

- 1 Text-book of Eye Diseases.
- 2 Text-book of Anatomy, 1893.
- 3 Text-book of Nervous Diseases 2d Ed. 1893.
- 4 Monatschrift f. Ohrenheilkunde, 1886, Nos. 8 and 9.
- 5 Text-book of Ear Diseases, 2d English Ed. 1893, p. 603.
- 6 Annales D'Oculistique, 1876.
- 7 Archiv für Ohrenheilkunde, 1881.
- 8 Archiv f. die Gesamte Physiol., 1881, and Biologische Centralblatt, 1881.
- 9 Archiv. für Anatomie und Physiologie, 1881.
- 10 Jahresbericht für Augenheilkunde, 1888.
- 11 Deutsche Zeitschrift für practische Medicin, 1878.
- 12 Berliner klin. Wochenschrift, 1891.
- 13 Knapp's Archives of Otolary, 1893, No. 4.
- 14 Medical News, January, 1892.
- 15 Die Beziehungen des Sehorgan und seiner Erkrankungen, etc., 1893, p. 76.

CAN TYPHOID FEVER BE ABORTED?

Read before the Mississippi Valley Medical Association, October, 1893

BY J. E. WOODBRIDGE, M.D.

YOUNGSTOWN, OHIO.

The answer echoed and reëchoed from the great thinkers of the profession we all love and practice, from all over the civilized world, is one prolonged and emphatic negative, nowhere more emphatically spoken than in the great representative body of American physicians—the AMERICAN MEDICAL ASSOCIATION. At its last meeting in the city of Milwaukee the original papers, the discussions on them, and the editorial comments in the Society's JOURNAL clearly indicate this, and that the medical profession is not at all agreed on its treatment. The most divergent methods were advised; some condemned what others strongly advocated, these again advising different methods, only to be condemned again, and all were finally disposed of by the editor of the ASSOCIATION JOURNAL, who under the caption, "The Treatment of Typhoid Fever," says: "In the topic which heads this editorial the medical profession is certainly as much interested as it is in the treatment of pulmonary phthisis. The able papers and discussions which we have presented to our readers in the columns of this JOURNAL, during the past few weeks, have been of great value as reflecting the opinions of active practitioners whose practical experience is of inestimable service to less favored colleagues, yet the fundamental rules governing the management of enteric fever are not modified by these expressions of opinions. Differences in belief may exist, as to whether intestinal antisepsis is desirable or obtainable in typhoid fever, and whether this temperature or that, is to be treated as a dangerous symptom; but the important fact, that enteric fever is a disease in which good nursing and watching are the real factors productive in bringing about recovery, is universally recognized. In typhoid fever, above all other diseases, the physician must recognize that a cure is impossible, that he can guide the patient through the storm, but not stop the storm, that the only object he may expect to accomplish is the control of symptoms which directly or indirectly affect the patient unfavorably.

"While he may not be able to remove the cause of the symptoms, the very relief may be advantageous; then a delirium indicative of great physical or mental distress, or the presence of some complication inducing pain, may so exhaust the patient's vitality as to seriously impair his chances of recovery, and measures directed to the relief of these symptoms may save the particles of strength needed to carry the case over some crisis in his attack. There is, therefore, no specific or routine treatment by internal methods which should be resorted to when the diag-

nosis of typhoid fever is established, but there are two external methods aside from feeding which may be applied to so nearly every case as to be called routine, namely: absolute rest in bed, flat on the back, and the use of the bath in a more or less modified form; a simple mixture designed to maintain free action of the kidneys or stomach may be advised in each case, chiefly to comfort the patient and his friends, but beyond this nothing is to be used without a distinct indication by some prominent symptom. The necessity of absolute rest in early stages of enteric fever is known to every one, yet it often requires the most strenuous efforts on the part of the physician, particularly if he is not aided by a trained nurse, to maintain the degree of rest necessary. If there is one factor potent in rendering a prognosis unfavorable in enteric fever, it is the neglect of this precaution in the smallest detail, and every rising to stool may be regarded as a most unfortunate cause of future trouble and danger. The use of the bath, or more correctly water in any form during typhoid fever stands next in importance and next in its approach to routine.

"It is a mistaken idea with many physicians that the water treatment of typhoid fever is solely indicated by high fever; nothing can be more erroneous. While high temperature is without doubt a most important indication for the bath treatment, extreme restlessness is also a positive reason for its employment.

"Farther than this, there can be no doubt that the use of water not only lowers extreme temperature, but prevents its rapid return, and in some way advantageously modifies nutritional changes.

"Restlessness and insomnia accompanying fever too slight to require the full bath, are often entirely relieved by a tepid sponging, which soothes the irritated skin, and equalizes the circulation, refreshing and invigorating the patient.

