(Incidentally I will ask you to look at two of the specimens. The first shows one of the disadvantages of penetrating the mucous membrane with the suture, in that stone formation will occur as it has done in this instance, upon that portion of the suture lying within the bladder.

The second is interesting as demonstrating how very smooth and perfect the union of mucous membrane wounds may be, as you see it is very difficult to discover the line of the incision.

6. The needle should be short, as the bladder wound lies deep and in a narrow space, making it difficult to work therein with a long needle.

7. Should silk or catgut be used? If we could count upon primary union, of the wound as a rule, silk would be preferable; but as that is not the case, catgut is the better, for the reason that in case of failure of union, a bit of the silk is likely to be floated upward into the prevesical space (one end perhaps still attached to the edge of the bladder wound), and thus give rise to urinary fistula, or, on the other hand, dropping downward into the bladder, give rise to stone formation, or prevent healing also in that way.

Apart from these technical considerations, the practical results clinically are the more important to know. Should these bladder wounds always be sutured or not? And under what conditions should the suture be applied or not? To answer these questions I will offer a summary of the results of bladder suture in about one hundred cases that I have reviewed for the purpose:—

1. In this series primary union occurred in less than one-half the number (about 35 per cent.)

2. When failure to so unite took place, serious consequences did not result in the majority of instances, and rarely if the outer wound had been left partially or wholly open.

3. The mortality of supra-pubic cystotomies undertaken for similar conditions is somewhat higher in the cases in which suture has been employed than in those in which all the wounds were left open and freely drained. The closure of the outer wound was one of the chief factors in this higher mortality of the former class, owing to consequent urinary infiltration beneath the edges of the outer wound (phlegmon, peritonitis, and septic processes resulting).

4. The less the morbid changes in the bladder in any given case, the greater the chances of successful union with the suture. Thickened bladder walls, irritable bladder, or a foul cystitis making failure probable, and enhancing the danger if it does occur.

5. Silk and catgut record about an equal number of successes and failures.

My personal experience is limited to one case, but it served to make clear to me another indication for not sewing up these wounds, which I emphasized in reporting the case two years ago, and which may be appropriately repeated here, namely: The bladder wound should never be sutured if hæmorrhage of any consequence is liable to occur within the bladder afterward. Such hæmorrhage followed the removal of a papilloma of the bladder in the cases referred to. Shock, which was already marked, was, I think, materially increased by the incessant and violent tenesmus that was brought on by the bladder's efforts to expel its contents of

blood clots unavailingly, until the suture gave way after about eighteen hours, giving free exit to the bladder contents and entire relief to the patient, who made an excellent though tedious recovery.

The great temptation to apply the suture arises of course from the much shorter and safer convalescence attending its success, and success, I think it may safely be affirmed, will take place in larger proportion of instances than fifty per cent. if the procedure is not employed indiscriminately, but selection made according to the following rules, which I will offer by way of conclusion:—

1. Employ the suture when the pathological changes in the bladder are slight (as for example, in a young person with a stone of recent formation), or where chronic cystitis has not induced marked vesical change.

2. Avoid the suture in cases in which hæmorrhage is to take place within the bladder subsequently to operation, in irritable or thickened bladders, or when a foul cystitis is present.

3. Whether the bladder wound be sutured or not, the outer wound should be left open for the greater part of its extent.

4. In applying the suture, use catgut and a short needle, and that form of suture most easy of application, two such being the Dieffenbach or Dr. H. W. Cushing's intestinal suture.

The limited space allotted to each separate communication this evening, I have been obliged to condense the subject of bladder suture into barest outline of only the most practically important points, and of necessity these have had to be stated dogmatically as brief conclusions, omitting any liberal consideration of this very interesting subject.

Clinical Department.

A CASE OF TYPHOID FOLLOWING LABOR.

BY J. D. JONES, M.D., UTICA, N. Y.

Mrs. P., aged twenty-seven. Primipara; was confined October 23rd, 1888. The labor was normal. The placenta and membranes came away entire in fifteen minutes after the completion of the second stage. There was no tear of the vagina or perineum. She remained afebrile during the following ten days, and her recovery was satisfactory in every way. She rose November 3rd and had a slight discharge of blood from the uterus after getting up. She remained apparently well till November 16th, when she had a severe rigor. She had a temperature of $103\frac{1}{2}^{\circ}$; pulse 120, and weak. There was a "lump" in the right breast, attributed by her to the rubbing of the breast by the arm while ironing the day before. The fever was attributed by me to the mastitis, and the breast was bound up, and full doses of quinine and antipyrine administered.

