperplasia of connective tissue and a fatty infiltration of connective tissue cells. This view is held by Collins of New York.

The disease appears to be progressive in all cases, never tending to recovery, and all treatment hitherto used has proven unsatisfactory.

Thus far the reports made indicate varied results in observation, and the expression of Billings, that "it is as yet only an interesting clinical entity" seems most fitting.

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**Tin Splints.**—ARTHUR T. MANN, Minneapolis (*Journal A. M. A.*, May 13), calls attention to the advantages of sheet tin for the construction of surgical splints. It is thin and light, has considerable firmness and is easily manipulated. Only a few simple tools are required—a small vise, tin shears, a hammer, a five-cent punch and a few rivets are all that are needed. It is also cheap; he used about 30 cents' worth of tin in making all the many splints which are illustrated in his paper. It has the advantage also that with it one can mold the splint to any individual case, and the major part of his article is devoted to the description of the construction of splints suited for various fractures of the fingers, arms, legs, etc. He also describes two original devices for gaining full flexion and extension of the elbow after a T fracture into the joint.

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## EDITORIAL COMMENT.

### ANNOUNCEMENT.

The Journal for April will be a Wisconsin Physicians' Directory number. It will contain an alphabetical list of members of the State Society, a membership list of the various County Societies, and the names of officers of all District and local societies.

### THE MALTHUSIAN THEORY

"A marriage with a castrated woman is the ideal Malthusian Marriage."

"When Lawson Tait made splaying popular, that seemed an ideal condition to disciples of Malthus, but a German, named Halberstaedter, concludes that the Röntgen ray is the thing. It destroys the ova in situ".

These two quotations have appeared in recent medical literature. We have never seen a reference to Malthus in any of the current



literature of the day, either lay or medical, which did not clearly show that the writer believed that the "Malthusian idea" is to destroy the fruitfulness of the marital relation, and which did not convict him of having never read one word of the writings of Malthus.

Malthus iterated and reiterated that "I should always particularly reprobate any artificial and unnatural modes of checking population, both on account of their immorality and their tendency to remove a necessary stimulus to industry."

Malthus recognized the fact that every form of life, both animal and vegetable, down even to bacteria have such power of multiplication that, if unlimited means of nutrition were within reach, anyone of them might, in a few years, occupy every inch of the earth's surface.

They do not thus multiply for the simple reason that manifold checks exist in the struggle for life, and only the fittest survive. The human race is capable of doubling its numbers every twenty years or less, but it does not do so because of the operation of various checks referred to by Malthus as vice and misery on the one hand, and moral restraint on the other.

More than half of all those born into the world in Malthus' time died before the age of five years, a fact which he deeply deplored. This high infant mortality was due largely to the ignorance of the people and to their poverty, and these two causes of infant mortality are still operating with such effect that about 35 per cent. of infants die before the age of five years.

The only check to population advocated anywhere by Malthus was that of moral restraint, and he was careful to explain in an unmistakable way what he meant by moral restraint: it was premarital chastity, and entering into the married state only when there was a reasonable prospect of being able to support a family.

This "idea" is quite different from that which we are constantly seeing in the prints and labeled "Malthusian".

The Malthusian theory of population is this: that the procreative instinct of man is such that population always increases as fast as the means of support will admit. This is a universal law to which there is no exception in the organic world, which determines that in all times and in all places, in all trades, professions and occupations, the population is up to the then limits of support. When old Dr. Fuller was the only physician on the western hemisphere he was unable to support his family in that avocation, but was compelled to operate a farm, and to permit his wife to supplement his earnings as a midwife. The

recent medical graduate is no worse off than Dr. Fuller—they both arrived here just a few years too soon.

The "Malthusian idea" is that no man has a right to assume the obligations of paternity until there is a reasonable certainty that he will be able to maintain his offspring until they are self-supporting. Such is the Malthusian theory. Such is the Malthusian idea. And yet we shall see the name of Malthus abused and his teachings distorted, in all probability, for another hundred years.

This is another illustration that "ideas are more stubborn than facts."

#### THE DOOM OF THE TENEMENT.

The filthy and unhygienic tenements in Milwaukee are doomed to disappear. Action, though it comes late, has at last begun, and a number of these dwellings have been condemned. When it is found that even model tenements pay good returns on the investment, as has been demonstrated elsewhere not even the denizens of these districts who are now being deprived of their homes, will have cause to regret the building inspector's axe.

It is well known that the Ghettoes are mainly peopled with foreigners during the first decade of their stay in cities. As immigrants they very naturally seek their countrymen, for among these are their relatives, friends, co-sufferers and sympathizers. It is a conceded fact that after the first generation of children grows up, when they mingle with others in factories and stores, and become Americanized in habits and tastes, the crowded, unclean districts become offensive to them. Their thrift makes this overcrowding no longer necessary and soon they seek other and better quarters. It will, upon investigation, be found to be true that few families remain in the Ghettoes of our large cities longer than a period of ten years.

So it is the newcomer principally, who finds himself forced to seek the environment of the tenement. It will be a happy time when he may be housed in a clean building at no greater cost than he is at the present time forced to pay in filthy, tumbledown rookeries. As to the additional factor of the healthiness of such surroundings as compared with the present, this is so obvious as to need no comment.

#### THE "HOME SANATORIUM" TREATMENT OF CONSUMPTION.

We have so habituated ourselves to the thought that satisfactory results in the treatment of tuberculosis are to be obtained only in sanatoria away from cities, that we have become unmindful of the

fact that this form of charity, too, may begin at home, and issue satisfactorily.

Unquestionably, the ideal resort for those who have the means, is at an institution that is situated distant from the noise, bustle and soot of cities, and in an environment that is conducive to ease of mind and freedom from care. While there are numerous sanatoria where these ideal conditions obtain, and at moderate cost, there are in all communities those whose means admit of but a very small or no outlay. It is for these people that the establishment of dispensaries and "home treatment" sanatoria are indicated. Recent reports from New York City show what good results can be achieved in this way.

Under the title quoted above, there has recently been published (*Boston Med. & Surg. Journal*, Feb. 22, 1906) an interesting and instructive article bearing upon this subject. Dr. J. H. Pratt, of Boston, conceived the idea of organizing a "Tuberculosis Class." This class, or "home sanatorium," "bears much the same relation to a sanatorium that a correspondence course does to a college course." The daily life of the patients admitted to the class is thoroughly supervised, and this is possible only by limiting the number of patients, so that all may receive the individual attention necessary. A nurse visits the patients and sees to it that the instructions given are carried out to the minutest detail. The patients are compelled to keep accurate records of their doings, what they eat, how many hours they pass out of doors, and the like. Above all, every applicant has first to promise to give up all work, live out of doors, and obey all rules laid down. Brehmer's motto that "The most profitable work for a sick man is to get well," is impressed upon the patients.

The treatment consists in diet, rest, fresh air, and properly regulated exercise. All the patients sleep in the open air, some are tented in their yards, others on balconies or roofs. A weekly meeting of the entire class is held, their records books inspected, and their weight, temperature and pulse measured.

The results thus far have been satisfactory. Of the nine who were under treatment for three or more months (all rather advanced cases), all but one showed a gain of weight, the average gain being 19.40 lbs. In five of these the disease was arrested.

This plan is not costly, requires no selection of cases, and is feasible. It is an improvement over the dispensary treatment, because cures are much more often possible. Each case is an object lesson. It lessens the element of contagion, and makes prevention possible. Dr. Pratt's plan is worthy of emulation.

**A PATENT MEDICINE 'ACT'.**

Attention is called to the so-called 'model act' (published on page 601) to regulate the manufacture and sale of "proprietary" medicines—published by the *Ladies' Home Journal*, and which it is designed to introduce into the legislatures of the various states during the coming year. This act is an outgrowth of the crusade against fraudulent patent and proprietary remedies which has been so ably fostered and promoted by the *Ladies' Home Journal*, *Collier's Weekly* and other publications of this class. It may not be all that could be desired in its restrictive features, but it is probably all that we may hope for at the present time. It has been carefully prepared, thoroughly studied out; we are assured that it is entirely constitutional, and we commend it to the careful perusal of every doctor in Wisconsin who has enough interest in the matter to bring it to the attention of members of the Legislature and prospective members of the next General Assembly.

Familiarize yourselves with the necessity for such legislation, and get in line for the struggle next winter when this or a similar measure will be introduced at Madison, and when no doubt we shall have the same opposition that we have encountered before in urging legislation of like import—namely, the quacks, patent medicine manufacturers, and conscienceless newspapers which live largely by their dishonest patent medicine and quack advertisements.

The people are becoming greatly interested in this matter; it is the duty of every doctor to see that their interest increases. Do your duty!

**"THE DISINFECTED BARBER."**

The following report, quoted from the United States Consular Reports, is of sufficient interest to warrant reprinting in full:

"In late years the hygienic requirements with reference to barber shops have been greatly increased and it seems that they are constantly becoming more severe. So far the authorities had restricted the regulations to the utensils, but lately the personal cleanliness of the barber has also been made the subject of municipal legislation in Germany. Recently the following rules have been established by the municipal government in a larger German city:

"The cut-off hair must at once be removed; the floor of the shop must be washed at least twice per week; cold and hot running water must be supplied, and the barber must wash his hands with warm water before attending to a customer. No cruettes or carpets are permitted in barber shops. The head rests must be covered for each customer with a fresh napkin of paper or linen. The employees must wear clean, long upper garments of light color,

without pockets. The soap used must be in form of powder or small tablets.

"The lather from razors must be removed by means of paper. Instead of sponges pieces of woolen cloth or napkins have to be used. Alum or magnesia can only be used, kept in a powder box. The bowls and shaving brushes must be cleaned each time after having been used. Nobody is allowed to be shaved suffering from a visible skin disease, unless the proprietor of the barber shop is convinced that it is not contagious. Sponges, powder puffs, magnesia and styptics in lumps, and revolving brushes are prohibited. Scissors, brushes and combs, as well as the hair-cutting machines and razors must be cleaned with ammonia or soda and an antiseptic solution. As antiseptics cylline, izal, and elinosol are recommended."

While the above measures are rather stringent, and any attempt at their introduction in this country would be met with the usual cry of "interference with personal liberty," etc., every article in these regulations is based upon well recognized and accepted rules of personal hygiene, asepsis and prophylaxis, and is therefore fully justified. Patrons of barber shops in which these precautions are taken, will feel assured that they are surrounded with every essential safeguard.

#### **THE PURIFICATION OF WATER SUPPLIES BY COPPER.**

The use of the discovery made two years ago by Geo. T. Moore of the Bureau of Plant Industry of the Agricultural Department, that copper destroys the algae that grow in water, will probably prove to be much less applicable for the destruction of bacteria that are toxic to man. The method seems to have solved effectually the problem of ridding stored waters of their bad odor and disagreeable taste in the warm season. While copper is toxic to intestinal bacteria, recent experiments would seem to indicate that this method is not wholly satisfactory for the purification of small bodies of infected water, and that its adoption is not without certain dangers. The proposal was recently made to supply the United States Geological Survey's field parties with copper canteens as a safeguard against typhoid and other intestinal diseases. Experiments made with a view to testing the feasibility of this plan showed that not all typhoid organisms with which the canteens were infected were killed after an exposure of 24 hours. It was found too that "the value of the canteen as a disinfecting agent is seriously affected by clay in the water, and is practically destroyed by the use of waters high in alkaline carbonates," that is, so-called "hard" waters. If the canteen is frequently cleaned, preferably with oxalic acid, its use would doubtless be fraught with much greater safety. For large bodies of water that is meant to be potable, this method cannot be used. Such water must be free from contamination.

## NEWS ITEMS AND PERSONALS.

(The JOURNAL solicits Items of Interest and Personals from its subscribers.)

**Fraud Orders Issued.** Orders have been issued to postmasters at New York and Brooklyn to bar from the mails the advertisements of fifty-two illegal "medical offices." A statement given out at the postoffice department says:

"The condition of affairs which has developed under the department's investigations in these cities has been appalling. In Boston one of the concerns excluded from the mails was supposed to have been the office at which was performed the fatal operation upon Susan Geary of the 'suit case murder.' The number of deaths that have been caused in these offices can never be known.

"The volume of business was large. It was said that as high as twenty criminal operations a day were performed by some and that the income sometimes ranged as high as \$2,000 a week."

**Patent Medicines Confiscated.** According to newspaper reports, the store at the village of Odanah on the Bad River Indian reservation, was recently visited by United States marshals who confiscated hundreds of bottles of patent tonics and preparations containing alcohol. The seizure was made under the United States law, which prohibits the sale of liquors on Indian lands.

**Pierce vs. Curtis Publishing Company.** The jury in the case of Dr. Pierce's World's Dispensary Medical association against the Curtis Publishing Company, publishers of the Ladies' Home Journal, returned a verdict for \$16,000 in favor of the plaintiff. Dr. Pierce thinks the damages insufficient and will ask for a new trial.

**The Wisconsin Inspector of Bakeries** has placed his stamp of disapproval upon two filthy Milwaukee bakeshops. Doubtless more will be uncovered if the search is continued.

**The State Board of Medical Examiners** have announced the result of their last examination. Of 19 applicants, 9 failed to successfully meet the test.

**Dr. Joseph W. Hancock**, of Ellsworth, died March 5th. He was graduated from the Medical Department of the University of Buffalo in 1870.

**The Children's Free Hospital of Milwaukee** benefited to the extent of \$1400 at a performance of the "Lion and the Mouse," on March 15th.

**Dr. A. J. Ochsner**, of Chicago, has consented to deliver the oration on Surgery at the next meeting of the State Medical Society.

**Dr. T. R. Welch**, of Rhinelander, was fined recently for not reporting a case of diphtheria. He will appeal.

**The Milwaukee Infants' Home** realized \$2100 from the recent Charity Ball.

**Dr. Oscar H. Loehr**, of Milwaukee, has returned from a trip abroad.

**Dr. C. M. Echols**, formerly of Appleton, has located in Milwaukee.

## A MODEL 'ACT.'

### TO REGULATE THE MANUFACTURE AND SALE OF "PATENT" AND "PROPRIETARY" MEDICINES.

BE IN ENACTED by the Legislature of the State of.....

SECTION I. Each package, bottle, box or other parcel containing what is commonly known as a "patent" or "proprietary" medicine of any kind or in any form, intended for internal consumption by human beings, other than a medicine specially compounded upon the written order or prescription of a physician duly authorized to practice his profession in this State, which shall be hereafter manufactured within this State, or which shall be hereafter manufactured without this State and exposed or offered for sale, or sold or given away, or otherwise disposed of, within this State, shall have both on the outside wrapper of such package, bottle, box or other parcel, and also on the label affixed to such package, bottle, box or other parcel; in plain English, printed in black letters on white paper, of a size not smaller than of type eight point, so called, a complete schedule showing all the ingredients contained in such "patent" or "proprietary" medicine, and the exact proportions of each ingredient thereof.

SECTION II. Whenever any such "patent" or "proprietary" medicine shall contain more than eight per cent. of ethyl alcohol, or more than one-twenty-fifth of one per cent. of morphine, heroin, cocaine, or of the salts or equivalents or derivatives of the same or any of them, or more than one-fourth of one per cent. of chloral hydrate, or any quantity of belladonna, cotton-root, ergot, or other abortifacient, there shall be printed in plain English, in red letters of a size not smaller than eight point, so called, on white paper, in addition to the schedule of ingredients hereinbefore required, both on the outside wrapper of the package, bottle, box or other parcel containing the same, and also on the label affixed to such package, bottle, box or parcel, a notice reading as follows:—

"This package (or bottle or box or parcel as the case may be), contains (here give the name and proportion or percentage of the drug as the case may be), and is therefore under the Act of the Legislature of the State of———

———marked

"POISON"

and also the single separate word "Poison" which shall be printed separately on a line by itself, in bold-face type, and in letters not less than one-quarter of an inch high.

SECTION III. The Board of Health of this State is hereby empowered, immediately upon the passage of this Act and from time to time thereafter, to make, or cause to be made, a chemical analysis of "patent" or "proprietary" medicines, manufactured, or exposed or offered for sale, or sold or given away, or otherwise disposed of, within this State, for internal consumption by human beings, other than those specially compounded upon a physician's written prescription as aforesaid. If any such analysis shall show that there has been, with respect to any such "patent" or "proprietary" medicine, a failure to comply with the requirements of this Act, said Board shall at once notify the District Attorney of any county in this State in which the said "patent" or "proprietary" medicine is manufactured, or exposed or offered for sale, or sold or

given away, or otherwise disposed of, whose duty it shall be to prosecute the person, firm or corporation so violating the provisions hereof.

SECTION IV. Any changes, either in the ingredients or in the proportions or percentages of the ingredients in any such "patent" or "proprietary" medicine manufactured within this State, shall be at once reported by the manufacturer thereof to the Board of Health of this State.

SECTION V. Any person, firm or corporation who shall manufacture, or expose or offer for sale, or sell, or give away, or otherwise dispose of, any such "patent" or "proprietary" medicine within this State in violation of the provisions of this Act, or any of them, shall be guilty of a misdemeanor and on conviction thereof shall be punishable therefore by a fine of not less than fifty dollars (\$50.) nor more than five hundred dollars (\$500.), or imprisonment for not less than thirty (30) days nor more than six (6) months, or both.

SECTION VI. All Acts or parts of Acts inconsistent herewith are hereby repealed.

SECTION VII. This Act shall take effect on the.....day of.....1906.

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**NO FURTHER COMMENT NECESSARY.**

The following letter was received from F. X. Schaeffer, who feels himself abused because we chose to withhold from him the title "doctor" in a communication published in the January JOURNAL. The notice printed told of his being on trial, charged with having obtained his license to practice medicine by fraud, and the revocation of the license is asked.

The Wisconsin Medical Journal, City.  
Gentlemen:

I have received your bill for the 1906 subscription for your Journal and enclosed please find check in settlement of said amount. Kindly send receipt to my adress.

In reading the January issue of the Journal I notice on page 483 under News Items and Personals that you say: "F. X. Schaeffer, who has been practicing etc. and later on "Dr." James L. Barber etc. in regard to said notice I wish to state that it would be not more than common courtesy towards a subscriber to give him his title at least as long until the case reaches a decision by the Supreme Court. It looks, to say the least, *very small* to try to abuse a subscriber before a judgement of court is rendered. I hope that you ought to know that a man who has practiced in this city over 10 years must have a certain vested right to do so. you know further that a medical practitioner could not exist for any length of time if he would not have a certain amount of medical education, and as there never had been any complaint against me for malpractice during all the time I have practiced in Milwaukee or any other place I certainly ought to be given credit that I must have some medical training, especially if you take my large and extensive practice in consideration.



I hope that the Journal in the future will be more careful about the little insignificant jibs and especially in a case of a regular subscriber, I never did consider it a right of the State Board of Medical Examiners to ask questions and investigate private affairs of a physician who had been in practice long before the State Board of Med. Exam. was authorized by any law whatsoever. We are here in a free country and all medical laws on the statutes today, as you well know, are merely class legislation by a clique of political doctors, who have no practice to amount to anything and therefore try to kill their time in making regulations for their fellow practitioners. Please think this over seriously and judge for yourself if that is true or not. I know well that as an honest man you must judge in my favor.

If a man practiced *only* 10 years in the same community he must be a gentleman otherwise he could not exist in said community for such long time, the public will not employ a physician unless they have confidence in him, especially one who fought as hard for his rights as I did, and thanks to the Almighty my practice is always increasing.

Ponder this well and then judge impartially.

Fraternally yours,

Dr. F. X. Schaeffer.

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#### TEETH OF SCHOOL CHILDREN TREATED.

In 1902 the city of Strassburg opened a dental clinic for the care and treatment of the teeth of the children in the public schools, and to make such care and treatment compulsory. The children are treated free of cost and are given instructions in the care of the teeth and keeping them clean. Since the establishing of the Strassburg clinic similar ones have been opened in Darmstadt, Mulhausen, and other cities in Germany, and much interest is being aroused. At the Strassburg clinic 5,343 children were examined the first year and 2,666 received treatment. During the second year 6,900 were examined and 4,967 were treated. The third annual report, just published, states there were 12,691 visits to the clinic in 1904 and 6,828 children were treated, for whom 7,065 teeth were filled and 7,985 were extracted, and 4,372 other children had their teeth examined.

Since the introduction of the treatment there is a marked improvement in the general health of the public school children, and there is less headache, earache, and stomach trouble. (*U. S. Consular Reports.*)

## THE STATE MEDICAL SOCIETY OF WISCONSIN.

ORGANIZED 1841.

### Officers 1905-1906.

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A. W. GRAY, Milwaukee,  
1st Vice-President.

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2d Vice-President.

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### Councilors.

#### FOR SIX YEARS.

1st Dist., H. B. Sears, - - - Beaver Dam  
2nd Dist., G. Windesheim, - - - Kenosha

#### FOR TWO YEARS.

3rd Dist., F. T. Nye, - - - Beloit  
4th Dist., C. A. Armstrong, - - - Boscobel

#### FOR THREE YEARS.

5th Dist., J. F. Pritchard, - - - Manitowoc  
6th Dist., J. S. Walbridge, - - - Berlin

#### FOR FOUR YEARS.

7th Dist., W. T. Sarles, - - - Sparta  
8th Dist., T. J. Redelings, - - - Marinette

#### FOR FIVE YEARS.

9th Dist., D. L. Sauerhering, - - - Wausau  
10th Dist., E. L. Boothby, - - - Hammond

#### FOR SIX YEARS.

11th Dist., J. M. Dodd, - - - Ashland  
12th Dist., A. T. Holbrook, - - - Milwaukee

NEXT ANNUAL SESSION, MILWAUKEE, JUNE, 27, 28, 29, 1906.

The Wisconsin Medical Journal, Official Organ.

## SOCIETY PROCEEDINGS.

### THE YEAR'S WORK.

The campaign for 1906 in the County Societies is now on, and from surface indications—here and there—the outlook seems favorable. There are more who intelligently appreciate the importance and advantages of organization in general, and of the County Medical Societies in particular. Prejudice against the new order of things seems breaking down and no active opposition of any account, is apparent. The more thickly populated counties where regular and frequent meetings can be sustained, show a general increase in interest and numbers. As in the past, the greatest difficulties are found in the counties where the doctors are few in numbers, and widely separated. To maintain an interest in the scientific work of a medical society, it is necessary to hold regular meetings—sufficiently often—and with enough in attendance to inspire enthusiasm. In a county with not over a dozen doctors, all told, and an attendance at meetings—when held—of not

over 4 or 5, it is manifestly a difficult matter to keep up the interest and sustain the organization. In some of these counties, while there is still a society "on paper", no meetings are held for scientific purposes, and so far as the objects for which they are supposed to exist are concerned, they are moribund.

The practical question is, whether it is wiser to hold to the separate organization—hoping for better results—or to still further concentrate the societies by "hyphenating" some of these counties to adjoining counties, where there are the best railroad communications. Judging from our experience to date the latter plan seems best. Marquette with seven members, has asked to be joined to Columbia. Taylor with six members, by uniting with Price (10 members) would secure a sufficient membership to maintain an efficient organization, and keep both societies in many other ways. Under such a plan the place of meeting would naturally alternate between the two counties. There are several other counties which may profitably be "hyphenated", and the sooner such a rearrangement is effected by the Council, the better.

It has been proposed to reorganize the societies to correspond with the lines of railroad communication rather than county lines. This is hardly practicable, so far as the organizations are concerned, since it would give rise to endless confusion; but, as regards attendance on the meetings, the idea is excellent. No transferal card is necessary, but the permission of the home society should be secured, where, also, the dues should be paid.

At the last meeting of the Council, the plan of *monthly* meetings, in the *evening*, if practicable, with one, or at most two papers for each meeting, was strongly recommended for all counties where the conditions will permit. Not only is the interest among the members better maintained by frequent meetings, but, at the same time, the profession outside the society, and the public generally, are impressed with the fact that there is "something doing", and that the profession is alive. If meetings are held often, and they are what they should be, in interest and enthusiasm, outsiders will soon feel that they are losing something really valuable, and which they cannot afford to miss.

It is true that in many counties the railroad facilities are such that evening meetings are impracticable, but when these are favorable, and especially in counties having large towns, there is much to be said in favor of the *monthly evening session*. The plan may include one or two *day* meetings, with a more extended program and a banquet.

#### THE ANNUAL COUNTY REPORTS.

Since the time for the Annual Report of the county secretaries

draws near (April 1-10) a word of reminder may be well—especially for the newly elected.

The State Society dues—\$2.00—pays for the calendar year, and entitles to the WISCONSIN MEDICAL JOURNAL. If the collections are not already well in hand, *push hard* from now on. Put none on the membership roll unless the money accompanies the name.

Please make out membership roll on the regular blank, and as perfectly as possible, including non-members, as well as members—with data for both, and accounting for every physician in the county. Secure personal records from all who have not already sent them in, and make your County Card-index as complete as possible. Put in the proper place the name, not only of the delegate—but the *alternate* as well.

Don't fail to make frequent calls on your Councilor, not only for his influence in securing new members by personal effort, but in regard to all matters regarding the growth and *success* of your society.

And finally—resolve that our Annual Meeting shall record a substantial increase in membership over 1905.

#### THE STATE MEETING.

The plans go on apace—and everything points to an unusually successful Annual Meeting in June. The program is working up in good shape and will be of a very high order. The place of meeting is auspicious and the attendance is bound to be large and representative. Begin to plan at once to go to Milwaukee, and, if you are fortunate to have a wife, don't leave her behind. The social and festive elements will not be lacking and we are sure to have a good time.

*You need the outing, and the Society needs your presence.*

C. S. S.

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#### DODGE COUNTY MEDICAL SOCIETY.

The annual meeting of the Dodge County Medical Society was held at Mayville, February 5, 1906. Severe weather limited the attendance.

Dr. A. E. Bachhuber read a very interesting paper on *Diabetes*. Dr. A. F. Schoen edified the society with a discussion on *The Philosophy of Therapeutics*. Dr. G. W. Dewey reported a case of *Non-classical Appendicitis*.

Dr. Sears presented the subject of *Harmony and its Benefits*.

A resolution from the Washington County Society recommending uniformity of charges in Life Insurance examinations was adopted.

The following new members were received: Drs. L. M. Bachhuber and W. J. Schmidt, Mayville; Peter Langenfeld, Theresa; F. P. Klahr, Horicon; W. B. Webb, and R. E. Schoen, Beaver Dam.

Officers for the ensuing year are as follows: President, Dr. E. M. McDonald; Vice-President, Dr. A. F. Schoen; Secretary and Treasurer, Dr. H. B. Sears; Delegate, Dr. Geo. W. Dewey; Alternate, Dr. E. P. Webb; Censors, Dr. A. E. Bachhuber (3 years), Dr. E. P. Webb (1 year).

Horicon was chosen as next place of meeting.

H. B. SEARS, M. D., *Secretary*.

#### FOND DU LAC COUNTY MEDICAL SOCIETY.

The regular bi-monthly meeting of the Fond du Lac County Medical Society was held at Fond du Lac, March 14, when the following program was presented: *Cerebro-spinal Meningitis: Symptoms, Clinical Course, and Treatment*, by Dr. S. E. Gavin. This paper was discussed by Drs. S. S. Hall and G. V. Mears.

*Fractures of the Shaft of the Femur*, by Dr. M. A. T. Hoffman of Campbellsport. Discussed by Drs. J. P. Connell, F. S. Wiley, Roy, and Hoffman. *Fractures of the Clavicle*, by Dr. J. Waldenschmidt of Fond du Lac. Discussed by Dr. F. S. Wiley.

Dr. F. A. Jackson of Eldorado and Dr. F. M. Baker of Fond du Lac were unanimously voted into the Society.

Communications from Trempealeau and Washington County Medical Societies in regard to Insurance examination fees were read and referred to the program committee.

Dr. Calvey moved that a special meeting of the Society be called to consider fees and other special business; Dr. Roy was in sympathy with this subject and seconded the motion. It was then carried.

F. A. Read, M. D., *Secretary*.

#### LA CROSSE COUNTY MEDICAL SOCIETY.

The third monthly meeting of the La Crosse County Medical Society was held on March 1st, with seventeen members present, Dr. A. Gunderson, presiding. Dr. E. Evans exhibited a recent specimen of enlarged prostate gland removed suprapubically, also a tubal pregnancy. Dr. Gunderson also exhibited a specimen from a case of tubal pregnancy recently operated upon by him.

Dr. P. Christensen showed a case of *Oidium mycosis infection* with photographs of same. He presented the history of the case at length and remarked upon its course and symptomatology.

Dr. T. A. Miller read a paper on *Treatment of Appendicitis*, which brought out a general discussion of that old, yet ever new, subject.

A resolution was passed again emphasizing the need of a pure water supply for the city. The resolution was to remind the City Fathers that the La Crosse County Society is in earnest about this important subject and does not intend to stop using its efforts and influence until our city has a pure water supply.

C. H. MARQUARDT, M. D., *Secretary*.

#### LANGLADE COUNTY MEDICAL SOCIETY.

The Langlade County Medical Society met March 2nd, the president Dr. G. H. Williamson in the chair.

The following business was transacted: Dr. M. J. Donohue was elected delegate to State convention, Dr. M. A. Flatley alternate.

A fee of 50 cents will be paid by each member for the purpose of paying the expenses incurred in securing the passage of Medical Laws at the last session of the legislature.

GEO. W. MOORE, M. D., *Secretary*.

#### MONROE COUNTY MEDICAL SOCIETY.

Upon invitation of the president Dr. C. E. Quigg and the Tomah members of the society, the March meeting was held at Tomah, March 13.

A very interesting surgical clinic was given both in the forenoon and afternoon by Dr. E. J. Farnam of Chicago at the Tomah Hospital, at which there were exhibited and operated upon a number of very interesting cases.

Dinner was served at the Sherman House, and in the evening at the Hospital an elegant banquet was served by the local doctors and their wives.

Seventeen members of the society attended the meeting.

C. M. Beebe, M. D. *Secretary*.

#### OUTAGAMIE COUNTY MEDICAL SOCIETY.

The Outagamie County Medical Society held its annual meeting at the Elk's Club rooms, Appleton, March 6th. Dr. Mills gave an interesting surgical clinic at St. Elizabeth's Hospital in the morning when he operated on an inguinal hernia and removed a large inflamed bursa from the popliteal space. The afternoon session came to order with the president, Dr. J. T. Reeve, in the chair. There were 31 physicians present at this meeting. The program consisted of papers as follows: *The Business Side of the Practice of Medicine and Surgery*, Dr. W. A. Gordon, Winnebago; *The Evils and Abuses of So-called Lodge Practice*, Dr. P. J. Calvy, North Fond du Lac; *Some of the Advantages of the Present plan of Medical Organization*, Dr. J. S. Walbridge, Councilor for the 6th District, Berlin.

These papers were quite generally discussed and a vote of thanks was tendered to each of the gentlemen for his visit and his excellent paper. Those present were well satisfied with the plan of having "out of the county" men on the program for one meeting in the year.

The following physicians presented applications for membership: E. W. Cooney, Herrmann Shaper, and Perie Comerford of Appleton; Donald McIntyre of Dale, M. E. Rideout of Hortonville, E. M. Mayer of Kaukauna, and W. A. Weaver of Welcome. Dr. A. E. Rector of Appleton presented a transfer card from the Diekenon County (Iowa) Medical Society.

\$16.00 was appropriated as Outagamie County's share of the expense of securing medical legislation in the last legislature.

Resolutions commending Collier's and the Ladies Home Journal for their attitude on the Patent Medicine evil were adopted.

The following officers were elected for the ensuing year: president, Dr. N. P. Mills, Appleton; vice-president, Dr. A. P. Holz, Seymour; secretary and treasurer, Dr. M. J. Sandborn, Appleton; censor for three years, Dr. J. J. Laird, Black Creek; alternate delegate to the State Society, Dr. J. S. Reeve, Appleton.

After adjournment the Appleton members of the society banqueted the

visitors at the Sherman House. There were twenty-seven present to enjoy this feature. Drs. Nolan and Abraham led an after dinner discussion of the desirability of a uniform fee bill in which nearly every one present took part. All expressed themselves in favor of such a schedule providing all physicians in the country, whether members of the society or not, can be interested in it.

M. J. SANDBORN, M. D. *Secretary.*

#### WASHBURN-SAWYER-BURNETT COUNTY MEDICAL SOCIETY.

At a meeting of the Washburn-Sawyer-Burnett County Medical Society, held at Spooner, March 8th, the following officers were elected: president, Dr. C. L. Storrey, Hayward; vice-president, Dr. G. N. Lemmer, Spooner; delegate, Dr. G. A. Grafton, Hayward; secretary and treasurer, Dr. E. R. Hering, Shell Lake.

No papers were read, but an interesting discussion on the welfare of the society and of the medical profession in general was carried on. At the conclusion a banquet was given at the Rail Road Hotel by the physicians of Spooner.

E. R. HERING, M. D., *Secretary.*

#### NORTHWESTERN WISCONSIN, CLARK, AND WOOD COUNTY MEDICAL SOCIETIES.

A joint meeting of the Northwestern Wisconsin, Clark, and Wood County Societies was held at Marshfield on the evening of February 15th. The attendance was very good, over thirty physicians being present and a very interesting and complete program was carried out as follows: "History and Etiology of Lobar Pneumonia," by Dr. E. L. Bradbury, Neillsville. "Pathology and Symptomatology of Lobar Pneumonia," by Dr. J. J. Looze, Grand Rapids. "Complications of Lobar Pneumonia," by Dr. H. Wahle, Marshfield. "Treatment of Lobar Pneumonia," by Dr. F. A. Southwick, Stevens Point.

Following the meeting a lunch and smoker was enjoyed at the Elks Club Rooms.

Dr. Doege, of Marshfield, was chosen as chairman and C. von Neupert, Jr., of Stevens Point, secretary of the meeting. All the papers were carefully prepared and well presented, being of practical value to the general practitioner and the discussions were participated in very fully. The large attendance of this meeting, reaching nearly forty, shows a marked improvement over similar meetings, held in various places during the past few years.

The annual meeting of the Northwestern Wisconsin Medical Association will be held at Stevens Point about the middle of April and an effort will be made to have several of the county societies in this vicinity meet with us.

C. VON NEUPERT, JR., M. D., *Secretary.*

#### MILWAUKEE MEDICAL SOCIETY.

February 13th, 1906.

Dr. P. F. Rogers reported a case of gastric hemorrhage following an abdominal operation for tubo-ovarian disease. The condition was probably

due to acute dilatation of the stomach. The patient lived five days after the operation. No autopsy could be obtained.

Dr. F. A. Stratton reported two cases of suppurative epididymitis following gonorrhoea. In one case the prolonged high temperature, delirium lasting ten days, and the absence of leucocytosis, together with the comparatively mild character of the local symptoms caused a suspicion of typhoid fever.

Dr. A. W. Myers demonstrated specimens from a case of acute miliary tuberculosis of the lungs in an infant, in which the physical signs and clinical course had simulated croupous pneumonia.

February 27th, 1906.

Dr. W. A. Sickels presented a paper entitled *Spleno-medullary Leukemia, Report of Four Cases Treated by X-Rays*. These were all well marked cases and all showed great improvement at first under X-ray treatment, the general health improving and the blood condition changing greatly for the better. In all of them, however, the disease ultimately re-asserted itself and all the cases terminated fatally. In closing Dr. Sickels said: "In spite of the unfortunate ending in these cases, the marked, almost marvelous improvement in every case until treatment was omitted, certainly encourages the hope that we are at the beginning of a promising treatment for what has been heretofore a hopeless condition."

In the discussion Dr. A. J. Patek remarked that he felt less hopeful than Dr. Sickels in regard to the permanence of the effects of the X-ray exposures. Of all the cases hitherto reported (about 80) none that have been under observation for two or more years have maintained the condition of health upon the cessation of treatment, in fact the general experience is that the leukemic tumors again enlarge soon after the treatment has ceased. This experience indicates the hopelessness of the treatment on present lines, and, in the absence of a known cause, it must be considered merely symptomatic, not curative.

Dr. L. F. Jermain after discussing the condition reported a case of acute lymphatic leukemia in a young man which terminated fatally four weeks from the onset of symptoms. The blood examination a week before death showed 1,300,000 red blood cells and 1,200,000 white blood corpuscles.

The discussion was continued by Drs. W. H. Washburn, H. V. Ogden and closed by Dr. Sickels.

Dr. G. A. Bading presented a paper on *Penetrating Wounds of the Abdomen*. Dr. Bading pointed out the difficulty in making a positive diagnosis of the amount of visceral injury in these cases without an operation and showed the danger to the patient which results from waiting for the development of the symptoms which have been considered as calling for operation. Cases operated on within four hours of the injury show a mortality rate of 15.2 per cent., while those operated upon after twelve hours show a rate of 70 per cent.

He considers that there are only two absolute contra-indications to operating on these cases as soon as they are seen: first, absolute lack of facilities; second, if the patient is first seen 36 to 48 hours after the injury and no unfavorable symptoms have arisen during the interval.

He reported three cases of this character operated upon as soon as possible, all making perfect recoveries. This paper will appear in the JOURNAL.



The paper was discussed by Drs. R. G. Sayle, D. J. Hayes, H. Reineking, F. Shimonek, W. H. Washburn, and J. M. Belfel, the general opinion being that Dr. Bading's position was well taken.

Dr. F. Shimonek reported a case of appendicitis in a youth of twenty years, in which the gangrenous appendix lay behind the cecum, which had also become gangrenous on its posterior surface. The case was treated by drainage posteriorly through an opening in the loin and resulted favorably although a fecal fistula developed.

The case was discussed by Drs. F. E. Walbridge, L. G. Nolte, and H. Reineking.