"Each part sponged should be immediately rubbed dry, so that the patient may not be relaxed by soaking. We presume this does not apply to the cases of high fever, in which friction with the hand must be used to bring the blood to the surface where it may be cooled. We have not tried to indicate in this article the medicinal treatment required by various complications, as space forbids, but we are sure that if these views are followed, complications will be less frequent and a firm basis maintained for rational measures sometimes necessary for the relief of accidents."

These are the expressions of the matured thoughts of the members and of the editor of the JOURNAL of that ASSOCIATION, of which one of the leading medical periodicals of Great Britain, a not too partial critic, said nearly a quarter of a century ago: "That it is probably the most learned medical body in the world." I do not believe the great AMERICAN MEDICAL ASSOCIATION has taken any retrograde steps, and I do believe that we may accept these opinions, emanating from its members and from the trusted editor of its JOURNAL as coming, not only from the most learned medical body, but as the expression of the most advanced opinions of the highest medical authority in the world. And yet these are not extreme views. Everywhere you turn in medical literature, you see the same dark and gloomy picture of typhoid fever.

Now and then a new remedy is proposed, or some

one advances slightly more hopeful views, but he and his futile hopes are soon buried in oblivion, and his hapless patient in the ground, and no one dares to say that the physician ought to or can, cure the disease.

I fully realize the responsibility he assumes who would undertake to criticise adversely the teachings of a hundred generations of thinkers. It is said that "old beliefs die hard," and the one I propose to endeavor to destroy has all the charm of extreme antiquity. Long before typhoid fever was isolated from typhus it was taught, as the great teachers now teach, that it could not be cured, but must run its course. Then a new era dawned—typhoid fever was recognized as a distinct disease, and yet the same theory was promulgated, and in almost the same language, used in the teachings of 1893. Time passed; the profession made most wonderful strides in the pursuit of knowledge. It was learned that many diseases, and among them typhoid fever, were due to, or at least accompanied, by a germ in some sense peculiar to themselves, and yet the same teachings were again handed down. Let us take them up with iconoclastic hands, and see if the pitiful story that typhoid fever can not be cured, may not be retold in a more cheerful vein.

On the seventeenth of July, last, I read a paper in my local society in which I said: "Those of you who were present at the meeting of this Society, held in my office twelve or fifteen years since, when this disease was under discussion, will remember that in criticising a paper on typhoid fever I said, that while the paper was in strict accordance with the teachings of the best authorities on the subject, that I thought it was so radically wrong that if you would leave undone everything the author said to do, and do everything he said not to do, you would be nearer my idea of the correct treatment of the disease; which I proceeded to give in detail. It was not, however, well received. The author of the paper condemned it most severely, but afterwards said in the Society that, although he had condemned the treatment in the very strongest language at his command, that I had set him to thinking, and he had searched his library for my authority without finding any; that there was nothing in the books bearing on my theory, but nevertheless I was right, and he would not now dare to treat a case of typhoid fever in any other way. I wish now to call your attention to a few cases, illustrating the most marked results of my work during the intervening years, selecting only such cases as were diagnosed by able physicians; bore such well-marked symptoms characteristic of, or were surrounded by such circumstances, as would indicate beyond the possibility of a doubt, that they were true typhoid fever.

At this point I wish to express my regret that of my earlier cases no bedside charts were kept. No idea had entered my mind of inflicting my theories upon an already over-worked profession.

The bedside charts of the later cases are in my possession and open to the inspection of any member. The limits of this paper will, however, only admit of the presentation of the most salient features of those cases which best illustrate a point. And in estimating the value of the cases, you will please bear in mind that none of the teachings of the editorial were followed in my practice. Patients were allowed to get up, or move about, or go out of doors at pleasure.

Nurses, trained or untrained, were allowed to sponge them or not sponge them. No other baths were given, except to meet the ordinary demands of cleanliness.

Very little effort was made to "control symptoms." No "simple mixtures designed to maintain free action of the kidneys or stomach chiefly to comfort the patient and his friends" were ordered. No medicine was ever exhibited for the purpose of directly reducing temperature, and while the patient and his attendants were generally cautioned against the danger, real or supposed, of eating solid food, the warning was not always heeded, some eating on the seventh to twelfth day; others all of the time.

On July 17, 1882, I was called to see Dr. Ferran's son after the attending physician had made a diagnosis of typhoid fever. He made a complete recovery in twenty days. His temperature having been nearly normal for several preceding days.