Nov. 17th. No change in the breast. Temperature $105\frac{1}{2}^{\circ}$; pulse 120, very weak. Bowels confined. As there was a slight discharge of blood from the vagina an examination was made. The womb was firmly contracted and freely movable. No tenderness could be detected by the examining finger or on pressure over the abdomen. The os was closed. She had another rigor.

Nov. 18th. The breast was much smaller and quite soft. Temperature $103\frac{1}{2}^{\circ}$; pulse 102. She

had twenty grains of acetanilide in divided doses the previous evening, and she was thoroughly cinchonized.

Nov. 19th. Morning. Temperature $104\frac{1}{2}^{\circ}$; pulse 120, and very weak. The breast gave no further trouble, and as it was evident that the fever was not due to that, the baby was weaned. There was a return of the bloody discharge from the vagina. It stopped during the following night and did not recur again throughout the illness. She was given fifteen grains of phenacetine in divided doses. In the afternoon the temperature was $103\frac{1}{2}^{\circ}$; pulse 120. She vomited once.

Nov. 20th. A.M. Temperature 104° ; pulse 120. P.M. Temperature 104° ; pulse 140. The bowels, which had been confined heretofore, now became loose. Owing to the weakness and rapidity of the heart's action, and as they had had no beneficial effect so far, the antipyretics were discontinued and she was put on a milk diet and eight ounces of whiskey in the twenty-four hours.

Nov. 21st. Bowels quite loose. Abdomen slightly tympanitic.

Nov. 22nd. The temperature at this time and for the week or ten days following ranged from $101\frac{1}{2}^{\circ}$ to $103\frac{1}{4}^{\circ}$ and the pulse from 120 upwards. A few rose spots were seen on the abdomen. P.M. Temperature $103\frac{1}{2}^{\circ}$; pulse 120. Bowels loose.

Nov. 23rd. Eruption abundant.

Nov. 24th. Left cheek flushed. Bronchitis. Pulse very weak. Mind stupid.

Nov. 25th. A.M. Pulse 120 and stronger. She feels much better. P.M. Temperature 103° ; pulse 120.

Nov. 26th. A.M. Delirious in the night. Not so much tympanitis. Bowels not so loose. Nausea. (This was not due to over-feeding, as she was taking less than a quart of milk in the twenty-four hours at this time.) Both cheeks flushed.

Nov. 30th. A.M. Temperature 103° ; pulse 132 and very weak. Bowels moved twice last night. She was very restless. Cough troublesome. P.M. Temperature 103° .

Dec. 1st. A.M. Lips and teeth covered with sordes. Subsultus tendinum. Delirious, talking of going home, and trying to get out of bed.

Dec. 2nd. A.M. Temperature 100.2° ; pulse 120, and stronger. Bowels moved twice — not so loose. Mind stupid. P.M. Coma vigil. Moaning in her sleep.

Dec. 3rd. Delirious all night. Vomited once. Bowels moved twice. She sweat freely.

Dec. 4th. A.M. Sweat profusely in the night. Nervous symptoms much better and she answers rationally. P.M. Temperature 101.8° ; pulse 132 irregular and very weak. Vomited once. Bowels moved a little three times. Subsultus tendinum. Less apathetic.

Dec. 5th. Pulse so rapid and irregular that it could not be counted. Delirious.

Regular pulse but very weak. She is brighter mentally. Considerable tympanitis.

Dec. 6th. Restless and delirious all night. Bowels moved four times. Coughs a great deal, and her respirations are accelerated. No physical signs of pneumonia.

Dec. 7th. Bowels very loose during the night. Large bed sore over the sacrum. Delirious. Sweat profusely. Cough very annoying.

Dec. 8th. A.M. Temperature 101° ; pulse 132, irregular and very weak. Delirious. Bowels moved twice. P.M. Pulse 120 and very weak. Respirations rapid. Coarse, mucous râles heard over the front of the chest, and subcrepitant over the posterior aspect. (These were attributed to œdema from heart weakness.)

Dec. 9th. A.M. Temperature $97\frac{1}{2}^{\circ}$; pulse 120, irregular and very weak. She sweat profusely during the night. Bowels moved once. Mind clear.

Dec. 10th. Bowels moved three times. Respirations 48. Cough very annoying.

Dec. 12th. She feels very much depressed. Crying and moaning continually. She has delusions and hallucinations of sight.