H. E. DEARHOLT, M. D., *Secretary*.

#### SOCIETY OF GERMAN PHYSICIANS OF MILWAUKEE.

At the meeting of December 9, 1905, Dr. L. F. Frank, who celebrated the 25th anniversary of his graduation at Wuerzburg, read an interesting paper on medical reminiscences during the last 25 years. At the meetings of Jan. 15th and Feb. 3rd, 1906, Dr. A. J. Puls reported a case in which he had to enter the uterus for removal of the adherent and swollen placenta. He attributed the swelling to the fact that no double ligature had been applied to the umbilical cord. In a girl, aged 20, Puls ascertained pregnancy, which was firmly denied. A laparotomy, performed elsewhere on account of alleged tuberculous peritonitis, was followed by miscarriage. Puls related a case of kraurosis vulvae and thickening of the perineum in which recovery was obtained by excision of the labia majora. Dr. C. Reinhard spoke on a case of pneumonia, very likely of embolic origin, although the symptoms of a former phlebitis of the vena saphena had disappeared for several weeks. Dr. L. F. Frank saw a striking result from X-rays in a case of Paget's disease, i. e. eczema of the mammilla with erosions, a condition which generally ends in carcinoma. Dr. E. Kovats observed a severe and extensive burn of a whole leg by X-rays, which had been applied on account of eczema. Dr. C. Zimmermann spoke on severe hemorrhages after removal of adenoids in connection with a case recently seen and reported a case of deficient speech. The nasal timbre in the latter gave the impression of cleft palate but was due to faulty articulation and innervation of the palate and could be remedied by proper exercises.

At the annual meeting on March 10th Dr. E. Kovats was elected as president, Dr. C. Zimmermann as secretary and Dr. L. F. Frank as treasurer. Dr. Carl Reinhard read a paper on an interesting case of posterior mediastino-pericarditis in a man, aged 51, who, up to his death, had been under treatment for a year. The postmortem examination (performed by Dr. Hans Reinhard), revealed also obliterating pericarditis, cirrhosis of liver, peritonitis complicated with occlusion of the flexura lienalis coli, and Addison's disease. According to Osler, only 23 cases of this affection are known, of which 2 were over 20 years old. Dr. E. Kovats demonstrated a large kidney stone, passed by a boy with the urine without pain, after taking antyryn and bicarbonate of soda, which, in K's experience, has a very beneficial effect in such cases. Dr. C. Zimmermann reported a case of total adhesion of the tongue to the floor of the mouth, according to the patient's statement due to ulcerous mercurial stomatitis with loss of teeth, which greatly impeded speech and eating. Loosening the adhesions all over, a proposed transplantation of mucous membrane not being consented to, was so far successful. C. Zimmermann, M. D., *Secretary*.

**MEDICAL NOTES.****THE SUPPRESSION OF THE BUBONIC PLAGUE.**

The following report, reprinted from the *U. S. Consular Reports*, is such a signal triumph for preventive medicine, and of such great interest the world over, that we publish it in full:

"For several years past the government of India and many of the physicians of that country have been trying to get the entire population of infected districts to submit to vaccine inoculation as a preventive of plague. At first there was but little, if any, real objection to it among the people, but just about the time it was needed the worst to stay the awful ravages of the plague, through the carelessness of some one, a lot of inoculated patients died of tetanus, and this gave it such a setback that for some time the people would have nothing to do with the remedy, and many even asserted that it was not a preventive. But since then the government has provided a specially instituted laboratory at Bombay, where this vaccine is prepared and where it is impossible to become contaminated with outside poison. Again strenuous efforts are being made to get the people to submit to inoculation, as from experience and results this seems to be the only remedy that in any manner diminishes the ravages of this disease.

Major Prall, the surgeon in charge of the medical corps during plague at this place, resorted entirely to the use of the vaccine virus in making a fight against the disease, and it is not too much to say that his efforts and that of his assistants have met with the most gratifying results. This experience will doubtless go far toward softening and clearing away the prejudice of the people of India against the inoculation theory, and will strengthen the inoculation campaign that is now going on for the suppression of the plague. Major Prall's report embraces three distinct communities. The first of these includes the general population of the Crater (old Aden) with its large proportion of coolies, earning from 6 to 10 annas (12 to 20 cents) per day, so poor and ignorant as to be beyond the control of ordinary sanitary measures. The people were induced to be inoculated by the offer of a reward, and between the middle of December and the end of January 8,000 persons, representing one-half of the population, were inoculated. The results are best given in Major Prall's own words: "Within two months the deaths fell off nearly one-half, and within four months the plague had ceased, the last two months of its life being attended by an insignificant mortality."

**CAMPAIGN OF INOCULATION.**

It is instructive and most convincing to examine the results of the inoculation campaign in the Crater upon the admission to the plague hospital. Between December 19 and April 30 there were 363 admissions with 163 deaths of uninoculated persons, and 21 ad-

missions and 7 deaths of inoculated persons. Now one-half of the Crater population had been inoculated. Consequently if the vaccine exercised no protective effect, the ratio of cases among inoculated and uninoculated would have been equal. Instead we find that out of an inoculated population of 8,500, only 21 cases were treated, and of these 14 recovered.

In the case of the Aden prison the results are even more striking. The presence of infection was evident by the frequent discovery of dead rats. The only preventive measure adopted was the inoculation of all prisoners and wardens. Yet only 2 cases of plague developed. One was that of a man who declared that he had been inoculated, but probably had not; the other, through negligence, was not inoculated until eleven days after admission and after he had developed plague.

Finally there was the Aden troop at Khore-Macksar, where the epidemic was arrested almost immediately by the adoption of systematic inoculation. The figures given in Major Prall's report by no means cover the entire plague reports of Aden during the time it was infected, but only two districts. The total number of plague cases reported for the whole locality embraced as Aden were 2,287 and 1,977 deaths, but throughout all the sections of the place inoculation was practiced by the doctors and nurses with the same good results as attended the efforts of Major Prall at the Crater."

#### **THE PHYSIOLOGY OF THE DIGESTIVE PROCESS. BILIARY AND PANCREATIC DIGESTION.**

Although gastric digestion takes about three hours before it is completed, the pylorus usually opens about twenty minutes after gastric digestion has commenced, this allows a small amount of acid gastric chyme to be poured into the duodenum. The presence of this acid is the normal stimulus for the outpouring of bile and for the secretion of pancreatic juice. After the intestinal contents are neutralized by the alkaline pancreatic juice, more acid chyme is expelled into the duodenum, so more bile and pancreatic juice are secreted. The chief function of the bile now acting upon the acid chyme is to precipitate any proteid which has not been converted into peptone in the stomach. This is then caught by the valvulæ conniventes, and its passage through the small intestine is delayed so that it may be completely digested by the proteolytic ferment of the pancreatic juice. Bile aids in the emulsification of fat; it also aids the pancreatic juice in digesting cooked and uncooked starch, and in some animals it is said to have an amylolytic ferment of its own which is capable of converting starch into maltose. Recent research shows that there is produced in the mucous membrane of the duodenum and jejunum a body which is called *prosecretin*, and that this, in the presence of the free hydrochloric acid which is present in the acid gastric chyme which is poured into the duodenum, or in the presence of free fatty acid, splits off a body called *secretin*. This substance is probably an organic sub-

stance of low molecular weight. It is believed that the *secretin* thus liberated is absorbed from the wall of the intestine and carried round to the pancreas by either the blood or lymph stream, and its action in the pancreas is to directly excite the cells lining the acini of the pancreas so that they pour out their secretion. If *secretin* be injected into the blood stream of an animal it is found that the secretion of bile is much quickened; this will account for the increased flow of bile which occurs within the first few hours after taking food. It will be noticed, therefore, that during digestion there is a series of processes going on, one following the other, and each dependent upon the other, the secretion of acid gastric juice depends to a certain extent upon the presence of the alkaline saliva, and the secretion of bile and pancreatic juice depends upon the presence of acid, which is contained in the acid gastric chyme.

The pancreatic juice is the most important of all the digestive juices. Its proteolytic action depends upon the presence of a ferment called trypsin. Absolutely fresh and pure pancreatic juice, however, has no digestive action upon proteid food. It depends upon the presence of the succus entericus for its proper action. Fresh pancreatic juice contains the mother-ferment, trypsinogen, and this is transformed into active trypsin by the zymolysin or enterokinase or "ferment of the ferments" which is present in the succus entericus. The trypsin so liberated converts proteid in the presence of an alkali (sodium carbonate) into alkali-albumin, then into albumoses, and finally into peptone. It goes further, however, in its action than the pepsin of the gastric juice, for it converts the peptones into simpler substances as leucine, tyrosine, arginine, aspartic acid and ammonia. Trypsin does not digest collagen. The starch-splitting ferment of the pancreatic juice is amylopsin, which is capable of digesting both cooked and uncooked starch, converting it into soluble starch or amidulin, subsequently into the dextrins (erythro-dextrin and aeuro-dextrin), and finally into maltose ( $C_{12}H_{22}O_{11}$ ). It should be remembered that the pancreatic juice of an infant does not contain any amylopsin, which means that an infant, certainly during the first seven months of its life is incapable of digesting any starchy material.

The action of the pancreatic juice upon fats is a two-fold one. It aids the bile in emulsifying the fats, and by virtue of its steapsin, it splits the fats into glycerine and the corresponding fatty acid, for example, tristearin, which occurs in fair quantity in mutton fat, is split into glycerin and stearic acid. Some of the fatty acids combine with the alkaline bases present to form a soluble soap, while others become dissolved in the bile salts and are therefore more readily absorbed. Pancreatic juice also contains a milk-ferment, but this is hardly ever called into play for the milk is normally curdled in the stomach.

In certain circumstances bile and pancreatic juice cannot get into the duodenum because of obstruction to the bile or pancreatic duct, or both. Such obstruction may be brought about by a gallstone impacted yellow crystalline precipitate of tri-bromo-phenol ( $C_6H_2Br_3O H$ ) in the pancreatic duct, by the malignant disease of the duodenum

involving the common papilla, or in the head of the pancreas, and occasionally by chronic interstitial pancreatitis.

A gastroduodenal catarrh may cause swelling of the mucous membrane of the duodenum to such an extent as to obstruct one or both ducts. Bile is secreted at a comparatively low pressure (15 millimetres of mercury), and any obstruction, involving the main duct, which raises the pressure in that duct, is liable to cause the bile to pass back into the blood-stream (the venous pressure in the portal vein corresponds to 10 millimetres of mercury); obstructive jaundice will result and both bile salts and bile pigments will be found in the urine. Should no pancreatic juice reach the duodenum, undigested fat and muscle fibre may be found in the feces.

If 60 grains of salol be given in cachets, in divided doses, during twenty-four hours, carbolic acid will appear in the urine; this is due to the fact that the salol is broken up by the alkaline pancreatic juice in the small intestine. If, however, no pancreatic juice makes its way into the duodenum, the salol remains unchanged, and no carbolic acid can be detected in the urine. The most convenient tests for carbolic acid in the urine are: (1) Add to the urine, which contains the carbolic acid, a few drops of *Liquor Ferri Perchloridi*, a violet color is produced; (2) Add to the urine a few drops of bromine water, a yellow crystalline precipitate of tri-bromo-phenol ( $C_6H_3Br_3O H$ ) is produced; (3) If a small quantity of bleaching powder and a little ammonia are added to the urine, on heating the mixture, a blue color is produced; (4) If Millon's reagent (acid nitrate of mercury) be added, a bright red color is produced. The importance of this test is obvious, as it enables us to diagnose obstruction to the outpouring of the pancreatic juice into the duodenum.—Reprinted from *Practitioner*, July, 1905.

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**"FRATERNITY."\***

<p>"Dear Friends, though not strangers, we never before Have suspected what love to each each other we bore." I do not suppose that the march of this verse Was intended to guide me, for better or worse, For the lack of ideas, as every one knows, Is not quite so patent in verse as in prose. But I freely confess it affords some relief</p>	<p>To a speaker expected to smile through his grief. Then too, for a rhymster, it is no dis- grace To hold up his paper and so "save his face:" While post-prandial prose must at least make believe It was spoken off hand, vain attempt to deceive. There's another good reason my rhythm to keep: You won't think this a sermon and all go to sleep.</p>
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\*Toast give by Rev. Dr. P. M. Snyder at the Joint Meeting of the Winnebago County Medical Society and the Central Wisconsin Medical Society, Rockford, Ill., Jan. 30, 1906.

But what of "Fraternity" in this disguise?

Shall we lose all the sentiment, as the rhyme flies?

I do not believe it: the heart will show through

All the wrapping and trapping that nonsense can do.

To be sure, I remember, a long time ago,

When I was a student, it came to pass so:

A learned physician once talked to us boys

About hygiene and such things, to add to man's joys.

But he told us quite frankly, amid all life's ills,

To be friends with our Doctör, but not take his pills.

To the fact that I've done this, as well as I could,

I attribute it now that my health is so good.

But when, on a Sunday, I stand up to preach

And find that the Doctors, collective and each,

Have found it convenient to have Sunday calls,

And their pews are all empty, my countenance falls.

It comes over me, then, that some rules work both ways.

And that back in the past, in your own student days,

Some honest old preacher must have said to you lads,

"Be good friends with the parson, but don't hear his fads".

So we'll call it all square, as good neighbors can,

But I'll tell you now, frankly, before we go on,

Between Doctors of physic and Doctör of hope,

If you won't hear my sermons, I won't take your "dope".

And yet, do you know? it comes over me now

That the work we are doing, the vows that we vow,

Lie along the same pathway of service and love,

That brings heaven to earth and lifts mortals above:

And the Master once trod it, with worn, weary feet:

He taught and He healed, and the service was sweet:

He gave health to the sick and good cheer to the poor,

And told them of victory ever in store.

And so, if we follow where He led the way,

We shall walk side by side, in our work and our play:

We shall help one another in joy and in grief,

And find our chief pleasure in giving relief.

They are wonderful callings, to heal and to teach,

The sick to restore and good tidings to preach:

And we shall be comrades in all this strange life,

With good cheer in our hearts and good hope for earth's strife.

So I'll turn to my text, as all good preachers do,

And the message you gave me I'll give back to you:

"Dear friends, though not strangers, we never before

Have suspected what love to each other we bore".

## BOOK REVIEWS.

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**The Open-Air Treatment of Pulmonary Tuberculosis.** By F. W. BURTON-FANNING, M. D. Cantab. W. T. Keener & Co., Chicago, 172 pp., \$1.50 net.

This manual is the third thus far published, of a series entitled "Modern Methods of Treatment". The author intends this volume to "serve as a practical guide to the modern method of managing pulmonary tuberculosis". He aims to make his book helpful to the practitioner who is compelled to carry out the treatment wherever it may be expedient, because only a small number of the tuberculous are enabled to enjoy sanitarium life. Etiology, Temperature in Pulmonary Tuberculosis, Pulse and Respiration, are considered, and further chapters are devoted to the Selection of Cases for Treatment, Treatment of the Febrile and Convalescent Patients, Diet, Results of Sanitarium Treatment, Requisites for Open-Air Treatment. All of these questions are gone into quite fully, and are considered with a degree of positiveness that convinces us that the author has gathered valuable experience in his long connection with sanitarium in England. He is a firm believer in "open air, methodical rest, and the proper use of exercise and food", as the only reliable therapeutic agents at our command, and for many reasons advocates simple shelter houses rather than elaborate buildings.

This book is well worth the study. It contains in comparatively small compass much that is exceedingly valuable, and information which it is desirable to possess in greater or less detail.—(A. J. P.)

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**The Ophthalmoscope and how to use it.** JAMES THORINGTON, A. M., M. D. with Colored Illustrations, Descriptions and Treatment of the Principle Diseases of the Fundus. 73 Illustrations—12 Colored Plates. P. BLAKISTON'S SON & Co., Philadelphia. 1906. Price \$2.50.

A lucid exposition of practical ophthalmoscopy, with sufficient of anatomy, optics, and the commoner affections of the internal ocular structures to give the beginner a clear idea of the diagnosis to be made by the ophthalmoscope, not alone as regards normal condition and disease, but also the refraction. The book is written for the student and general practitioner, and really fills a needed want, for other works on this subject are too elaborate or too compact for their purposes.

The author's style is clear and concise and the work is recommended to beginners in this most technical and difficult branch of the healing art. (H. V. W.)

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**Organotherapy.** By H. BATTY SHAW, M. D. (London), F.R.C.P. Chicago, W. T. Keener & Co., 1905, 250 pp. \$1.75 net.

While but a very small number of organic extracts have as yet received official sanction, as indicated by their lack of general adoption by physicians, much time and laborious experimentation are being devoted to testing the toxic and anti-toxic action of internal secretions, and out of the maze there will probably eventuate much that may prove therapeutically useful.

This volume is one of a series of monographs on "Modern Methods of Treatment", to be published by W. T. Keener & Co. Under various chapter headings are taken up the therapeutic uses of the Thyroid and Parathyroid Glands, the Suprarenals, Alimentary Tract, including Pancreas and Liver, Genito-Urinary Organs, Thymus, Pituitary Body, Spleen, Lymphatic Glands, Marrow, Muscle, Nerve, Tissue, Placenta.

In this publication the author has accomplished well what he proposes, namely—"to place before the reader a short account of the physiology, etc., of the glands of the body with special reference to internal secretion, and to supply a review of the practical applications in disease of the derivatives of various organs". The bibliography is very complete, and forms an excellent guide to the literature upon the subject. This volume will be found exceedingly helpful to every one who is at all interested in the newer therapy.

(A. J. P.)

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**Textbook of Human Physiology.** PROF. G. VON BUNGE, BASEL. 2 Vols., with 79 Illustrations in the Text and 2 Plates. 2nd Revised and Improved Edition. LEIPZIG, F. C. W. VOGEL, 1905. 28 M. (\$7.00.)

This is a delightful book. Although written for the student in the form of lectures, it is a most welcome gift for the physician, be he general practitioner or specialist, who wishes to remain familiar with the progress of physiology, the scientific foundation of all medicine. Leaving aside the incoherent facts and tiresome descriptions of methods and apparatus, the author considers only topics ripe for connected discussions, presupposing the necessary knowledge in allied fields, as anatomy etc., with the object in view that his work be actually read. However, to enable the reader to indulge in a closer study of the original works and form his own judgment, ample references will be found in the foot notes.

Von Bunge begins with the physiology of the sensory organs, "the A and O of all natural science, the fundament and the finishing stones." Besides the regular subject matter of physiology, we have special chapters on sleep, hypnotism, hibernation, heredity, regeneration, idealism and mechanism, conservation of energy, origin of muscular force, diabetes, infection and fever. The author, endowed with very broad ideas, accomplished his task, to represent physiology on a large scale, in a most brilliant form with regard to technic and style. Paper and print are of superior quality. (C. Z.)

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**An Atlas of Human Anatomy.** CARL TOLDT, M. D., Prof. of Anatomy, University of Vienna. Assisted by Prof. ALOIS DALLA ROSA, M. D. For Students and Physicians. Translated from the Third German Edition and Adapted to English and American and International Terminology by M. EDEN PAUL, M. D. BRUX., M. R. C. S., L. R. C. P., Sixth Section. G. Neurology. H. The Organs of the Senses. Figures 1124 to 1505 and index. Rebman Company, New York. Rebman Limited, London. 1904. In Cloth per Vol. \$4.75, the 6 Vols. \$18.00.

This work in six demi 4 vo. volumes (985 pp.) is an important addition to anatomy. It is composed entirely of beautifully made illustrations, 1505



in all, with explanatory legends and names. The arteries are colored red and the veins blue, the balance of the illustrations being wood-cuts in black and white. These illustrations are all original and evidently made from preparations. It is a monumental work and should be in the hands of every surgeon and especially teachers. The pictures are not quite so diagrammatic as our old standby, Gray's Anatomy, but are very distinct and are much more complete. The Sixth Section, "Neurology and The Organs of the Senses," is of particular interest to the ophthalmologist. An appendix to each part, that of the 6th Section comprising 29 additional pages of text, fully elucidates the recent advances in anatomy of the parts described, and the index at the end of each volume (26 pp. to Sec. 6) is very complete.

The printing and binding are very good and the work is most highly commended to our readers.—(H. V. WURDEMANN.)

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**Studies on the Cortex of the Human Brain.** S. RAMON Y CAJAL, Madrid. Translated from Spanish into German by DR. J. BRESLER, Lublinitz. No. 5. Description of comparative structure and histogenesis of the cortex of the brain. Anatomico-physiological thoughts on the brain. Structure of the nerve cells of the brain. Index of subjects and authors to Nos. 1 to 5. IV. 149 pp., with 7 illustrations and portraits of the author. LEIPZIG, JOHANN AMBROSIIUS BARTH, 1906. M. 6 (\$1.50.)

Our review of the preceding four numbers on the visual, motor, acoustic and olfactory cortices, will be found in this *Journal*, Dec. 1903, p. 467. In the present installment, completing the monumental work, the author points out a certain conformity in the architecture of the cortical layers in men and the gyrencephalic mammals. The anatomical simplification commences with the rodents, and becomes more noticeable in the lower animals. Two characteristics, however, are always present: the radial direction of the neurons, whose exterior poles constantly emit peripheral pencils, and under the pia, the existence of a plexiform stratum, in which the fascicles of the pyramids and the affluent nerve fibres meet.

For the explanation of how certain psychical acts are perfected by exercise, of originality and variety of talents, logic memory and of disturbances of association (amnesia, mental inactivity, imbecility and insanity), the author assumes reinforcement of previously formed organic paths, new formation of others through ramification and progressive growth of dendrites and terminal nerve fibres. The number, form and volume of the neurofibrillæ, composing the pyramidal cells, vary enormously under certain physiological and pathological conditions. In the state of hyperactivity they become attenuated and multiply (exhausted neurons), while at rest or under the influence of cold, hibernation, or of the toxins of hydrophobia they are arranged in the form of a few colossal, absolutely homogeneous, interwoven bands.

Cajal's work contains the most perfect demonstration of the cerebral cortex, so far presented, and its careful study is imperative for all who wish to become thoroughly acquainted with the delicate structure of the brain. Print and the very numerous illustrations are excellent, and the well executed picture of Cajal will be especially welcome. (C. Z.)

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### CURRENT LITERATURE.

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**Rheumatoid Arthritis.** A. P. LUFF (*Practitioner*, July, 1905) says that Rheumatoid Arthritis or Arthritis Deformans has no causal relation with rheumatism, or septic arthritis, though he gives the latter among the list of predisposing causes, along with primary rheumatic fever, gonorrhoeal arthritis, acute attacks of gout, and influenza. If one gets history of so-called "rheumatic fever," prolonged attack, the salicylates not doing any good, it usually turns out to be an acute attack of rheumatoid arthritis.

Rheumatoid arthritis is a constitutional disease, the affection of the joints being an important manifestation. It is due to micro-organisms obtaining entrance into blood through the alimentary tract, nose, pharynx, and bronchi. The micro-organisms while active produce toxins, which are cast into circulation, and, by their action on nervous system, cause the nervous symptoms of the disease, while toxins acting on the vaso-motor nerves and trophic nerves of the skin, cause the local sweatings, and pigmentations seen in this disease.

The disease may be acute, subacute, and chronic, latter is by far the most common form, indeed it may be a late stage of the acute form, or may be chronic from the beginning.

Acute Rheumatoid Arthritis occurs usually in children and young adults, and usually in females. Acute and subacute types of the disease are characterized by inflammatory changes of the tissues of the affected joints, erosion of cartilages, and bones, by nerve and trophic phenomena, and by glandular enlargements. Disease is usually symmetrical, beginning in one metacarpophalangeal articulation, and quickly involving other joints. Latter are painful, hot, and present spindle-shaped enlargements, but no outgrowth or thickening of either cartilage or bone occurs during acute stage.

The chronic form occurs in middle life, usually in middle-aged females, at time of climacteric. Predisposing causes are small traumatism to a joint, taking place in elderly and ill-nourished persons, and effects of excessive work and strains in such people, increasing with advancing years; and imperfect nutrition. Disease begins with slight swelling and pain on movement. Effusion variable in amount. Hands are the first to be affected, followed by the feet, and disease tends to attack each joint in turn, progressing up limbs towards the trunk. Every joint in the body may be affected. Temporomaxillary joint involved in 25% of all cases. Later spine is attacked from above, downwards. Chronic form is characterized by thickening and hardening of all joint structures, by osteophytic outgrowths, and by deformities. In the very chronic forms Heberden's nodes are met with, frequently in middle-aged women with some uterine trouble.

If disease is arrested, swellings remain, and treatment has no effect on the bony outgrowths, but may reduce periarticular thickening. Active symptoms in this form coexist with the uterine disturbance. When cervical vertebrae are attacked, patient complains of pain in back of neck, making rotation of head difficult. When dorsal and lumbar region affected a rigid spine is seen. (This is true ankylosis.) Pain severe, especially at night, but one

may see extensive deformity without pain. On rubbing the ends of bones together a grating is produced. Pseudo-ankylosis is present due to the thickened capsules, and projecting osteophytes causing locking of the joints. Atrophy of the muscles attached near affected joints usually occur, with contractures tending to flex thigh, or bend knee, elbow, wrist, etc. Usually involuntary muscle tension is increased, as shown by exaggerated knee jerks. Most cases reach non-painful stage, with associated crippling, and consequent inconveniences.

Treatment should begin early and continue one to two years; hence importance of the early recognition of the disease, and of eliminating gout and rheumatism. If the acute stage of disease is treated early it is curable. Patient's strength and general nutrition should be kept up by all means available. If it has reached the chronic stage, the disease may be arrested, pain cured, and one may get greater movement of joints; but it is impossible for latter ever to become normal again. Great mistake to put patient upon a restricted diet in early stages. Diet should be nutritious, including animal and vegetable food. Red meats, and such articles as sugar, potatoes, cauliflower, peas and beans, are not excluded. Woolen clothing should be worn next to skin, and exercise without producing pain, should be taken. Dry soil, and warm, dry climate most suitable, for example, Egypt and Algiers.

Drugs—Luff employed guaiacol and potassium iodide in hundreds of cases, arresting the disease, diminishing size of joints, allowing freer movement of joints, and relieving pain. Useful in both subacute and chronic forms. The guaiacol preventing further infection from intestines, and after absorption, by combining with bacterial toxins, assisting in their elimination. Potassium iodide assists in absorption of hypertrophied fibrous tissues. He gives guaiacol carbonate in cachets, beginning with five to ten grains three times a day, and increases dose one to two grains per week till fifteen to twenty grains are taken at a dose. Increase efficiency of guaiacol by giving potassium iodide. Potassium iodide can be given with *nux vomica*, and syrup glycerophosphate *co.* Preserve latter with spirits of chloroform and aqua menth. pip. Full doses of potassium iodide at first are less liable to produce iodism than if small doses are given. Begin with ten grains three times a day and continue if it agrees with patient. This is better than the old treatment of arsenic and iron given in small doses for two or three years. Improvements in resultant deformities in these cases may be procured by baths, superheated air, or electric light, by massage, and passive movements. Above treatment for subacute and chronic cases. Acute cases best treated with quinine during the stage of high fever.

Regulated movements and massage assist in overcoming stiffening and fixation of the joints, and prevent wasting of muscles, and also improve nutrition of the joints. This stimulation affects the trophic nerves and tends to reduce muscular spasm and relieves pain; also probably helps to absorb recent adhesions in joints as well as to improve general nutrition and circulation of body. Massage should be lightly applied at first, no tension given to affected joints for first few days.

Best results obtained in joint massage by quick rubbings to surfaces of joints, and gentle kneading and squeezing of the tendons and fibrous tissues surrounding joints. Active and passive movement of the joints should also

be employed. Counter-irritation of spine in form of linear blisters on both sides of vertebral column good to relieve neuralgic pains, especially common in earlier stages of disease. Blisters applied to cervical, dorsal, or lumbar region, according to where pain is.

Patient with rheumatoid arthritis should not winter in cold, damp climate. (A. W. Akerly.)

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**Late Poisonous Effects of Anesthetics.**—A. D. BEVAN and H. B. FAVILL, Chicago (*Journal A. M. A.*, September 2, 1905) report the case of a girl, aged 12½, from whom a gangrenous ovarian tumor with twisted pedicle was removed. The operation was done under chloroform and took a long time and an unusually large amount of the anesthetic. The patient did well until forty-four hours after the operation, when there appeared an acute toxic delirium with rapid pulse, tonic muscular contractions, moderately high temperature and later, increased temperature, Cheyne-Stokes breathing, irregular heart action and death 110 hours after the operation. The autopsy, by Dr. Hektoen, seven hours after death, showed advanced fatty change in the liver, at the periphery of the lobules, and congestion, etc., of kidneys, spleen and lungs. The authors give an extended review of the literature of similar cases, and conclude that anesthetics, especially chloroform (ether to a very limited degree), can produce a destructive effect on the liver and kidney cells, and on the muscle cells of the heart and other muscles, causing fatty degeneration and necrosis, very like that occurring in phosphorus poisoning. The most constant and important injury is that to the liver, and is in direct proportion to the amount of anesthetic used and the length of the anesthesia. Some individuals appear to be specially susceptible to these effects, and certain conditions, such as age—the younger the patient the greater the danger—those lowering the general vitality, various intoxications, exhaustion, lesions involving fatty degenerations and chronic affections of the liver and kidneys are also probable predisposing causes. As a result of the liver lesions, toxins are produced either from the liver cells themselves or as a result of their failure in their normal eliminative functions, and these may produce a definite symptom complex, consisting of vomiting, restlessness, delirium, convulsions, coma, Cheyne-Stokes respiration, cyanosis, icterus in varying degree, and usually terminating in death. It is probable that milder degrees of this poisoning are observed as transient after-effects of chloroform. The condition is a hepatic toxemia, and in the opinion of the authors, as definite a pathologic entity as a pancreatitis with fat necrosis. Acetone, diacetic acid and beta-oxybutyric acid are by-products, but not essential poisons in this toxemia. The liver lesion is the one responsible for the symptoms and the fatal result. In the fatal cases, death is almost invariably due to chloroform; ether is seldom the cause of a death of this kind. Hence, chloroform should never be used with conditions such as have been mentioned as favoring this toxemia, nor for very prolonged operations. The importance of limiting the duration of the anesthesia, when chloroform is employed, is especially emphasized by the authors.

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## MISCELLANY.

**“Universal Hygienic Exposition”**  
to be held in Vienna, May 12 to July 15, 1906, will present a comprehensive picture of modern hygienic improvements. It proposes to show what has been accomplished in the fields of domestic and public sanitation, nutrition, sanitary, and life-preserving work, and all other progress attained in matters pertaining to public and private hygiene. It aims not only to benefit those participating in the exposition as exhibitors, but to be a means of educating the public in modern hygienic methods.

#### External Application in Rheumatism.

Salicylic acid.....dr. 2  
Oil wintergreen.....dr. 1  
Witch hazel.....oz. 1  
Oil mustard.....min. 5  
Alcohol.....oz. 4

M. Sig. For external use only.  
Apply at night, and in the morning if necessary.

The formula makes a clear solution. The wintergreen gives a pleasant odor, so that the most fastidious patients find no objection to its use. It is clean and does not stain the skin or clothing. (*Practical Med.*)

**Cuban Pharmacies.** There are 250 drug stores in Habana for the 250,000 inhabitants, and the same ratio may be accepted for the other cities of Cuba. There are also many organizations and societies which employ doctors and their own pharmacists, and dispense medicine to the society members. Physicians, however, do not often dispense medicine. The average number of prescriptions compounded is less than in the United States. The pharmacist is not per-

mitted by law to prescribe, and the relation between physicians and pharmacists is friendly. Doctors prescribe a great amount of ready-made or patented medicine. Prescriptions are the best part of the drug business in Cuba, as pharmacists here sell less of toilet articles, cigars, etc., such as are sold in American drug stores. The customer is considered the proprietor of his prescription, which is returned to him after being entered in the prescription book. Pharmacists in the larger Cuban cities fill foreign prescriptions as well, consulting the foreign pharmacopœia of the country from which it comes. The Cuban pharmacists generally prepare their own tinctures and ointments. (*U. S. Consular Report.*)

**A verdict** of damages, to the extent of \$17,500, was given, in Illinois, to the five children of an habitual drunkard, against three saloon-keepers who were charged with having been the cause of the man's downfall.

**Canada's Leper Colony.** Canada has a leper colony on D'Arcy Island, where a dozen Chinamen are segregated. The outcasts have ample provisions of rice, condiments, and cured fish. The inhabitants have several dozen fowls and raise vegetables. Pitiful as their lot may appear, it is reported that after the first few weeks the Chinamen became reconciled to their fate. The lepers range in age from 21 years to 45. The station is maintained by the government.

**Federal Support in the Tuberculosis Movement.** As a result of the report of a committee of investigation appointed on recommendation of

the National Association for the Study and Prevention of Tuberculosis, President Roosevelt has issued an executive order with the object of "eliminating and preventing tuberculosis among the employes of the public service." Heads of departments are required to post in all federal buildings the rules to prevent the spread of tuberculosis and require their effective display. (*Charities.*)

**Day of Rest for Physicians.** At a meeting of the Frankfort (Germany, Medical Society, it was urged that the doctors need a day of rest, and it was therefore proposed that the city be mapped out into 17 districts according to the police divisions. The doctors in each district are to arrange to remain at home in turn on Sunday and attend to urgent cases, and one specialist in every branch will also be available. Physicians on duty will be under obligations to give immediate notice to the usual medical attendant of a family to which they have been called, and to refrain absolutely from any kind of after treatment. The society unanimously agreed to the proposition and decided to introduce the scheme.

**Prohibiting Marriage.** The New York State legislature is considering a bill prohibiting the marriage of insane, epileptic, imbecile or feeble-minded persons. The text follows:

"Marriages prohibited.—No insane, epileptic, imbecile or feeble-minded person shall be capable of contracting marriage and every marriage between persons either or both of whom are or have been insane, epileptic, imbecile or feeble-minded, is absolutely void. A marriage between persons either or both

of whom have been insane, epileptic, imbecile or feeble-minded, shall not be deemed a violation of this section if at least thirty days prior to such marriage such person shall file in the office of the county clerk of the county where such person resides and of the county where such marriage takes place, a verified certificate of two regularly licensed reputable physicians of this state that such person has been completely cured of such insanity, epilepsy, imbecility, or feeble-mindedness, and that there is no probability that any such persons will transmit any such defects or disabilities to the issue of such marriage."

**School Nursing in Grand Rapids.** During September and October the Grand Rapids Charity Organization Society received permission from the local board of education for its district nurse to care for sick children in the schools. During October she treated 265 pupils in ten schools and gave 795 dressings.

The Board of Health became interested in the work and as a result a group of physicians have agreed to act as medical inspectors in the schools. The Board of Education is assisting in the work by providing a regular school nurse. (*Charities.*)

**To abort boils** inject carbolic acid, two or three drops, into the center of the boil. Use the pure acid fearlessly. There is no pain and no danger.

For hypodermatic or deep injection prevent crystalization in syringe and needle by keeping instruments warm. After filling a syringe, place it into hot water a few minutes, and inject quickly. A good syringe will not admit water, even if immersed.

# THE WISCONSIN MEDICAL JOURNAL

APRIL, 1906.

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## ORIGINAL ARTICLES.

### PENETRATING WOUNDS OF THE ABDOMEN.\*

BY G. A. BADING, M. D.

MILWAUKEE.

In penetrating wounds of the abdomen the question arises: should we operate or not? In a certain number of cases the conditions and symptoms present are such as to call for immediate operative interference. In others, however, symptoms are more obscure or lacking and we are unable to satisfy ourselves by the most careful examination whether or not the injury has produced conditions which necessitate laparotomy.

There has been too much tendency to limit surgical intervention to such cases in which the following conditions are present and demonstrable: First—Dangerous internal hemorrhage; Second—Injury of internal organs which ultimately of necessity causes death.

The former can usually be detected by careful examination, although even symptoms of severe hemorrhage may be obscured by those of shock. In the latter cases there may not even be present symptoms of shock, and according to the general condition of the patient we might be tempted to resort to an expectant treatment, only to find after thirty-six to forty-eight hours that the policy of waiting on our part has turned out to be fatal to our patient.

In civil practice stab wounds and gun-shot wounds are comparatively rare, and for that reason I think it advisable to call attention to various conditions which may unexpectedly confront us in this class of cases. The first point to be taken into consideration, after having determined the character of the wound, whether penetrating or not, is the question of diagnosis as to the presence of either internal hemorrhage or of visceral lesions, or both. If symptoms of

\*Read before the Milwaukee Medical Society, February 27th, 1906.

severe shock are present this is not often an easy matter to determine, and it is in such cases especially that the question of immediate operative interference becomes an important one.

The usual conditions accepted as determining factors in the propriety of performing immediate laparotomy are: "first, positive evidence of penetration in the form of protrusion of bowel or omentum: second, discharge externally of feces, bile or urine; third, when severe and rapidly developing collapse shows that there is profuse internal hemorrhage."

As to the first condition: that cannot always be accepted as indicating an absolute necessity for laparotomy, as no doubt recovery frequently takes place without operation after returning the protrusion, or—if omentum—ligating it, so that after all a condition of this character would leave us in doubt.

As to the second condition: this is exceedingly rare, unless the wound is a very large one, and the lack of escape of feces, etc., through the external wound certainly does not prove the absence of lesions of intra-abdominal organs.

The existence of profuse hemorrhage is at times difficult to determine, or the hemorrhage may be slow in character, so that its presence can be ascertained only after a prolonged period of waiting, when other conditions might be present which would demand immediate interference in order to save the patient's life—such as intestinal perforation and escape of fecal matter into the free abdominal cavity.

So, after all, we cannot accept the enumerated conditions as the only ones, nor as the ones which always indicate the necessity for laparotomy, and it becomes a matter of judgment, to decide which in some cases may induce us to adopt a waiting policy with fatal results, and in others to operate with either good or also fatal results.

If we recognize the fact that penetrating wounds of the abdomen are always to be considered extremely serious cases from the beginning, it seems to me that we do not increase the severity of the case by making an immediate exploratory laparotomy, in every one, always, of course, taking it for granted, that the operator must possess the necessary surgical training. It is certainly the only means which enables us in every case to demonstrate the presence or absence of lesions which are of necessity fatal unless remedied.

Senn's method of rectal insufflation with hydrogen gas, even if it could be relied upon in every case for demonstrating intestinal perforations, is not always a practical one for obvious reasons.

An argument in favor of immediate operation in cases of pene-



trating wounds of the abdomen is found in Siegel's statistical table of cases, as mentioned by Douglas. In 532 cases treated without operation the mortality was 55.2 per cent. In 736 cases subjected to operation the mortality was 51.6 per cent. True, this is only a gain of 3 per cent, but nevertheless a gain, and a gain no matter how small, is always worth striving for.

Douglas compiles a table of cases which shows in 65 cases operated upon a mortality of 32.3 per cent.

That the element of time which elapses from the moment the injury was sustained to the time of operation, plays an important rôle, is proven by the fact that of the above mentioned cases, those operated upon within the first four hours show a mortality rate of only 15.2 per cent, while those operated upon after twelve hours, show a rate of 70 per cent. These figures speak for themselves.