A young gentleman died of typhoid fever on Rayen Avenue. Clara Potts lived in the same house and assisted in taking care of him. Three or four days later I was called and made a diagnosis of typhoid fever, and answering direct questions, I said she would probably be well in ten or twelve days. Later I was told that another physician had made a previous statement, that the girl had typhoid fever and would be ill four or five weeks at the least. Her temperature went up to 104 $\frac{1}{4}$. Tympanitis and rose-spots were well marked. She made a good recovery and drove out on the twelfth day.

The wife of one of our leading druggists, W. W. McKeown, had typhoid fever. She made a good though not very rapid recovery. Mrs. Johnson Wick and her son both had typhoid fever; recovery in eleven and fifteen days respectively.

Last winter when typhoid fever was so fatal at Beaver Falls, Mr. Louer, Jr., was brought home with the disease from which he recovered in twelve days.

Ulysses Speer was brought home from a boarding house in Wampum, where at least one death had resulted from typhoid fever. Dr. Wickham made a diagnosis of the disease and treated him three days, when I was called. I found a well-marked and typical case of typhoid fever with a history of ten days' sickness. Temperature 105.4-5; pulse 124; bowels very tympanitic, petechia abundant, tongue brown, hard and dry, stupor so profound that he could with difficulty be sufficiently aroused to show it. My first visit was made on October 25. The last on November 3, when he was sitting up. On November 10 he called at my office and settled with me.

When typhoid was so prevalent and fatal near the corner of Bryson and Spring Streets, I was called to see the two daughters of Jos. Dore, diagnosed as typhoid fever by a nurse of long experience in the disease; found both cases well marked. Both recovered in less than ten days. John H. Walker, who lived in the same locality made a good recovery in ten days. His symptoms were well marked.

Thomas Evans of Girard, came to my office. After examining him two or three times I told him he had typhoid fever. When he told me that his wife was very sick, I gave him medicine for her and himself and told him to send her to me as soon as possible. The next day I found her lying on the sofa in my office, having come by train five miles. Her temperature was 104 $\frac{1}{4}$; bowels very tympanitic and tender, and all symptoms pointed to a very severe attack of typhoid fever. She was told to come each alter-

nate day to my office, as was also her husband. The latter was permitted to work at his usual occupation, that of a stationary engineer, throughout his illness. After a few days, Mr. Evans told me that the doctors in Girard were laughing at him for going away from home to a — fool of a doctor who would tell him that he had typhoid fever and could work. I asked him if they doubted his ability to work. He said: "No, they know I can work; they say I have not had typhoid fever." I told him that if that were true, when he and his wife recovered, that would be the end, while if they had typhoid fever there would be more cases around them. Within a few weeks thereafter, I was called in consultation to nine or ten well-marked cases along the Little Valley in which they lived, and all within a stone's throw of their home. After several had had hemorrhage of the bowels, and four or five had died, there was no further question as to the character of the disease.

The President of this Society can tell whether some of these cases were typhoid fever or not. So, also, can the distinguished ex-President of the Ohio State Medical Society now present. Mrs. Evans was not able to come regularly, but had occasionally to miss two days at a time. She was refused passage by one of the railroad companies, and had to travel by the less convenient route.

On May 8, 1893, I was called to see G. W. Powers near North Jackson (whose son had just died of typhoid fever after repeated hemorrhages of the bowels) and found that Mr. Powers (who had nursed his son thirty-five days) had himself been ill with typhoid fever seven days. I assured him that he was in no danger of dying and that he would probably be well in ten or twelve days. He had a normal temperature on the tenth day.

On May 27, I was called again to North Jackson to see Wallace Eckenrode (the son-in-law of the last case) who I believed had typhoid fever, a belief which was not shared by his family physician who promised if I would leave the case in his hands, to telephone me within two days. I heard nothing more of him until I saw the notice of his death, from typhoid fever, in the local paper.

Prior to the date at which this series of observations begins, I had had large experience in the treatment of typhoid fever with unsatisfactory results, and when I listened to the papers read in the Section of Practical Medicine, at the AMERICAN MEDICAL ASSOCIATION in Washington, I was reminded most forcibly of these earlier experiences, and my imagination pictured them in sharp contrast with the happier results of later years; and wishing that others might share with me the pleasure of curing so dread a disease, and that humanity might benefit by any knowledge I might possess, I told the Chairman of the Section, Dr. Victor C. Vaughan, that if possible I would prepare a paper and read it in the Section before adjournment, advising a more hopeful method of treatment. My work on the committee for reorganization of the Section, however, took so much time that the preparation of a paper was an impossibility. On the last day of the meeting Dr. Vaughan reminded the Section of my unfulfilled promise. I then said I hoped to be able to present the paper on the treatment of typhoid fever at the next meeting. Anxious to present a good array of aborted cases with their treatment, I availed myself of the opportunity of criticizing a paper on the treatment of typhoid fever, read in my local Society,