Now the question arises: Are there any contra-indications to operation? It would seem that if the patient is in an extreme condition of collapse and death seems imminent, an operation should not be undertaken, and yet even in such a case an operation will do no harm if it does no good. There are only two absolute contra-indications to an operation: One is absolute lack of facilities to observe proper technic (and this will rarely be the case, at least in a large community); and the other, if we first see our patient after thirty-six to forty-eight hours following the injury, and his condition is a satisfactory one, no untoward symptoms having made their appearance within that time. But in such cases also it will require the exercise of one's best judgment to decide the question.

The following three cases will illustrate some of the points mentioned in this paper.

In the first case we have protrusion of abdominal contents without lesions of intra-abdominal organs. In the second case we have profuse intra-abdominal hemorrhage besides other serious lesions, while in the third we have serious lesions with escape of feces, without any symptoms showing the serious nature of the injury.

CASE I. Eddie G., age 14, Polish, school boy. Admitted to hospital November 8, 1904, at 6.30 p. m. Examination revealed a stab wound measuring one inch in length in left side of chest anterior to axillary line, penetrating chest between seventh and eighth ribs. Omentum was protruding through wound. General condition of patient was fairly good at this time. He was prepared for operation and the abdomen opened by an incision through border of left rectus muscle. Examination of abdominal contents revealed no injury. There was no hemorrhage into abdomen. Protruding omentum was ligated and removed, and stump returned to abdominal cavity. Ex-

amination now revealed a rent in diaphragm and pleura one inch in length. There was no hemorrhage into pleural cavity. While returning omental stump into abdomen the left lung collapsed causing marked dyspnea and lividity, the pulse becoming almost imperceptible.

The abdominal incision was closed, the chest wound slightly enlarged, which enabled me to suture the diaphragm and pleura. A small drain was inserted into pleural cavity. Twenty-four hours after the operation the patient's pulse was 122, temperature 102.6°, respiration 44. He remained under my care until November 14, when he was transferred to the Children's Free Hospital. At this time his pulse and temperature were normal.

CASE II. Joseph S., age 14, American, school boy. Admitted to hospital July 29, 1905, at 9.40 a. m. Examination revealed a penetrating gun-shot wound of abdomen three-fourths inch to left of umbilicus with powder stains of surrounding skin. Patient was suffering from considerable shock. Examination of urine negative.

He was at once prepared for operation and the abdomen opened in median line. There was free escape of liquid blood, and large clots presented in the opening. After removing clots a loop of small intestine presented, showing an intussusception of nearly two inches. This was immediately reduced without difficulty. Abdominal cavity was now freed from blood and an examination of contents made. There were found one perforating laceration of descending colon near its attachment to the meso-colon, and two other lacerations, one involving the meso-colon and the other the posterior abdominal wall. These two latter lacerations were bleeding profusely.

All of the lacerations were sutured and the hemorrhage checked. The bullet being imbedded in the muscles of the back, no search was made for it. Abdominal cavity was now carefully sponged, every vestige of blood being removed. There was apparently no escape of bowel contents. After repeated flushing with normal salt solution the abdominal incision was closed, allowing, however, sufficient salt solution to fill cavity to remain. At 10 p. m., of the same day, the pulse was 140, temperature 102.3°, respiration 44. Aside from more or less vomiting during the first twelve hours there were no untoward symptoms. The patient remained under my care until August 8, when he was transferred to the Children's Free Hospital. At this time his pulse and temperature were normal.

CASE III. Wm. L., age 20, American, lake fireman. Admitted to hospital September 17, at 8.30 p. m. This man was shot by an officer while attempting to escape arrest. After a prolonged chase during which ten shots were fired at him, he was captured and taken to the jail where it was discovered that he was wounded. He was then brought to the Emergency Hospital. General condition good. Examination revealed a flesh wound in posterior fold of left axilla, superficial in character. A second wound was found in left lumbar region, about midway between crest of ilium and lower border of ribs, and about two inches to the left of the spine. There was no great amount of hemorrhage from either wound. Examination of

urine proved negative. He was prepared for operation and an incision made in line with wound in order to determine its extent and course. It was found to have penetrated the abdomen. The patient was now prepared for laparotomy and the abdomen opened in the median line by an incision about five inches in length. Cavity contained both liquid and clotted blood in small amounts. Careful examination of abdominal contents revealed three perforations of descending colon and large laceration involving posterior abdominal wall and meso-colon. The three perforations of colon were from one to two inches apart. There was escape of bowel contents containing a liberal supply of tomato seeds. The perforations were closed with double row of catgut sutures, as was also the rent in meso-colon and posterior abdominal wall. The bullet could be felt somewhat higher up in the bowel where it was left undisturbed. After carefully sponging and flushing the abdominal cavity, iodoform drains were inserted to pelvic floor and abdominal incision was closed, allowing a quantity of saline solution to remain. A small drain was also inserted in wound of entrance of bullet. It was noted at the time of operation that the peritoneal covering of intestines was highly injected throughout.

Patient was taken to bed and placed in semi-recumbent position. His pulse at this time was 132, temperature 100.4°, respiration 80. He was very restless throughout the night and only partly conscious, and at times very delirious. There was also considerable vomiting during the twenty-four hours following the operation.

September 18, 10 p. m., twenty-four hours after the operation, the pulse was 160, temperature 101.4°, respiration 60. September 19, 8 a. m., thirty-six hours after operation, the pulse was 158, temperature 105.2°, respiration 52. At this time an examination of abdomen showed no marked tympanites, but he complained of some pain and tenderness. I ordered one ounce sat. sol. mag. sulph. in divided doses. This produced a number of watery evacuations and patient's pulse and temperature began to drop from this time on until September 22, five days after the operation when it reached the normal point, where it remained. He was discharged from the hospital October 19, and removed to the county jail.

The drain was removed completely September 19.

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## THE FEEDING OF THE TYPHOID FEVER PATIENT.\*

BY T. J. REDELINGS, M. D.

MARINETTE, WIS.

The feeding of the typhoid fever patient seems, at first thought, to be a rather narrow limit to assign as the subject of a paper to be presented to a body of medical men, yet in its broader sense it in-

\*Read before the Joint Meeting of the Marinette and Menominee County Medical Societies, January, 1906.

volves the whole problem of metabolism. Since the earliest days of investigation on metabolism, the question as to the energy of exchanges in fever has received attention. That the albumen exchanges are increased is quite certain, toxic influences are the probable cause. Why does the patient waste during the period of fever? Why does he lose so much of his body fat? As a matter of fact, in every case of long continued fever we observe an enormous loss of weight, even if we endeavor to avoid this loss by the administration of rich and nutritious foods. Does the cause lie in the fact that in spite of all our care an individual during the fever period cannot ingest the normal average amount of food, as the digestive organs during fever are unable to take in or to digest the necessary amounts? Or do the oxidative processes in the fever period rise markedly above the normal? If this is the case the food requirements of the fever patient will not be satisfied by ordinary quantities; the amount of food sufficient for a healthy individual would not prevent the patient from wasting during the stage of fever.

The observers of early times did not doubt that fever was always accompanied by a substantial increase in all the processes of oxidation. The exact investigations on the metabolic changes which have been made during the last decades do not, however, confirm these ideas<sup>1</sup>. Failing to confirm the old ideas they have given us no reliable solution of the metabolic changes which *do* produce the body waste during the course of a fever. To the practitioner it appears that during fever the metabolic processes are increased, while at the same time the powers of assimilation are lowered. This results in the burning up of the body proteins as well as the fats. It is claimed that the proteins suffer a greater loss proportionately than the fats.<sup>2</sup> One need only call attention to the peculiar muscular irritability in the later stages of the disease to recall this fact. The appetite is diminished or entirely lost. Thirst is often increased.

In reviewing a goodly number of text-books on the feeding of the typhoid patient, the fundamental principle is found correct in all of them and can be summed up in a few words, *viz*: The food should be liquid but nourishing and be regularly administered. To one who is conscientiously endeavoring to guide his patient through a long and exhausting illness this advice is an aggravation. The problem of feeding the typhoid patient is today a broader one and presupposes on the part of the medical attendant a detailed knowledge of food values.

The diet allowance or the daily ration should be so constructed that it will contain the necessary number of calories of energy to

support life and replace waste. Theoretically a person weighing 130 pounds requires 2500 calories every 24 hours<sup>3</sup>. It may be difficult to induce him to take the necessary volume of food to contain this number. The caprice of the patient and due regard for a diseased alimentary tract may necessitate falling short of this amount. As between under and over feeding the balance is in favor of the former. The liquid, including the liquid nourishment, consumed in 24 hours should be from 2½ to 3 quarts. To satisfy the kidney alone requires from 1½ to 2 quarts. Pure water is the best beverage, but when this is not freely taken the patient may have weak tea or coffee, or fruit juices may be added to the water. Charged waters are not advisable. Milk constitutes the best food for a fever patient, and with children is usually all that is required. The child does not, as a rule, object to the monotony of the diet. A pound of average market milk, a 4 per cent. milk, contains 325 calories.<sup>4</sup> If it requires about 14 calories to maintain a pound of body weight, a child weighing 50 pounds would therefore require 700 calories. This would be obtained from a little less than two quarts of good milk more accurately speaking, 60 ozs. The modification of milk so that a smaller volume will contain the same number of calories will be considered later. In feeding the adults, as with children, milk again heads the list. If 14 calories are required to maintain a pound of body weight, while the body is at rest, it would require 1820 calories to maintain a patient weighing 130 pounds for 24 hours. This, you will notice, is less than the theoretical requirement, but has been found to meet the practical requirements by Leyden of Berlin. It would require five and two-thirds pints of 4 per cent. milk to provide this number of calories. Few patients would consume this amount in 24 hours. The following modification of milk will contain the same food value: Two pints of 4 per cent. milk yield 750 calories, one pint of 18 per cent. cream 910 calories, one and one-half ozs. milk sugar 163 calories. The total is 1823 calories in a mixture containing three pints or 48 ozs. The individual meal may be varied by adding coffee or chocolate. These elements, with the addition of egg albumen, may be combined in a great variety of ways and still remain a symmetrical dietary and will serve excellently when the patient accepts milk kindly. When the digestion is feeble the milk may be peptonized. When milk is taken reluctantly, or is not well born, it may be diluted with water or lime water or be disguised with coffee, tea, chocolate or liquors. In those cases in which milk is rejected or born only in small quantities the diet must be supplemented with the various gruels and meat broths. It should be born in mind that in these

foods it is difficult to reach one half the food value of milk. One pound or pint of bouillon contains 50 calories. Consommé in the same quantity will vary from 55 to 150 or possibly 170, according to the manner of its preparation. Oatmeal gruel 155 calories. Meat broths, thickened with a cereal gruel, may reach 170 calories. The same result can be obtained by the addition of egg to the broths.

Where the bulk of the daily dietary is of so great importance as in typhoid fever, the difficulty of administering a sufficient quantity to supply the necessary calories is at once apparent. Beef broths are a purely protein food and build a very narrow or one sided diet. Yet beef broth has value other than its food contents. A cup of beef broth acts as a nerve stimulant, supplies various animal salts, and may excite the flow of the gastric fluids and indirectly stimulate the appetite. What I have said of beef broths is also largely true of beef juices. They contain 93 per cent. of water, 4.9/10 per cent. protein 0.6 per cent. fat, no carbohydrates, 1.5 per cent. ash, and yield 115 calories of energy to the pound. More valuable than the beef broths and cereal gruels are the less commonly used cream soups. When properly made they are really a modified milk. Their base is usually milk, it may be milk and beef stock combined. A great variety of them can be made, affording frequent change in flavor, thus eliminating the monotony of the diet. Cream of celery, asparagus, corn, tomatoes or green peas are those more commonly made. The food value of the cream soups may be further increased by adding the puree of the ripe pulses, beans, peas or lentils. The several cream soups yield from 250 to 285 caloric units to the pound. Those made from the ripe pulses will very nearly equal milk, volume for volume. These various cream soups afford a well balanced dietary. Their ratio is wider than the beef broths and gruels and they run very close to milk in their nutritive value. The protein content varies from 2.5 to 3.6 per cent., the fat from 1.4 per cent to 3.2 per cent., and the carbohydrates from 5.5 per cent to 9.4 per cent.

The food should be administered in quantities of from five to eight ozs., at intervals of two hours. In the average case only two feedings should be given during the night as the patient requires longer periods of unbroken rest. The quantity given at these intervals may also be larger if the patient's digestion is undisturbed. Fruit juices may be given freely, especially the citrous fruits. They are best given to replace a meal or as a refreshing morning drink. Their food value is practically nil. Where constipation is a factor they may have a slightly laxative effect. Their germicidal power

is greater, I believe, than is generally accepted. Diarrhea contra-indicates their use.

We have been pleading for a symmetrical liquid diet for our typhoid patient and yet milk, universally accepted as the best food, yields a residue of from six to 10 per cent. which the intestines must carry off. Perhaps our anxiety for the patient's diet is too great. Barrs of Leeds, England, reports 30 cases treated without restricted diet; none of the patients died, and Dr. Barrs reports the patients as better nourished and in better strength at the end of the illness than those who were given only liquid food. To accept his advice and apply his teaching generally, I believe, would be hazardous. A diet might not be harmful and yet not be beneficial. A French writer reports 36 cases treated by rectal alimentation without bad results. It seems to me, however, that neither man's experience would justify its general adoption.

Lastly I ought to consider the rôle which alcoholics occupy in the dietary of the typhoid. I shall, however, pass the subject by saying that in the successful care of a large number of typhoids during the past twenty years I have never used it. It has its strong supporters, among them men of international renown.

If in this rather superficial review I have impressed upon you the necessity of quantity and quality to body weight with the idea of supplying the patient with approximately what he needs to maintain his strength and supply waste, my effort is attained.

The question of feeding the convalescent typhoid would properly have been a part of this discussion but time did not permit.

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5. Principles of Nutrition and Nutritive Value of Foods—W. O. Atwater. This was frequently referred to in estimating the value of foods.

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## THOUGHTS SUGGESTED BY RECENT ARTICLES ON PNEUMONIA.

BY GEORGE F. BUTLER, M. D.

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The article on pneumonia by Dr. Peter L. Scanlan, published in *THE WISCONSIN MEDICAL JOURNAL* in February, is the last of a great number of papers on this subject that I have read.

I believe that the physicians who have written on this topic (and

there are thousands of them) are sincere and that each one thinks he has the best and only rational method of treatment. A careful reader of the great mass of literature on the treatment of pneumonia, must be impressed by the fact that these earnest efforts form a great discordant chorus.

Outwardly they are incongruous and often appear antagonistic. But they all may be defined as the multiform experiences of honest, observing doctors who are striving after truth, and who, let us hope, are liberal enough to change their views if they can be convinced that they are wrong. But the walls of cold intellectualism, so-called science, and formulated dogmatism, are rigid and unyielding.

Many are walking in long-used ruts so deep that with difficulty they can step out, and even sometimes look over their borders. Others, like sheep, follow some therapeutic nihilistic bellwether even though the course leads too often to the undertakers.

The so-called seers and sages in medicine, the alleged leaders who occupy the "seats of the mighty" in our societies and medical schools, are not literally authoritative but rather aids. They encourage us by their successes, and point out their failures (sometimes) for us to avoid. And their failures so far as the treatment of pneumonia is concerned are tolerably numerous.

One trouble is that the "authorities" assume that they have "arrived." "We know the cause of pneumonia," they say, "and the disease is not amenable to any known treatment." That settles it, of course! And the fog of pessimism prevails high and low because the "leaders in the profession" (sic), the most enlightened men of an enlightened age have told us the true etiology of pneumonia, and that no treatment is of avail.

"This is not an enlightened age," said Lessing, "but an age becoming enlightened." We are progressing, and our progress in medicine is manifested in many ways, but progress in medicine is retarded when we ignore the experience of the general practitioner. He may not be a "Professor" or a President of a Medical Society. He may be too busy to do anything but attend to his patients. I have known many such men, and their views on the treatment of pneumonia based on an extensive experience at the bedside are as worthy of my consideration as are those of some men whose names are more often seen in medical literature, and usually more so.

It is just barely possible that we do not know the true cause of pneumonia. The modern germ theory for the origin of many diseases is now accepted by the majority of medical men. I am one of them, but we may be wrong. There is a respectable minority of



the medical profession who incline to the view that germs are a concomitant or even a result, rather than the primary cause of the disorder. Many of them are admittedly beneficent scavengers, but those which are specifically harmful only come when the soil and conditions invite them. A few years ago it was stated that an eminent scientist in Vienna swallowed a considerable amount of cholera germs, and that they proved innocuous. Not every one who is exposed to a contagion responds. Specific germs do not always arbitrarily find lodgment where conditions do not invite and this would seem to show them to be secondary. Causes and occasions must be discriminated. The former, some argue, are always within, and expressed in a common term, may be called susceptibility. Occasions are from without, and are only convenient opportunities. They have no absolute power as entities and can only exert such an influence as susceptibility has conferred upon them. Suppose that ten persons are equally exposed to some contagious disease, two respond to it and eight do not. To the eight who did not "take it" it was not contagious at all, but simply a non-entity. The two who presented a fertile and ready-made soil had unwittingly produced susceptibility.

What makes a soil fertile? Anything which lowers the vitality of an individual. When there is a molecular disarrangement from any cause whatever; when a cell becomes enfeebled or hesitates in its work, then micro-organisms can find it a fertile soil.

Dr. Scanlan but repeats the words of many others when he says, "Pneumonia is an acute infectious disease, self-limited, caused by the pneumococcus," etc. Is it caused by the pneumococcus? Is it caused by any single, definite germ for that matter?

Quite recently it has been claimed that the house mouse is the real cause of the disease. What next? How about cats, cockroaches or bedbugs?

It is a little difficult to explain why a bacillus or coccus which is found almost universally, almost co-extensively with railroad trains, which is found in the mouths and in the air passages of most mankind in large cities, is practically harmless (apparently) today to a given man, but tomorrow becomes (apparently) lethal to another or even the same man.

We have many varieties of pneumonia, so-called "typhoid," "influenza," "streptococcus," "malarial," "ether," "traumatic," "hypostatic," "larval," "latent," "central," "migratory," "septicemic," "pneumonia of position" and so on, and one writer divides "the pneumonias" into "symptomatic" and "essential," evidently regard-

ing the word as one which needed not definition in meaning but limitation in use. It has been well said, "The meaning of pneumonia depends upon the intended meaning of pneumonia."

My opinion is that pneumonia is a symptom, no more no less, a condition simply, occurring in the course of many illnesses, and the use of the word "pneumonia" conveys to our mind only the fact that the lung is more or less incapacitated by the exudation of coagulable lymph.

Entertaining the views I do regarding the so-called disease, I may be pardoned for adding a few more words to the enormous mass of literature on the subject.

Not looking upon "pneumonia" as a disease, an entity, a malignant enemy which comes from without and seizes hold of its victim, I do not believe there is any specific treatment for the condition commonly called pneumonia; there are successive and successful treatments of the *individual*, but not of "pneumonia" as an entity; and it is necessary that the physician shall vary the choice of his remedies according to the conditions of the patient supervening in the course of the illness. In the present state of our knowledge the "treatment" must, in my opinion, necessarily be symptomatic and if we dismiss the word "pneumonia" from our minds and *treat the patient* we will have reason to disagree with those pessimists who say, "There is no treatment for pneumonia."

In the majority of cases I have found at the onset evidences of general stimulation, restlessness, sleeplessness, rapid, wiry, high-tension pulse. Marked determination of blood to a certain area in the lung and pleura, accelerated respiration, pain, etc. During this stage I favor elimination through the bowels, kidneys and skin. I give calomel, salines, alkaline drinks—plenty of water with sodium bicarbonate, warm baths and other external methods to promote sweating. To overcome internal congestion and to equalize the circulation, especially in vigorous full-blooded patients, I resort to the internal administration of aconitine or to venesection, at the very beginning only of the sickness. Later, if necessary, and it is not always necessary, for I am satisfied that I have "aborted the disease" in some instances, I give cardiac, respiratory and nerve stimulants, such as digitalin, strychnine, caffeine, atropine, ergotin, etc., one or more of the remedies as needed from time to time. Although generally considered to be contraindicated "in pneumonia." I have found opium (codeine or morphine) of decided value in overcoming certain distressing symptoms in some cases.

I agree perfectly with Dr. Scanlan regarding the management of the patient during the illness.

Let us have more papers like Dr. Scanlan's, giving personal experience in the treatment of pneumonia, and fewer compilations of other doctors' views. And, above all, let us be open to conviction; we can have opinions and yet be liberal. If one be possessed of dogmatism he is in servitude, but truth, when closely and sincerely followed, never leads one astray; and some time we may know the whole truth about pneumonia. Many things must wait for the vindication which time alone can furnish.

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**Stokes-Adams Disease.** Alfred Stengel (*AMER. JOURN. MED. SC.*, Dec., 1905.) reports a fatal case of Stokes—Adams disease with autopsy showing involvement of the auriculo-ventricular bundle of His. This case exhibited the typical syndrome: 1. Slow pulse. 2. Cerebral attacks such as vertigo, syncope or epileptiform seizures with unconsciousness. 3. Pulsation of the veins of the neck exceeding the rate of the arterial pulse two, three or four fold.

Through physiological experimentation it has been shown that the contractions of the heart begin in the venae cavae and are transmitted through the auricles by means of the muscular connections in the septum and not by means of nerve fibers. The particular bundle of muscular fibers which transmit the impulses has been shown by His to extend from the right side of the auricular septum to the interventricular septum immediately below the pars membranacea.

It has been practically established that the phenomena of Stokes-Adams disease are identical with those produced by interference with this bundle—a condition called "heart block" resulting, that is, entire independent action of auricles and ventricles. Dr. Stengel's case seems to establish the truth of this theory beyond a doubt. At autopsy the auriculo-ventricular bundle was found involved in a sclerotic change while the rest of the heart showed no degeneration or sclerosis.—(Robt. G. Washburn.)

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**EDITORIAL COMMENT.**

**THE TUBERCULOSIS EXHIBITION.**

Several months ago we announced that in New York City there was about to be displayed an exhibit embracing every phase of the tuberculosis question, for the benefit of the general public. We then expressed the hope that this International Exhibit would not be confined to that metropolis, but that smaller centers would be equally favored. This was, indeed, evidently the plan of the promoters, for, as soon as arrangements could be effected, the exhibit was placed on view in other cities, and its success was attested by the great throngs that visited and studiously inspected the various phases of the subject here so graphically presented.

Milwaukee is fortunate in having secured this collection of interesting material. Now, an exhibit of this kind, entailing so much labor on the part of the few who are willing to arrange for it, fails of its effectiveness as an educational institution if adequate professional sup-

port is withheld. Every physician must feel it his solemn duty to invite his patients, one and all, to attend this exhibition. The non-tuberculous will profit equally with the tuberculous, and if they are impressed with the force of but the one truth—namely, that fresh air, food, rest and properly regulated exercise are curative means, and that these can be effectually applied in tuberculosis, the lesson will not be soon forgotten.

It is unnecessary to dwell upon the importance of the subject at the present time. We physicians are not blind to the ravages of the disease in our own city, and, if true to our calling, must do that which lies in our power to lessen the scourge by preaching the lessons our own and the experiences of others have taught us. A generous response by physicians, and through them on the part of the general public, is the only recompense the local committee desires for its labors, and such a response will amply repay the individual workers for the sacrifices they are making to demonstrate the one true principle—namely, that consumption ought, can, must, and will be eradicated.

#### THE MENTAL CONDITION OF DOWIE.

It is only possible to vaguely conjecture what is the actual mental state of Dowie—the reincarnated Elijah, the “divine healer” and head wonder worker of the so-called “Christian Catholic” church and of the latter-day “Zion” on Lake Michigan. The wild and sensational utterances of the press, whether fabrications of reporters, machinations of his enemies or facts more or less distorted, give no clear impression, yet there is a certain interest in guessing at the truth.

If Dowie be tainted with any form of insanity, it would at first glance seem probable that senile dementia had impaired the brain of this silk-robed prophet, yet the suspicion and distrust almost typical of senile dementia are lacking here. Dowie seems to have been unsuspecting and to have laid himself open to attack by his confiding ways, both in person and in purse, to such an extent that most of the property he called his own, as well as every vestige both of authority and sanctity must have fallen away from him. The moral deterioration he evinces would fit in with any form of mental disease, but his moral lapses may be accounted for by simple depravity. It is known that he has suffered from a hemiplegic attack, and this of itself presupposes some degree of brain weakening on the intellectual or emotional side, though there are rare cases of hemiplegia in which no mental impairment is observable.

Another form of insanity suggested by the facts of Dowie's earlier

career is "paranoia," a condition in which fixed and systematized delusions are present. Dowie either entertained the delusions that he was a resurrected "Elijah," or fostered such a belief in others, knowing it to be false. When on the witness stand a few years ago in Chicago, he refused to answer the question whether he was Elijah.

It is quite possible, however, to account for all the phenomena without invoking the aid of insanity, and it is extremely doubtful whether, if any attempt were made to adjudge Dowie insane in a legal sense, success could attend the process if any opposition were offered. However unbalanced he might be from the standpoint of the alienist, the law which holds all men responsible for acts knowingly committed would treat him as an ordinary sinner, guilty of obtaining money under false pretenses, of fraud and deception in his alleged healing performances, and apparently of criminal immorality punishable by common as well as statutory law.

The test of insanity is the tracing of abnormal thought or act to *disease in the brain*. The very same act committed by two persons may in one case proceed from a natural and responsible condition of mind, and in the other from weakness or disorder of the brain centres. When Charles Francis Adams gets into bad company, gambles and otherwise shows absence of moral sense, insanity alone can account for it. When some pot-house politician does the same thing, we find it only natural and consistent with his former life.

Whether Dowie duped himself first and others afterward, or whether he knowingly made false claims as to being Elijah III, whether his illimitable ambition, self-arrogation and inordinate vanity have an element of disease in them and are due to an ill-balanced brain, whether his descent to polygamous ideas and obscenity is a diseased deterioration or simply depravity and lechery—these are questions more easily asked than answered, but the picture as we get it at a distance is more like that of a man lured to his destruction by his own evil passions, and only insane in the sense of the old saying, "Whom the gods wish to destroy they first make mad!"

#### AUSTRIAN REGULATIONS GOVERNING IMPORTS.

As an apparent result of the campaign waged against proprietaries by the Collier and Bok papers, very drastic measures have been introduced in Austria to make it next to impossible for those concerns that steal their way into the favor of the ignorant and stupid by means of their lying, livid advertisements, to ply their trade profitably. We are informed (*U. S. Consular Reports*) that "all re-

ceivers of such foreign articles, whether in a business way or for private purposes, have now to apply to the authorities in the capital of the province in which they are situated (to illustrate, in Prague for Bohemia) for a license to enable them to receive the goods. When the goods are received at the customs and before delivery, not only must the quantity and method of packing be described, but the medical formula of the preparation be given. This must then be referred to a certified physician for analysis, and his approval secured before the articles will be admitted. Then all costs must be paid by the recipient if the goods are passed. As stated fully in previous reports, many American preparations are not admitted at present. The new rule will probably work to exclude even those now admitted, owing to costs. An absolute insistence upon knowledge of all materials entering into the composition of preparations or alleged remedies offered for sale, the formula to be displayed publicly in every place where sale is made, is not calculated to foster American trade in this direction."

Witness how this government fosters its people's welfare. Perhaps such a drastic application to principle does an injustice to some one or two, but as a safeguard against unblushing fraud and brazen misrepresentation that offer no possible protection or recourse, it is a splendid measure.

#### **PATENT MEDICINES IN SOUTH AFRICA.**

What we have in vain been struggling and striving to accomplish, and still the subject of much effort on many sides, the paternalism that characterizes monarchical governments has caused to be adopted in far off South Africa.

One year ago the Colonial Council passed an act in the Transvaal providing that all medicines containing poison must be so labeled. "Every chemist has a list of the poisons in his store, so that if the medicine companies doing business in the Transvaal do not publish their formulas with each bottle sold, they are subject to prosecution; in truth, the chemist is not permitted to let such medicines leave his store under penalty. If any of the following poisons are found to be contained in a formula the bottle must be labeled poison: Almonds, essential oil (unless deprived of prussic acid), belladonna and its preparations, cantharides tincture and all vesicating liquid preparations of carbolic acid and other liquid disinfectants, chloroform, chloral hydrate and its preparations, morphia and its preparations, nux vomica, opium and its preparations and the preparations of poppies, oxalic acid, precipitate red (red oxide of mercury), precipitate white (ammoniated mercury), vermin killers. The purchaser must be known to the druggist or have one who is known to certify for him; he must also sign his name and address,

and the druggist must place his name and place of business upon the label."

When difficulties are put in the way of a purchase of drugs for ulterior purposes, there is far less likelihood of the consummation of acts of criminal intent. And, in addition, people who buy and take a patented article supposedly embued with many virtues, because "it can't do any harm, anyway," will be a bit skeptical of a package that bears a "poison" label.

The exploiters of the many concoctions whose injurious contents have within the past few months been laid bare by well known lay periodicals, will some day, we hope, be confronted with as firm barriers in this country as are placed before them in other countries.

#### GOOD RIDDANCE.

We felicitate our friends in New York who have at one fell swoop been delivered of the presence of fifty-two vultures of the criminal abortion type. The United States mails have been closed against these institutions. This action of the New York postal authorities is in line with their previous good work in holding up the Force of Life Chemical Co., and one or two other frauds of this character. Although their death knell will eventually be sounded, it is not likely that this will be accomplished without further struggle, for, like our feline pets, these concerns have many lives. Following a rebuff and after a period of innocuous hibernation—which in reality is a period of incubation—they loom up most unexpectedly in one guise or another, and, thus rejuvenated, usually do a thriving business before again effectually interrupted.

And when is Wisconsin going to make good? The memory of the struggle at the last legislative session to pass a law making certain offences actionable, has not yet grown cold. The fake concerns that fought their hardest to prevent unfavorable legislative action, are plying their trade as merrily as ever. The indecency and indelicacy of their advertisements are as offensive now as before a supposedly remedial measure was passed. And, as if to flaunt our impotency before our very eyes, they blatantly cast the challenge and offend even more flagrantly than before.

We have no desire to pass censure as yet for failure to attack these violators, for other offenders are soon to be put on the rack. But we feel that the files of our daily papers are so incriminating, that if it be evidence that is wanted, further delay would hardly seem justified.



**DR. KNOPF'S ADDRESS.**

It was not without some little hesitation that the Committee on Tuberculosis of the Medical Society of Milwaukee County decided to extend a call to Dr. Knopf, the eminent New York phthisiologist, to deliver a lecture to the Milwaukee public. Dr. Knopf's discourse fulfilled all expectations, for he is a foreeful speaker, and possesses that charm—so essential in a popular lecturer—of holding his audience's interest throughout. His success lay in his complete mastery of every phase of the tuberculosis problem, and in his ability to so put his arguments that they appealed to his hearers with telling effect. He carefully considered the various phases of tuberculosis and dwelt with emphasis upon the present day fallacy of over-crowding school children with study, at too great a sacrifice of their physical welfare. Dr. Knopf made a most pleasing impression upon his audience, and doubtless planted a few seeds of the truth with reference to this subject, in the minds of many of his hearers.

**NEWS ITEMS AND PERSONALS.**

(The JOURNAL solicits Items of Interest and Personals from its subscribers.)

**Dr. Joseph E. Birkhaeuser** died on April 23, at his residence in Milwaukee. He was born in 1835, at Koenigswinter, Prussia, and received his education in the University of Bonn and Cologne. He entered the Prussian army as an Assistant Surgeon, and served three and one-half years. In 1858 he came to America, coming at once to Milwaukee, but later moving to Mukwonago. About twenty-five years ago, Dr. Birkhaeuser returned to Milwaukee where he resided until his death. At one time he was surgeon for the Northern division of the Milwaukee road. Dr. Birkhaeuser was a member of the Milwaukee County Medical Society.

**Dr. S. L. Marston**, one of the oldest Wisconsin practitioners, died on April 22, aged 79 years. He was born in New Hampshire, and came to Wisconsin with his parents in 1843. He studied medicine at Rush Medical College, from which institution he graduated in 1863. He enlisted in the Twelfth Wisconsin as Assistant Surgeon and served throughout the war, participating in Sherman's famous march to the sea. At the close of the war, he returned to Fond du Lac for a number of years, but in 1888 came to Hartford, where he lived ever since.

**State Board refuses License.** Dr. Edward N. Flint of Chicago, was refused a license at the present time by the State Board. Dr. Flint is an advertising physician and is licensed in Illinois. As it was his intention to advertise in Wisconsin too, the Board has taken the matter of granting him a license under advisement, in order to determine whether or not the law passed by the last legislature is sufficiently broad to cover the case.

**Gov. Davidson would aid Consumptives.** According to press reports, Governor Davidson, in commenting on President Roosevelt's speech regarding a proposed tax on bequests, said that he favored such taxation, and that he

was heartily in favor of devoting taxes from such source to maintaining the proposed State Hospital for Consumptives.

**Doyen's Cancer Serum Ineffective.** At the annual meeting of the Cancer Hospital, London, the chairman of the medical committee stated that as a result of a visit to Paris by members of the surgical and pathological staffs, on invitation of Dr. Doyen, it could be stated that his serum was ineffective for the cure of cancer.

**Dr. Gerhård A. Bading** was appointed by Mayor Becker to succeed Dr. F. M. Schulz as Health Commissioner of Milwaukee, for a term of four years. Dr. Bading was graduated at Rush Medical College in 1896 and since then has been in active practice. He is a member of the Board of Pension Examiners, and secretary of the Emergency Hospital Staff.

**A Tuberculosis Annex** to the Milwaukee County Hospital will soon be erected at a cost of \$5,500. It is estimated that provision for 30 patients will be made. Their per capita cost to the county will be \$6.50 per week.

**The Mount Sinai Hospital** of Milwaukee, whose building has hitherto been occupied under lease, has been purchased by the Jewish Hospital Association. It is intended to remodel and greatly improve the building.

**American Physicians Honored.** The Society of Physicians of Vienna has elected Dr. Nicholas Senn, of Chicago, and Dr. William H. Welch of Baltimore, to be honorary members of the society.

**The State Board of Medical Examiners** met in Milwaukee on April 10th, to re-examine nine applicants who had been previously conditioned in two branches.

**The Scarlet Fever Epidemic** that necessitated the closing of Ripon College for several weeks, has subsided, and the college has been re-opened.

**"Dr." Thill not Guilty.** John Thill of Somerset, an "herb doctor" without a license, was found not guilty by a jury at Hudson.

**Sanitarium at Lake Geneva.** It is reported that the sanitarium now located at Laporte, Ind., will be moved to Lake Geneva, Wis.

**Dr. W. H. Hosmer** of Ashland, is reported critically ill.

**Dr. Arthur C. Sidler** has been elected mayor of Cudahy.

## CORRESPONDENCE.

Editor WISCONSIN MEDICAL JOURNAL:

I note in the February issue of your journal an article by Dr. P. L. Scanlan in which after quoting the "Alkaloidal treatment" for pneumonia (among others) he says: "Abbott claims that by lowering the temperature he renders the system a poor culture-soil for germs—a statement that is controverted by good authority. It has been advanced that high fever is Nature's way of destroying the germs." It is unfortunate that Dr. Scanlan should have been led, through superficial reading, to entirely misrepresent my "claims." I cannot recall making at any time the statement that "lowering the temperature renders the system a poor culture-soil for germs." What I *have* continually claimed and do claim is that proper regulation of the temperature, by restoration of normal circulatory conditions and elimination of toxic matter (with prompt establishment of systemic antiseptics), is *essential*, and that a system thoroughly impregnated with sulphuretted hydrogen, for example, becomes a poor culture-soil for germs; and the latter being destroyed and their

toxins eliminated prompt reduction of temperature does necessarily follow. I have noted with interest (and may perhaps have commented upon) the statement made by a recent writer that "as pathologic bacteria are reproduced, as a rule, only at a temperature above that of the body in health, we may, by reducing temperature early, prevent the propagation of myriads of such micro-organisms." I am free to admit that this idea appeals to me as being infinitely more in accord with our experience than the one Dr. Scanlan mentions as being advanced "by good authority." That nature should attempt to destroy bacteria (which thrive in moist heat up to 109 deg. F.) by setting up high fever, would appear to the writer to be an egregious error upon her part, and she is not in the habit of blundering. The writer attempts to be *practical* and, when dealing with serious disease processes and their relief, usually endeavors to always point out rational, practical methods. In pneumonia, as in other acute invasions, I have insisted upon the necessity of promptly rendering the system a poor culture-soil for bacteria, at the same time ridding it of effete matter and germ produced toxins. The prima via thoroughly cleansed and rendered absorbent, the system saturated with calcium sulphide, and the bowel influenced by the sulphocarbolates, we find that a few small doses of such drugs as are known to relieve vaso-motor spasm and equalize circulation will act promptly, and, *with no further toxic matter entering the blood-stream*, the latter, now sweeping evenly through the body, soon carries the products of abnormal combustion to the proper points of exit.

If we have unlocked the dermal door (opened the million pores) and improved innervation, we shall find the inhibitory action of the heat-centres preventing further *undue* production while retained surplus heat will be disposed of by the body surface. It is an old axiom that "Nature will, if given a chance, look after herself," but we must give her that "half chance" at least; and, remembering, that we, as a people, have travelled far from the maternal apron-string, we must many times set ourselves to help her to do what, under conditions of her own making, nature would easily accomplish for herself.

Fever may mean (does mean) the abnormal oxidization of carboniferous material in the system. Increased metabolism increases heat, but the matter offered for combustion is toxic; the products of combustion are toxic also, and the eliminative machinery being disabled and the control removed we shall soon have total destruction unless we limit the supply of carbon, secure control of the fire and force elimination of debris.

It will be seen from the above hasty presentation of the subject that the writer does not claim that "by lowering the temperature he renders the system a poor culture-soil for germs." He gets *rid of the germs and their products*: he restores the normal condition of things as far as possible, and the temperature promptly ceases to be abnormal. Then, as we all prove daily, in our practice, whether we think of it that way or not, the body *becomes a poor culture field for bacteria*.

W. C. ABBOTT, M. D.

## THE STATE MEDICAL SOCIETY OF WISCONSIN.

ORGANIZED 1841.

### Officers 1905-1906.

J. R. CURRENS, Two Rivers, President.

A. W. GRAY, Milwaukee,  
1st Vice-President.

A. GUNDERSON, La Crosse,  
2d Vice-President.

W. E. FAIRFIELD, Green Bay, 3rd Vice-President.

CHAS. S. SHELDON, Madison, Secretary. S. S. HALL, Ripon, Treasurer.

A. T. HOLBROOK, Milwaukee, Assistant Secretary.

### Councilors.

#### FOR SIX YEARS.

1st Dist., H. B. Sears, - - Beaver Dam  
2nd Dist., G. Windesheim, - - Kenosha

#### FOR TWO YEARS.

3rd Dist., F. T. Nye, - - Beloit  
4th Dist., C. A. Armstrong, - - Boscobel

#### FOR THREE YEARS.

5th Dist., J. F. Pritchard, - - Manitowoc  
6th Dist., J. S. Walbridge, - - Berlin

#### FOR FOUR YEARS.

7th Dist., W. T. Sarles, - - Sparta  
8th Dist., T. J. Redelings, - - Marinette

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9th Dist., D. L. Sauerhering, - - Wausau  
10th Dist., E. L. Boothby, - - Hammond

#### FOR SIX YEARS.

11th Dist., J. M. Dodd, - - Ashland  
12th Dist., A. T. Holbrook, - - Milwaukee

NEXT ANNUAL SESSION, MILWAUKEE, JUNE, 27, 28, 29, 1906.

The Wisconsin Medical Journal, Official Organ.

## SOCIETY PROCEEDINGS.

### THE COUNTY RETURNS FOR 1906.

The "hyphenating" of three of the smaller county societies will reduce the number of county organizations reporting in 1906 to 59. Forest-Florence (3 members) is uniting with Marinette and Oneida, Taylor (5 members) with Price, and probably Marquette (7 members) with Columbia. Of these 59 societies, 37 have reported up to date. Of these, 13 show a net gain of 28 over the whole number reported in 1905, and 24 a net loss of 89, making a net loss of 65 in the 37 counties. This is not as bad as it appears, since many of the reports are stated as only partial, *e. g.* Rock County with a loss of 19 expects to make an actual gain over 1905. The same is true of Fond du Lac with a loss of 13. The counties making the largest gain to date are: Waupaca 5, and Dodge and Wood 4 each. Milwaukee is not included in the above statement, having reported only 196 against 251 last year. This loss will

probably be made good before the annual meeting. From present indications, it is likely that we shall come up to the 1905 membership, and possibly more. This was 1357 at the time of the Annual Meeting, with 75 additions during the year, making 1432 in all. To accomplish this, however, will require the earnest and more willing efforts of every county secretary from this time till the Annual Meeting. Do not rely wholly upon a notification by mail, but when possible, secure a personal interview. Invoke the aid of your Councilor, and use all possible means to bring the wayward and the wanderers into the fold. Look up all newcomers in the county and give them the heartiest kind of a welcome. Especially, see to it that recent graduates shall appreciate the propriety and importance of becoming, at once, a part of the organized profession.

The 12 Councilors of the State should take an active part in this Annual Re-organization. They should be in constant touch with the County secretaries of their Districts, and feel a personal responsibility as to the outcome in every county. Their presence at the May and June meetings will help greatly in the work, and just now is the time when they can do most good. They are the *Bishops*, and we have a right to ask that they shall give a good account of the flocks committed to their charge.

#### THE A. M. A. MEETING.

The delegation from Wisconsin last year to Portland was large, and it certainly should be much larger this year to Boston. We called last year's "the trip of our lives," and the one this year will be, in its way, just as enjoyable. It will be at the most attractive time of the year—June 5 to 8. It affords a vacation, a splendid outing, for us hard-working doctors and our wives, an opportunity for enjoying fine scenery and visiting most interesting places. We meet the very best men in the profession from every part of the country. The scientific program alone is well worth all the time and the money, but this is but *one* of the attractions. The expense is only moderate. A rate of one fare plus \$1.00 for the round trip is to be in effect over a large part of the United States, including Wisconsin, and tickets will be sold from June 1-6, good to return leaving Boston to June 11th, with an extension possible to June 30th. Excursions from Boston may be made to such historical places as Concord and Lexington and Plymouth and other points on the sea-shore. Arrangements have been made for a special train from Chicago over the Grand Trunk, via Niagara Falls, Toronto, Montreal, the Thousand Islands, with a de-

lightful ride down the St. Lawrence, returning by rail. Other routes may be selected at our option.

THE ANNUAL STATE MEETING.

June 27th-29th, is rapidly rounding into shape. A fine program will be presented, and the social features will be especially attractive. There will be a smoker at the rooms of the Milwaukee Medical Society, the first night, and a boat-ride and supper at Whitefish Bay the second night. Also various receptions and a special entertainment for the ladies. The meetings will be held in the Auditorium of the new Stephenson Building, corner Mason and Milwaukee Streets, right down town. All in all, the prospects are very bright for a first class meeting and an unusually large attendance.

C. S. S.

**MEMBERS OF  
THE STATE MEDICAL SOCIETY OF WISCONSIN.**

Abaly, W. C., Madison  
 Abraham, Henry W., Appleton  
 Ackley, S. Breck, Oshkosh  
 Adams, H. R., Oshkosh  
 Adams, John C., Superior  
 Adamson, F. W., Oxford  
 Akerly A. W. K., Milwaukee  
 Albee, E. S., Oshkosh  
 Albers, Herman H., Allenton  
 Alcorn, D. N., Stevens Point  
 Allen, C. F., Middleton  
 Allen, H. B., Richland Center  
 Allen, Stanton, Milwaukee  
 Allen, S. P., Oshkosh  
 Allen, W. J., Beloit  
 Amsel, J., Milwaukee  
 Amundson, A. C., Cambridge  
 Amunson, P. B., Mondovi  
 Anderson, N. E., Mondovi  
 Andre, Frank E., Kenosha  
 Andrews, E. P., Portage  
 Armstrong, Chas. A., Boscobel  
 Armstrong, C. E., Oconto  
 Armstrong, L. G., Boscobel  
 Arndt, O. H., Oconto Falls  
 Ashley, Thos. W., River Falls  
 Ashum D. W., Eau Claire  
 Atwell, W. F., Stevens Point  
 Atwood, J. B., Oconto  
 Axtell, M. B., Pepin  
 Aylward, R. C., Star Lake  
 Baasen, John M., Mt. Calvary  
 Babcock, I. G., Cumberland  
 Bach, J. A., Milwaukee  
 Bachhuber, A. E., Mayville  
 Bading, Gerhardt A., Milwaukee  
 Baer, A. N., Milwaukee

Bailey, F. M., Mineral Point  
 Bair, F. M., Benton  
 Baird, John, Superior  
 Baker, Geo. R., Tomahawk  
 Baker, K. W., Greenwood  
 Baldwin, Geo. E., Dartford  
 Ballard, J. A., La Crosse  
 Bancroft, H. V., Blue Mounds  
 Banks, W. H., Roberts  
 Bantley, Barth, Waupaca  
 Barber, M. C., Shullsburg  
 Bardeen, C. R., Madison  
 Barker, G. A., Menomonie  
 Barnes, E. C., Ripon  
 Barnes, J. Steele, Milwaukee  
 Barnett, J. R., Neenah  
 Barnstein, J. E., Manitowoc  
 Barth, Geo. P., Milwaukee  
 Bartlett, E. W., Milwaukee  
 Bass, E. A., Montello  
 Batchelor, W. A., Milwaukee  
 Baur, E. F., Milwaukee  
 Bayer, Eliz. D., Appleton  
 Bayer, W. H., Gleason  
 Bear, W. G., Monroe  
 Beattie, H. P., Antigo  
 Bechtol, C. O., Marion, Ind.  
 Beck, H. M., Green Bay  
 Becker, B. A., Silver Lake  
 Becker, Wilhelm, Milwaukee  
 Becker, Wm. F., Milwaukee  
 Beckman, Chas. R., La Crosse  
 Beebe, C. A., Fond du Lac  
 Beebe, C. M., Sparta  
 Beebe, C. S., Milwaukee  
 Beebe, D. C., Sparta  
 Beebe, P. A., Glenwood

- Beebe, S. D., Sparta  
 Beebe, L. W., Superior  
 Beech, Geo., Baraboo  
 Beedler, J. A., Monroe  
 Bessel, John M., Milwaukee  
 Belitz, Alfred, Milwaukee  
 Belitz, Wm., Cochrane  
 Bell, A. R., Tomah  
 Bell, Samuel, Beloit  
 Bell, W. J., Wausaukee  
 Bellack, Bernhard F., Columbus  
 Bellin, J. J., Green Bay  
 Bellin, J. J., Grand Rapids  
 Bellis, G. L., Antigo  
 Bennett, Lewis F., Beloit  
 Bennett, L. J., Oregon  
 Bennett, Wm. C., Oregon  
 Benson, Gideon, Richland Center  
 Bentley, Frederick D., Portage  
 Bernhard, Adelheim, Milwaukee  
 Bertrand, J. H., De Forest  
 Berwick, T. A., Sankville  
 Betz, J. C., Boscobel  
 Benst, M. V., La Crosse  
 Beutler, Wm. F., Wauwatosa  
 Bever, A. G., Milwaukee  
 Bilstad, G. E., Cambridge  
 Bill, B. J., Genoa Junction  
 Billmeyer, D. H., Waupun  
 Bilsted, C. E., Cambridge  
 Bingham, J. E., Sawyer  
 Binnewies, F. C., Milton  
 Binnie, John, Poynette  
 Birbeck, Samuel, Gratiot  
 Bird, H. R., Madison  
 Bird, J. W., Stevens Point  
 Bird, Maurice R., Mariuette  
 Birkeland, J. R., Chicago, Ill.  
 Birkhanser, J. E., Milwaukee  
 Birkl, J. A., Milwaukee  
 Blachley, A. T., Hayward  
 Black, Nelson M., Milwaukee  
 Blackburn, F. E., Beetown  
 Blair, J. C., Hazel Green  
 Blanchard, A. C., Linden  
 Blanchard, C. W., Knapp  
 Blanchard, W. O., Grand Rapids  
 Blank, Henry, Milwaukee  
 Blumenthal, R. W., Oconomowoc  
 Blumer, Ed., Monticello  
 Blumer, John J., New Glarus  
 Bock, Otto B., Sheboygan  
 Bodau, Thos., Blair  
 Bodden, A. M., Milwaukee  
 Boden, James E., Milwaukee  
 Bolton, E. L., Chilton  
 Bonesein, G. F., Detroit Harbor  
 Boorman, C. A., Grand Rapids  
 Boorse, Lorenzo, Milwaukee  
 Boothby, Eugene L., Hammond  
 Borchardt, A. L., New London  
 Bossard, Clemens, Richfield  
 Bothwell, Dana F., Kingston  
 Bours, T. R., Milwaukee  
 Bowe, Guy C., Fond du Lac  
 Bowman, Frank P., Madison  
 Boyce, Samuel R., Madison  
 Boyd, C. D., Kaukauna  
 Boyd, Guy T., Fond du Lac  
 Bradford, C. B., Milwaukee  
 Bradford, E. B., Hudson  
 Bradley, H. E., Milwaukee  
 Braun, Otto, Ashland  
 Brazeau, G. N., Fond du Lac  
 Bradbury, E. L., Neillsville  
 Bradfield, J. A. L., La Crosse  
 Breckenridge, H. E., Racine  
 Brenizer, R. C., Logansville  
 Brett, Ben. C., Green Bay  
 Brett, F. N., Green Bay  
 Brewer, J. B., Jefferson  
 Brien, J. A., Marinette  
 Briggs, S. J., Sun Prairie  
 Broche, A. H., Oshkosh  
 Broekway, F., Oshkosh  
 Bromley, F. W., Palmyra  
 Brooks, E. H., Appleton  
 Brown, A. D., South Wayne  
 Brown, Almon L., Wausau  
 Brown, F. W. A., Oshkosh  
 Brown, Geo. V. I., Milwaukee  
 Brown, H. M., Milwaukee  
 Brown, Isaac M., New London  
 Brown, John F., Waupun  
 Brown, L. S., Madison  
 Brown, R. C., Milwaukee  
 Bruck, C. A. A., Milwaukee  
 Bruess, J. W. F., Milwaukee  
 Bryant, J. R., Lyndon Station  
 Buehan, Samuel C., Racine  
 Buchanan, R. C., Green Bay  
 Buck, Guerdon C., Platteville  
 Buckeridge, Isaac, Beloit  
 Buckland, R. H., Dartford  
 Buckley, T. J., Fayette  
 Buckmaster, S. B., Janesville  
 Bugbee, Geo. R., Wausau  
 Bullard, E. L., Milwaukee  
 Burdon, R. M., Green Bay  
 Burgess, A. J., Milwaukee  
 Burns, H. J., New London  
 Burns, J. W., Oakfield  
 Butler, F. E., Menomonie  
 Butzke, E. J., Jackson  
 Cahoon, Roger, Baraboo  
 Cairns, R. U., River Falls  
 Caldwell, H. C., Ridgeland  
 Caldwell, Margaret, Waukesha  
 Callahan, J. L., La Crosse  
 Calvey, P. J., North Fond du Lac  
 Campbell, A. D., Richland Center  
 Campbell, B. L., Monches

- Campbell, W. B., Menomonie Falls  
 Canavan, J. V., Appleton  
 Canright, Orlo S., East Troy  
 Cantwell, W. H., Shawano  
 Caples, Byron M., Waukesha  
 Cargill, Nellie W., Milwaukee  
 Carhart, G. A., Milwaukee  
 Carnahan, Geo. M., Bruce  
 Cary, Geo. H., Merrill  
 Casey, Merle, Almond  
 Cassidy, W. W., Durand  
 Caswell, H. O., Ft. Atkinson  
 Cattanaeh, A. M., Superior  
 Cavanaugh, D. C., Montello  
 Cavaney, J., Milwaukee  
 Chambers, H. P., Florence  
 Chandler, Ada B., Pardeville  
 Chandler, Jos., Pardeville  
 Chancy, Eugene, Mendota  
 Chapman, F. M., Milwaukee  
 Charron, T. A., Rice Lake  
 Chase, R. R., Eau Claire  
 Cheever, Wm. R., Kenosha  
 Chloupek, C. J., Green Bay  
 Christensen, C., La Crosse  
 Christensen, E. S., Two Rivers  
 Christensen, J. W., Kendalls  
 Christianson, O. A., Hawkins  
 Christoffersen, A. L., Oshkosh  
 Christoffersen, H. H., Loyal  
 Christoffersen, P. J., Waupaca  
 Chrysler, Oscar, Wauwatosa  
 Clark, R. B., Monroe  
 Clarke, Burton, Oshkosh  
 Cleary, B. L., Edgerton  
 Cleary, J. L., Kenosha  
 Clement, W. J., Berlin  
 Cohn, Arthur H., Milwaukee  
 Cole, C. E., Prairie du Chien  
 Cole, E. J., Roekton, Ill  
 Coleman, H. M., Barron  
 Collier, Lewis B., Merrill  
 Collins, Charles D., Milwaukee  
 Collins, D. B., Madison  
 Colliver, S. N., Athens  
 Colony, F. E., Evansville  
 Combaeker, Henry, Osceola  
 Combs, C. J., Oshkosh  
 Comfort, A. I., Wauwatosa  
 Conger, F. G., Mondovi  
 Conkey, Chas. D., Superior  
 Conley, John M., Oshkosh  
 Conklin, G. H., Superior  
 Connell, D. R., Beloit  
 Connell, James P., Fond du Lac  
 Connor, H. J., Superior  
 Conover, H., Crivitz  
 Conway, H. P., Spring Valley  
 Cook, D. M., Gay Mills  
 Cook, E. H., Dale  
 Coon, J. W., Milwaukee  
 Cooper, Clifton A., Montfort  
 Copeland, Ernest, Milwaukee  
 Corbett, J. F., Weyauwega  
 Corbett, M. E., Oshkosh  
 Corliss, Grant, Lone Rock  
 Corr, Anna S. B., Juneau  
 Corr, John T., Franksville  
 Cossitt, Millet S., Milwaukee  
 Costello, A. E., Spooner  
 Cottingham, Robt., Bloomer  
 Cotton, H. C., Prescott  
 Couch, Ernest E., Pt. Washington  
 Coumbe, Warren A., Blue River  
 Cox, J. P., Spooner  
 Crane, M. C., Weyauwega  
 Cremer, C. H., Cashton  
 Critchlow, C. A., Patch Grove  
 Crockett, W. W., Beloit  
 Crommett, H. B., Amery  
 Cronyn, W. F., Milwaukee  
 Crum, J. A., Oshkosh  
 Crumb, Gertrude, Berlin  
 Cunningham, J. N., Stanley  
 Cunningham, M. A., Janesville  
 Cunningham, R. B., Cadott  
 Cunningham, Wilson, Platteville  
 Currens, J. R., Two Rivers  
 Cutler, John C., Verona  
 Cutler, John D., Tomahawk  
 Cutler, J. S., Wauwatosa  
 Dahl, L. A., Stanley  
 Dahlstadt, N. G., Port Wing  
 Dake, A. J., Viola  
 Daly, F. P., Reedsburg  
 Daniels, Alfred, Rhinelander  
 Daniels, Lewis, Milwaukee  
 Darby, G. S., Brodhead  
 Darby, Henry C., Wilmot  
 Davendorf, D. R., Delavan  
 Davis, Richard E., Waukesha  
 Dawley, Geo. T., New London  
 Day, Henry L., Eau Claire  
 Deahofe, S. P., Mineral Point  
 Dearholt, Hoyt E., Milwaukee  
 DeBesehe, Johan, Milwaukee  
 Deeker, Clarke O., Crandon  
 Deeker, D. H., Menomonie  
 Deeker, H. G., Milwaukee  
 DeLap, R. H., Rielhand Center  
 Delting, F. E., Superior  
 DeMers, J. J., Park Falls  
 DeNeveu, A. V., Green Bay  
 Denham, J. F., Downsview  
 Devine, G. C., Mason  
 DeVoe, Chas. A., Rosendale  
 Dewey, Geo. W., Burnett Junction  
 Dewey, Richard, Wauwatosa  
 Dewire, Milton, Sharon  
 Diekens, W. C., Wausau  
 Dill, Geo. M., Prescott  
 Dillmann, A. E., Steuben



- Dinsdale, James, Soldiers' Grove  
 Dodd, John M., Ashland  
 Doern, W. G., Milwaukee  
 Dodson, N. M., Berlin  
 Doege, Karl W., Marshfield  
 Doerr, August, Milwaukee  
 Dohearty, F. P., Butternut  
 Donald, W. J., Tunnel City  
 Donaldson, Geo. T., Shiocton  
 Donnelly, F. J., Monesha  
 Donohue, M. J., Antigo  
 Doolittle, S. Wade, Laneaster  
 Dougherty, A. A., Boaz  
 Doughty, P. H., Eau Galle  
 Doyle, Jos. H., Little Chute  
 Drake, Frank L., Madison  
 Dries, Jos., Milwaukee  
 Dryer, John W., Milwaukee  
 Dunn, E. A., Belmont  
 Durr, Wm., Milwaukee  
 Dvorak, M. W., La Crosse  
 Dwight, C. B., Janesville  
 Dysart, R. G., Wauwatosa  
 Eames, H. F., Egg Harbor  
 Earles, W. H., Milwaukee  
 Eastman, J. Russell, Kenosha  
 Echols, C. M., Appleton  
 Edden, R. W., Janesville  
 Edmond, F. J., Brokaw  
 Edsall, Frank H., Madison  
 Edwards, A., Reedsburg  
 Edwards, John B., Mauston  
 Edwards, Sherman, Oakfield  
 Edwards, T. L., Cuba City  
 Edwards, Wm. M., Mauston  
 Egan, Gregory, La Crosse  
 Egeland, G. R., Ephraim  
 Ehlert, E. H., Hartford  
 Ehmer, J. W., Theresa  
 Eichelberg, F. A., Reesville  
 Eieher, W. B., Bonduel  
 Elfers, Jos. C., Sheboygan  
 Elkington, C. H., Eleva  
 Ellenson, Eugene, Chippewa Falls  
 Elliot, Sara, Riehlund Center  
 Ellis, W. E., Prentice  
 Ellis, W. H., Barnon  
 Ellsworth, H. E., Appleton  
 Elmergreen, Ralph, Milwaukee  
 Elsom, J. C., Madison  
 English, J. E., Barahoo  
 Engsherg, Wm. A., Lake Mills  
 Epley, F. W., New Richmond  
 Epley, O. H., Baldwin  
 Erdman, Chas. H., Stanley  
 Evans, Curtis A., Milwaukee  
 Evans, Edward, South Milwaukee  
 Evans, Edward E., La Crosse  
 Evans, J. M., Evansville  
 Evans, N. C., Mt. Horeh  
 Evans, Owen, Bangor  
 Everett, E., Madison  
 Everhard, F. A., Ripon  
 Evert, F. V., Retreat  
 Faber, Chas. A., Milwaukee  
 Faerber, Jos. Merrill  
 Fairchild, R. J., Woodford  
 Fairfield, W. E., Green Bay  
 Fairman, E. W., Brodhead  
 Fales, L. H., Madison  
 Falge, Louis, Reedsville  
 Farnham, A. B., Milwaukee  
 Farnsworth, A. L., Baraboo  
 Farnsworth, C. P., Madison  
 Farr, J. F., Eau Claire  
 Farr, L. R., Beloit  
 Farrand, R. H., Niagara  
 Farrell, A. M., Two Rivers  
 Faulds, Robert C., Abrams  
 Fazen, L. E., Racine  
 Fehr, Henry, Milwaukee  
 Feld, Carl R., Watertown  
 Fellman, Geo. H., Milwaukee  
 Felton, Chas. D., Phillips  
 Fetter, Edward, Plymouth  
 Fiebiger, G. J., Waterloo  
 Fiedler, Otho N., Milwaukee  
 Field, F. T., Elroy  
 Fifield, G. W., Janesville  
 Finstad, G. J., Menomonie  
 Fish, Edmond F., Milwaukee  
 Fish, E. C., Mosinee  
 Fish, F. S., Briggsville  
 Fisk, M. H., Wauwatosa  
 Fitzgerald, J. J., Eagle  
 Fitzgibbon, Thos., Milwaukee  
 Flatley, M. A., Antigo  
 Fleek, J. L., Brodhead  
 Fletcher, E. L., Eau Claire  
 Fletcher, F. E., Ashland  
 Flett, Chas., Waterford  
 Flower, Dwight, Monticello  
 Flynn, Frank P., Wonewoc  
 Foerster, Otto H., Milwaukee  
 Foley, F. R., Neshkoro  
 Folsom, W. H., Markesan  
 Force, O. O., Pardeeville  
 Ford, W. B., Sparta  
 Fosse, Benjamin, Beloit  
 Foster, A. M., Kaukauna  
 Foster, Fred L., Fond du Lac  
 Foster, J. H. A., Cadott  
 Foster, J. J., Milwaukee  
 Fowle, F. P., Wauwatosa  
 Fox, Geo. W., Milwaukee  
 Fox, Phillip, Madison  
 Fox, P. A., Beloit  
 Francis, John H., Bloomer  
 Frank, Louis F., Milwaukee  
 Frank, J. H., Milwaukee  
 Franzel, J. E., Howards  
 Fraser, Alex. C., Manitowoc

- Frederick, H. F., Westfield  
 Freeman, Daniel, Colby  
 French, S. W., Milwaukee  
 French, Viola, Neillsville  
 Frick, L., Glidden  
 Friend, Samuel H., Milwaukee  
 Frost, Carrie A., San Juan, Porto Rico  
 Frost, C. H., Plainfield  
 Facik, E. J., Williams Bay  
 Fuldner, Louis, Milwaukee  
 Fuller, H. D., Scymour  
 Fulton, H. A., Eau Claire  
 Fulton, Wm. A., Burlington  
 Gaillardet, L. P. L., Chippewa Falls  
 Gaines, E. E., La Farge  
 Gallup, G. D., River Falls  
 Ganzere, A., Oshkosh  
 Gapen, Clarke, Madison  
 Carl, E. J. II., Lake Geneva  
 Garlock, F. R., Racine  
 Garner, H. L., Rhinelander  
 Gasser, Herman, Plattsville  
 Gathmann, Henry, Milwaukee  
 Gates, Eugene, Two Rivers  
 Gault, John A., Lancaster  
 Gaunt, P. L., Oconto  
 Gauvreau, E. T., Superior  
 Gavin, Stephan, E., Fond du Lac  
 Gendron, A. E., River Falls  
 Genter, A. E., Sheboygan  
 Gibbons, F. E., Neenah  
 Gibbs, G. L., Marshall  
 Gibson, A. D., Park Falls  
 Gifford, H. B., Juda  
 Gilbertsen, P. C., Mt. Horeb  
 Gilbert, H. A., Madison  
 Gillen, F. C., Milwaukee  
 Gilles, A. S., Milwaukee  
 Gilluly, Thos., Union Center  
 Glasier, Mina B., Bloomington  
 Gleason, C. M., Manitowoc  
 Gnagi, W. B., Monroe  
 Gobar, G. G., Apollonia  
 Goddard, J. B., Eau Claire  
 Godfrey, Jos., Lancaster  
 Goetsch, North Freedom  
 Goetsch, Herman F., Abbotsford  
 Goggins, R. J., Oconto Falls  
 Golden, C. H., Wonewoc  
 Golley, F. B., Milwaukee  
 Goodrich, G. M., Clintonville  
 Goodwin, M. P., Clear Lake  
 Gordon, J. B., Shawano  
 Gordon, W. A., Winnebago  
 Gordon, W. A., Jr., Oshkosh  
 Gorst, Chas., Mendota  
 Gotham, L. E., Sawyer  
 Graenicher, S., Milwaukee  
 Grafton, G. A., Hayward  
 Gramling, H. J., Milwaukee  
 Grannis, E. H., Menomonie  
 Grant, J. C., Lena  
 Gratiot, C. C., Shullsburg  
 Gratiot, W. M., Mineral Point  
 Gray, A. W., Milwaukee  
 Gray, N. A., Milwaukee  
 Green, W. A., Wausau  
 Greenberg, Harry, Milwaukee  
 Grengo, C. G., Chilton  
 Gregory, A. T., Elroy  
 Gregory, W. W., Stevens Point  
 Greiner, H. A., Fremont  
 Griffin, W. J., Ashland  
 Grimes, C. W., Rewey  
 Grosskopf, E. C., Wauwatosa  
 Ground, W. E., Superior  
 Gudden, B. C., Oshkosh  
 Gundersen, A., La Crosse  
 Gunther, Emil, Sheboygan  
 Gunther, W. H., Sheboygan  
 Gutsch, Otto J., Sheboygan  
 Guttman, P., Kellnersville  
 Habegger, C. J., Watertown  
 Hackett, James H., Milwaukee  
 Haddy, J. H., Park Falls  
 Hadley, D. A., Oconomowoc  
 Haggerty, E. E., Excelsior  
 Hahn, A. F., Eau Claire  
 Hall, C. H., Madison  
 Hall, Sidney S., Ripon  
 Hallock, W. E., Juneau  
 Hambitzer, Wm., British Hollow  
 Hambley, T. J., Hurley  
 Hamilton, D. B., Ridgeway  
 Hammond, F. W., Wycocena  
 Hammond, Wm. R., Wautoma  
 Hancock, J. W., Ellsworth  
 Hannum, Henry, Bayfield  
 Hanover, Wm., Delavan  
 Hansen, C. A., Argyle  
 Hansen, C. O., Milwaukee  
 Hansen, O. L., Argyle  
 Harbert, Helen, Kenosha  
 Harding, J. C., Martell  
 Hardy, C. F., Milwaukee  
 Harlow, G. A., Milwaukee  
 Harper, C. A., Madison  
 Harrington, D. W., Milwaukee  
 Harrington, T. L., Milwaukee  
 Harter, Alex F., Marathon City  
 Hartford, W. P., Cassville  
 Harvie, W. D., Grand Rapids  
 Haskell, M. W., Richland Center  
 Haushalter, H. P., Milwaukee  
 Hausmann, N. E., Kewaskum  
 Haven, S. W., Racine  
 Hay, Thos. H., Milwaukee  
 Hayden, A., Shullsburg  
 Hayes, Chas. A., Chippewa Falls  
 Hayes, D. J., Milwaukee  
 Hayes, E. S., Eau Claire

- Hayman, C. S., Boscobel  
 Hayman, L. H., Boscobel  
 Head, L. R., Madison  
 Hebard, Chas. H., Mondovi  
 Hebard, Sue, Mondovi  
 Heeb, H. J., Milwaukee  
 Heidner, Gustav, West Bend  
 Heising, Albert, Menomonie  
 Helgeson, E. J., New Glarus  
 Heller, A. J., Milwaukee  
 Helm, A. C., Beloit  
 Helm, Ernest C., Beloit  
 Hemingway, J. B., Delavan  
 Henbest, Geo. M., Appleton  
 Henby, A. E., Sharon  
 Henderson, M. L. R., Milwaukee  
 Henika, G. W., Reedstown  
 Henry, R. H., Muscoda  
 Herb, F., Superior  
 Hering, E. R., Shell Lake  
 Herity, J. E., Bloomington  
 Herriman, L. L., Boyceville  
 Herron, Allon L., Milwaukee  
 Hewitt, M. R., Milwaukee  
 Hicks, F. B., Washburn  
 Hicks, L. N., Burlington  
 Hidershide, Geo. N., Arcadia  
 Higgs, H. J., Cedar River, Mich.  
 Hilger, Wm. F., Milwaukee  
 Hill, Warren, B., Milwaukee  
 Hilliad, Horace, Baraboo  
 Hilton, G. F., Sturgeon Bay  
 Hinckley, H. G., Merrill  
 Hinman, F. S., Rhinelander  
 Hinn, Louis P., Fond du Lac  
 Hipke, G. A., Milwaukee  
 Hitchcock, J. B., Montfort  
 Hitz, Henry B., Milwaukee  
 Hodges, F. L., Monroe  
 Hodgson, A. J., Waukesha  
 Hoerman, R. B., Watertown  
 Hoffman, J. F., Chetek  
 Hoffman, J. G., Hartford  
 Hoffmann, M. A. T., Campbellsport  
 Hoffman, Norman, Milwaukee  
 Hoffmann, P. A., Campbellsport  
 Hogan, J. M., Rhinelander  
 Hogue, D. W., Darlington  
 Hogue, Gustavus I., Milwaukee  
 Holmberg, L. J., Cashton  
 Holbrook, A. T., Milwaukee  
 Holliday, Edw. R., Ellsworth  
 Holz, A. P., Seymour  
 Holz, H. M., Beaver Dam  
 Hopkins, Geo. A., Lynxville  
 Hopkins, M. M., Oconto  
 Hopkins, W. B., Cumberland  
 Hopkinson, Daniel, Milwaukee  
 Hopkinson, L., Milwaukee  
 Horn, C. P., Luck  
 Hosmer, M. L., Ashland  
 Houck, Oscar, La Crosse  
 Hougen, Edw., Pittsville  
 Hougen, O. T., Grand Rapids  
 Howard, Albion Z., Oshkosh  
 Howard, G. A., Columbus  
 Howard, J. J., Columbus  
 Howison, N. L., Menomonie  
 Hoyer, G. C., Milwaukee  
 Hoyt, R. W., New Lisbon  
 Hubenthal, J. C., Belmont  
 Huennekens, J. H., Milwaukee  
 Hughes, T. H., Dodgeville  
 Hulburt, F. D., Reedsburg  
 Huleatt, Arthur, Arkansaw  
 Hunt, Ed. M., Morrisonville  
 Hunt, F. O., Fall River  
 Hurd, H. H., Chippewa Falls  
 Hurlbut, C. J., Omro  
 Hurth, O. J., Cedarburg  
 Hutchins, S. E., Whitehall  
 Hyslop, F. R., Whitewater  
 Irvine, Wesley, Manawa  
 Irwin, H. J., Baraboo  
 Iverson, M., Stoughton  
 Jackson, J. A., Madison  
 Jackson, J. A., Rudolph  
 Jackson, R. H., Rudolph  
 Jacob, B. U., Waukesha  
 Jacobs, Edw. C., Durand  
 Jamieson, Geo., Lone Rock  
 Jasperson, T., Neenah  
 Jegi, Henry A., Galesville  
 Jenkins, G. W., Kilbourn  
 Jenner, A. G., Milwaukee  
 Jensen, Anton B., Colby  
 Jermain, Hubert, Milwaukee  
 Jermain, Louis F., Milwaukee  
 Jobse, Peter H., Milwaukee  
 Jobse, William, Milwaukee  
 Johnson, North Freedom  
 Johnson, F. G., Lake Nebagamon  
 Johnson, F. P., Ontario  
 Johnson, G. B., Abbottsford  
 Johnson, H. B., Tomah  
 Johnson, J. C., Ogdensburg  
 Johnson, W. H., Matoon  
 Johnston, J. E., Tomahawk  
 Jones, Asa N., Hillsboro  
 Jones, A. W., Randolph  
 Jones, David F., Wausau  
 Jones, Edward H., Weyauwega  
 Jones, F. W., Appleton  
 Jones, G. M., Cambria  
 Jones, J. R., Randolph  
 Jones, R. W., Sussex  
 Jones, Susan, Racine  
 Jones, Thos. R., Winnebago  
 Judd, W. H., Janesville  
 Junck, John A., Sheboygan  
 Jurgens, L. W., Portage  
 Kahn, Jos., Milwaukee  
 Kalmerton, E. E., Milwaukee  
 Karnopp, G. L., Mishicot

- Kastner, A. L., Milwaukee  
 Kauffman, H. R., Monroe  
 Kaunheimer, G. J., Milwaukee  
 Kavanaugh, K. L., Menomonie  
 Keenan, Geo., Madison  
 Keithley, John W., Orfordville  
 Kelley, F. H., Merrill  
 Kellogg, E. Wells, Milwaukee  
 Kelly, W. W., Green Bay  
 Kelly, D. M., Baraboo  
 Kelsey, Kate, Cable  
 Kemper, Wm. G., Manitowoc  
 Kermott, E. P., Richland Center  
 Kern, Jos., Cecil  
 Kersten, A. M., De Pere  
 Ketterrer, E. A., Montford  
 Kiefer, J. G., Milwaukee  
 King, C. F., Hudson  
 Kinne, Edw., Elkhorn  
 Kissling, C. L., Milwaukee  
 Kleinboehl, J. W., Milwaukee  
 Kleinhans, M. A., Milwaukee  
 Klemm, Louis F., Milwaukee  
 Kletzsch, Gustav, Milwaukee  
 Kliese, L. A., Milwaukee  
 Knapp, Leonard L., New Richmond  
 Knauf, F. P., Kiel  
 Knauf, Nicholas, Forest Junction  
 Koch, A. F., Wausau  
 Koch, Theo., Baraboo  
 Kortebein, Henry, Milwaukee  
 Kovats, Edmund, Milwaukee  
 Kratzsch, A. W., Milwaukee  
 Kreutzer, A. G., Cedarburg  
 Kreutzer, C. A., Milwaukee  
 Krumme, Simon E., Fond du Lac  
 Kurr, A. N., Martell  
 Kyes, S. M., Weyauwega  
 LaCount, D., Wausau  
 Ladd, G. D., Milwaukee  
 Lademann, O. E., Milwaukee  
 Ladwig, W. A., Edgar  
 LaHann, Henry, Burlington  
 Laidlaw, W. R., Milwaukee  
 Laird, J. J., Black Creek  
 Lampson, H. G., Washburn  
 Lander, C. E., Viroqua  
 Lando, D. H., Hurley  
 Lang, Jacob, Milwaukee  
 Langland, P., Milwaukee  
 Lapper, O. L., Gresham  
 Larazin, F. C., Superior  
 Larsen, L. A., Colfax  
 Larson, G. A., Blanchardville  
 LaSage, Eugene, Medford  
 Lasehe, P. G., Bloom City  
 Lapham, C. O., Darlington  
 Lawler, T. L., Cobb  
 Lawrence, G. H., Galesville  
 Layton, O. M., Fairwater  
 Leete, H. N., Sturgeon Bay  
 Lehnkering, C. F., Darlington  
 Leith, Robert, Appleton  
 Leith, S. S., Junction City  
 Leland, A. M., Whitewater  
 Lemmer, G. W., Spooner  
 Lemon, Chas. H., Milwaukee  
 Lenfesty, J. P., De Pere  
 Leonard, Chas. W., St. Cloud  
 Lereche, Wilhelm, St. Paul, Minn  
 Lester, Thos., White Creek  
 Lester, Wm. A., Onalaska  
 Levings, A. H., Milwaukee  
 Lewis, H. T., Black Earth  
 Lewis, James M., Bloomington  
 Lewis, L. V., Sun Prairie  
 Lewis, Susie M., Milwaukee  
 Lid, T. A., Marinette  
 Lincoln, W. S., Dodgeville  
 Lindorn, J. D., Stevens Point  
 Littenberger, Jos., Arcadia  
 Little, W. D., Maiden Rock  
 Lochemes, W. T., Milwaukee  
 Lockhart, Carl, Mellen  
 Lockhart, Jasper W., Omro  
 Lohrs, John F., Highland  
 Loofbourow, N. A., Monroe  
 Loomis, E. E., Janesville  
 Loope, T. E., Sr., Eureka  
 Loope, T. E., Jr., Iola  
 Looze, John J., Grand Rapids  
 Lothrop, Chas. H., Wautoma  
 Love, G. L., Waukesha  
 Lucas, A. C., Wausau  
 Luce, J. E., Chilton (deceased)  
 Lueck, Geo. W., La Crosse  
 Luehrs, H., Hilbert  
 Luhmann, F. S., Manitowoc  
 Lundmark, L. M., Ladysmith  
 Lyman, F. A., Madison  
 Lyman, J. V. R., Eau Claire  
 Lynch, D. W., West Bend  
 Lyons, I. A., Neosho  
 McArthur, D. S., La Crosse  
 McCabe, Harry, Milwaukee  
 McCabe, Walter F., Beloit  
 McCarthy, G. W., Athens  
 McClure, F. E., Neenah  
 McClure, G. H., Westboro  
 McComb, I. N., Brillion  
 McCorkle, S. C., Milwaukee  
 McCormick, H. M., Auburn  
 McCoy, J. E., Elk Mound  
 McCracken, R. W., Union Grove  
 McCutcheon, W. R., Thorp  
 McDougall, G. T., Fond du Lac  
 McDowell, A. J., Soldiers Grove  
 McDonald, E. L., Beaver Dam  
 McDonald, E., Cuba City  
 McDonald, H. F., Hollandale  
 McDonald, R. J., Doylestown  
 McDonald, W., Lake Geneva