and, after condemning some of the remedies advised as worse than useless, since they tended to aid the disease to destroy the patient, (a criticism justly applicable to many of the methods of treatment advised by some very learned professors) said, that having long believed the disease to be due to a germ whose earliest habitat in man was the alimentary canal, that the logical conclusion was that gastro-intestinal asepsis should be the prime object of treatment, and when it could be obtained the problem of the abortive treatment of typhoid fever would be solved; that I believed I had already attained it, and that if any member of the Mahoning County Medical Society would aid me in making a demonstration, I would not only provide medicine and treatment free of charge, allowing all fees to go to the said members, *but that I would pay him a dollar and a half for each day of treatment after the tenth.* I then consulted the President of the Ohio State Medical Society, as to the advisability of publishing a paper on the treatment of the disease, and was advised not to do so until I had demonstrated to the profession that the methods in vogue could be improved upon.

On receipt of a letter from the Mayor of the City of New York, I went there and spent a week seeking an opportunity to demonstrate the curability of typhoid fever, under the observation of some of the learned professors of the metropolis. Failing, I returned home discouraged. I tried Philadelphia next, and for ten days devoted myself to a fruitless effort to have some one give my method a trial without publishing a treatment that might prove valueless or misleading. Again I returned to my home, this time most heartily discouraged. Believing myself to be able to cure the most fatal disease of the Mississippi Valley, I did not dare to give to the world a treatment that on more thorough trial might prove to be a failure in the hands of more able but less enthusiastic practitioners, and the action of which I could not then and can not now explain. After this I corresponded with the health departments of all the principal cities in the United States and Canada, and to the honor of these gentlemen be it said, not one failed to give me all the information in their power; often at an outlay of great labor and no doubt considerable expense. I give them, one and all, most hearty thanks. During the intervening years, I visited the most important cities from Potomac to the Pacific coast. In Pittsburg, in St. Louis, in Washington, I gave the principals of the largest hospitals, where typhoid fever was treated, the best knowledge I possessed at the time. They politely promised to try it and probably forgot all I had said before dinner. In Chicago, I succeeded in interesting the Commissioner of Health, Dr. John D. Ware, who asked me to give him a letter that he could show to the superintendents of the hospitals, and as this letter and the answer may become, in the future, interesting reading I present them here:

YOUNGSTOWN, OHIO, May 5, 1892.

JOHN D. WARE, M.D., Commissioner of Health, City of Chicago.

My Dear Doctor:—You are well aware that in writing in fulfillment of my promise to you, and giving expression to my peculiar views of typhoid fever, I am winning for myself the uncoveted cognomen of "crank."

You will remember I told you that I believed the life of every uncomplicated case of this dread disease could be saved; that I believed the disease could be aborted, and that I believed the excreta from properly treated cases of typhoid fever would prove to be innocuous. Long before I

even hoped for such results I believed that the disease was due to a germ; that the germ was, in the earlier stages of the disease, confined to the alimentary tract; and that if the entire tract could be saturated with a germicide at once fatal to the germ, and harmless, or better still, beneficial to the patient, the happiest results would follow.

That I have for fifteen years been doing all this without having published a word about it, should not be a discredit to me since it has taken years of testing to satisfy even myself, and no one likes to have to eat his own words, especially after they have gone into cold type.

Now, Doctor, if you can, as soon as possible, secure a ward for male and one for female patients, with a day and night nurse for each ward, and give me as many cases as possible, none of which have had the disease more than eight days, I will go to Chicago and appear before a committee of your selection, consisting, of course, of members of the regular profession upon whose judgment and integrity you could rely; explain to them fully my plan of treatment, and if they find any medicine that I wish to administer is in the proper dose dangerous, they shall refuse permission to make the test, but for no other reason; you to invite any members of the regular profession, as many as you wish, to watch the patients from day to day, and if my test is entirely satisfactory I am to have the privilege of giving the treatment and the results of the test to the profession through the AMERICAN MEDICAL ASSOCIATION.

Very respectfully, JOHN E. WOODBRIDGE.

CHICAGO, May 27, 1892.

JOHN E. WOODBRIDGE, Esq., 29 W. Federal St., Youngstown, Ohio.

My Dear Doctor:—Your letter of May 5 arrived while I was away from the Department sick. I did not return until the 20th, and have endeavored from that day to this to interview the physicians at different hospitals relative to the subject matter of your letter.

Replying I will say, I have visited the superintendents with whom I thought possibly I might prevail upon to coincide with our views relative to treatment of typhoid fever. I have also talked with some of the prominent men in the profession, and I believe without a single exception each and every one of them have said this: "Why does not Dr. Woodbridge read his paper before the NATIONAL ASSOCIATION next June?"