- McFarland, W. E., Trempealeau  
 McGill, Patrick G., Superior  
 McGovern, J. E., Potosi  
 McGovern, John J., Milwaukee  
 McGovern, Patriek H., Milwaukee  
 McGrath, W. P., Caseo  
 McGregor, S. A., Milton  
 McIndoe, T. B., Rhinelander  
 Mack, J. A., Madison  
 McKee, F. W., Richland Center  
 McKellar, A., Blanchardville  
 McKenney, Geo. P., Stockbridge  
 Mackie, Wm., Milwaukee  
 McKinnon, Hugh, Ashland  
 McKittrick, P., Thorp  
 McKeon, Phillip, New Richmond  
 MacLachlan, W. G., McFarland  
 McMahon, J. P., Union Grove  
 McNeel, J. Henry, Fond du Lac  
 McNeel, J. S., Waterloo  
 McQuillen, Jas., Superior  
 McRae, J. D., Chippewa Falls  
 McShane, B. E., Alton, Kansas  
 Madison, James D., Milwaukee  
 Mailer, A. C., De Pere  
 Malloy, Thos. E., Random Lake  
 Malone, Ed. W., Waukesha  
 Malone, Francis A., Waterford  
 Malone, Jas. T., West Allis  
 Malone, Thos. C., Milwaukee  
 Malone, Wm. F., Milwaukee  
 Mann, H. E., Marinette  
 Manning, Jacolyn, Eau Claire  
 Marehessault, J. A., Ashland  
 Marks, Solon, Milwaukee  
 Marquardt, C. H., La Crosse  
 Marsden, A. L., Rio  
 Marsden, T. H., Fennimore  
 Marshall, J. T., Appleton  
 Martin, Geo., Baldwin  
 Martin, M. T., Merrimac  
 Martin, M. R., Barron  
 Martin, O. H., Kewaunee  
 Martins, Wm. A., New Holstein  
 Mason, C. H., Superior  
 Mason, E. L., Eau Claire  
 Mason, Geo., Milwaukee  
 Masterson, J. A., Watertown  
 Matheison, John, Eau Claire  
 Matheson, A., Neillsville  
 Matter, F. E., Lake Geneva  
 Matter, H. C., Whitewater  
 Mauerman, J. F., Monroe  
 Maurer, A. A., La Crosse  
 May, J. V., Red Granite  
 Mayer, Lawrence P., Hudson  
 Meachem, J. G., Racine  
 Meacher, Byron C., Portage  
 Meany, John E., Manitowoc  
 Mears, G. V., Fond du Lac  
 Mehl, H. F., Milwaukee  
 Meilecke, W. A., Fredonia  
 Merritt, W. B., Janesville  
 Mertens, H. G., Washburn  
 Meesman, Hugo, Milwaukee  
 Metcalf, J. E., Salina, Kansas  
 Meyst, Chas., East Troy  
 Midelfart, Christian, Eau Claire  
 Midgley, A. E., Lake Geneva  
 Milbie, H. H., Marshfield  
 Miller, H. C., Whitewater  
 Miller, D. McL., Oconomowoc  
 Miller, Simon, Mondovi  
 Miller, Thos., Oconomowoc  
 Miller, Thos. H., La Crosse  
 Miller, T. M., Medford  
 Miller, Wilmot F., Milwaukee  
 Miller, W. J., La Valle  
 Miller, W. S., Madison  
 Millike, H. A., Clintonville  
 Mills, James, Janesville  
 Mills, Norman P., Appleton  
 Minahan, John R., Green Bay  
 Minahan, Robt. E., Green Bay  
 Minahan, Wm. E., Fond du Lac  
 Minshall, A. P., Viroqua  
 Mintener, J. W., Minneapolis, Minn.  
 Mishoff, Ivan D., Milwaukee  
 Mitchell, E. J., Brodhead  
 Mitchell, F. B., Neenah  
 Mock, F. C., Milwaukee  
 Mollatt, Henry R., Poyssippi  
 Monroe, Wm. B., Monroe  
 Monroe, W. H., Merrill  
 Monsted, John W., Alderly  
 Montgomery, Alex, Eau Claire  
 Moody, Lewis, Superior  
 Moreaux, F., Luxembourg  
 Morgan, J. J., Durand  
 Morgenroth, H. W., Berlin  
 Morley, F. E., Viroqua  
 Morley, W. B., Shell Lake  
 Morris, D. G., Sharon  
 Morris, E. K., Algoma  
 Morris, R. C., Ft. Atkinson  
 Morrison, M., La Crosse  
 Morse, A. J., Fond du Lac  
 Morse, Edwin A., Appleton  
 Morse, S. S., Kansas City, Mo.  
 Moulding, F. C., Watertown  
 Moyer, Samuel R., Monroe  
 Mueller, Armin, Milwaukee  
 Mueller, V. F., Milwaukee  
 Muenzner, R. J., Allentown  
 Mulford, E. R., La Crosse  
 Mulholland, John F., Manitowoc  
 Munger, D. C., Ellsworth  
 Munger, I. C., Barneveld  
 Munkwitz, F. H., Milwaukee  
 Munro, Sarah R., Milwaukee  
 Murphy, W. T., Waukesha  
 Murray, G. O., Tunnel City  
 Muth, Carl, Sheboygan  
 Myers, Albert W., Milwaukee

- Myre, Chas. F., Chippewa Falls  
 Nadeau, A. T., Marinette  
 Nahin, H. L., Milwaukee  
 Nash, Arthur R., Ellsworth  
 Neilson, W. H., Milwaukee  
 Nelson, Stella B., Oshkosh  
 Newton, A. B., Bangor  
 Nichols, F. C., Wausau  
 Nichols, Willard T., Milwaukee  
 Nicholson, J. D., Balsam Lake  
 Nicholson, W. G., Green Bay  
 Nixon, A. J. W., Delafield  
 Nixon, Henry C. B., Hartland  
 Nixon, R. T. A., Brookfield  
 Noble, Jas. H., Eau Claire  
 Noble, Jos. B., Waukesha  
 Noer, Julius, Stoughton  
 Noer, J. P., Wobeno  
 Nolan, W. N., Kaukauna  
 Nolte, Lewis G., Milwaukee  
 North, Chas. F., Beaver Dam  
 Notbolun, Wm. R., Dousman  
 Nott, Wallace G., Racine  
 Noyes, G. B., Oshkosh  
 Noyes, Geo. K., Milwaukee  
 Nuzum, Thos. W., Brodhead  
 Nye, F. T., Beloit  
 Nystrum, C. E., Medford  
 Oakland, H. G., Milwaukee  
 Oatway, Wm. H., Lake Mills  
 Oberempt, B. H., Milwaukee  
 O'Brien, H. J., Superior  
 O'Brien, H. N., Darien  
 O'Brien, J. M., Oregon  
 O'Brien, Jas. L., Milwaukee  
 O'Brien, Thos., St. Nazianz  
 O'Brien, W. T., Ashland  
 O'Connell, R. S., Cato  
 O'Connor, D. J., Appleton  
 O'Connor, W. T., Ladysmith  
 Oettiker, James, Platteville  
 Ogden, Henry, Ft. Atkinson  
 Ogden, H. V., Milwaukee  
 Ohswald, H. F., Oconto Falls  
 O'Leary, T. J., Husher  
 Olmsted, A. O., Green Bay  
 O'Malley, W. P., Elkhorn  
 Omsted, Niles, Stoughton  
 Orchard, H. J., Superior  
 Orr, E. D., Mt. Hope  
 Overbaugh, J. H., Hartland  
 Oviatt, Chas. W., Oshkosh  
 Packard, Chas. D., Rhinelander  
 Pake, Guy S., Superior  
 Palmer, J. A., Arcadia  
 Palmer, W. H., Janesville  
 Panetti, E. J., Milwaukee  
 Panetti, P. A., Hustisford  
 Park, M. M., Waukesha  
 Park, W. H., Downing  
 Parker, Albert S., Clinton  
 Parker, E. H., Eau Claire  
 Parmley, J. P., Mineral Point  
 Partlow, H. W., Shawano  
 Partridge, Orlando, Pewaukee  
 Patek, Arthur J., Milwaukee  
 Payne, A. L., Eau Claire  
 Payne, W. H., Beloit  
 Peairs, Ralph R., Milwaukee  
 Pearce, W. J., Dodgeville  
 Pease, W. A., Otsego  
 Pease, Wm. A., Rio  
 Peck, W. W., Darlington  
 Peck, Fred G., Corliss  
 Pelton, L. H., Waupaca  
 Pelton, John F., Janesville  
 Pembleton, W. E., Wittenburg  
 Perrin, Geo. H., Wauzeka  
 Perrin, H. E., Star Prairie  
 Perry, Dan, Prentice  
 Perry, Gentz, Amery  
 Peters, H. A., Oconomowoc  
 Peterson, Geo. E., Waukesha  
 Pfister, Franz, Milwaukee  
 Pflueger, J. H., Fairchild  
 Phaneuf, S. J., Somerset  
 Philler, Hugo, Waukesha  
 Phillips, C. E., Eau Claire  
 Phillips, C. E., Wilton  
 Pickering, Chas. R., Muscoda  
 Pickett, L. S., Wilson  
 Pierce, E. H., Arcadia  
 Pinch, F. I., Hillsboro  
 Pinkerton, W. J., Eagle River  
 Pinkerton, Wm. T., Prairie du Chien  
 Pomainville, Frank, Grand Rapids  
 Pomainville, Geo., Grand Rapids  
 Pope, Frank J., Racine  
 Poppe, Alfred, Wautoma  
 Poppe, H. B. B., Wautoma  
 Poser, Edw. M., Columbus  
 Post, C. C., Barron  
 Potter, Luther A., Superior  
 Potter, I. Y., New London  
 Potter, R. P., Auburndale  
 Powless, J. A., Oneida  
 Pretts, W. W., Plattsville  
 Prill, H. F., Augusta  
 Prince, L. H., Palmyra  
 Pritchard, J. F., Manitowoc  
 Proctor, J. F., Sturgeon Bay  
 Proudlock, J. H., Wheeler  
 Prouty, W. R., Burlington  
 Provost, W. J., Oshkosh  
 Pouchner, E., Wittenburg  
 Pugh, Geo. H., Kenosha  
 Pullen, A. J., North Fond du Lac  
 Puls, A. J., Milwaukee  
 Purell, H. E., Madison  
 Purtell, Jos. A., Milwaukee  
 Quade, E. B., Wausau  
 Quam, Jacob, Deerfield  
 Quigg, C. E., Tomah  
 Raasock, Halfdan, Nelsonville

- Raek, G. H., Princeton  
 Ragan, W. J., Shawano  
 Randall, J. G., Missoula, Mont.  
 Rathbun, John W., Prairie du Chien  
 Ravn, Michael, Merrill  
 Ray, C. F., Milwaukee  
 Read, Flora A., Fond du Lac  
 Redelings, Theo. J., Marinette  
 Reed, W. W., Jefferson  
 Reeve, J. L., Superior  
 Reeve, James S., Appleton  
 Reeve, J. T., Appleton  
 Regan, Eugene D., Milwaukee  
 Reich, Hugo O., Sheboygan  
 Reieh, Wm. F., Milwaukee  
 Reineking, H., Milwaukee  
 Reinert, E. N., Cleveland  
 Reinert, J. E., Schleisingerville  
 Reinhard, C., Milwaukee  
 Reinhard, Hans A., Milwaukee  
 Reinhardt, J. P., Fountain City  
 Reinhart, D. B., Merrill  
 Reitman, Arthur, Milwaukee  
 Remally, Chas. S., Melrose  
 Rentdorff, Walter, Reedsburg  
 Reynolds, Bertha E., Lone Rock  
 Reynolds, B. O., Lake Geneva  
 Reynolds, J. C., Lake Geneva  
 Rheingans, Geo. H. (deceased), So. Gemautown  
 Rhoades, L. J., Fond du Lac  
 Rhode, Henry, Green Bay  
 Ribenack, G. A., Menomonie  
 Rice, D. S., Stevens Point  
 Rice, E. M., Kewaunee  
 Rice, Elmer R., Eau Claire  
 Rice, John A., Merton  
 Rice, R. H., Kewaunee  
 Rice, Ray H., Delavan  
 Richards, C. A., Rhinelander  
 Richards, J. B., Brodhead  
 Riehmond, James, Loyal  
 Richmond, H. C., Loyal  
 Ridgman, A. L., Grand Rapids  
 Riehl, Fred W., Milwaukee  
 Rinehart, W. T., Ashland  
 Riordan, E. J., Wilton  
 Ritchie, G. G., Appleton  
 Roach, R. J., Cobb  
 Robb, Jas. B., Berlin  
 Robbins, M. M., Hickory  
 Roberts, Geo. W., Albany  
 Roberts, J. A., Manitowoc  
 Robinson, H. A., Kenosha  
 Rock, John N., Milwaukee  
 Rockwell, H. O., Beloit  
 Rockwell, J. W., Grand Rapids  
 Rodman, A. J., Delavan  
 Rogers, A. W., Wauwatosa  
 Rogers, E. M., Stevens Point  
 Rogers, Ezra M., Hartford  
 Rogers, Philip F., Milwaukee  
 Rood, Galen, Stevens Point  
 Rood, John F. L., Darien  
 Roos, Adolph, Oshkosh  
 Rosenberry, A. B., Oshkosh  
 Rosenberry, A. B., Abor Vitae  
 Rosenberry, H. L., Wausau  
 Rostad, K. T., Spring Valley  
 Rothman, L., Wittenburg  
 Rounseville, G. L. B., Milladore  
 Rowe, W. H., Waukesha  
 Rowles, J. A., La Crosse  
 Roy, Emil, Lamartine  
 Ruckle, Wm., Grand Rapids  
 Ruhland, Geo. C., Milwaukee  
 Russell, Rose, Necedah  
 Russell, T. P., Oshkosh  
 Ryan, C. E., Appleton  
 Ryan, D. J., Algoma  
 Ryan, E. L., Sheboygan  
 Sala, O. P., Bloomington  
 Sandborn, Manly J., Appleton  
 Sander, Carl A., Waupaca  
 Sargent, C. E., Oshkosh  
 Sarles, W. T., Sparta  
 Sartell, E. N., Black Creek  
 Sattre, Olaf M., Rice Lake  
 Sauerhering, D. L., Wausau  
 Saunders, George, Superior  
 Sanders, Wm. H., Kenosha  
 Savage, Geo. F., Port Washington  
 Sayle, R. G., Milwaukee  
 Sayles, L. W., Baraboo  
 Scanlon, P. L., Prairie du Chien  
 Schall, J. G., Oshkosh  
 Schallern, Ottmar, Ripon  
 Schee, J., Westby  
 Scheib, G. F., Fond du Lac  
 Schell, Ida L., Milwaukee  
 Schiller, Leopold, Milwaukee  
 Schmeling, A. F., Columbus  
 Schmidt, E. L., Oshkosh  
 Schmidt, J. A., Brillion  
 Schmidt, Philip, Milwaukee  
 Schmitt, Gustav, Milwaukee  
 Schmitt, Louis, Milwaukee  
 Schmitz, W. C., St. Nazianz  
 Schneider, Adelbert, Milwaukee  
 Schneider, Jos., Milwaukee  
 Schoen, A. F., Mayville  
 Schofield, H. R., Greenwood  
 Scholz, G. M., Milwaukee  
 Schoofe, J. J., Johnsburg  
 Schreiner, J. K., Westby  
 Schroeder, H. F., Marinette  
 Schultz, F. W., Sarasota, Fla.  
 Schulz, F. M., Milwaukee  
 Schulz, J. H., Milwaukee  
 Schuster, Bruno L., Milwaukee  
 Schwenderer, John, Milwaukee  
 Schwenfeld, C. J., La Crosse  
 Scollard, John T., Milwaukee  
 Scollard, W. E., Milwaukee

- Scott, B. E., Berlin  
 Scott, H. E., Argyle  
 Scott, J. R., Appleton  
 Scott, Wm. F., Pt. Washington  
 Seaman, Gilbert E., Milwaukee  
 Sears, Harry B., Beaver Dam  
 Sedelmair, Franz X., St. Louis, Mo.  
 Seelye, N. L., Lake Geneva  
 Seidel, J. G., Warrens  
 Seiler, Geo., Monroe  
 Selbach, J. J., Eau Claire  
 Seldon, W. B., Thorp  
 Senn, F. C., Oshkosh  
 Senn, N., Chicago  
 Sercombe, H. Frances, St. Ignace, Mich.  
 Severson, Selema, Madison  
 Sharp, E. L., Fox Lake  
 Sharp, M. B., Madison  
 Shaw, A. O., Ashland  
 Shaw, Byron W., Waunakee  
 Shaw, M. A., Durand  
 Shearer, R. D., Milwaukee  
 Shehan, L. B., Superior  
 Sheldon, C. S., Madison  
 Sheldon, Walter H., Madison  
 Shepard, W. A., Seymour  
 Shimonek, F., Milwaukee  
 Shinnick, Thos. F., Watertown  
 Shoekley, H., Lamont  
 Sholdski, Jos., Milwaukee  
 Siekles, Wm. A., Milwaukee  
 Sieker, Arthur W., Franklin  
 Sifton, Harry A., Milwaukee  
 Simon, H. R., Sturgeon Bay  
 Simonson, J., Tomah  
 Sinz, P. M., Kennan  
 Sizer, E. M., Fall Creek  
 Slaughter, A. W., Green Bay  
 Sleyster, L. R., Kiel  
 Smieding, Geo., Jefferson  
 Smith, A. D., Gilmanton  
 Smith, Bryant, Milwaukee  
 Smith, C. M., Evansville  
 Smith, Chas. S., Elroy  
 Smith, D. H., Hurley  
 Smith, E. A., Milwaukee  
 Smith, E. J., Neenah  
 Smith, Geo. Lewis, Jefferson  
 Smith, J. E., Mauston  
 Smith, P. H., Racine  
 Smith, Sidney, So. Milwaukee  
 Smith, S. M. B., Wausau  
 Smith, W. D., Tomah  
 Smith, W. P., Waupun  
 Sontag, Adolph, Milwaukee  
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 Soucier, J. T., Bruce  
 Southwick, F. A., Stevens Point  
 Spawn, M. G., Beloit  
 Specht, John, Superior  
 Spencer, Leonard, Wausau  
 Sperry, Seldon B., Milwaukee  
 Sperry, Willis P., Phillips  
 Spitz, Milton, Milwaukee  
 Squire, L. M., Poynette  
 Stack, Stephen S., Milwaukee  
 Staehle, M., Manitowoc  
 Stair, U. P., Ft. Atkinson  
 Stalker, H. J., Kenosha  
 Stanley, C. J., Baneroff  
 Stannard, Sheboygan  
 Stanton, Chas, Green Bay  
 Starr, F. W., Stanley  
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 Steele, Geo. M., Oshkosh  
 Steffen, I. D., Antigo  
 Steenberg, H. L., Milwaukee  
 Stephenson, Wm., Ladysmith  
 Stetler, G. A., Menomonie  
 Stevens, Frank E., Bristol  
 Stevens, J. V., Jefferson  
 Steves, B. J., Menomonie  
 Stewart, F. W., Spooner  
 Stewart, P. B., Hiles  
 Stiles, F. P., Sparta  
 Stiles, V. W., Sparta  
 Stinson, B. L., Milwaukee  
 Stitson, J. M., Weyerhauser  
 Stoddard, Chas. H., Milwaukee  
 Stoelting, C. W., Oconto  
 Stolte, Herman, Milwaukee  
 Stone, Spencer R., Rhinelander  
 Storey, Carrol T., Hayward  
 Stoye, J. P., Theresa  
 Stratton, F. A., Milwaukee  
 Strauss, P. H., Milwaukee  
 Strong, R. J. C., Beloit  
 Studley, F. C., Milwaukee  
 Suby, J. I., Stoughton  
 Suiter, F. C., La Crosse  
 Sure, J. H., Milwaukee  
 Surenson, M., Viroqua  
 Sutherland, Justus, Brodhead  
 Swarthout, E. C., La Crosse  
 Sweetman, R. H., Green Bay  
 Swedenburg, F. G., Rock Elm  
 Sweemer, William, Milwaukee  
 Sykes, Herbert D., Milwaukee  
 Sylvester, H., Milwaukee  
 Tanner, G. F., Turtle Lake  
 Tanner, Herbert B., Kaukauna  
 Tasehe, Conrad T., Sheboygan  
 Tasehe, John C., Sheboygan  
 Taugher, A. J., Milwaukee  
 Taugher, P. J., Wausau  
 Tayler, E. A., Racine  
 Taylor, L. L., Rib Lake  
 Teich, Wm. E. H., Milwaukee  
 Tenney, J. S., Alma  
 Tenney, J. T., Alma  
 Terhorst, H., Milwaukee  
 Teschan, Rudolph C., Milwaukee  
 Teschan, Rudolph F., Milwaukee  
 Thayer, C. E., Markesan



- Thayer, F. A., Beloit  
 Thewalt, W. B., Poysippi  
 Thieke, G. A., Wausau  
 Thienhaus, Carl, O., Milwaukee  
 Thompson, A. S., Mt. Horeb  
 Thompson, R. E., Milwaukee  
 Thomson, B. V., Oshkosh  
 Thomson, G. E., Green Bay  
 Thomson, Thos. F., Milwaukee  
 Thomson, Wm. J., Portage  
 Thorndike, Wm., Milwaukee  
 Thorne, James P., Janesville  
 Thrane, A. D. H., Eau Claire  
 Thurtell, Herbert, Manitowoc  
 Tibbits, Newton L., Peshigo  
 Timm, E. W., Milwaukee  
 Tisdale, Lewis C., Milwaukee  
 Todd, Samuel G., Neenah  
 Tomelty, Thos., Big Bend  
 Townsend, E. H., New Lisbon  
 Travis, A. L., Princeton  
 Treat, Chas. R., Sharon  
 Treglown, L. H., Arthur  
 Trevitt, A. W., Wausau  
 Trevitt, Margaret, Wausau  
 Trimble, T. W., Waupaca  
 Trowbridge, Chas., Viroqua  
 Trowbridge, J. B., Hayward  
 Trowbridge, W. M., Viroqua  
 Tuffley, F. S., Livingston  
 Twohig, David J., Fond du Lac  
 Twohig, H. E., Fond du Lac  
 Tyrrell, Clara F., Livingston, Mont.  
 Uren, A., Montreal  
 Urquhart, John H., Iron Belt  
 Van Altena, Louis, Cedar Grove  
 Valentine, L. P., Corliss  
 Vedder, H. A., Edgar  
 Vernon, S. G., Madison  
 Vincent, G. R., Tomah  
 Visser, Jacob, Ogema  
 Vivian, S., deceased, Mineral Point  
 Vogel, Carl C., Elroy  
 Voight, O. P., Gillett  
 Voje, J. H., Oconomowoc  
 Von Hengel, G. S. A., Waupun  
 von Neupert, C. Sr., Stevens Point  
 von Neupert, C. Jr., Stevens Point  
 Voorus, C. Wesley, Beaver Dam  
 Voss, H. H., Plymouth  
 Wade, Frank S., New Richmond  
 Wadey, Bert J., Belleville  
 Wagner, K., Milwaukee  
 Wagner, N. Z., Sturgeon Bay  
 Wahl, Emil, Milwaukee  
 Wahl, H. S., Stratford  
 Wable, H., Marshfield  
 Waite, R. A., Fall River  
 Wakefield, P. A., West Salem  
 Wakefield, S. R., West Salem  
 Walbridge, F. E., Milwaukee  
 Walbridge, J. S., Berlin  
 Waidtschmidt, J., Fond du Lac  
 Walker, F., St. Croix Falls  
 Wall, C. H., Mellen  
 Wall, H. Jackson, Richland Center  
 Walsh, Chas. Chase, Merrill  
 Walter, H. A., Green Bay  
 Ward, John Peter, Waukesha  
 Washburn, R. G., Milwaukee  
 Washburn, S. M., Merimack  
 Washburn, W. H., Milwaukee  
 Waters, W., Grand Rapids  
 Waters, Hugh, Nekoosa  
 Watson, Fred V., Antigo  
 Weber, Ernest J., Milwaukee  
 Weber, Fred R., Milwaukee  
 Weber, H., Newburg  
 Webb, E. P., Beaver Dam  
 Webster, B. N., Rice Lake  
 Webster, Fred E., Amberst  
 Wegge, Wm. F., Milwaukee  
 Wehle, W. J., West Bend  
 Weld, Wm. H., Ft. Atkinson  
 Wells, A. L., Clear Lake  
 Wells, J. H., Genoa  
 Wenstrau, D. E., Milwaukee  
 Wenzel, J. V., Ashland  
 Werner, Nels, Barron  
 Werner, O. E., West Bend  
 Werner, R. F., Augusta  
 Werner, R. J., Oshkosh  
 Wheeler, P. A., Oshkosh  
 White, Adam G., Milwaukee  
 White, Moses L., Wauwatosa  
 White, Wm. E., Lyons  
 Whitehorne, E. E., Mazomanie  
 Whitney, D. C., Rice Lake  
 Whyte, Wm. F., Watertown  
 Wilcox, Wm., Wild Rose  
 Wiley, Frank S., Fond du Lac  
 Wilkinson, J. A., Hales Corners  
 Wilkinson, M. R., Oconomowoc  
 Willard, L. Mortimer, Wausau  
 Willett, Thos., West Allis  
 Williams, H. H., Sparta  
 Williams, Jesse M., Oshkosh  
 Williams, W. E., Cambria  
 Williamson, Geo. H., Antigo  
 Williamson, J. L., Milwaukee  
 Willis, C. M., Berlin  
 Wilmarth, A. W., Chippewa Falls  
 Winchester, Walter, Shelbogan  
 Windesheim, G., Kenosha  
 Wing, W. S., Oconomowoc  
 Wingate, U. O. B., Milwaukee  
 Winneman, T. U., Hazelhurst  
 Winter, A. E., Tomah  
 Wintermute, C. E., Kilbourn  
 Witte, W. C. F., Milwaukee  
 Wittman, Adolph, Merrill  
 Wocho, Wm., Kewaunee

Wolff, Jacob, Milwaukee  
 Wood, M. B., Pittsville  
 Woods, E. F., Janesville  
 Woodworth, D. W., Ellsworth  
 Woolhiser, C. T., South Wayne  
 Wray, Wm. E., Tomahawk  
 Wright, E. A., Colfax  
 Wright, J. C., Excelsior  
 Wright, S. D., Marinette  
 Wurdemann, H. V., Milwaukee  
 Wyatt, D. B., Fond du Lac

Yanke, A. E., Milwaukee  
 Youmans, L. E., Mukwonago  
 Young, A. F., Milwaukee  
 Young, G. H., Elkhorn  
 Zahn, John, Raymond Center  
 Zartzin, J. C., Milwaukee  
 Zaun, Geo. F., Milwaukee  
 Zeiss, Anton, Sheboygan  
 Zilisch, Wm. E., Hortonville  
 Zimmerman, Chas., Milwaukee  
 Zinns, A. J., Milwaukee

## DEATHS.

W. H. Bartran, Green Bay, Brown Co., died Nov. 22nd, 1905; Vivian Stansmore, Mineral Point, died Jan. 5th, 1906; G. Rheingans, South German-town, died Jan. 10th, 1906; J. E. Luce, Chilton, died Jan. 31st, 1906; J. E. Smith, Maunston, died ...

## REMOVALS.

J. E. Metcalf, Fennimore, to Salina, Kansas; C. F. Tyrell, Fox Lake, to Idaho; A. F. Harter, La Crosse, to Marathon City; H. H. Voss, Wausau, to Plymouth; W. B. Ford, Norwalk, to Sparta; J. G. Randall, Monroe, to Missoula, Mont.; F. E. McClure, Neenah, to Detroit, Mich.; F. Sedelmair, St. Louis, to Bremen, Ill.; H. R. Kauffman, Monroe, to Akron, Ohio; E. R. Lovese, Monticello, to place unknown; A. Sutherland, Brodhead, to Oshkosh; Julius Sutherland, Brodhead, to Great Bend, Kans.; J. A. Powlas, Oneida, to Brown; C. M. Echols, Appleton, to Milwaukee; W. Blake, to Rockton; J. W. Wells, to Iowa; F. P. Johnson, to Ontario, Wis.; S. M. Collive, Athens, to Europe; F. W. Kitzke, Wausau, to Port Washington; H. H. Voss, Marathon City, to Plymouth; John Hund, Wausau, to Necedah; G. Hover, Oshkosh, to Milwaukee; W. A. Loops, Pickett, to place unknown; F. E. McClure, Neenah, to Michigan; E. S. Schmidt, Oshkosh, to place unknown; H. E. Levin, North Lake, to place unknown; W. J. Lomergan, Brookfield, to place unknown; R. A. Nixon, Brookfield, to place unknown; G. S. Love, Waukesha, to place unknown; S. W. Savles, Washburn, to Shell Lake; A. P. Blackley, Hayward, to Oregon; J. J. DeMers, Black Falls, to Cassville.

## COUNTY MEDICAL SOCIETIES.

## ASHLAND COUNTY MEDICAL SOCIETY.

M. J. Hosmer, Ashland, President.

A. O. Shaw, Ashland, Vice-President; J. M. Dodd, Ashland, Sec'y and Treas.;

A. O. Shaw, Delegate; M. J. Hosmer, Alternate.

W. T. O'Brien, J. A. Marchessault, A. O. Shaw, Censors.

## MEMBERS:

Braun, O., Ashland  
 Dodd, J. M., Ashland  
 Dohearty, F. P., Butternut  
 Fletcher, F. E., Ashland  
 Frick, L., Glidden  
 Griffen, W. J., Ashland  
 Hosmer, M. J., Ashland  
 Hoyt, B. F., Mellen  
 Law, W. G., Glidden  
 Lockhart, C., Mellen

McKinnon, Hugh, Ashland  
 Marchessault, J. A., Ashland  
 O'Brien, Wm. T., Ashland  
 Rinehart, W. T., Ashland  
 Shaw, A. O., Ashland  
 Wall, C. D., Mellen  
 Wall, C. H., Mellen  
 Wenzel, J. V., Ashland  
 Woodard, Ada M., Ashland

BARRON-RUSK-POLK COUNTIES MEDICAL SOCIETY.

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W. B. Hopkins, Cumberland, Barron Co., Vice-President; Geo. M. Carnachan, Bruce, Rusk Co., Vice-President; H. B. Crommett, Amery, Polk Co., Vice-President; Nels Werner, Barron, Sec'y. and Treas.; W. B. Hopkins, Cumberland, Delegate; O. M. Sattre, Rice Lake, Alternate.  
 J. D. Nicholson, Balsam Lake, W. B. Hopkins, Cumberland, A. L. Wells, Clear Lake, Censors.

MEMBERS:

Babcock, I. G., Cumberland	Morneau, J. P., Rice Lake
Carnachan, Geo. M., Bruce	Nicholson, Jas. D., Balsam Lake
Charron, T. A., Rice Lake	O' Connor, W. F., Tony
Coleman, H. M., Barron	Perry, Gentz, Amery
Combacker, H. E., Osceola	Post, C. C., Barron
Crommet, H. B., Amery	Sattre, O. M., Rice Lake
Ellis, W. H., Barron	Soucier, J. T., Bruce
Gobar, G. G., Apollonia	Stephenson, W. L., Ladysmith
Goodwin, M. P., Clear Lake	Stetson, J. N., Weyerhauser
Hawkins, T. R., Cameron	Tanner, G. F., Turtle Lake
Hoffmann, J. F., Chetek	Walker, F., St. Croix Falls
Hopkins, W. B., Cumberland	Wells, A. L., Clear Lake
Horn, Christian P., Luck	Werner, Nels, Barron
Hudgel, Chas. R., Ladysmith	Webster, B. N., Rice Lake
Lundmark, L. M., Ladysmith	Whitney, D. C., Rice Lake
Martin, M. R., Barron	

BAYFIELD COUNTY MEDICAL SOCIETY.

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H. G. Lampson, Washburn, Vice-President; H. G. Mertens, Sec'y and Treas.; H. G. Mertens, Delegate.  
 Henry Hannum, Bayfield, H. G. Lampson, H. G. Mertens, Washburn, Censors.

MEMBERS:

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Hannum, H., Bayfield	Patterson, J. A., Iron River
Lampson, H. G., Washburn	Tartar, J. W., Iron River

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MEMBERS:

Bartran, W. H., Green Bay	Lenfestey, J. P., De Pere
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Bellin, J. J., Green Bay	Minahan, J. R., Green Bay
Brett, B. C., Green Bay	Minahan, R. E., Green Bay
Brett, F. N., Green Bay	Nicholson, W. G., Green Bay
Buchanan, R. C., Green Bay	O'Connor, D. J., Appleton
Burdon, R. M., Green Bay	Olmsted, A. O., Green Bay
Chloupek, C. J., Green Bay	Rhode, Henry P., Green Bay
de Neveau, A. V., Tisch Mills	Slaughter, A. W., Green Bay
Fairfield, W. E., Green Bay	Stanton, Chas., Duck Creek
Gregory, D. H., De Pere	Sweetman, R. H., Green Bay
Higgs, H. J., Cedar River, Mich.	Thompson, G. E., Green Bay
Kelley W. W., Green Bay	Wolter, H. A., Green Bay
Kersten, A. M., De Pere	

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Norman E. Anderson, Mondovi, Arthur E. Huleatt, Arkansaw, Wm. W. Cassidy, Durand, Censors.

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Anderson, Norman E., Mondovi	Miller, Simon, Mondovi
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Belitz, Wm., Cochrane	Reinhardt, J. Paul, Fountain City
Cassidy, Wm. W., Durand	Shaw, Myron A., Durand
Conger, F. C., Mondovi	Smith, A. B., Gilmanton
Hebard, Chas., Mondovi	Tenney, J. S., Alma
Hebard, Sue, Mondovi	Tenney, J. T., Alma
Huleatt, Arthur C., Arkansaw	

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Knauf, N. J., Forest Junction	Schmidt, J. A., Brillion
Luce, J. E., deceased, Chilton	Sleyster, L. R., Kiel
Luehrs, H. E., Hilbert	

## CHIPPEWA COUNTY MEDICAL SOCIETY.

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A. W. Welmarth, Chippewa Falls, H. H. Hurd, Chippewa Falls, E. P. Ellenson, Chippewa Falls, Censors.

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Cunningham, R. B., Cadott	McCormick, H., Auburn
Dahl, L. A., Stanley	McRae, J. D., Chippewa Falls
Ellenson, E. P., Chippewa Falls	Myre, Chas. F., Chippewa Falls
Erdman, C. H., Stanley	Star, F. W., Stanley
Foster, J. H. A., Cadott	Wallace, D., Chippewa Falls
Gaillardet, L. P. L., Chippewa Falls	Welmarth, Alfred W., Chippewa Falls

## CLARK COUNTY MEDICAL SOCIETY.

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## FOREST-FLORENCE COUNTIES MEDICAL SOCIETY.

Forest-Florence Counties Medical Society will probably be united with Oneida County Medical Society.

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 C. F. Daugherty, Richland Center, E. P. Kermott, Richland Center, C. R. Pickering, Muscoda, Censors.

MEMBERS:

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 DeLap, R. H., Richland Center  
 Elliott, Sara T., Richland Center  
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 Haskell, M. W., Richland Center

Jamieson, Geo., Lone Rock  
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ROCK COUNTY MEDICAL SOCIETY.

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| Epley, O. H., Baldwin      | Pickett, S. L., Wilson        |
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 T. M. Miller, Medford, Vice-President; J. H. Francis, Bloomer, Sec'y and  
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H. H. Albers, Allenton, Alternate.

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Caldwell, Margaret, Waukesha	Caples, B. M., Waukesha
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| Jabob, B. U., Waukesha       | Peterson, G. E., Waukesha    |
| Jones, R. W., Sussex         | Philler, H., Waukesha        |
| Jones, W. A., Oconomowoc     | Rice, J. A., Merton          |
| Larson, H. S., Oconomowoc    | Rowe, W. H., Waukesha        |
| Levin, H. E., North Lake     | Smith, O. E., Mukwonago      |
| Love, G. S., Waukesha        | Tibbits, U. J., Waukesha     |
| Malone, E. W., Waukesha      | Tomelty, T., Mukwonago       |
| Matter, H. C., Whitewater    | Voje, H. J., Oconomowoc      |
| Miller, D. McL., Oconomowoc  | Ward, J. P., Waukesha        |
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| Murphy, W. T., Waukesha      | Wing, W. S., Oconomowoc      |
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WAUPACA COUNTY MEDICAL SOCIETY.

- L. H. Pelton, Waupaca, President.  
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 Treas.; G. T. Dawley, New London, Delegate.  
 W. I. Irvine, Manawa, Alternate.  
 C. A. Sanders, Waupaca, M. C. Crane, Weyauwega, T. E. Loope, Iola, Censors.

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| Borchardt, A. L., New London   | Johnson, J. C., Ogdensburg   |
| Brown, J. M., New London       | Kyes, S. M., Weyauwega       |
| Brownell, W. T., New London    | Lee, J. H., Iola             |
| Burns, H. J., New London       | Loope, T. E., Iola           |
| Christofferson, P. J., Waupaca | Millike, H. A., Clintonville |
| Corbett, J. F., Weyauwega      | Moray, R. D., Manawa         |
| Crane, M. C., Weyauwega        | Pelton, L. H., Waupaca       |
| Dawley, G. T., New London      | Potter, I. Y., New London    |
| Goodrich, G. M., Clintonville  | Sanders, C. A., Waupaca      |
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 Delegate; S. G. Todd, Neenah, Alternate.  
 A. L. Christofferson, Oshkosh, J. R. Barnett, Neenah, G. M. Steele, Oshkosh,  
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| Allen, L. P., Oshkosh          | Gensen, A., Oshkosh        |
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| Barnett, J. R., Neenah         | Gordon, W. A., Winnebago   |
| Broche, A. H., Oshkosh         | Gordon, W. A. Jr., Oshkosh |
| Brockway, F., Oshkosh          | Greenwood, S. D., Neenah   |
| Brown, F. W. A., Oshkosh       | Gudden, B. C., Oshkosh     |
| Christofferson, A. L., Oshkosh | Howard, A. Z., Oshkosh     |
| Clark, B., Oshkosh             | Hurlbut, C. J., Omro       |
| Combs, C. J., Oshkosh          | Jasperson, T., Neenah      |
| Conley, J. N., Oshkosh         | Jones, Thos., Winnebago    |

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 Loope, T. E., Eureka  
 McClure, F. E., Neenah  
 Midgley, A. E., Oshkosh  
 Mitchell, F. B., Neenah  
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 Noyes, G. B., Oshkosh  
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 Provost, A. J., Oshkosh  
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 Russell, Rose, Neenah  
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Sargent, C. E., Oshkosh  
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#### WOOD COUNTY MEDICAL SOCIETY.