I have said all that I could say relative to the subject, which is one that I have become deeply interested in, but being only one man it has been impossible apparently to make any impression upon the members of the profession.

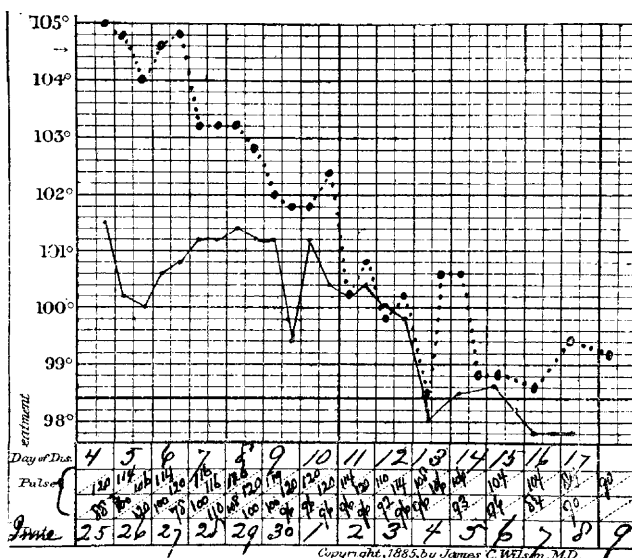
By reading between the lines you will probably understand more than is written. I do sincerely hope that you will read this paper before the NATIONAL ASSOCIATION as I believe that it would result in a revolution in the treatment of this disease. No one would dare question your paper so far as your results in the past have been concerned, no matter how skeptical they might be in some other matters.

Trusting that you will pardon the delay in replying, I am, sincerely yours,

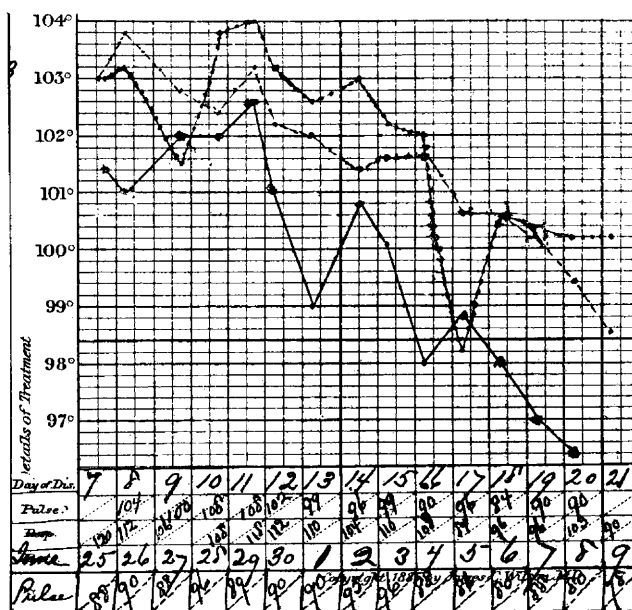
JOHN D. WARE,
Commissioner of Health.

Finally, after having spent years of valuable time, much money, and traveled many thousands of miles, I heard of the epidemic of typhoid fever at Ironwood, Mich., and although I had been too busy to go to the Milwaukee meeting of the AMERICAN MEDICAL ASSOCIATION a few days before, I again sacrificed both time and money, and in a day was on my way to the scene of the worst epidemic of which I have any knowledge. It presented largely the characteristics and symptoms so common in our sporadic cases. In some cases, however, the poison seemed to be so virulent as to lead one to despair almost from the very outset. A good representative of this class was Miss T. S., No. 22, whose bedside chart I hand you.

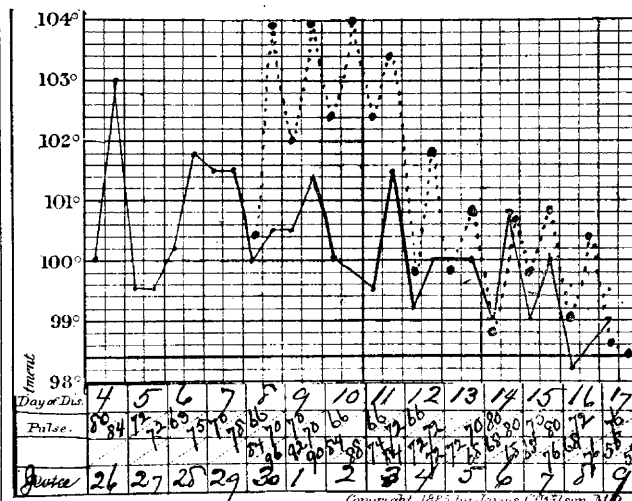
When seen on June 25, 1893, her pulse, as you will see, was 120; her temperature 105; her bowels were intensely tympanitic, marked dullness over the spleen, tongue dry, hard and brown, slight wandering delirium, which soon became so profound that we were unable to take her temperature under the tongue again for several days. Altogether her con-



Case No. 22, Case 23, Diagnosis, typhoid fever. Names T. S. and P. S.