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 Hougen, Edward, Pittsville  
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 Jackson, J. A., Rudolph  
 Looze, J. J., Grand Rapids  
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 Rounseville, Geo. L. B., Milladore  
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 Sartell, E. N., Black Creek  
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Comprising Manitowoc, Calumet, Sheboygan and Fond du Lac Counties.

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Comprising St. Croix, Eau Claire, Chippewa, Dunn, Pierce, Buffalo, Bar-ron—Rusk—Polk.

(No information obtainable.)



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C. Zimmermann, Milwaukee, Secretary; L. F. Frank, Milwaukee, Treasurer.

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Lang, Jacob, Milwaukee

Puls, Arthur J., Milwaukee

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F. A. Forsbeck, Milwaukee, Secretary.

This society (homeopathic) has a membership of 20.

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Williams, Edward, Madison	

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## ORIGINAL ARTICLES.

### VENTRO-FIXATION OF THE UTERUS: ITS EFFECT UPON SUBSEQUENT PREGNANCY. WITH REPORT OF CASES.\*

BY V. F. MARSHALL, M. D.

APPLETON.

At the outset I will state that it is not my intention to defend the operation of fixation or suspension of the uterus universally, but only where it has been indicated and performed in certain selected cases.

Volumes have been written in the past year upon retroflexio uteri and its surgical treatment; therefore to treat this phase of the subject in any other but a general way in this paper would consume much more time than could be allotted to me in today's meeting.

Young (*Medical Record*, Vol. 64, No. 17) has aptly stated in one of his addresses: "A multiplicity of methods in use for the relief of any condition of deformity or disease of the human body usually means that none of them is satisfactory, or that the principles governing the employment of the various useful procedures have not been understood clearly, and have given rise to a feeling of dissatisfaction on the part of the operator, and an effort to devise a new operation has been the result".

C. L. Bonifield (*Jour. A. M. A.*, Vol. 45, No. 16) in his Chairman's address at the Portland meeting of the American Medical Association, said: "One of the subjects most discussed during the year is the treatment of retrodisplacements of the uterus. The fact that so many methods are advised is proof positive that no ideal method which is applicable to all cases, has yet been found".

\*Read before the Fox River Valley Medical Society, April, 1906.

The operative treatment for retroflexions or retroversions of the uterus may be separated into the following divisions:

- (1) Ventro-fixation.
- (2) Ventro-suspension.
- (3) Alexander's Operation and its Modifications.
- (4) Vaginal.

As this paper is to treat only of the first two divisions under the term of fixation of the uterus, we will first dispose of Alexander's operation and its modifications, and the Vaginal methods. The treatment under these divisions is directed entirely to the shortening of the round ligaments, broad ligaments, utero-vesical and utero-sacral ligaments, the technique of the operation being designated by the name of the operator; to enumerate a few, we have the Alexander-Adams proper, Noble, Ferguson, Goldspohn, McGannon, Byford, Mayo, Webster, Bissell, Vineberg, Ries, etc. and the vaginal methods of Duehrssen, Mackenrodt. This field has allowed many men the opportunity to get into print.

Howard Kelly, in his book upon Operative Gynecology, says: "Suspension of the uterus, ventrofixation, hysterorrhaphy and hysteropexy are synonymous terms applied to a number of similar abdominal operations, all of which are employed with a view of permanently overcoming retrodeviations (retroflexions and retroversions) of the uterus by the formation of an artificial ligament or ligaments holding the fundus in an anterior position".

This method was advocated and practiced almost simultaneously in 1886 by Dr. Brennecke of Magdeburg, Prof. Werth of Kiel, and Prof. Sänger of Leipzig. Prof. Ohlshausen of Berlin was the first to publish a paper upon it, Oct. 23rd, 1886, entitled "Ueber Ventrale Operationen bei Prolapsus und Retroversus Uteri." (*Centralbl. f. Gyn.* No. 43, 1886.)

While Kelly refers to ventrofixation and ventrosuspension as synonymous terms, we must take exception to this, for there is a decided difference in the technique of the two operations and in the ultimate effects upon pregnancy in producing uterine dystocia. The method of treating retroflexio uteri devised by Kelly is a simple surgical procedure requiring but a few minutes and slight technical skill. I believe this fact has had considerable to do with the popularity of the operation. It has been performed often without a sufficient pathologic basis to warrant it. Not uncommonly operators fix or suspend the uterus after performing some other pelvic operation, and in cases where there were no symptoms in the least referable to mal-position.

In the light of a certain percentage of untoward results from ventral suspension or fixation, this is meddlesome and pernicious surgery, for we must bear in mind that even marked retroflexion often causes no symptoms.

The operation of ventrofixation, as advocated and practiced by Kelly, is done as follows: "An abdominal incision just over the symphysis, the introduction of two fingers and elevation of the retroflexed fundus bringing it to anteflexion and its retention there by means of sutures through its posterior surface, lifting it up to the abdominal wall", the amount of uterine tissue being about one centimeter in breadth and 3 to 4 millimeters in depth.

Ventrosuspension, as its name indicates, is a suspension from the anterior abdominal wall by bands of peritoneal adhesions: these should be made by suturing the uterine fundus to the anterior abdominal wall with No. 2 chromic acid catgut. There are two stitches passed as follows: entering the anterior surface of the fundus three quarters of an inch below the upper border and half an inch from the median line, on either side, they are made to pass from the uterine peritoneum half an inch below and slightly to the outside of the point of entrance. The needle is then made to pass through the ventral peritoneum on the outer side of incision about an inch above the symphysis. The stitches are exactly alike on both sides. The figure of 8 silkworm gut stitch may be used in place of the catgut as this is to be removed from 12 to 14 days later.

This produces excellent results, and the possibility of uterine dystocia in subsequent pregnancies is remote as the fundus is allowed ample play and the possibility of return to the former malposition is slight.

The effects of ventrofixation and of ventral suspension of the uterus upon subsequent pregnancies are, according to Kelly, as follows:

- A. Those, briefly stated, occurring during pregnancy.
- (1) Scar retraction due to pulling of the adherent uterus.
  - (2) Hypogastric pain.
  - (3) Retraction of cervix in the pelvis during advance of pregnancy displacing it posteriorly.
  - (4) Failure of the anterior portion of the uterine body to expand, thereby forming a mass which may obstruct the superior strait.
  - (5) Thinning of the posterior part of the uterine body, thereby attenuating the musculature.
  - (6) Spontaneous abortion or premature labor.
  - (7) Traction on the scar producing excessive and persistent nausea.
- B. During labor the difficulties may be:
- (1) Uterine inertia.

- (2) Obstruction of labor due to enlarged anterior portion of the uterus.
- (3) Inability of the cervix to expand properly by its displacement posteriorly.
- (4) Malpositions more frequent.
- (5) Separation of uterus from the fixed point with hemorrhage or hematoma.
- (6) Rupture of the uterus.

It might not be entirely foreign to mention here that we have not at our disposal any statistics as complete or far reaching in regard to Alexander's or modified Alexander's operation, as compared to ventrofixation and ventrosuspension of the uterus in their subsequent effect upon pregnancy.

Marten (*Amer. Jour. of Obstet., Vol. 49, No. 5*) has collected from the literature 425 cases of pregnancy following ventral fixations and suspensions, 116 of which showed abnormal labors. Caesarean section was performed in 8 of the 116 cases with 7 maternal deaths.

Lynch reviewed the literature to date and found 21 cases of Caesarean section performed for complications resulting from suspension and fixation of the uterus. He found a report of 10 cases of rupture of the uterus which occurred as a result of these operations.

Clark and Bowby (*Johns Hopkins Bulletin, March, 1905*) report a case of rupture of the uterus during labor following a ventral suspension.

Dr. Mary Almira Smith (*Am. Jour. of Obstet., Vol. 51, No. 4*) reports a case of Caesarean section following suspension. The complication found upon operation was an adhesive band 10 c.m. long and 3 c.m. thick, firmly attached to the abdominal wall and uterus which rendered the latter almost immovable and twisted it on its axis. The attachment of this band to the uterus was about 5 c.m. posterior to the fundus and along the whole length of the abdominal scar.

Below is a report of cases occurring in the practice of the writer.

Case 1. Mrs. A. K. Age 38, III para. Metrorrhagia for one year following death of fetus. Fetus macerated, uterus large and boggy, size of 2 month pregnancy. Curettage April 29, 1900, eight pieces of fetal bone removed. This was followed 17 days later by second curettage when six pieces more were removed. Ventrosuspension performed at same sitting.

Confined June 7th, 1904. Female child, labor 3 hrs. duration. Normal in every respect. Examination later revealed uterus still in proper position of suspension.

Case 2. Mrs. W. T. Age 31, III para. Operation at St. Elizabeth's Hospital, May 23, 1900. Trachelorrhaphy, perineorrhaphy, ventro-suspension for prolapsus uteri.

Confined May 20, 1902. Labor of 2 hrs. duration. Child born

before arrival at home in country. Examination later revealed uterus in position of suspension.

Case 3. Mrs. C. Z. Age 31, V-para. Operation at St. Elizabeth's Hospital, May 26, 1900. Curettage, perineorrhaphy and amputation of cervix, suspension.

Confined Aug. 1901. Placenta previa, version performed. Examination later, uterus in proper position of suspension.

Case 4. Mrs. O. G. Age 28, III para. Operation at St. Elizabeth's Hospital, June 9th, 1900. Perineorrhaphy, trachelorrhaphy, suspension.

Confined June 13th, 1903. Labor 2 hrs. duration. Child born before my arrival at home in country. Laceration of perineum repaired. Later examination reveals uterus in position of suspension, some separation of recti muscles. Patient is again pregnant and is to be confined the latter part of May.

Case 5. Mrs. H. B. Age 31, multipara. Operation July 25, 1901, at St. Elizabeth's Hospital. Curettment, trachelorrhaphy, unilateral ovariectomy and fixation. Pregnant and aborted at first month, Aug. 6th, 1903. Great deal of pain in hypogastrium. Again pregnant 1905. Much discomfort and pain, nausea throughout pregnancy. Examination one month before termination of pregnancy showed cervix elevated and pointing downward and backward. Marked bulging of anterior portion of uterus. Labor pains began evening, Dec. 31, 1905. After three hours of regular labor pains with no progress toward dilatation, Dr. Echols was called in consultation and under chloroform anesthesia cervix was dilated manually and an attempt made to apply forceps. This failed. This failure was due to the high and anterior position of the head. An attempt was now made at version with failure. Dr. Mills was called in consultation at this time and craniectomy decided upon and performed. Patient died eight days later of puerperal sepsis.

Case 6. Mrs. H. T. Age 30, I para. Operation Nov. 13, 1901, at St. Elizabeth's Hospital. Curettment, hemorrhoids, unilateral ovariectomy, suspension.

Confined April 18, 1905. After eight hours of regular labor pains with very slow progress, forceps were applied, large male child of extremely unusual weight of 14 lbs. delivered. Later examination revealed in former position of suspension.

Case 7. Mrs. E. A. Age 31, II para. Operation at St. Elizabeth's Hospital, Feb. 7th, 1902. Unilateral ovariectomy, suspension, curettment. Confined Aug. 16, 1904. After eight hours of labor with uterine inertia forceps were applied and child delivered. Later examination revealed uterus in position of suspension.

Cases 8 and 9. Mrs. W. F. Age 27, II para. Operation at St. Elizabeth's Hospital, Sept. 11, 1901. Curettment, trachelorrhaphy, unilateral ovariectomy, appendectomy, suspension. Pregnant, miscarriage at 6 mos. March 29th, 1903. Pregnant 1904, confined July 9th, 1904. Adherent placenta necessitating manual extraction. Pregnant 1905. Confined Feb. 23d, 1906. Short labor, normal in all

respects. Recent examination reveals uterus in proper position of suspension.

Case 10. Mrs. S. Age 30, I para. Operation at St. Elizabeth's Hospital, July 15th, 1903. Appendectomy, partial bilateral ovariectomy, suspension. Pregnant 1905. Confined Sept 10th, 1905. Later examination revealed uterus in proper position of suspension.

In a brief summary we may state that, from the statistical matter referred to in this paper, and from my own series of cases:

(1) Ventrosuspension and ventrofixation are procedures worthy of a permanent place in surgery, because in a large percentage of cases they correct the symptoms incident to retro-displacement.

(2) That in a small percentage of cases the patient's condition is as bad as or worse than before operation, especially if pregnancy supervenes—when we may have continuous pain, nausea, vomiting, etc., throughout its course, and in labor the most dire calamities.

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### ON SPLANCHNOPTOSIS.\*

BY D. W. HARRINGTON, A. M., M. D.

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MILWAUKEE.

The term Splanchnoptosis is usually applied to a ptosis, prolapse or abnormal descent of one or more of the abdominal viscera. Movable or floating kidney is frequently recognized and is well known to the profession; it is so often considered as a disease or disorder in itself that a short time spent in the consideration of the subject may not be wasted. On more than one occasion I have known a physician to examine a patient, find a right kidney lower than normal, tell the patient that she had a floating kidney, and begin therapeutic efforts forthwith. To my mind there are few other subjects in medicine or surgery in so unsatisfactory a condition—viewed from the stand-point of diagnosis, proper appreciation, and therapeutics, as the various forms of splanchnoptosis. The great variety of operative procedures the purpose of which is to anchor a so-called movable or floating kidney, is evidence that the question is not understood; the large number of cases in which anchoring a kidney has failed to remedy the symptoms for which the operation was done, is evidence that the question is more far-reaching than is implied by the term dislocated kidney.

The first conspicuous attention was given to this subject by

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Glenard of Lyons, 1885. Glenard published a series of papers dwelling especially upon enteroptosis, but with him enteroptosis meant prolapse of the transverse colon, the stomach and the right kidney, these organs being involved in the majority of cases of splanchnoptosis. This condition has been called Glenard's disease and Glenard held that it constituted the anatomic basis of neurasthenia. He claimed that the stomach rather than the kidney or the colon dominates the clinical picture. It has been my opinion for some time that this whole subject has been considered from too narrow a viewpoint, and that if we are to get at the root of the matter we must go back to a constitutional condition that may not be apparent to the superficial observer. I do not think that I should care to go as far as Stiller and Schwerdt who consider splanchnoptosis as an essential disorder of the nervous system with definite stigmata, but I feel sure that it has much broader significance than is usually supposed.

What are the forces that maintain the abdominal viscera in their normal position? By far the most important is what is called intra-abdominal pressure. In speaking of the kidney Cunningham says: "The kidney is not held in place by any ligaments nor special folds of peritoneum but its fixation depends to a large extent on the pressure and counterpressure which is exerted upon it by its neighboring structures". This pressure and counterpressure are the result of the tonic activity of the abdominal muscles and it is this force that I wish particularly to emphasize in this paper.

The modern student of human morphology and physiology finds constant recurrence to conditions among the lower forms of life necessary. Man's abdominal muscles are much degenerated as compared with many of the lower forms. This is evident from the large amount of fascia and connective tissue sheath found in man's abdominal walls. It is well known that when muscle masses degenerate their remains are found in the form of the physiologically cheaper material, connective tissue. In some of the lower forms the external oblique is a large, thick muscle made up of three distinct layers (iguana). The internal oblique may be the largest and most extensive muscle in the body, extending from the thorax and inserted into the caudal extremity of the body (*Menopoma*). The transversalis which in man is reduced to little more than a sheath of connective tissue, in lower forms extends as a muscle mass from the neck to the tail. The recti muscles are often enormous, extending from the lower jaw to the caudal extremity of the body. Sometimes there are two on each side of the median line, one deep and one superficial (*Salamander*). Even man's diminutive pyramidalis may be represented in lower

forms by a relatively enormous muscle. The ordinary monkey has relatively seven times the muscular strength that man has. It is a biologic law that development along certain morphologic and physiologic lines goes hand in hand with decadence along other lines.

Then adaptation to new conditions and circumstances always involves a lack of fitness at one or more points. Man's early ancestors did not walk erect. The change from quadruped to biped was probably one of those gigantic strides that occasionally occur in evolutionary development, comparable with the change from gills to lungs, with the development of the human brain, and with the recent change of function in the human eye that necessitates so many trusses, props and splints in the shape of glasses. It is certain that man's vertical cylindrical abdominal cavity is not so well adapted to maintain smooth elastic viscera in position by means of lateral pressure as the abdomen of a creature that walks on all four. We have no other rational explanation of the relative frequency in man, as compared with the lower animals of hernias, prolapse and other displacements of the uterus and the various forms of splanchnoptosis.

But, you may ask, why do we find a prolapse of viscera in one person and not in others? Thus far I have been considering essential causes and this question brings me to what may be considered as determining causes. As I have already stated, Stiller, Schwerdt and others consider splanchnoptosis as a constitutional disorder based upon a congenital predisposition and with definite stigmata, most prominent among which are the "costa fluctuans decima" or mobile tenth rib, narrow long thorax, small bones, delicate muscular system, and slight panniculus adiposus. It is certain that the majority of persons suffering from splanchnoptosis are in a physiologic condition that may be described by the inelegant but expressive term *general flabbiness*. This condition may have a constitutional predisposition and doubtless has in some cases, but there is certainly much in the lazy artificial lives of many to induce it. It can be induced in the lower animals as well as in man. If you take a hutch rabbit that has been closely confined for a long time, and hold it up by the ears in one hand, while in the other you hold up a wild rabbit fresh from the fields, you will have an object lesson interesting in this connection. In the case of the hutch rabbit the abdominal viscera will be precipitated to the lower extremity of the abdominal cavity which will be equally dilated in all directions like a canvas bag. If you continue to hold the hutch rabbit in this way it will suddenly die, death being caused by failure of the circulation in the brain, most of the blood having settled down into the flabby and easily dilated blood vessels of

the splanchnic area in the most dependent part of the abdominal cavity. In the case of the field rabbit the neuro-muscular system is in good tonic condition, the abdominal muscles hold the viscera in normal position, the vasomotor system is active, and there is no danger of collapse.

Among human beings we have many persons living much the same kind of life and in much the same physiologic condition as the hutch rabbit. This is especially true of women among whom are found from 90% to 95% of all cases of splanchnoptosis, but Bruce Clark has called attention to similar conditions among men, giving as examples shoemakers and tailors with their protruding pot-bellies much like those of the suspended hutch rabbit, and comparing them with fishermen who invariably have hard flat abdomens due to the out-door exercise of pulling at their ropes and lines.

I do not deny that the so-called suspensory ligaments of the viscera have some function in helping to maintain them in their normal position. I think they have, but I think it very slight and wholly secondary to intra-abdominal pressure. I do not think that, as has been maintained by some excellent authorities, the adipose tissue has such a function, nor do I think that, as claimed by a recent Chicago writer, the blood vessels perform such a function. Several very good authorities give emaciation as the most prominent cause of splanchnoptosis. Blood vessels readily elongate under the slightest tension and fat soon disappears with constant pressure. The so-called ligaments, the blood vessels, and the adipose tissue may resist an occasional pull or a series of intermittent pulls. But it is certain that neither blood vessels nor adipose tissue are adapted to sustain even slight constant tension.

Most authorities seem to agree that the corset is an important determining cause of splanchnoptosis, and I feel disposed to agree with them; but I believe with Kuttner that child bearing, which is so frequently assigned as a cause, is not of itself an important cause, provided that the childbearing woman lives under proper hygienic conditions and receives proper care or takes proper care of herself after delivery. Kuttner, after a series of observations, stated that splanchnoptosis is as frequently found among young girls and married nulliparæ as among women who have borne children. Monteis, who claims that from 90% to 95% of cases occur among women, claims only 60 per cent. for married women including nulliparous married women. Child bearing is a perfectly physiologic process and it should not of itself leave prolapsed viscera.

Among other determining causes assigned are chronic overdis-

tention of the stomach and bowels, large tumors, enlarged liver, chronic plury, empyema, and the long narrow plithisical chest. According to Landau, descent of one or more of the abdominal viscera is found after every exhausting disease. He has always found some prolapse after typhoid fever. Bettmann has also traced many cases to exhausting attacks of typhoid fever. Much detail is given, as to the particular causes of prolapse in the case of individual organs, for instance, the right kidney.

With regard to the symptoms and results of the various forms of splanchnoptosis, there seems to be much confusion. Many years ago Greig Smith wrote that "movable kidney is of a piece with want of stability of position of other abdominal organs and of itself is of no practical moment". It is well known that many cases of floating kidney as well as prolapse of other viscera give no symptoms.

Glenard wrote that "more than 50 per cent of dyspeptic and neurasthenic women have nephroptosis" which does not mean that prolapsed kidney is the cause of either the dyspepsia or the neurasthenia, for he also wrote that when a prolapsed kidney gives symptoms it is because the kidney is diseased. He claimed that gastroptosis and enteroptosis, in a greater or less degree, always accompany right nephroptosis, and that the so-called symptoms of movable kidney are of intestinal origin, that the "renal crises" are really attacks of duodenal colic. He also claims that the bandage for the support of the kidney is useful not because the kidney is supported but because it supports the stomach and bowels. Kuttner also claims that supporting the stomach and intestines will relieve the so-called kidney symptoms, but that supporting the kidney alone will not do so.

The symptoms of splanchnoptosis are chiefly neurasthenic and dyspeptic, with abdominal distress and pain, the pain being neuralgic or hysterical or colicky in those cases, with alternating constipation and diarrhea or with muco-membranous colitis, a condition that is comparatively frequent. Many patients are anemic; in fact Meinert claimed that all cases of chlorosis are dependent upon gastroptosis, Meltzing does not agree with this. Biliary lithiasis is very commonly associated with splanchnoptosis.

With regard to treatment, I shall only offer a few suggestions that follow naturally upon a consideration of the causes. Never tell a girl or a nervous woman that she has a floating kidney unless it be necessary. The less these neurasthenic creatures know about their displaced viscera the better for them.

The rational treatment of splanchnoptosis is suggested by the causes as I have tried to point them out. Wilhelm Fleiner noticed

that patients were frequently cured as a result of being confined to bed for a considerable length of time by some intercurrent disease. Muscle is a very plastic tissue and it readily responds to the needs of the organism. It lengthens when length is required and it retracts when its points of origin and insertion are kept approximated. If the patient is confined to a bed made up on the plan of an ordinary hammock so that the back will sink down, thus approximating the origins and insertions of the abdominal muscles, and at the same time allowing the abdominal viscera to fall naturally into the normal position; if in this position the patients have thorough and regular massage and systematic exercise of the weakened muscles with such other treatment as will tone up the neuro-muscular system, we may reasonably hope for good results. Rest in bed under right conditions does improve these cases; rest, physiologic and functional, is the treatment of that "fatigue neurosis" neurasthenia. The Mayos recommend this line of treatment after operation for umbilical hernia in cases where there is much relaxation and flabbiness of the abdominal walls. After a protracted rest in bed, the patient, with the abdominal viscera well supported, should gradually change from the hutch rabbit life to something approaching that of the field rabbit. Of course there is much in the way of adjuvant treatment that will naturally suggest itself, most important of which is concentrated nourishment, laxatives and intestinal antiseptics to prevent the formation and accumulation of gases in the intestines.

According to Langerhans, operative fixation of the kidney is rarely called for. The Mayos with all their surgery do not anchor a kidney more than half a dozen times in the course of a year.

\*In the preparation of this paper the author is indebted for suggestions and quotations to an essay "On the Position and Relations of the Stomach", by H. W. Bettmann of Cincinnati.

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## RELAPSING SYPHILIS. THE TREATMENT.

BY WM. F. BERNART, M. D.

CHICAGO.

In explanation of the title of this article, I will say that relapsing syphilis refers to cases which show a recurrence of luetic symptoms after a comparative freedom for a greater or lesser time, and that such symptoms occur either during the period of an anti-syphilitic treatment or else a varying time after a full and ordinarily acknowledged curative course has been completed. It has been the

experience of almost every physician to see cases where typical symptoms will suddenly appear while the patients are diligently adhering to a prescribed course, and which up to that time seemed absolutely efficacious. Again, in cases in which the treatment had been continued from two to four years, during which time no symptoms manifested themselves, a few months or probably a year or more after discontinuing the treatment and taking a chance of a cure, the appearance of a typical luetic lesion has demonstrated the undoubted ineffectiveness of the treatment. As it is impossible at the beginning of a case to state whether or not the ordinary methods of treatment are going to be effective, no reflection can be cast upon the treatment given or upon the physician who had no reason to believe that the case was not progressing favorably. It is after a relapse has taken place that the form of treatment must be altered; if a method has been ineffective at one time it is but reasonable to suppose that if repeated it might again prove a failure. It is because of the re-institution of the same old methods that our cases of relapsing syphilis remain as such for an indefinite period.

In the variety showing recurrences during an active treatment, there are evidently three factors to consider: 1st. The amount of medicine given was not enough to counteract the activity of the established disease. 2nd. Even if the medicine was given in maximum doses, there was a non-absorption of the amount required. 3rd. That there was an unexplainable counteracting focus against the action of the mercury, when its absorption is undertaken through the usual channels. Although no definite proof can be given to substantiate factor three, I consider it the most important one of all in cases of persistent recurrent lues.

In considering reasons for relapses after a complete and supposedly curative course had been given, it is evident; 1st, that the medication had resulted in the control or covering up of the disease only. 2nd. That the same counteracting focus before mentioned existed to a lesser degree. As the usual form of treatment in such cases has been the internal administration of mercury, it should be entirely displaced by some other method until all symptoms are thoroughly eradicated, when it can be used as an adjuvant between the more effective courses. Iodin, if called for, can be administered in the usual way.

In selecting a different method of treatment, the patient's choice should never be considered. The most effective treatment is outlined to him, and if he then refuses it is simple enough to refer to other procedures. Upon the appearance of the first relapse it has

been my practice to give these patients a course of the intra-venous injections of mercury without further delay, and after this I advocate three more courses for the first year, three for the second and three for the third. The intervals between can be partly filled with internal medication, inunctions and tonics, although in a great many cases the administration of anything during the intervals is unnecessary. Under such a régime recurrences never take place during the treatment, and since my earliest cases that completed a full course about six years ago, I have never seen a relapse. A course consists of fifteen to twenty-five injections, one given daily; the dose ranges from 1/10 to 1/2 grain of the bi-chloride of mercury; the maximum intensity should be obtained as rapidly as possible and then maintained at a point so as not to produce any severe constitutional disturbances.

The technique is extremely simple: a constricting band is applied to the arm, the veins distended, the surface at the point of injection is thoroughly cleansed and the needle is inserted directly into the vein. The free swing of the needle point proves its presence in the lumen of the vessel. The tourniquet is removed and the medicine is slowly injected. A glass syringe with platinum needle is the only kind to be used. The solutions can be made up either in one or two per cent. strength in a saline mixture. During the last few years I have given several thousand of the intravenous injections of mercury and in no case was there ever an untoward result or a disagreeable complication, and in all cases the active syphilitic process responded promptly and quickly to the treatment. This method is without a doubt the most accurate, convenient, scientific, positive, and desirable way to administer mercury; as it is non-painful, patients do not dread the treatments, and as it is perfectly clean they do not experience the discomfort and disgust that accompanies inunctions. If a comparison can be made upon the basis of time in which results are obtained, it can be safely stated that positive results are produced in about one-third of the time required by the daily inunctions of a drachm of 50 per cent. mercurial ointment.

The decided effectiveness of this form of treatment is especially noticeable in all ulcerative lesions of the cutaneous and mucous surfaces, sclerotic patches of the meninges, involvement of the circulatory system, and in all active syphilitic involvements of the eye. Regarding the syphilitic eye, the endo-venous injections of the bi-chloride of mercury are nearly an absolute specific. In the above mentioned classifications, iodine if called for, need only be administered in moderate doses, the best results coming from the intense mercurial

treatment. Typical gummatous lesions resolve more rapidly under the vigorous administration of iodine. If there is still a concomitant active syphilis in cases showing para-syphilitic symptoms, there is no known treatment that will so quickly show the dividing line as the one under discussion. What the results of an early and active endo-venous course would be at the very first appearance of the disease, is still problematic, a long time being necessary to make the proper deductions, but from results obtained in later lesions it would appear reasonable to suppose that at the start, two or three courses of this intense mercurialization and especially a form of treatment of which we know that the medicine reaches every part of the economy, would be of greater value than the formerly prevalent idea that the long contact with smaller doses of mercury is productive of a cure. It is a known fact that from the internal treatment we have had and still have too many relapses and cases developing para-syphilitic symptoms. If five or six endo-venous injections of mercury will control a syphilitic advancement to the same degree as usually requires at least a month of internal medication, we can only hope that the future will demonstrate it as an effective treatment that requires about one-fifth of the time now devoted to the cure of a case.

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## PHYSIOLOGICAL THERAPY AND ITS APPLICATION AS AN ADJUVANT TO THE DRUG TREATMENT OF CONSUMPTION.

BY JOHN MOELLER, M. D.

MILWAUKEE.

Life, according to Herbert Spencer, is characterized by "the continuous adjustment of internal relations to external relations." As applied to the human organism, it may be added that it is, besides, also characterized by a continued adjustment of the relations of all the parts to each other and to the whole organism. The balance of these relations constitutes health, the disturbance of the balance, disease. The human organism possesses to a remarkable degree the power of adjusting disturbances automatically.

Changes causing either a disturbance or a restoration of the equilibrium are brought about by physical, chemical or psychic reactions of the cells, tissues, organs or the organism as a whole. Hence disease and recovery are processes in which the organism is a most



important factor. Restoration reaction in case of disease may be tardy, deficient, aberrant or excessive, and to correct this condition art is resorted to, to assist nature, and thus therapy becomes a necessity. Successful treatment consists in controlling and correcting these faulty reactions.

There are two ways in which a physician may interfere in order to restore the equilibrium when disturbed. The one consists in introducing into the organism certain substances *not ordinarily present in it* to provoke reactionary changes and thus aid in bringing about restoration to health. These useful substances are the drugs, and their application constitutes the drug treatment. The right drugs given in right doses at the right time are as potent for good as the wrong drugs or drugs given in wrong doses and at the wrong time may be potent for evil.

The other way to influence the reactionary changes for the purpose of restoring the equilibrium, consists in the utilization of agencies *similar to or identical with* those surrounding and pervading the body in health, only that they, by the direction of the physician, may be accentuated or altered in their mode of application. The use of these agencies for the purpose indicated constitutes what the Germans call "Naturheilverfahren", or what in this country, for want of a better name, has been designated 'physiological therapy'. It is not the purpose of this article to enter exhaustively into the discussion of the numerous and potent agencies at the command of the physiological therapist, but they may be generally stated to be comprised in *habit* and *environment* of the organism. Hence climate and weather, including temperature, constitution of the atmosphere, sunlight, electricity, etc., the various uses of water, food, rest and exercise of body and mind are the agencies that have made man what he is, and they may also be utilized to restore the diseased body to health.

The influence of climate on health is so well established that it suffices merely to mention it. Water applied externally in the form of baths, douches, wet packs, etc., at varying temperatures, has been used by the medical profession from time immemorial. The internal use of water for therapeutic purposes is one of the most valuable agencies we possess. Dry heat used locally or generally, in well selected cases, will bring about reactions that can not be called forth by any other means. Light, without which animal life is impossible, is the source of untold benefit directed by the intelligent physician. This applies not only to sunlight, but also to artificial (electric) light in its many different forms of application. The

effects of rest and exercise may prove beneficial or baneful according to the manner of their employment. The effects are certain and thorough, and in the hands of a master, they become a powerful agency in the treatment of the sick. The influence of the mind on the body is well recognized. It may in many cases prove of great value as illustrated by some undoubted results produced by faith cure, mind cure, hypnotism, etc., and it behooves the medical profession to study and use suggestion as a valuable aid in its work. Diet, electricity, including x-rays, radiations, organo-therapy and sero-therapy added to the means enumerated above, form an array of powerful aids to the practitioner that he cannot afford to ignore and leave in the hands of the wily charlatan, who, as it occasionally happens, will benefit cases given up by men who depend on drugs almost exclusively.

The second part of this article is not intended to be a complete demonstration of all the possibilities of this form of treatment as an adjuvant to the drug treatment of consumption, but only to indicate some ways in which it may be of benefit to the patient. As in the treatment by drugs, so in physiological therapy it is of vital importance to handle our weapons with judgment. It would be folly to hunt sparrows with cannon and the grizzly with a pop-gun. Let us reconnoitre and see what we have before us when we are called upon to treat a case of tuberculosis.

According to the now generally accepted theory we have to deal with a malady due to bacterial infection, the bacillus tuberculosis having found lodgment and favorable conditions for growth in the lungs. Besides its local action resulting in inflammation and mortification of lung tissue, we find evolution of toxins interfering directly or indirectly with the functional activity of all the organs of the body. Thus is brought about a state of affairs that is truly appalling. The digestive apparatus fails to supply in proper form the nutriment demanded for the economy of the organism. Instead of normal digestion, fermentation sets in in the gastric and intestinal contents, the various products of which, absorbed by the lymphatics and blood vessels, augment the dire activity of the above mentioned toxins. The excretory organs, crippled already, fail to rid the body of the accumulating waste material. The muscular system is affected by a condition akin to paralysis, especially do the muscles of respiration fall short of meeting the demand made upon them. Respiration becomes labored and superficial. The skin becomes dry and shriveled. The patient becomes "hide-bound" so that while the lungs fail to act properly, the skin

being disabled cannot come to the rescue by instituting vicarious functional activity. While the system thus becomes overwhelmed with waste products, nutrition is at the lowest ebb, a state of anemia and apparently hopeless asthenia supervenes, going on steadily from bad to worse. Like a train over which control has been lost and running down an incline, the organism hurries on to seemingly inevitable destruction. The catastrophe is sure to come unless the physician can stay the vicious forces at work and institute prompt measures to regain the ground lost. Happily in a large number of cases this can be accomplished.

The indications are to diminish the number of the bacilli, to eradicate them completely if possible, to eliminate the toxins, to increase the efficiency of functional activity generally, to build up the system and to relieve distressing symptoms.

Oxygen, so indispensable to animals, is death to the tubercle bacillus. Let the patient breathe pure air, day and night, let him be instructed to practice forced respiration at certain intervals, and his breathing capacity will be increased. If, as is generally the case—at least early in the disease—the foci of infection are confined to the apex of one or both lungs, it is advisable to immobilize the lower part of the thorax, either by a band around it or by manual compression, and then to practice forced respiration making a special effort to fill the upper part of the chest and in this manner bring the oxygen into the camp of the enemy.

On account of the muscular weakness accompanying consumption, much may be done towards strengthening the muscles of the chest by massage. This procedure, if properly carried out, increases the circulation and the tone of the muscles.

The inhalation of ozone is beneficial, not only because, as is claimed by many, ozone acts more energetically than oxygen, but also because it is made incumbent on the patient by the direction of the physician to inhale and exhale deeply during the treatment, and the patient thus gets the benefit of respiratory gymnastics. Besides, patients have heard so much about ozone that its use is valuable on account of its psychic effect.

The benefit derived from the measures described above, can be greatly enhanced by regulating the activity of the digestive and urinary apparatus. In regard to the former, if the appetite is poor and the bowels are sluggish, the improvement that may be caused by massage of the stomach, small and large intestines, followed by vibration of all the abdominal organs, will be astonishing to the physician who has never employed these agencies for the purpose.

If, in connection with these measures, water is freely ingested while the stomach is empty, preferably before breakfast, it will prove a great boon. The free administration of water will act as an efficient purifier of the system and as a natural stimulant to the activity of the kidneys and other excretory organs. During the whole course of treatment, strict attention to diet is a prime requisite. The patient should eat nutritious, easily digested food. Besides the three daily meals, he should be required to take about two quarts of pure, raw milk and half a dozen fresh, raw eggs in the twenty-four hours. Raw, scraped, fat free, red meat also answers an excellent purpose. In the beginning, the patient may claim it impossible to follow this advice, but if he make a determined effort, he will succeed. Patients have been known to gain five pounds in weight in one week by adhering to the regimen thus outlined.

That a properly selected climate is of value in the treatment of consumption, there is no doubt, but for obvious reasons only a small percentage of sufferers could avail themselves of a change and besides it would be questionable whether they would get proper treatment. Homesickness and the want of home comforts, are drawbacks to be considered, so that, taking it all in all, the removal of a patient from his family and from home is not always an unmitigated blessing.

The reports of results from x-rays and high frequency applications have been contradictory. From the comparatively few cases in which they have been used, no reliable conclusions can be drawn.

It might perhaps have been well to have appended to this article a report of cases, but it has already assumed too great a length. In conclusion it may be well to state that consumption is the punishment for unhygienic living. If vitality is lowered by breathing the foul air of the shops, by disregard to proper diet, by excesses of any kind, the white plague will be the avenging angel of outraged nature. No legislation, no rules and regulations by health departments, will lessen the number of victims, unless an intelligent and enlightened public—understanding the nature and causes of this dire malady—will remove its “reason of being” by rigidly observing the laws of health.

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## A CASE OF TETANUS. RECOVERY.

BY D. WATERS, M. D.

GRAND RAPIDS, WIS.

On July 6th, 1905, Francis S., a child ten years of age, was brought to my office. Two days previously she had been wounded in her left hand by the discharge of a pistol containing a blank cartridge. I found the hand and arm much swollen and a ragged wound between the second and third metacarpal bones, from which issued a foul smelling discharge. On opening and curetting the wound four pasteboard wads were dislodged which had penetrated almost through the hand, and then spread out making a large internal wound. My treatment at this time was the ordinary treatment of such wounds—free incision and drainage with moist antiseptic dressings. This was continued till July 10th, when her parents not wishing to bring her to town every day—it being the busy season—I discharged her and directed them how to take care of her.

On July 20th they again brought her to the office saying that two days before she had begun to act strangely, was not able to talk nor use her jaws in eating and had also several fits in which she acted as if she had a chill. At this time the symptoms of tetanus were quite well marked. The wounded hand was severely contracted, her back was rigid, so much so that when placed in a chair she would slip out of it as if she were a stick. Her jaws were stiff and all the voluntary muscles showed well marked tetanic spasm. The temperature was the comparatively low degree of pyrexia of this disease, about 100° F., pulse of high tension, rapid and very irregular as is also characteristic.

I reopened the wound which was almost healed, finding but a drop of pus, and then cleansed with hydrogen peroxide, applied a moist antiseptic dressing and sent the child home, giving nothing in the way of medication but a few doses of quinine sulphate.

The next morning I found the conditions much worse, a case of tetanus in all its glory. Muscular rigidity was general and well marked and nervous irritability was so great that she would have a tetanic spasm if you touched her or any one came into the room. Pain was intense, moving about from one group of muscles to another depending upon the seat of greatest tetanic spasm. Episthotonos was so great that the patient could not rest in bed but had to be held by different members of the family. The characteristic grin—*risus sardonicus*—never left her face. Temperature 100.5°, pulse very rapid and irregular. At this time I injected 10cc anti-tetanic serum prepared by the Pasteur Institute, Paris, and told them to discontinue the quinine, which I may say here was only given as a placebo in the first place.

The next morning conditions were, if anything, worse, something I had considered impossible the day before. At this visit I injected 30cc of Mulford's serum, and the following day repeated the dose. Then for two days I dropped to 10cc Parke Davis' serum, and the

last two days of my attendance tapered off with 5cc P. D.'s. ( I saw this girl but once a day as she lived some distance in the country).

Now the thing I wish to bring out is this: here was a severe case of tetanus, severe enough to suit any one, which recovered, for she did recover, with no other medication than the anti-tetanic serum, not the slightest dose of anything in the nature of a nerve sedative or hypnotic, not a single dose of bromide, not a single dose of opium, nor a dose of anything else that has been recommended in this disease to allay the irritability of the nervous system. Now, one swallow does not make a summer, but I wonder if too much has not been done for those patients in the giving of nerve sedatives. Nerve sedatives given in heroic doses or in fact any dose, are always depressants; continue them for three or four days in large enough doses to influence the tetanic spasms, and you have a patient whose vital force is so depressed that he dies, not so much from the effects of the toxine as from the effects of your nerve depressants.

In the anti-tetanic serum we have nature's antidote for the tetanus toxine; why should we supplement it with something else? The serum, I know, is not attributed with possessing very much virtue as a curative agent, but is highly recommended as a prophylactic, which seems to me is a very unreasonable state of affairs. I have this to say in reference to this one case: when the child was at her worst, when she was not able to sleep at all and would pass from one spasm into another, on administration of the serum the symptoms would gradually subside and she would have a few hours' sleep, restless sleep of course, but still sleep. After twelve or fourteen hours the symptoms would return and gradually grow worse till the time of the next injection, when she would again have a period in which the symptoms were very much abated.

Now, this is only one case but a case that recovered with no other treatment than the anti-tetanic serum. The doses given of the different serums were the adult doses and this was a child ten years of age. It is my belief that if the serum is administered till the patient is saturated, we have just as good a thing in anti-tetanic as in anti-diphtheritic serum. Why should we not? We have the serum of an immune in one case the same as in the other. The anti-tetanic serum acts more slowly than anti-diphtheritic serum, and why? The toxic principle of tetanus is a nerve poison, the toxic principle of diphtheria is primarily a cardiac poison, hence the delayed action of the anti-tetanic serum compared with the anti-diphtheritic serum. Note the onset of the two diseases: one is rapid, the other is slow. The tetanus bacillus is usually in the system for days elaborating toxine before we

get the symptoms of tetanus. By and by the toxine reaches the centers in large enough quantities, the system is not able to supply anti-toxine in sufficient quantity to neutralize it and we have the symptoms of tetanus. If, at this time we supply the system with a serum artificially produced containing the anti-toxic properties we are doing what nature did as long as she was able. We are taking care of the toxins produced by the tetanus bacilli. By and by, if we continue in our efforts, those germs will become attenuated and produce a toxin of but low virulence and the system can again take up the fight and carry it through to recovery.

My idea in writing this is that some one else may follow out this treatment in the way that I have done. One man does not get many cases of tetanus and would not be able to form any opinion in a lifetime. I hope that some one else will try this and see what the result may be. Saturate your patient with the serum and cut out your sedatives and nerve depressants.

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**Rapid Healing of Septic Cases, Including the Use of Iodoform Wax in Bone Cases.**—A. T. MANN (*N. Y. and Phila. Med. Jour.*, July 22, 1905) advocates the use of 95 per cent. carbolic acid followed after one minute by 95 per cent. alcohol as a means of destroying infection in the tissues without destroying the tissues themselves. He reports cases of subacute and chronic abscesses, infected glands in the groin, tuberculous glands and abscesses, and circumrectal fistulæ in which opening and thorough curetting, or in the case of fistulæ, a careful dissection, followed by the application of carbolic acid and alcohol, resulted in healing by first intention.

By the use of Von Moseitig's bone wax, which is composed of iodoform, sixty parts; oil of sesame, forty parts; and spermaceti, forty parts, the most remarkable results can be obtained in the treatment of chronic and subacute osteomyelitis, both septic and tuberculous. The diseased areas are thoroughly cleaned out and the cavities are filled with the bone wax, the soft parts are sutured over it for first intention after a thorough removal of all tissues involved in the disease process and the results are nothing short of marvelous. The wax is gradually replaced by the ingrowth of tissues largely bone, and in cases involving joints, such as the wrist or ankle, movable joints are obtained.

We have then in thorough removal of septic tissues and, in the use of strong carbolic acid followed by alcohol, powerful agents which allow us to prepare many septic conditions for rapid healing, and in subacute and chronic processes very often for healing by first intention. And we have in the iodoform wax an admirable substitute for iodoform packing, bone chips, and healing by blood clot, one which makes convalescence smoother and shorter, and which in some cases enables us to gain results which are impossible by the usual methods. (A. W. M.)

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No. 12

EDITORIAL COMMENT.

THE SIXTIETH ANNUAL MEETING.

The attention of our readers is called to the letter from the Secretary of the State Medical Society in this issue.

The importance of the coming meeting of the State Medical Society is selfevident. All these annual meetings are important. The physicians of the State, and especially those who have allied themselves with the State Society by their membership in the County Societies, ought to appreciate how much more is being done by the State Society's legislative body than was possible under the old system. The physicians have given their support to the Society in the election of delegates from their county societies, but this support is not sufficient if it is not backed up by activity at the meetings. Stay-at-homes there will always be. There ought, however, to be a progressive decrease in their number. There are some loyal men who come to all these annual gatherings. There should be more who make it a practice to consider this as part of their vacation. The program



committee and the committee of arrangements have worked hard to present acceptable material for instruction and entertainment. Milwaukee has more to offer now in the shape of entertainment than ever before, and those of you who rarely visit this city, will find this a most excellent opportunity.

Let every member of every County Society in the State plan to attend the meeting. Read the preliminary program, published in this issue, and you'll find much that will interest you. The committee on arrangements hasn't told you half of the pleasant things that are before you. Make up your minds to come. Be among those who always attend, and do so to their profit.

Get the habit!

#### THE TUBERCULOSIS EXHIBITION.

The tuberculosis exhibition held in Milwaukee from May 7th to 19th, inclusive, was a pronounced success in every way, and reflects great credit upon the Tuberculosis Commission of the Medical Society of Milwaukee County, as well as upon those public spirited citizens representing the various business, social and charitable organizations which lent aid to the enterprise. The exhibit was well placed in a large store building in the very heart of the city, and from the opening to the closing day was attended by immense crowds. By actual count 52,700 attended the exhibit. Lectures and demonstrations with the aid of stereopticon slides were given every afternoon at 4:30 and every evening at 8:30. The attendance and interest manifested at these lectures were beyond the expectation of the Committee, and there is no doubt that the citizens of Milwaukee have received a great and lasting benefit in the way of increased knowledge of the serious problems involved in the anti-tuberculosis crusade. One of the benefits already apparent is the strong sentiment in favor of the organization of a State anti-tuberculosis league. In addition to the many features of the National Exhibit there was a creditable exhibit by the City Health Department setting forth the local situation, and a splendid exhibit of fresh specimens of bovine tuberculosis by the State Veterinarian, Dr. Roberts. This exhibit was the center of attraction at all times. There was a small exhibit of specimens of human tuberculosis under the charge of Dr. Akerly, Curator of the Milwaukee Medical Society, which added greatly to the interest of the pathological section.

Models and plans of the proposed pavillions at the County Insane Asylum, County Hospital, The State Sanatorium at Wales, and the

River Pines Sanatorium at Stevens Point, and the Milwaukee Sanatorium for Tuberculosis Association added interest to and completed the local exhibit. Altogether the affair was a most interesting and profitable one and served to demonstrate to the people at least two facts,—first, that Milwaukee and Wisconsin have no greater tuberculosis burdens than the surrounding cities and states, and, secondly, that whatever the burden may be, the profession and the people are interested and ready to take it up with a disposition and a willingness to solve any problems that may be involved in the undertaking. The JOURNAL congratulates the public spirited and unselfish men and women by whose efforts this great educational exhibit was so successfully carried through.

#### AN APPEAL FROM SAN FRANCISCO.

It were idle now to comment upon the terrible disaster that so recently visited San Francisco. An awful calamity it was, and still is, but, though the blow was a stunning one, the indomitable spirit of heroism that characterized the '49 ers, is reasserting itself—even before the embers of their burning homes have cooled, and the rebuilding of structures destroyed by harsh and relentless natural forces, has begun.

This determination to work out their own salvation pervades every class, and none more than that of the physicians who lost everything they possessed—their homes, office equipment, valuables, and last—though hardly least in importance—a possibility of realizing anything (or at best very little) on what would ordinarily have been considered valuable assets, viz., collectable accounts.

The *California State Journal of Medicine* has, through its undaunted editor, Philip Mills Jones, established itself in a temporary home in Oakland, and has issued a small May number, containing only editorial paragraphs bearing upon the various phases of the disaster as it affects the physicians and the State Society which was holding its annual meeting in San Francisco at the time of the earthquake. We quote two brief paragraphs, and call upon the physicians of Wisconsin to give aid individually and collectively to their professional brothers who are in great need.

“At the time of writing many physicians, taking no thought for themselves, are serving gratuitously and without hope of reward in the sanitary work of the city, and their immediate bodily wants are supplied. But as conditions settle down more and more to the normal their services will not be required, and in time they will suffer want. Many of them could re-establish themselves in time had they

#### EDITORIAL COMMENT.

the necessary outfit, but all their equipment is gone. If every medical society in the country would make but a small contribution, and if every doctor who has instruments that he does not need, or office equipment that he can do without, would send them to his brother physicians in California, much distress will be alleviated. We do not ask for charity, but for that aid which will help men to help themselves.

"Such funds as may be raised had best be sent to Dr. Frank Adams, 1230 Telegraph Avenue, Oakland, an ex-President of the State Society, as the officers of the County Society have not yet been reached. Those who aid in this relief may rest assured that their contributions will be gratefully received and carefully expended."

We would suggest that this appeal be made a subject for discussion at the various medical society meetings, and be given consideration at the coming meeting of the State Medical Society.

This JOURNAL will undertake to forward to San Francisco any medical supplies or cash that may be sent. Due acknowledgment of all contributions will be made.

#### THE POSITION OF THE HEART IN PERICARDIAL EFFUSION.

Since the day of Skoda the teaching has prevailed, especially among the Germans, that in pericardial effusion the heart, owing to its greater specific gravity, sinks in the fluid and falls backward when the patient is recumbent.

An interesting and instructive article (abstracted in the *American Journal of the Medical Sciences*, from which we quote), the second contribution on this subject by the same author, recently appeared in a French journal. Nine years ago this author, a Russian, Schapozhinkoff, established the fact that the German teaching is fallacious. At that time he concluded, from experiments made on the cadaver, that (1) with the increase of the exudate in the pericardium the heart need not necessarily fall backward; (2) that there may be abundant exudate without adhesions, and yet friction may be present; (3) that puncture in the pericardium in the 4th or 5th left intercostal space is inadvisable and likely to strike the heart; (4) puncture in the 3rd or 4th right intercostal space close to the sternal border, or in the 6th left intercostal space, is preferable, especially if there be found absolute dullness at these points.

Since the author's first report, his views have been abundantly corroborated by others. He finds that the heart lies normally very close to the chest wall even when the individual is on his back, and

that it is held in place by the large vessels. Even when a large pericardial effusion is present, this position is maintained and a friction rub may be present.

"This tendency of the heart to remain near the anterior chest wall he believes to be due to the influence of its attachment to the basic vessels. It was observed in his experiments that if the vessels are ligatured and the heart and its contents set free it will fall to the bottom of the pericardial cavity. But if the attachment remained, although pressure by a probe or finger temporarily pushed the heart backward, it always rose again slowly to the superior position. The author would appear to be justified in his conclusions that the false opinions which have reigned in science since more than half a century concerning the position of the heart in pericardial effusions, are wholly refuted. The heart does not sink in virtue of its specific gravity, as has been thought, but floats, and is to be found above the pericardial fluid."

#### THE MILWAUKEE HEALTH COMMISSIONER'S ACTIVITY.

Milwaukee's new health officer, Dr. G. A. Bading, is showing commendable activity in ferretting out breeding places of disease, and compelling cleanliness to replace filth. In this he is assisted by the co-operation of our enthusiastic mayor. Unsanitary buildings and dwellings are being condemned, rag shops are being investigated, second hand clothing dealers are to be compelled to disinfect the garments brought to them, garbage cans and boxes are to be kept well covered, and in many other ways the healthfulness of the city is to be furthered. Dr. Bading has also placed the ban upon the "lung-testing" devices to be found in our penny arcades, and is certainly justified in his condemnation of these as unsanitary.

The newly purchased site for the city's Isolation Hospital is not favorably viewed. Its distance from the city is so great that the question of the transportation of patients without too great an expense and with safety to themselves and to others, must be met; and so this becomes a very difficult problem indeed. Dr. Bading has suggested that, could it receive legal sanction, the purpose for which this property was originally purchased be diverted, and the city's need for a municipal tuberculosis sanitarium receive consideration. In such case, and could an appropriation for such a building be put through the council, some other disposition would have to be made of the Isolation Hospital question. We may expect, therefore, that the matter of the transfer of the Isolation Hospital to the newly purchased site will be indefinitely postponed.

**NEWS ITEMS AND PERSONALS.**

The Wisconsin College of Physicians and Surgeons held its graduating exercises May 16th. The formal exercises were followed by a banquet, at which many of the alumni were present. Following is a list of the graduates: C. W. Adams, O. C. Barseness, D. D. S.; A. J. Cramp, A. J. Driesel, F. Frankel, Miss Frances M. Connell, J. A. Diamond, W. H. Goeckermann, J. Foster McNary, George W. King, R. R. Rath, A. L. McCollum, C. N. Senn, W. H. Zycki, R. G. Raymond, R. S. Arverson, C. C. Bassett, M. D.

**Dr. David B. Devendorf** a graduate of Geneva (N. Y.) Medical College in 1845; for fifty years a practitioner of Walworth County; assistant surgeon of the First Wisconsin Volunteer Infantry; later surgeon of the Nineteenth Wisconsin Volunteer Infantry, then chief surgeon of the Fourth Brigade, Eighteenth Army Corps; medical inspector under General Smith, and finally medical purveyor of the Army of the James under General B. F. Butler; physician for the Deaf and Dumb School at Delavan, died at his home in that city, April 24th, from senile debility, aged 86.

The Milwaukee Medical College holds its annual graduating exercises on May 31st. The following is a list of the graduates: Irving M. Addleman, Charles H. Barnstein, R. Alexander, Joseph Berger, Frank Anton, C. N. Crown, Geo. R. Frey, Robert O. Friedrich, Casper E. Garnel, Arthur E. Hoyer, George F. Kenney, Frederick Melzer, Will G. Merrill, Albert E. Mieding, Thomas G. Parker, Henry A. Peters, David A. Taylor, Frederic J. Woodhead, Francis M. Cory.

**Chiropractic found Guilty.** E. J. Whipple, arrested some months ago on complaint of the state board of medical examiners on a charge of practicing medicine without a license, failed to appear for trial and his bond was declared forfeited. The trial proceeded without the defendant, he being found guilty. Whipple is a chiropractic, and his school is not recognized by the state board. He disappeared two days before the trial.

**Dr. Thomas T. Beveridge** a graduate of the Department of Medicine of the University of Pennsylvania, Philadelphia, 1862, for many years a member of the staff of St. Elizabeth's Hospital, Appleton, of which he was one of the founders, died at his home in Appleton, April 20th, from catarrhal pneumonia, after an illness of three weeks, aged 63.

**Physicians and Pharmacists at War.** According to the public press the Kenosha County Medical Society has opened war on some druggists in Kenosha, who, it is alleged, have been practicing medicine without a license. A co-operative store is planned.

**Milwaukee Emergency Hospital Officials.** New officials for the hospital board have been elected; they are: Drs. F. B. Golley, President; Warren B. Hill, Secretary, and Drs. Louis Fuldner and Golley, members of the house committee.

**Dr. A. H. Kremers,** formerly interne at the Milwaukee County Hospital has been selected to fill the vacancy at the Emergency Hospital caused by the resignation of Dr. H. H. Fyfe.

**The California Fund** of the *Journal of the American Medical Association* has received contributions from the LaCrosse and Waukesha County Medical Societies.

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NEXT ANNUAL SESSION, MILWAUKEE, JUNE, 27, 28, 29, 1906.

The Wisconsin Medical Journal, Official Organ.

## SOCIETY PROCEEDINGS.

### THE STATE MEETING—THE COUNTY RETURNS.

This year's meeting in Milwaukee will be upon us in a little more than one month. This meeting means, under our present plan, the annual gathering together of all the County Societies in one body—the delegates appointed by these societies, meanwhile, transacting the business of the State Society. The responsibility for the success of this meeting, accordingly, rests with these same county societies—in other words, the profession of the State. From this standpoint the prospects for a fine meeting seem most encouraging. Our numbers are larger than ever before. The professional spirit—the *esprit du corps*—all over the state—is much more in evidence than formerly. Consequently there are more who feel that it will be, not merely a *duty*, but a genuine pleasure and privilege, to attend this annual meeting of the state profession. It's the only good chance we have for getting acquainted with each other. Again, that professional dignity and severe propriety, which we are accustomed to maintain

in our respective bailiwicks, can be considerably relaxed in the festive "smoker", and the jolly trip to Whitefish Bay. To the more serious minded the admirable scientific program which has been prepared, will appeal just as strongly. The annual address in Surgery and Medicine by Drs. Oehsner and Musser, will "alone be well worth the price of admission". Seriously, these professional gatherings are all too few, and none should be missed. Then lay your plans *at once*—"broad and deep"—to be on hand the 27th of June. Likewise, persuade your neighbors to come with you. And all bring your *wives*. From actual experience, it has been discovered that these *silent* partners of the firm nearly always accept a cordial invitation to go along. Moreover, it's simple *justice*. A doctor's wife earns half the money at the telephone. Avoid a strike by giving her an outing of at least one week. From Milwaukee you can take a nice trip on the Lakes, or spend a day or two in Chicago—while Milwaukee herself offers no mean attractions.

The preliminary program and report of the committee of arrangements appear in this issue of the *JOURNAL*. It is absolutely necessary that all omissions be filled in *at once*—the full and correct titles of papers, and the names of two members—selected by the writers—to open the discussion. The *decrelet* should send this information to Dr. Patek.

The chairman of the program committee has sent the following letter to all who are to present papers. The brief synopsis which has been asked for, and which will appear on the program, will enable the members to get a better idea of the method of treatment of the various subjects, and so be better prepared to enter intelligently into their discussions.

Dear Doctor: The program committee of the State Medical Society desires to remind you of the meeting to be held next month. The papers promised are of a class which collectively embrace all branches of medicine. The addresses in Medicine and Surgery by Drs. J. H. Musser and A. J. Oehsner respectively, are going to be of surpassing merit.

As you are to take an active part in the meeting, your individual effort is especially desired to assist in making the program as interesting and instructive as possible. The committee wishes to impress these few points upon the writers of papers:

1. Not too long.
2. Pithy.
3. A reasonably short, pithy, discussion provoking paper is usually better received than one of great length.
4. Writers are requested to at once enter into correspondence with those who in their opinion are especially interested in the subject

chosen, and to select two gentlemen who will consent to open the discussion of their papers. Names of those selected should be sent to the program committee.

5. It has been decided to print on the program, underneath the titles, a few lines containing the gist of the papers presented. This is done to familiarize the members with the subject matter to be treated, and thus to facilitate and stimulate discussion. Such brief statements as are found under the headings on the cover page of the *Journal A. M. A.*, are all that is desired to print. We believe this will prove a valuable innovation.

6. Please send title of paper, with names of those who are to open the discussion, as soon as possible.

Fraternally yours,

ARTHUR J. PATEK, *Chairman Program Committee.*

#### THE COUNTY RETURNS

have come in rather slowly the past month, only 46 of the 59 societies have yet reported. Of these 18 show a net gain of 54 over last year's total membership, while 25 make a net loss of 88, and 3 break even. This is a net loss, so far, of 34 in the 46 counties. 13 of these societies show a net loss of only 1 or 2, and every one of these with proper effort, can be brought over to the right side of the ledger before the annual meeting. So there must be no let up from now on. It's up to the county secretaries to show that this movement is going forward and not backward.

If delegates to the State Society meeting have not yet been elected and reported, the matter should be attended to at once. It is important, too, that men are selected who can and will attend the meeting.

C. S. S.

#### PRELIMINARY PROGRAM OF THE SIXTIETH ANNUAL MEETING OF THE STATE MEDICAL SOCIETY OF WISCONSIN.

MILWAUKEE, JUNE 27, 28, 29.

AT CONSERVATORY HALL, CORNER MASON AND MILWAUKEE STREETS.

The arrangement committee for the meeting of the State Medical Society, June 27, 28 and 29, makes the following preliminary report:

1. Meeting of the Council will be held in the rooms of the Milwaukee Medical Society, Goldsmith Building, on the evening of Tuesday, June 26.

2. All meetings of the Society, of the House of Delegates, and of the Committees, will be held in the rooms of the Conservatory Hall, northeast corner of Milwaukee and Mason Streets.



3. The Pathologic and Commercial Exhibits will be placed in the rooms of the Conservatory Hall.

4. Negotiations are under way for the securing of reduced railway rates, which will probably be the same as heretofore: one and one-third fare, providing members secure certificates at time of purchasing their tickets, and providing one hundred such certificates are secured. *Ask for certificate for each ticket, when purchased.*

5. Entertainment is being planned for the evenings of June 27 and 28.

6. No Hotel headquarters will be designated. The hotels give the following rates per day, for the occasion:

PFISTER. European plan. \$2.00, upward, without bath; \$2.50, upward, with bath.

PLANKINTON. American plan. \$3.00, without bath; \$3.50, with bath.

European plan. \$1.50, upward, without bath; \$2.00, upward, with bath.

ST. CHARLES. American plan. \$2.00 to \$3.50.

BLATZ and DAVIDSON. European plan. \$1.00, upward. American plan. \$2.00, upward.

SCHLITZ. European plan. \$1.00, without bath; \$1.50, with bath.

GLOBE. European plan. \$1.00, upward.

ARTHUR T. HOLBROOK,  
*Chairman Arrangement Committee.*

The Chairman of the Committee on Pathology requests members of the State Medical Society who may have interesting pathological specimens to bring them to the meeting, or to send them to him, and they will be taken care of while in Milwaukee. (The State Society makes no appropriation to cover transportation of specimens.) The Chairman has already arranged to have a section devoted to comparative pathology, and hopes to have a lecture with stereoptican views, during the meeting.

Any interesting microscopic slides will also be appreciated and taken care of. We want this exhibit to be truly an advance on recent ones, and to be not a local, but a State Exhibit.

A. W. AKERLEY,  
*Chairman, Committee on Pathology.*

#### THE SCIENTIFIC PROGRAM.

While the scientific program is not yet complete in all its details, we publish below a list (alphabetically arranged) of those who are to contribute papers. The subjects are sufficiently varied to ensure consideration of every branch of medicine. The topics selected promise interesting material, and many are of a controversial nature, so that

there is every likelihood that active discussion will be stimulated. Their number is such as to allow ample opportunity for the reading and consideration of all.

Dr. John H. Musser, Philadelphia.—Address in Medicine: "Pancreatitis."

Dr. A. J. Ochsner, Chicago.—Address in Surgery: "The Clinical Aspects of Stomach Surgery."

Dr. G. V. J. Brown, Milwaukee.—"The Basal Principles of Oral, Nasal, and Facial Deformities, with special reference to Hare Lip and Cleft Palate."

Dr. H. E. Dearholt, Milwaukee.—"Static Derangements of the Feet."

Dr. Richard Dewey, Wauwatosa.—"Nervous and Mental Cases in Private Practice."

Dr. J. M. Dodd, Ashland.—"Treatment of Sepsis."

Dr. F. W. Epley, New Richmond.—"Conditions peculiar to Women."

Dr. Edward Evans, La Crosse.—"Tuberculosis of the Genitourinary Organs."

Dr. J. M. Evans, Evansville.—"Endometritis."

Dr. L. H. Fales, Madison.—"Beri-beri."

Dr. C. A. Harper, Madison.—"Tuberculosis Sanitaria and Treatment."

Dr. Lawrence Hopkinson, Milwaukee.—"Mucous-Membranous Colitis."

Dr. M. Iverson, Stoughton.—"Remarks on Surgery of the Nasopharyngeal Structures."

Dr. G. H. Lawrence, Galesville.—"Psoriasis."

Dr. Charles H. Lemon, Milwaukee.—"A New Method for Reduction of Fractures of the Lower Extremity."

Dr. A. H. Levings, Milwaukee.—"The Relation of Blood Pressure to Surgery."

Dr. W. F. McCabe, Beloit.—"Obstetrical Responsibility during Gestation."

Dr. J. P. McMahon, Union Grove.—"The Necessity for Temporary Detention Quarters for the Alleged Insane."

Dr. S. R. Moyer, Monroe.—"Progress in Therapeutics."

Dr. W. H. Neilson, Milwaukee.—"Purpura."

Dr. Julius Noer, Stoughton.—"Pneumonia. Some Clinical Observations."

Dr. J. S. Reeve, Appleton.—"Shoek."

Dr. G. E. Seaman, Milwaukee.—"Some General Considerations of the Diagnosis and Treatment of Injuries to the Eye."

Dr. H. A. Sifton, Milwaukee.—"The Surgical Treatment of Goitre."

Dr. W. H. Washburn, Milwaukee.—"The Medical Aspects of Exophthalmic Goitre."

Dr. U. O. B. Wingate, Milwaukee.—"Apoplexy. Its Diagnosis and Treatment."

ARTHUR J. PATEK,  
Chairman Program Committee.

**DUNN COUNTY MEDICAL SOCIETY.**

A large and enthusiastic meeting of the Dunn County Medical Society was held at Menomonie, March 20th. After the Banquet the meeting was called to order by the president, Dr. Barker. The Army Medical Reorganization bill was read and discussed. A motion by Major Grannis of the 3rd Regiment, W. N. G., that each member of the society write to their Representative and Congressman asking them to support the Army Medical Bill, Pure Food and Drug Bill, and to oppose reduction of compensation for Medical men on the Isthmus, was unanimously carried.

Upon motion the chair appointed a committee of two to formulate and devise plans for forming a Physicians' Credit Association, and to report at next meeting. Drs. Grannis and Steves were appointed. A donation of \$9.50 was voted to be sent to the State Secretary towards paying for legal services, incurred at the last session of the Legislature.

Dr. E. L. Boothby, District Councillor, was with us and read an excellent paper on the duties of a County medical society.

Dr. H. V. Wüirdeman presented a patient with *cerebral syphilis* affect-  
Dr. Grannis reported a case of a man dying 24 hours after complaining of severe pain in abdomen; upon autopsy death was found to be due to a perforated gastric ulcer.

Traveling quacks and irregular practitioners were generally discussed.

The next meeting will be held April 17th.

F. E. Butler, M. D., *Secretary.*

The regular monthly meeting of the Dunn County Medical Society was held at the Hotel Royal, Menomonie, April 17.

After a general discussion on the treatment of burns, and abnormal presentations, a recess was taken for the banquet, at the close of which Dr. Finstad read an excellent paper on *Syphilis*, dealing especially with its prevention and relation to marriage. In the discussion many new points regarding treatment were brought out.

Drs. J. H. Groundlock of Wheeler and H. C. Caldwell of Ridgeland were unanimously elected members of the society.

The subject of fees for old line insurance companies was discussed and the following resolutions were passed:

*Resolved*, By the Dunn County Medical Society, that on and after May 1st, 1906, each member of the Dunn County Medical Society shall not make any examinations for any old line life insurance companies for less than the sum of five dollars, and further

*Resolved*, That the secretary of this society transmit a copy of these resolutions to the insurance companies.

A discussion on the welfare of the society and profession in general was carried on, after which the meeting adjourned until May 15th.

F. E. BUTLER, M. D., *Secretary.*

**FOND DU LAC COUNTY MEDICAL SOCIETY.**

The May meeting of the Fond du Lac County Medical Society was held May 9th, 1906, around a festive board in the dining room of the Hotel Ewing, Fond du Lac. After doing justice to the menu served, the regular

order of business was given. After reading and acceptance of minutes of previous meeting the following program on *Eclampsia* was presented.

*Eclampsia; Etiology.* Dr. John M. Baasen, Mount Calvary, Wis.

*Symptomatology and Differential Diagnosis:* Dr. G. T. McDougall, Fond du Lac.

Discussion by Drs. John S. Foat, Ripon; Henry E. Twohig, Fond du Lac. *Treatment;* Dr. J. H. McNeel, Fond du Lac.

Discussion by Drs. G. V. Mears and J. P. Connell, Fond du Lac.

Dr. McNeel summed up his treatment as follows: (1) Venesection, (2) Hypodermoclysis, (3) *Veratrum viride* in large doses, 20-60 drops.

In opening the discussion Dr. Mears said that we never can tell what kind of convulsion we are going to have by previous symptoms. His first treatment would be prophylactic and he thought this could be best obtained in a hospital. Food, milk; bowels kept open by calomel and Epsom salts; hot baths to keep skin acting freely, and to avoid chilling and worry. Active treatment; chloroform during convulsion, morphia hypodermatically, chloral zi per rectum, *veratrum viride* gtts XV hypodermatically, repeated if necessary; injection of normal salt solution under breast; croton oil, gtts two on tongue, followed by large dose of Epsom salts; hot pack, venesection. If necessary vaginal Caesarean section, or abdominal Caesarean section, or to separate bladder from uterus and split uterus back into cul de sac.

Dr. Connell followed in discussion and said that *Eclampsia* was due to a toxemia either from alimentary canal, liver, or kidneys and thought we should find where the trouble was and treat that.

The discussion then became general.

Dr. J. P. Connell presented a specimen from a ruptured extra-uterine pregnancy in which the fetus was found protruding from an opening in the sac, and told the history of another case occurring within two days of the previous one mentioned. Both made good recoveries.

The Society voted a tax of fifty cents per capita for State Medical expenses.

An invitation from Dr. S. S. Hall to hold the July meeting at Green Lake was read and accepted by vote of Society, and the Society expressed the wish to meet with the Green Lake-Waushara Society at that time.

F. A. READ, M. D., *Secretary.*

#### GRANT COUNTY MEDICAL SOCIETY.

The regular meeting of the Grant County Medical Society was held at Montfort, May 10th, the president, Dr. W. Cunningham in the chair. Eight members were present, also Dr. G. A. Perrin of Crawford County Medical Society. Dr. C. S. Sheldon of Madison, was present by invitation, and gave the Society a rousing talk on *Medical Society Spirit.*

Dr. G. C. Buck read a very interesting paper on *Hernia*, which was followed by a general discussion.

*Arterio-Sclerosis* was ably presented by Dr. F. S. Tinfley. Discussion led by Dr. G. Armstrong.

Dr. C. A. Cooper reported a case of severe illness in a young child, caused by indiscretion in feeding. Other cases of a similar nature were reported.

Dr. J. Oettiker was elected alternate delegate to the State Convention. Dr. James H. Fowler of Lancaster was elected to membership in the Society.

The next meeting will be held in September at Lancaster.

M. B. GLASIER, M. D., *Secretary.*

#### LA CROSSE COUNTY MEDICAL SOCIETY.

The regular monthly meeting of the LaCrosse County Medical Society was held on April 5th, at the Lutheran Hospital; the president and secretary were both out of the city and the vice-president, Dr. D. S. McArthur presided.

Dr. C. Christensen read a paper on the *Therapeutic Uses of the X-Ray*. He exhibited photographs taken by him of fractures and other pathological conditions which made the meeting very interesting. Dr. Christensen also served the members present with a fine lunch after the meeting.

C. H. MARQUARDT, M. D., *Secretary.*

#### MARATHON COUNTY MEDICAL SOCIETY.

The Marathon County Medical Society met at the Wausau Club House, March 29, 1906. There were 22 present, including several visiting physicians from neighboring cities. A paper was given by Dr. L. M. Millard of Wausau on *Hypertrophied Tonsils and their Surgical Treatment*. Dr. G. A. Kletzsch of Milwaukee was to have given a paper, but was unable to be here.

The Society adjourned to the Crystal Cafe for refreshments and there the following subjects were generally discussed: *High Temperature Following Normal Labors* and *Inflammation of Peritoneum*.

As this program was arranged so very differently from the usual ones it was something of an experiment, and yet proved a great success.

S. M. B. Smith, M. D., *Secretary.*

#### MARINETTE COUNTY MEDICAL SOCIETY.

The regular meeting of the Marinette County Medical Society was held March 13th, and the following program was presented:

"Causation and Treatment of Cataract", Dr. Sherman Wright; "Cancer of the Stomach", Dr. H. A. Vennema; "The Acute Eruptive Diseases", Dr. Conover, Crivitz, Wis.

The reduction of examination fees by Insurance Companies was discussed and considered unjust and an imposition upon the profession.

A. T. NADEAU, M. D., *Secretary.*

#### TREMPEALEAU COUNTY MEDICAL SOCIETY.

The regular quarterly meeting of the Trempealeau County Medical Society was held at Independence, March 15.

Dr. H. A. Jegi read a paper on *Obstetrics* which brought out a lively discussion.

A motion was passed instructing the chairman to appoint a committee of three to look up the law relating to the practice of midwifery by an ordinary woman posing as a midwife, and report at our next meeting. The chairman appointed Drs. Jegi, Moore and Hidershide.

The society voted to send Dr. C. S. Sheldon fifty cents per capita of our

membership towards paying expenses incurred in the passage of our recent medical law.

The following members were present: Drs. Hidershide, Palmer and Lettenberger of Arcadia, Drs. Hutchins, Gunn and Stack of Independence, Dr. Parker of Whitehall, Dr. Moore of Merrilan, Dr. McFarland of Trempl'o. Dr. Jegi of Galesville. H. A. JEGI, M. D. *Secretary*.

#### FIFTH DISTRICT MEDICAL SOCIETY.

The meeting of the Fifth District Medical Society was held in the Village Hall at Brillion, Calumet County, on April 12th, 1906, with Dr. W. H. Gunther in the chair, there being fifteen physicians present. In the absence of the secretary, Dr. Falge acted as secretary pro tem.

The address of the day was delivered by Dr. W. A. Gordon of Oshkosh on *The Examination of the Insane*, bringing out many shortcomings of the Wisconsin laws regarding insanity. He condemned our absurd jury trial in insane cases, spoke of the desirability of an improved examination blank, of the need of homes for the epileptics, and of the inadequate fees of the examiners. He also suggested the advisability of a supplementary examination blank regarding syphilis in place of its being placed on public record as is now the case.

After a general discussion, a rising vote of thanks was extended to Dr. Gordon.

Dr. J. F. Pritchard then submitted the following resolution which was passed:

WHEREAS, The use of proprietary and patent medicines is a danger to the health of the community and derogatory to the position of the physician as a good citizen and guardian of the people's health, be it therefore

*Resolved*, That we as a party and as individual members of the profession put ourselves on record as opposing the use of such remedies advertised through the newspapers or in any such form, or in the form in which they are placed before the physician.

*Resolved*, Further, that we commend the efforts of such newspapers or journals as are making an effort to destroy the "Great American Fraud".

The following resolution was also adopted by a rising vote:

WHEREAS, It has pleased the Almighty God to remove from our midst a worthy member of this society and of the medical profession, Dr. J. E. Luce, vice-president of the Fifth District Medical Society, be it therefore

*Resolved*, That we feel the great loss to the community and to the medical profession. We extend our heartfelt sympathy to the bereaved family. Be it further

*Resolved*, That a copy of these resolutions be spread upon our records and a copy sent to the bereaved family and published in the local papers.

After adjournment the members enjoyed a spread at the Hotel Schneider.

FLORA A. READ, M. D., *Secretary*.

#### MILWAUKEE MEDICAL SOCIETY.

Meeting of March 13, 1906.

Dr. H. V. Würdemann presented a patient with *cerebral syphilis* affecting the nucleus of the third nerve, who was rendered almost helpless by the bilateral ptosis and the double vision resulting from the external rotation of

both eyes. As medicinal treatment had been without marked result, an operation was performed on one eye the internal rectus being advanced, the external rectus moved back, and the cartilage of the upper lid fixed to the occipito-frontalis. He now has control of the upper lid and the eye looks straight ahead.

Dr. Würdemann also presented three cases of *wounds of the eye* involving the lens, showing the results of conservative treatment. Two of the cases were infected when first seen but the infection was controlled by the injection of 50 per cent. argyrol solution into the anterior chamber. Ten years ago all of these eyes would have been enucleated at once. All of these patients will have eyes without lenses, but by the use of glasses they will have from 1/6 to 6/6 of ordinary vision in the injured eyes.