Case No. 25, No. 27, No. 28, Diagnosis, typhoid fever. Names, Mrs. S., Mr. S., Miss S.



Case No. 29, No. 30, Diagnosis, typhoid fever. Names, J. A. and C. E., Cured in thirteen days.

dition was so bad that her attending physician, Dr. McLeod, a physician of marked ability, after the examination was completed turned to me and said: "You don't want that girl; she will die." I answered: "Not if I treat her." After our second or third visit, Dr. McLeod said, as we went away: "If you can cure that girl you are a dandy." Her temperature touched normal on the tenth day, but before she began to improve on the night of the third day, Dr. McLeod came to my hotel to tell me that she was exceedingly delirious, pulse 140, temperature, as well as could be taken in the axilla in her extremely restless condition, was $104\frac{1}{2}$, that her bowels were exceedingly tympanitic, and she was bleeding so profusely that he had to plug both posterior and anterior nares.

In the same room with T. S., No. 22, lay her sister, P. S., No. 23, taken sick at the same time; an equally typical though milder case; her temperature, as you see, was never high and was lower than normal on July 4, the ninth day of treatment.

The chart of Mr. F. S., No. 24, is very interesting as showing the result of treatment against continual reinfection. The case bade fair to be a very severe one, but the temperature of $103\frac{1}{2}$ of June 26, dropped to $99\frac{2}{3}$ on the 30th, and again rose on discontinuing treatment to $104\frac{1}{2}$ on July 2, when investigation showed that he was drinking water from a well from which a dozen very severe cases had originated.

Mrs. M. T., No. 25, temperature in the afternoon of June 25 was 103; the morning of June 26 was $103\frac{1}{2}$; was normal on July 9.

C. O., No. 26, on June 26, temperature 101; July 4, $98\frac{1}{2}$.

M. T., No. 27, on June 25, had a pulse of 120, temperature 103; on July 5 had a pulse of 84 and temperature $98\frac{1}{2}$.

Mrs. T., No. 28, on June 25 had a temperature of $101\frac{5}{10}$, which was reduced on July 4 to 98.

C. E., No. 29, on June 30 at 10:30 in the morning had a temperature of $100\frac{2}{3}$; in the evening the temperature was $102\frac{8}{10}$, and again at 8:15, $103\frac{6}{10}$, and on July 8 was reduced to $98\frac{3}{4}$.

J. A., No. 30, on June 26 at 7:30 P. M., temperature 103; on July 8 at 10 A. M., had a temperature of $98\frac{1}{2}$.

Mrs. L., No. 31, June 25, pulse 96, temperature 102; on July 5, pulse 72, temperature $98\frac{3}{4}$.

E. T., No. 32, June 25, temp. $101\frac{3}{4}$; on July 8, $98\frac{1}{2}$.

Mr. M., No. 33, June 25, in the morning temperature 102 and July 9, $98\frac{1}{2}$.

A. O., No. 34, June 28, pulse 120, temperature $103\frac{1}{2}$; July 8, pulse 72, temperature $98\frac{3}{4}$.

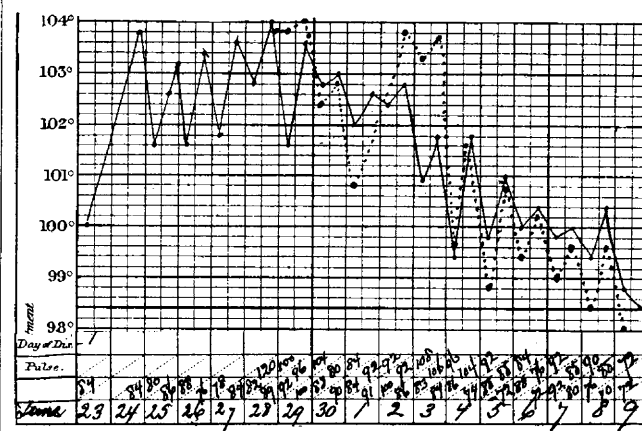
E. O., No. 35, June 28, temperature $103\frac{1}{2}$; July 9, $98\frac{1}{2}$.

G. T. G., No. 36, admitted June 26, highest temperature 104; July 9, temperature 97, pulse 76.

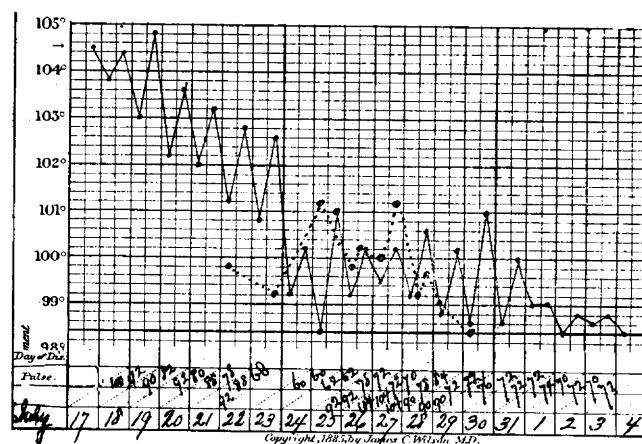
John A., No. 37, chart says that he had been sick three days when admitted on June 24. His treatment may be regarded as a failure. His temperature was $100\frac{6}{10}$ when last seen on July 9. He had probably been ill longer than we had supposed.

We made two or three such mistakes. One of the cases selected on the supposition that he had been ill less than eight days, was found to be dying of perforation of the bowels when we went to him to administer the first dose of medicine. Another case, after having been put under the treatment, showed conclusive evidence of having been well along toward perforation; died a few days later.

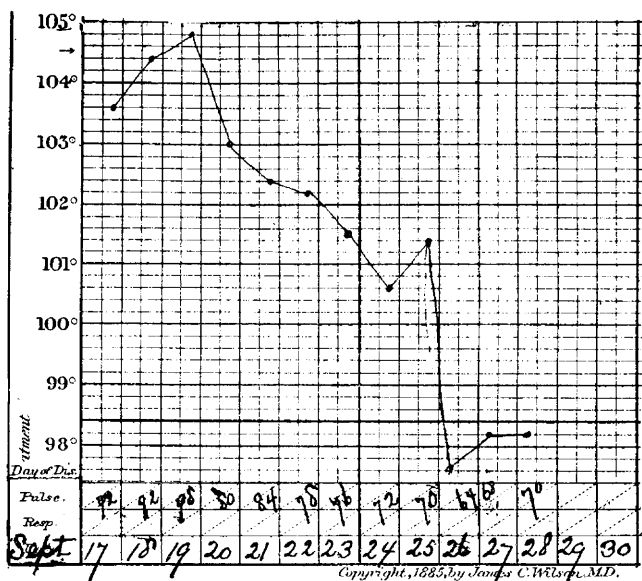
These records were kept by the physicians attending the patients, and by the trained nurses in the Typhoid Fever Hospital. The physicians were all gentlemen of unusual ability, and of very large



Case No. 34, No. 35, Names, A. O. and E. O.



Case No. No. 38, Names, E. M. and Mrs. M



Case No. 41, Diagnosis, typhoid fever. Name, J. H. Diet: Ate beefsteak on the seventh and eighth days of treatment, milk diet on the ninth, and solid food thereafter.

experience in the diagnosis and treatment of typhoid fever. Dr. McLeod, the able Superintendent of the Union Hospital, is a gentleman who would be an

ornament to the profession of the world's most enlightened capitals. Dr. Niven, the Health Officer of the city, is a gentleman whose skill and ability were factors of prime importance in fighting this fearful epidemic. Under his magic touch, the conception of to-day became the finished work of tomorrow, and the Armory, resounding to-day to officers' commands, became a hospital for typhoid fever, perfectly equipped under his able superintendence, and instead of echoing to the soldier's martial tread, the soft footfalls of a corps of trained nurses scarcely broke the silence. It is enough to say of the nurses that they were trained in the city of Chicago, and it was the freely expressed opinion of both physicians and nurses that they had never seen typhoid fever patients do so well or feel so well. I present here a letter voluntarily handed me by Dr. Niven:

IRONWOOD, MICH., July 9, 1893.

This is to certify that all the patients whose bedside histories are in the hands of Dr. Woodbridge, were diagnosed as typhoid fever by Drs. McLeod, Niven, Holmes and Woodbridge, in the city of Ironwood, State of Michigan, and that they were all under Dr. Woodbridge's special treatment, no other medicine being exhibited during their sickness.

I also can state that in no case did any serious condition arise, as did in other cases treated side by side by the same physicians with the older, most approved methods of modern treatment.

J. K. NIVEN, M.D.,

Health Officer of the City.

Physician-in-Charge of Typhoid Fever Hospital.