In the discussion Dr. D. J. Hayes said that in syphilitic lesions of the brain the prompt use of very large doses of iodide of potassium will be followed by improvement. Mercury has little effect on the tertiary lesions.

Dr. A. J. Puls reported a case of *puerperal eclampsia* in a primipara of 25 years, the convulsions beginning 12 hours after the birth of the child. Oedema of the feet and legs, headaches, and marked albuminuria had been observed nearly three weeks before confinement, but the quantity of urine continued to be about normal throughout the eclamptic period. Morphia in large doses hypodermically (2 grains within 30 hours) hot packs, and salt solution by the rectum controlled the convulsions and the outcome was satisfactory.

In the discussion Dr. H. Reineking stated that he has bled almost every case of eclampsia coming under his care and that the results of this method of treatment have been most satisfactory.

The condition was also discussed by Drs. G. A. Bading, W. H. Washburn, P. F. Rogers, and C. H. Stoddard.

Dr. F. Shimonek reported a case of *gangrenous appendicitis* taking place in the sac of a retro-peritoneal hernia, and discussed the anatomy and pathology of the latter condition.

Dr. H. Reineking referred to a case of a somewhat similar condition which he had recently reported, but which he considered due to a different but unexplained condition.

#### Meeting of March 27, 1906.

Dr. O. H. Foerster exhibited a man, 33 years of age, affected with *lupus erythematosus*, and discussed the differential diagnosis between this condition and *lupus vulgaris*.

Dr. H. V. Würdemann exhibited a patient with *facial paralysis following acute mastoiditis* with extensive destruction of bone. The paralysis developed before operation was performed and is slowly clearing up; the contour of the face is good and motion of the tongue is normal. Nature has done so much in the restoration of nerve tissue in this case that it seems advisable to follow an expectant plan of treatment rather than attempt a facio-hypoglossal anastomosis, even though two years have elapsed.

Dr. Würdemann also presented a patient, 20 years of age, in whom *convergent strabismus* had been cured by orthoptic treatment. In only one other case has he seen the eyes made parallel and monocular vision restored by this method in patients over 10 years of age.

In the discussion Drs. G. E. Scaman, N. M. Black, and H. B. Hitz took part.

Dr. N. M. Black presented a paper on *The Importance of Vision and Color Vision in Latter Day Railroading*, considering the various kinds of railroad signals in use, urging the advisability of having the eyes of railroad employes tested by physicians at regular, short intervals, and advocating the requirement of a high standard of visual excellence for admission to the service.

This paper was discussed by Drs. G. E. Scaman, E. W. Bartlett, and J. S. Barnes.

Dr. R. G. Sayle exhibited a patient from whom he removed a *carcinoma of the small intestine* two years ago. The man is now in perfect health and has gained 60 pounds in weight. The tumor removed was demonstrated. It was unusual on account of showing a dilatation of the lumen of the intestinal canal, no obstruction whatever existed.

Dr. Sayle then read a paper entitled: *Carcinoma of the Small Intestine, with Report of the Case.*

#### Meeting of April 10, 1906.

Dr. L. F. Jermain presented a paper entitled *Cardio-Vascular Changes in Diseases of the Kidneys*. He referred to the early recognition of this connection by Bright in 1827, who found the left ventricle most commonly hypertrophied. This hypertrophy may involve the entire heart and is due to an increase of the myocardium as a whole, with or without dilatation of the cavities. Sclerosis of the arterial system takes place at the same time. Preceding arterial sclerosis and cardiac hypertrophy by a considerable period of time is a persistent high blood tension.

The theories which have been advanced to account for the development of these conditions in renal diseases may be classed as 1, Mechanical, and 2, Chemical—the latter being more generally accepted at the present time. Toxic substances in the blood, the result of renal insufficiency, faulty metabolism, or other conditions, cause an abnormally high vascular tension which may persist for years finally bringing about changes in the blood vessels which increase the resistance to the onward passage of blood. Cardiac hypertrophy takes place as a result and is in a measure compensatory.

The immediate prognosis in cases of chronic nephritis is dependent more upon the condition of the heart of the patient than upon that of the kidneys, and patients suffering from chronic nephritis should throw the least possible strain on the heart, arteries, and kidneys.

In the discussion of this paper Dr. W. H. Washburn referred to the action of the adrenal secretion in neutralizing toxins in the circulation and suggested that the increased adrenal activity might in part account for the high arterial tension seen in many kidney affections.

The paper was also discussed by Drs. A. J. Patek and D. W. Harrington.

Dr. D. W. Harrington read a paper on *Splanchnoptosis* which will soon appear in full in the JOURNAL. This paper was discussed by Drs. H. Reineking, F. Shimonek, and L. F. Jermain.



Meeting of April 24th, 1906.

Dr. W. H. Washburn read a paper entitled *Medicine in the Revolutionary Army*. Dr. Washburn pointed out the part played by medical men in the political agitation leading up to the war and outlined the history of the organization of the medical department of the army. He spoke of the difficulties and privations and quarrels of the army surgeons and pointed out the primitive nature of the healing art as practiced by them. The lack of provision for the sick and wounded was beyond comprehension and the mortality among them was frightful.

A paper on *Gonorrhœal Sequelae* was presented by Dr. A. G. White. Dr. White discussed in detail the results and complications of gonorrhœa both local and general; in many of the latter the nature of the infection is not recognized. In doubtful cases of arthritis the course to pursue is to aspirate and determine the character of the joint fluid as early operation in cases showing gonococci or pus cocci may save many a joint.

The subject was discussed by Drs. J. D. Madison, T. L. Harrington, P. F. Rogers, V. H. Bassett, L. Boorse, G. P. Barth, and D. J. Hayes.

Dr. A. J. Puls exhibited a uterus with a myoma the size of a three month pregnancy removed at operation from a woman of 45 years. It would have been easy to do a myomectomy but at the age of this patient it did not seem advisable. There was also the possibility of beginning malignant degeneration as the myoma was very soft to the touch.

H. E. DEARHOLT, M. D., *Secretary*.

#### FOX RIVER VALLEY MEDICAL SOCIETY.

The regular quarterly meeting of the Fox River Valley Medical Society was held at Appleton, April 24th. By invitation of the society, Dr. Otho Fiedler of the Germania Laboratory, Milwaukee, gave an informal, but very interesting talk on *Laboratory Methods in Diagnosis*. The large number of questions that were asked Dr. Fiedler showed that his talk had been well received.

Dr. C. J. Combs of Oshkosh read a paper which excited more than usual interest, his subject being *The Relative Merits of Prescribing and Dispensing*. Dr. Combs was disposed to condemn the practice of dispensing one's own medicines. A lively discussion followed which was participated in by nearly every one present. The preponderance of opinion seemed to favor the writing of prescriptions, although the advocates of dispensing upheld their side of the question with many weighty arguments. There was a general condemnation of the vigorous manner in which druggists advertise and push the sale of patent medicines, allowing their own names to be signed to the "no-cure-no-pay" advertisements.

Dr. V. F. Marshall of Appleton was to have read a paper on *The Effect of Ventral Fixation of the Uterus upon Subsequent Pregnancy*, but being absent his paper was read by the secretary of the society.

The following applicants were admitted to membership in the society: Dr. H. Schaper, Appleton, Rush, 1892; Dr. H. P. Rhode, Green Bay, Chicago, P. & S., 1894; Dr. R. D. Moray, Manawa, Milwaukee Med. Coll., 1905.

Appropriate resolutions were adopted relative to the recent death of Dr. T. T. Beveridge of Appleton, who was for many years the secretary of this society.

The attendance at this meeting was large and enthusiastic. The next regular meeting will be held at Menominee, Mich., Tuesday July 17. Prof. Russell of Madison has promised to give an illustrated lecture on the subject of "*Human and Bovine Tuberculosis*" at this meeting.

CHESTER M. ECHOLS, M. D., *Secretary*.

### SOCIETY OF GERMAN PHYSICIANS OF MILWAUKEE.

Meeting of April 21st 1906.

Dr. E. Kováts reported the following cases. 1. Isolated dislocation of the ulna inwards in a woman, aged 33, with good recovery. This is very rare in comparison to the usual dislocation upwards. 2. Fractures of both radii above the wrist in a woman aged 55, who fell down stairs into a cellar. Both healed normally. 3. A probable case of oolitis mucosa, in a man, who presented all the symptoms of this disease, especially plaques of the tongue, which are considered as characteristic.

Dr. A. J. Puls spoke, in connection with a case of floating kidney, on the diagnostic difficulties in this affection.

Dr. L. Frank communicated a case of extra-genital chanere at the upper lip in a girl, aged 20, with swelling of the submaxillary glands on the corresponding side. According to the history, the infection must have occurred through a kiss by a woman companion who worked in the same business with the patient and had left her position 6 weeks previously. The effect of antisiphilitic treatment destroyed the view of possible tuberculosis entertained at first by another physician.

Dr. C. Reinhard's paper on *Mediastino-Pericarditis Posterior*, read at the previous meeting was thoroughly discussed.

Dr. C. Zimmermann recently treated 2 cases of acute otitis media which again demonstrated the importance of a correct diagnosis. They were complicated with apparent mastoiditis, and a surgeon suffernig from "furor operativus" would undoubtedly have at once opened the mastoid process. However, the considerable swelling of the skin of the meatus in one case with a temperature of 104° and the pain, localized not only over the mastoid but also at the tragus, suggested an infected otitis externa besides the otitis media. This was verified the next day by the outbreak of erysipelas with 105°. It ended in recovery. In the second case instantaneous paracentesis of the memb. tympani effected a complete cure within a short time.

C. ZIMMERMANN, M. D., *Secretary*.

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## MEDICAL NOTES.

### PHYSIOLOGY OF THE DIGESTIVE PROCESS.

#### Enteric Digestion.

In the mucous membrane, all along the small and large intestine, is a large number of simple tubular glands, known as Lieberkühn's crypts or glands. These are lined by columnar epithelial cells, the function of which is to secrete the digestive juice known as the succus

entericus. Recent investigations by Pawlow, Starling, and Otto Cohnheim show that the succus entericus has most important actions in the digestion of food. It has already been stated that quite fresh pancreatic juice has no action whatever upon proteid food, but that in the presence of succus entericus, pancreatic juice has a very important proteolytic action. The succus entericus contains a body, which is spoken of as a "ferment of ferments," and it is called enterokinase or zymolysin. Its action is to convert inactive trypsinogen into the active enzyme trypsin, and so to render the pancreatic juice powerfully proteolytic. At the same time, the enterokinase has a slight effect in increasing the activity of the steapsin (fat-splitting ferment) of the pancreatic juice. It is found that succus entericus has no action upon ordinary proteids, such as white of egg, but is capable of digesting caseinogen, the most abundant proteid of milk. It will hence be understood that the young child is able to digest its proteid food, which is derived from milk, although the pepsin of the gastric juice and trypsin of the pancreatic juice be absent. Succus entericus contains a ferment which has been named erepsin. This is capable of breaking up proteoses and peptone into simpler substances, such as leucine, tyrosine, the hexone bases (lysine, arginine, histidine), and ammonia. Succus entericus has a very important digestive action upon carbohydrate food. To a slight extent, it is capable of converting starch into sugar, but its main action is to convert cane-sugar by a process of hydrolysis into dextrose and levulose; maltose, a product of the action of ptyalin and amylopsin upon starch, is converted into dextrose, and lactose or milk-sugar is converted into dextrose and galactose, that is, there are many invert ferments included under the terms invertin, which are capable of converting the saccharoses ( $C_{12}H_{22}O_{11}$ ) into the glucoses ( $C_6H_{12}O_6$ ). It will be seen, from the above facts, that the process of digestion does not consist of a series of isolated phenomena, but that each stage follows its predecessor in an orderly manner, and as the result of preceding stages. For example, the secretion of gastric juice depends to a certain extent upon the presence of saliva, the formation of secretin depends upon the hydrochloric acid of the acid gastric chyme, secretin stimulates the flow of pancreatic juice, and, to a certain extent, bile. Bile acids, too, aid the formation of more secretin. The proteolytic activity of the pancreatic juice, and, to a smaller extent, its steatolytic activity depend upon the presence of the zymolysin or enterokinase of the succus entericus. On the other hand the presence of pancreatic juice

is said to act as a stimulus for the tubular glands of Lieberkühn. At the same time, the secretion of succus entericus is normally excited by a mechanical stimulation of the food, as it passes down the small and large intestine. (Reprinted from *The Practitioner*, Aug., 1905.)

#### ABSORPTION OF FOOD.

The reason why food is digested in the mouth, stomach, and intestine, is that it may be more readily absorbed, and so actually get into and become part of the tissues of the body. From the thick nature of the epithelium of the mouth, pharynx, and oesophagus, it is obvious that very little absorption of digested food takes place in these organs, but very soluble substances are absorbed by the wall of the stomach. In cases of stenosis of the pylorus, either from simple or malignant stricture, which prevents the passage of food into the duodenum, small quantities of soluble material pass through the mucous membrane of the stomach, and so get into the blood and the lymph stream. On the valvulæ conniventes of the small intestine are found the villi, which are covered with a columnar epithelium, the free border of which is striated. These villi increase the surface for absorption to take place; at the same time they are covered with a single layer of cells, so that digested food may more readily pass through their surface. In the larger intestine, where villi are absent, absorption does occur, though to a much less extent. Absorption depends upon two main factors, namely, (1) the physiological activity of the columnar epithelial cells covering the villi and the cells in the lymphoid tissue beneath the surface; that is, they must be free from disease, and capable of performing their normal functions; (2) the physical process of osmosis; that is, the smaller the molecule to be absorbed the more readily will it pass in solution through the free striated border of the columnar cells lining the mucous membrane of the alimentary canal. In other words, the food must be thoroughly digested before it can be absorbed. We have noted previously that the ultimate product of the digestion of carbohydrate material in the alimentary canal is glucose ( $C_6H_{12}O_6$ ), either dextrose, levulose, or galactose. The glucose passes through the epithelium on the free surface of the villi, and gets into the portal vein radicals, whence it is taken to the liver, where it is stored in the cells as glycogen ( $C_6H_{10}O_5$ ), the chief reserve of carbohydrate material in the body,

and it corresponds to the starch which is stored up in the tubers and roots of plants. No other sugar, but glucose, is utilized by the liver cells to form glycogen.

Proteids in solution are absorbed by the mucous membrane of the stomach, especially if there is stenosis at the pylorus, and they are also absorbed from the wall of the large intestine. This naturally occurs in patients who are fed per rectum on nutrient enemata which contain previously peptonized material. Most proteid material, however, is absorbed by the villi as peptone, but during absorption the small molecule peptone is reconstructed by the columnar cells and converted into native proteids, such as serum-albumen, and serum-globulin, which are found in the blood stream. A small amount of the absorbed peptone occurs in the chyle, as serum-albumin and serum-globulin. It is suggested by some physiologists, that peptone in the alimentary canal is further broken up into simpler amino-compounds, such as leucine, tyrosine, aspartic acid, ammonium compounds, and the hexone bases, by the action of the trypsin from the pancreatic juice, and the erepsin from the succus entericus, and that it is these amino-compounds which are absorbed by the villi, and that they are, during absorption, resynthesised into serum-albumin and serum-globulin. Fat during digestion, is first emulsified and then saponified. The view formerly held, was that the emulsified fat passed through the bile-covered epithelium of the villi, and was taken by the ameboid cells of the lymphoid tissue into the central lacteal radical which contains the chyle. Munk, however, showed that, as a rule, fat in the alimentary canal is completely saponified, or, at any rate, is converted into glycerine and fatty acid, when the latter is dissolved in the bile salts, and hence is readily absorbed with the glycerine. The columnar cells over the villi now cause synthesis to take place; the fatty acid combines with the glycerine to form fat once more in the columnar cells. The ameboid cells of the lymphoid tissue now carry the fat particles through the retiform tissue of the villi, and they deposit the minute fat particles in the central lacteal. The presence of bile, no doubt, aids the absorption of fat, for in cases of obstructive jaundice, where bile is absent from the alimentary canal, fat is not completely digested, and moreover is not absorbed. It, therefore, passes out of the body in the feces, from which it can readily be extracted with ether.

Soluble salts, such as sodium chloride and water, are readily absorbed along the alimentary canal unchanged. It must ever be

kept in mind that probably the most important factor in the absorption of digested food is the action of the columnar cells lining the alimentary canal, and whenever these cells are diseased, as occurs in lardaceous disease of the mucous membrane of the intestine, or in Cholera Asiatica, in which disease the comma Spirochæte of Koch is found in the lumen and in the wall of the intestine; the columnar cells are diseased, exfoliate, and absorption of digested food fails to take place. There is consequently found in the stools, not only the dead columnar cells, but also albumin, and a large quantity of sodium chloride, material which, doubtless, has not been absorbed, or has passed back into the lumen of the alimentary canal.

Micro-organisms, as is well known, enter the body by way of the alimentary canal. Tubercle bacilli enter through carious teeth, the mucous membrane over the tonsils, and probably also through the mucous membrane of the intestine. Typhoid bacilli enter through the wall of the small and large intestine. The Streptothrix actinomycetes enters by the mouth, especially if there are carious teeth. The embryos of many of the worms enter the body by the alimentary canal. Apart from these, however, it is now believed that many poisons which get into the body and produce disease, such as pernicious anemia, malignant endocarditis, acute polyarticular osteo-arthritis, acute infective osteomyelitis, enter by and become absorbed from lesions in the alimentary canal, such as carious teeth, chronic ulceration of the stomach, ulcers in the vermiform appendix and ulcers in the rectum and about the anus. (Reprinted from *The Practitioner*, Sept., 1905.)

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### BOOK REVIEWS.

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**Materia Medica and Therapeutics.** J. MITCHELL BRUCE, M. A., LL. D., M. D. London. First American Edition, with the Formulae Adapted to the U. S. Pharmacopœia by OSCAR OLDBERG, Pharm. D., Dean and Professor of Pharmacy in the North-Western School of Pharmacy, Chicago. W. T. Keener & Co., 1906. 620 pp. \$1.75 net.

The popularity of this book with students and practitioners is thoroughly justified by the clearness and conciseness with which it is written, and by the many merits of its arrangement and classification. The "natural arrangement" which has been followed in the sections devoted to materia medica is a successful carrying out of the task the author set himself:—"present the subject in such a form that it can be quickly appreciated and easily remembered". The formulae have been adapted to the U. S. Pharmacopœia by Prof. Oldberg with great care. Our only regret is that the preparation

of the American Edition, did not include the introduction of the numerous useful preparations of the U. S. Pharmacopeia which are not represented in the British Pharmacopeia.

The part of the work devoted to Therapeutics deserves the highest praise. The whole plan is to direct the attention of the reader to underlying principles; first, to the normal physiological relations of the affected portions of the body; then to the means we possess of influencing these functions by therapeutic measures; third, to the pathological relations existing in the diseased state, their natural prevention and recovery; and finally to the application of remedies to the cure or alleviation of disease.

The whole effect of the book is to widen the scope of the reader's conception of disease and its treatment. (A. W. M.)

**The Signs of Internal Disease.** PEARCE KINTZING, B. S., M. D., Professor of Physical Diagnosis and Diseases of the Heart, Maryland Medical College. Cleveland Press, Chicago, 1906. 355 pp. \$3.

Dr. Kintzing's work is eminently practical, the plates and diagrams are numerous and good, with the exception of those of the blood, and the definitions and descriptions are simple and lucid. More careful proof-reading will doubtless improve the succeeding editions.

No attempt is made to go into all the refinements of special diagnosis. What is attempted and what is done with success is to prepare a work that will meet the every-day needs of the student and the busy practitioner who has not at hand a research laboratory in which to carry out the study of the niceties of modern medicine. For the busy physician who has time only to try to cure his patients this book will prove helpful. (A. W. M.)

**The accessory sinuses of the nose and their relations to neighboring parts.** DR. CUSTAVE KILLIAN. Translated by D. R. PATERSON, M. D., M.R.C.P. Illustrated by fifteen colored plates. (W. T. Keener & Company, Chicago. Gustav Fischer, Jena, 1904.) Price \$7.50.

Of all the Atlases of the head showing the accessory sinuses of the nose, Killian's is the most practical from the surgical standpoint, as the dissections from which the plates were prepared were made with the view of exposing the sinuses in a way to elucidate the various operations that are performed upon them.

The German Edition has proven most helpful in operative work. The drawings are colored and made sufficiently diagrammatic so that the salient features are readily grasped by their inspection. A special explanatory transparent sheet overlaps each plate so the drawings are not disfigured by lines and words. This English edition will prove of much use to workers in rhinology, otology and ophthalmology, and to the general physician and surgeon.

H. V. WÜRDEMANN.

**The World's Anatomists.** Concise Biographies of Anatomic Masters, from 300 B. C. to the Present Time. By G. W. KEMPER, M. D. Revised and en-

larged from the original serial publication in *The Medical Book News*. P. Blakiston's Son & Co. Philadelphia. \$0.50.

The author presents concise biographic sketches of the various anatomists whose work has entitled them to lasting fame. The majority of the names are perpetuated by their association with particular anatomic structures of which they were the discoverers. The list comprises 229 names selected from all countries.

This little brochure is neat in appearance, and well serves the author's purpose "to introduce to the medical profession the men whose names have adorned anatomic literature."  
(A. J. P.)

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### CURRENT LITERATURE.

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**Recent Views Regarding the Treatment of Nephritis.**—J. S. McLESTER (*Amer. Med.*, July 15, 1905, p. 105), discusses some of the newest ideas in the treatment of nephritis and points out some radical errors in the generally accepted methods of caring for these cases. He does not claim to have any new thought to offer but draws largely from Von Noorden and others. The subject is discussed under two headings: Acute Nephritis, and Chronic Interstitial Nephritis.

In Acute Nephritis our efforts have been purposely directed to saving and resting the kidney in every way. Briefly stated our treatment has been; large quantities of water, generally some alkaline mineral water, to flush out the kidney and carry off the obscure poisons which, if retained, cause uremia; sweating in the hope of getting rid of some of the poisonous material through the skin; diet, low in proteid, consisting usually of milk alone and quarts of this may be given daily; and lastly diuretics of various kinds.

It has been shown that water in the early stages of acute nephritis is very irritating and is excreted with much difficulty. This intolerance of the acutely inflamed kidney for water is shown by the diminution and even temporary suppression of urine in this condition, and by the accumulation of fluid in the tissues. The prevailing idea that by forcing large quantities of water through the kidneys we increase the output of the poisonous substances, is for the most part an error, as it has been shown that the total amount of solids excreted is very little affected. However, when only very small amounts of fluids are administered, a gradual accumulation of metabolic products does take place.

Acting upon these facts certain clinicians now limit the administration of fluids in acute nephritis. When the urine is greatly lessened and edema is present, it is recommended that the daily quantity of fluid allowed the patient be limited to three pints. If the quantity of urine is much decreased or the edema increased, the smallest amount of fluid should be allowed and in certain obstinate cases, it may be well to allow only cracked ice for a short time.

Where the fluids have to be limited for some time, on certain "drink days" more fluids may be allowed.

Sweating is recommended not because it gets rid of nitrogenous material, but because there is excreted large quantities of fluid and sodium chlorid. A



number of observers now hold that sodium chlorid is especially irritating to the kidneys and is a most important cause of edema. If this view be correct we can readily see how harmful saline infusions must be. The administration of large quantities of milk may be injurious because of the large amount of water which is ingested, and also because the total amount of proteids taken may be far too much. Von Noorden offers the following diet, three pints of whole milk to which is added one and a half pints of sterilized cream; this is to be changed as necessary to suit the case. As the patient improves gruels and fruit juice may be added. The inflamed kidney should not be stimulated by diuretics.

Chronic Interstitial Nephritis: here again the patient is usually advised to take large quantities of water, and he is often sent to some watering place to make it the more sure that this will be accomplished. Meats are often interdicted and carbohydrates, fats and milk given in quantities.

Water is excreted by the small contracted kidney with the greatest ease, and yet, if taken continuously in large amounts, it may be productive of great harm. The injury is done not to the kidneys but to the heart, because of the increased amount of work for the heart involved in handling large amounts of fluid in the circulation. The condition of the heart decides largely the fate of these patients. The heart must not be overworked and yet this is just what we do when we administer large quantities of water for any considerable length of time.

McLester cites a case which twice had attacks of cardiac dyspnea following the ingestion of large quantities of lithia water, and then improved much when the quantity of water taken was limited.

The daily amount of fluid allowed should not exceed two and a half to three pints with occasional days of flushing. An all milk diet is not suitable as it is not sufficient to maintain a proper state of nutrition and large quantities of water are thus taken. Too much carbohydrate and fats cause copulency and that also results in an increased amount of work for the heart. However, the patient needs to be well nourished and a general and quite liberal diet is advised. Digitalis and other diuretics he thinks are usually harmful. Venesection is often a very useful means of relieving an attack of cardiac dyspnea. (J. D. Madison.)

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**Serum Treatment of Graves' Disease.** Of late quite a little attention has been drawn to the use of different pharmaceutical preparations in the treatment of Graves' Disease. None of them, however, merit special comment other than the serums. Dr. K. Thienger (*Münch. Med. Woch.*, Vol 1, 1905) states that he has obtained excellent results in the treatment of Graves' Disease by the use of serum taken from sheep in which the thyroid glands have been removed. The goitre was found to diminish in size and the constitutional symptoms ameliorated in four cases; in three others the goitre was unchanged and the exophthalmus persisted. That these symptoms did not improve was attributed to the fact that the remedy was given in too small doses. A remarkably successful result was obtained in a man who was perfectly toxemic and whose pulse was 140. Within four weeks after the administration of the serum it had fallen to 98. Seven weeks after beginning

the treatment the pulse rate was 76 and the patient was discharged with a little exophthalmus and a marked gain in weight.

The most interesting recent reports concerning the advantages of serum treatment in Graves' Disease are detailed by Dr. Sydney Kuh of Chicago (*Medicine*, Sept., 1905). Since 1900 Dr. Kuh has personally treated nine cases of Graves' Disease and known of two others treated by the serum. All of these were unquestionably cases of Graves' Disease with most of the characteristic symptoms in evidence. In recapitulating, Dr. Kuh says "My experience has not been sufficient to justify me in making any statement as to the curative effect of the serum. I do believe, however, that I am justified in saying that the serum is an excellent palliative at least. That it is not an infallible remedy is very true. We know of one case in which the effect of the serum was temporary only and while the patient continued the serum the disease grew worse. One thing is very striking, and that is the marked change in the subjective condition. Within a few days after taking the first dose of the serum every one of these patients would state that they felt much better. They were less nervous, appetite was improved, and there would be other changes in that time purely subjective in character. The remedy influences the pulse probably as much as anything that we employ in the treatment of tachycardia and exophthalmic goitre. It has, if I may judge from this series of cases, a better influence on the patient's weight. Everyone of them, with one exception, continued the usual mode of living. One of them was put to bed. Most of them continued their household work just as they did before. I do not consider it very probable that the results from the serum can be permanent. The probabilities are that these patients will have to continue to take the serum or will have to repeat the treatment from time to time, if we want to attain anything like permanent results. In one case, however, the patient has been without the serum for quite a long period—2½ years—and has remained in very good condition all that time, but I doubt whether she will remain so, unless she takes an occasional dose of the serum." Dr. Kuh states that this serum can now be obtained from Parke, Davis & Co.

(A. W. Rogers.)

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**Epilepsy and Adenoids.**—ST. CLAIR THOMSON (*Practitioner*, May, 1905), reports a case of epilepsy which he thinks was cured by removal of adenoids. The patient was a girl six years old and had had fits since she was four years old. She had two attacks of petit mal in his office within twenty minutes. Each attack lasted only a few seconds, and patient recovered consciousness before falling off the chair.

Parents reported that child had taken cold a month or two before and that she had been deaf and a mouth breather ever since, also very restless in bed, talking in her sleep, throwing off the clothes, but no enuresis.

ing; and inner fold of each upper eyelid well marked. Nose was dry but Child had the adenoid facies, with nose very broad, constant mouth breath— anterior nares were normal. Molar teeth had not filled, but palate was slightly arched. Child was so deaf that whispered speech could only be heard at distance of two yards. Membrana tympani very translucent, slightly retracted.

and pink color of inner tympanic wall easily seen shining through drum membrane. In children this appearance is characteristic of Eustachian and middle ear catarrh from adenoids. Adenoids could be felt on palpation. No palatine tonsils. Adenoids were removed on Aug. 25, 1898. On Sept. 7, child had ceased to be mouth breather; membrana tympani no longer looked pink, and she heard whisper at four yards. She slept quietly, was much brighter, but fits continued.

Four years after operation parents reported that fits had ceased a few months after operation and had not returned.

T. saw the child in 1904 and says she was a self-possessed, bright and intelligent girl of twelve, sixteen pounds over the average weight. She was no longer a mouth breather, no trace of deafness, and no adenoids, no marked arching of hard palate. Has taken no bromide for six years and has had no fits for seven years.

T. has had other cases where removal of adenoids did not cure epileptics. Most cases of epilepsy are in children under ten years of age, and if they fail to yield under one year's treatment, T. is not hopeful that they ever will. Lapse may occur after nine years, and especially at time of puberty.

(A. W. Akerly.)

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**Post-Partum Hemorrhage.**—JOHNSON (Jour. of Obstet., Sept., 1905), in discussing the treatment of post-partum hemorrhage says that there are three well-recognized causes, namely: retention of the whole or part of the placenta or membranes which interferes with the uterine contraction; a laceration of tissues somewhere in the birth-canal involving vessels of sufficient size to permit a dangerous loss of blood—generally in the cervix or lower uterine segment; and atony of the uterus.

He believes with Spiegelberg that grave post-partum hemorrhage is almost without exception the fault of the medical attendant. A hasty and mismanaged third stage of labor he claims to be the most frequent cause of atony of the uterus.

For the control of hemorrhage, provided the uterus is empty and no lacerations exist, he recommends the use of the Faradic battery (externally), hot intra-uterine donches, and gauze packing, as the most valuable means, in the order named. (G. C. Ruhland.)

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**Congenital Coxa Vara.**—A. HOFFA (*Deutsche med. Wochenschr.*, Aug. 10, 1905), gives a history of the literature of this rare and interesting condition. He describes a typical case giving twelve illustrations, some from Roentgen ray photographs, and follows with a minute macro- and microscopical analysis of the heads and necks of two specimens taken from cases by v. Langenbeck's subtrochanteric method. The microscopic sections are characterized by a total lack of the signs of growth—in other words, the skeletal tissue of bioplastic energy is lacking. From a study of these specimens he considers the condition an intrauterine bone disease, which abrogated the power of bone growth. Finally he contrasts the femoral heads produced by congenital coxa vara and rachitis. (G. P. Barth.)

## MISCELLANY.

**Skirts Must Not Drag.** The town council of Nordhausen, Saxony, has issued an ordinance prohibiting women from allowing the trains of their dresses to drag in the streets, as a "measure for the protection of health and for the prevention of tainting the air with dust." The penalty for infraction of this ordinance is a fine of \$7.50.

**Ban on Roller Towel.** Mr. C. E. McLenegan, principal of one of Milwaukee's high schools, is to be congratulated upon his appreciation of the danger that lurks in the use of roller towels in schools. He has ordered the pupils to bring individual towels and to keep them in their lockers.

**New Remedy for Seasickness.** Dr. Hoffa of Berlin, is reported to have employed with great success during a recent voyage, a cure for seasickness recommended to him by the celebrated explorer, Eugen Wolff of Munich. He applied hot linen bandages to the forehead and tied them as tightly as possible. The bandages were renewed about every minute and a half for half an hour, after which Hoffa lay down for an hour. On rising all symptoms had entirely disappeared. The doctor is reported as saying that the symptoms did not return during the entire voyage, although the roughest weather was experienced.

**Horses and Dogs as Food.** Consul Muench, of Plauen, reports that during 1904 there were 333 horses slaughtered at Plauen, Germany, for food purposes, and for the first six months of 1905 the number slaughtered in the Empire was 68,000. Dogs to the number of 2405 were

slaughtered for food purposes during the fourth quarter of 1905.

**The Boston Session of the American Medical Association.** It would seem that the medical profession of Boston intends to have the approaching session of the American Medical Association one long to be remembered for the high grade of its scientific proceedings, the cordiality of its entertainments and the elaborateness of the clinical and exhibition features. The *Journal of the American Medical Association*, May 5th, devotes over 20 pages to the session, giving railroad rates, lists of hotels, meeting places, headquarters, lists of entertainments, excursions and programs, etc. The preliminary program of the twelve sessions shows that the scientific proceedings are to be of great value, and that many distinguished foreigners are to be among the speakers.

**A. M. A. Special Train.** For the extensive use of delegates, their families and friends, who will attend the meeting of the American Medical Association at Boston, Mass., June 5th to 8th, 1906, the Lake Shore and Michigan Southern Ry., in connection with the N. Y. C. & H. R. R. R. and Boston and Albany R. R., has provided a special train, to be a counterpart of the "Twentieth Century Limited" and the "Lake Shore Limited" trains, consisting of Compartment Observation Car, Standard Drawing Room Cars, Buffet Library Car and two Dining Cars. This train will leave the LaSalle Street Station, Chicago, at 10:30 A. M. Sunday, June 3rd, stopping at Elkhart, Toledo, Cleveland and Buffalo, running direct to Boston on fast schedule,

arriving Boston at 2.00 P. M. Monday, June 4th.

**New York Convalescent Hospitals.** The New York State Legislature has passed a bill permitting the City of New York to purchase a beach either within the city limits or in a county immediately adjacent. It is the intention of the city authorities to construct here, as soon as the finances permit, a convalescent hospital for those patients of the city hospitals needing further care. Another feature of the bill provides that philanthropic societies that maintain fresh-air homes may receive permits to erect such homes upon the city's beach property. The evident intention is to purchase Rockaway Beach. An appropriation of \$2,500,000 is asked for.

**Edinburgh and Tuberculosis.** The Edinburgh (Scotland) authorities have put tuberculosis in the class of infectious diseases, and have inaugurated a campaign of thorough disinfection.

The State Board of Health Bulletin (No. 8) contains an excellent graphic map showing the number of deaths due to tuberculosis in this State in 1900. There were 2175 deaths of which 468 occurred in Milwaukee alone. All the larger towns are well represented with cases to their credit. The Northern counties are almost free from the disease.

A new **American Practice of Surgery** in 8 volumes, edited by Drs. Bryant and Buck, is announced by the publishing house of Wm. Wood and Co. It will be a complete system by representative surgeons of the United States and Canada. The first volume is almost ready, and succeeding ones will be issued at intervals of about three months.

**Hot Stuff.** The public is asked to swallow this well seasoned morsel.

"A whiff of mustard which one of the nurses of the J. Hood Wright hospital, New York, carried through one of the wards, caused Charles J. Smythe, a fireman of hook and ladder company No. 23 to give a loud sneeze which cured him from a supposed broken neck. Smythe, who is 27 years old, fell down a flight of stairs and was picked up unconscious. He was strapped to a board longer than himself and completely wound with bandages through which only an air hole and two peep holes had been left. Dr. Breed and half a dozen nurses had gathered to attend to him when an attendant carrying some mustard crossed the ward. Smythe got a whiff of it, gave a loud sneeze, which broke the bandages about his head and sent the nurses flying in every direction. Freed from the cloths, Smythe slowly raised his head, looked about him and grinned. It was then discovered that he had suffered only from a slight concussion of the brain, and was discharged from the hospital."

**Treatment of Snake Bite.** It is reported that the treatment of snake bite by permanganate of potash is in very successful use in India. A ligature is applied above the wound as soon as possible after the bite is received, the wound incised, and a few grains of permanganate rubbed into it. This method was recently used in twelve cases, and failed to cure in but two who underwent treatment a number of hours after they were bitten. As there are about 20,000 deaths annually in India from snake bite, this method, if found as effectual as reported, ought win immediate favor.

**Costly Alcohol.** It is reported that a Janesville druggist has been fined \$50 and costs (\$77.94) for selling one pint of alcohol to a dentist without prescription.

**An American Hospital in Paris** is now projected. It is said that the large American colony in Paris has discovered a need for such an institution, not only for those of moderate means who do not wish to trust themselves upon French charity, but also for the wealthy foreigners who may prefer an American to a native hospital. It is hoped that \$500,000 will be subscribed for the building. The visiting physicians and entire staff are to be Americans.

**Prof. Robert Koch** has been commissioned by the German Government to make an exhaustive study of the Sleeping Sickness in Africa. From 150,000 to 200,000 natives annually die of this disease.

**Tuberculosis in Canada.** "At the recent annual meeting of the Tuberculosis League in Montreal, it was stated that this disease was the cause of 10 per cent of all the deaths in that city and Province, and the cause of 40 per cent of adult deaths. Senator Dandurand declared that out of 998 schoolhouses in the Province 166 were unsanitary, which placed 44,000 school children more or less disposed to this disease in grave danger. In Montreal \$3,000 has been raised for a tuberculosis sanitorium, and the Canadian idea is to found a tuberculosis hospital in each Province." (*U. S. Consular Reports*).

**The Sunflower a Febrifuge.** It is reported that the sunflower yields a febrifuge that is equal to and can be substituted for quinine. The Russian peasants have long had the habit of having fever patients sleep upon beds

of sunflower leaves. Experiments with various alcoholic extracts are now being made.

**Mortality Among Painters** is not affected by the lead in paints. This conclusion has been arrived at as the result of an investigation made by a committee of scientific men in Paris. The death rate among house painters was found to average but one in every 7000 or 8000 journeymen. It was decided that the mortality among painters in France is excessive only in cases in which there is an excessive use of alcohol.

**Syphilis and General Paralysis.** "After referring to several cases in which syphilitic infection was treated systematically and for several years by mercury, and in which general paralysis subsequently set in and terminated fatally, M. Fournier, at the Paris Academy of Medicine, announced the following as his formal conclusion: 'We can never be certain that, by using mercury and even a great deal of mercury, we can prevent the development of general paralysis.'"

**A Human Granary.** We are informed by the lay press that a Brooklyn surgeon has removed half a stomach from a patient who for ten long years had been suffering from all sorts of diagnosed ills. There was a much constricted outlet, and the stomach was twice its normal size. "Every seed that Mr. Gale had eaten since a boy, was there, and many other things."

Too bad that Mr. Gale's indigestion spoiled a chance of germination of these seeds. What a rare opportunity was here lost to Mr. Burbank of seeing the effect of the crossing of various species.