On the day my paper was read in my local society, I was called to see Ed. M., No. 38, whose chart is offered. I found him with a temperature of 104 $\frac{1}{2}$. The next day it was 104 2-5, and the day following, 104 4-5, from which time it gradually declined to normal the morning of the eighth day, although he had a slight rise of temperature for several days thereafter; he walked out on the eighth day; ate a slice of bread on the tenth day for supper. For breakfast on the eleventh day ate two slices of bread, two eggs and two cakes, and continued eating heartily from that time.

On July 24, his little son was taken sick and on examination gave the following register: temperature 104 which rose to 105, pulse 112 which was at one time 160, his bowels became intensely tympanitic, petechia appeared in profusion, and all symptoms pointed to an exceedingly severe attack of typhoid fever. Turning to Mr. Madden, with the thermometer in my hand indicating a temperature of 105, I said: "Fifteen years ago, had you been lying there with typhoid fever, your wife showing well-marked symptoms of the disease, and these symptoms present in this boy, I should have said sadly: 'he is very ill with typhoid fever; he will probably be sick four or five weeks or longer;' and if asked for a prognosis would have said: 'he is in great danger;' now I cheerfully say: 'He has typhoid fever; will probably be sick ten days or two weeks and may be mildly sick somewhat longer. There is no danger.'"

These cases were examined at various times by Dr. H. H. Hahn, Dr. Thomas, and Dr. Gibson, President of the Mahoning County Medical Society, and positively diagnosed as typhoid fever. You will find their statements on the charts.

On Aug. 11, 1893, I was called to see Lizzie, No. 39, who had been sick a few days prior to August 1 when she first consulted a physician, who reported a tem-

perature of 103 on that day, and treated her four or five days, when another physician was called who had not fully made up his mind whether she had typhoid fever or not. When I was called I found a temperature of 104 $\frac{1}{2}$; I hesitated whether to attempt antiseptic treatment at so late a day; for six days the afternoon temperatures were 104 $\frac{1}{2}$, 103 $\frac{1}{2}$, 103 $\frac{1}{2}$, 102 3-5, 101 $\frac{1}{2}$, 101 1-5, when the evening temperature was 100 1-5. The improvement in the patient's general condition, however, was greater than the fall in temperature would indicate. She became cheerful, complained of hunger, and wanted to get up; the bowels which were tender and very tympanitic lost for a time all tenderness and tympanitis. Both, however, returned in a slight degree after a few days, and the temperature remained above normal for two or three weeks, all antiseptic treatment being abandoned after the twelfth day. This case is interesting as showing the effect of what I believe to be germicide treatment, even when too late to abort the disease. While visiting this patient I was called next door to see the daughter of ex-Marshall Crowley, symptoms of typhoid fever well marked, temperature 103, pulse 112. She recovered in less than a week.

On Sept. 17, 1893, I was called to see J. H., No. 41, positively diagnosed as typhoid fever by three or four physicians. His symptoms were well marked, and petechia very abundant. His pulse and temperature ran a very common course; I give them daily under the dates: September 17, temperature 103 3-5, pulse 92; September 18, temperature 104 3-5, pulse 92; September 19, temperature 104 4-5, pulse 98; September 20, temperature 103, pulse 80; September 21, temperature 102 $\frac{1}{2}$, pulse 84; September 22, temperature 102 1-5, pulse 78; September 23, temperature 101 $\frac{1}{2}$, pulse 76; September 24, 100 3-5, pulse 72; September 25, temperature 100 3-5, pulse 70; September 26, temperature 97 3-5, pulse 64; September 27, temperature 98 $\frac{1}{2}$, pulse 68; September 28, temperature 98 1-5, pulse 64. On September 29, this patient's brother living in the same house was taken ill and is now lying sick with typhoid fever. I will give his chart in a future paper, as also six or eight other cases now under treatment.

On Sept. 23, 1893, I was called to Washingtonville, to see William Walters, sick with typhoid fever, diagnosed by his attending physician, Dr. Powers, confirmed by Dr. Bertelott in consultation. His temperature was normal on the twenty-ninth, and so continued to the last.

These cases comprise all of the worst cases and worst results I have had in my private practice for more than twelve years, during which time I have had no death from typhoid fever, and I have had a large number of cases recover in from three to twelve days without showing pathognomonic symptoms of the disease. I therefore believe thoroughly in asepticizing the alimentary canal at the earliest possible moment in all suspicious cases.

Keenly alive to the ignominy and disgrace that await me, should future observations contradict the results and conclusions of the past; aware too of the danger of the too implicit reliance on a limited number of observations, and with all due respect for the teachings of the great thinkers of the profession, whose wisdom has with strange unanimity taught the contrary, I yet wish to answer my question: "Can typhoid fever be aborted?" in the affirmative.