Dec. 13th. A.M. Temperature 98.8° ; pulse 108, regular and stronger. She slept well last night. Bowels did not move during the night. The bed sore is healing. P.M. Temperature 100° ; pulse so irregular and weak that it could not be counted at the wrist. Delirious. Cough much better, and respirations normal.

Dec. 14th. Cries and moans continually and has delusions.

Dec. 15th. A.M. Temperature 98° ; pulse 120, weak but regular. Respirations 24. Coughs but very little now. Other symptoms unchanged.

Dec. 16th. A.M. Temperature 97° ; pulse 108. Lung symptoms have disappeared. Complaints of pain in her feet and limbs. She is quite rational and bright mentally.

Dec. 20th. She is convalescing satisfactorily thus far, considering the prostrated condition in which the disease left her.

Thinking the case worthy of record as illustrating the wonderful enduring and recuperative powers of nature, in an unusually severe attack of typhoid under very unfavorable circumstances, I have simply transcribed my notes as they were made from day to day, without attempting to sift them to illustrate the point of special interest in the case. The difficulty lay in making the diagnosis between typhoid and puerperal septicæmia during the first week. The presumption was, of course, in favor of the latter. It was, however, excluded here on account of the absence of local symptoms.

"In the septic womb," says Watson of Edinburgh, "the os is always open, often admitting the finger easily." In this case the os was closed, the womb was firmly contracted, and freely movable, there was no offensive discharge or tenderness. The repeated slight uterine hæmorrhages were misleading, but Flint mentions them as of "frequent" occurrence in typhoid. Moreover, it was rather late for the appearance of septicæmia. The diagnosis was urgent at this time, for the expectant treatment of typhoid would be manifestly unsuited to septic fever from a retained piece of membrane or clot undergoing decomposition. The subsequent appearance of the diarrhœa, eruption, and other characteristic typhoid symptoms, confirmed the wisdom of our diagnosis.

A word as to the treatment. The administration of the new antipyretics was disappointing, and they were discontinued on account of the threatening condition of the circulation. Merck's tincture of

strophanthus was faithfully tried for the heart weakness, but it neither strengthened the beat nor diminished its frequency. Eight ounces of whiskey were given in the twenty-four hours throughout the illness, and the mental disturbance at the subsidence of the fever together with the pain in the extremities may have been due to that, although she appeared to consume that quantity thoroughly.

With regard to the source of infection in this case, — the patient had been using well water, in common with the other members of her own and three other families, but there was no other case. The nurse who attended her in her confinement came directly from the care of a case of typhoid fever, and the germs may have been carried in that way.

Reports of Societies.

BOSTON SOCIETY FOR MEDICAL IMPROVEMENT.

F. B. HARRINGTON, M.D., SECRETARY.

FEBRUARY 25, 1889. DR. W. L. RICHARDSON, President, in the chair.

DR. O. F. WADSWORTH, —

A CASE OF EXTRACTION OF A BIT OF STEEL FROM THE VITREOUS BY THE MAGNET.

A man, thirty-one years of age, while striking a chisel with a hammer, felt something hit his left eye. He had no special pain then or afterward. He did, however, occasionally notice something appearing before the eye. I saw him sixteen days after the injury. There was a small scar in the cornea, an open wound in the iris behind the scar, and a broad line of opacity running backward through the lateral part of the lens, showing the track the foreign body had taken. The rest of the lens was clear. Except for a few fine threads, the vitreous was practically clear. On movement of the eye a bit of steel could be seen coming into view for a moment from below in the anterior part of the vitreous.

On the following day an antero-posterior cut was made through the sclera, behind the ciliary body and a little below the external rectus, the point of an electro-magnet passed into the vitreous toward the position where the steel had been located, and on the third attempt the steel withdrawn. Only a small drop of vitreous escaped. The eye was kept under a bandage five or six days. There was no reaction.

It is now four weeks since the operation. Vision in the injured eye is nearly $\frac{1}{2}$. The case is an interesting example of how slight damage the wounding of parts of the eye usually especially susceptible to injury may occasionally produce. The steel which I here pass round, is some 3 mm. in its longest direction, and has much the shape of a flint arrow-head.

DR. J. C. WARREN showed a specimen of

FIBROID OF THE UTERUS,

for which hysterectomy was performed. It was a multilobulated affair. The patient was about forty-one years of age. Her general health was very good, but she suffered a great deal from this growth and particularly in the way of neuralgic pains in

the leg. She considered herself an invalid, and as she could not afford to be such she was willing to take considerable risk of operation that would give a cure. The operation was performed four days ago and the patient is now doing well, having had no bad symptoms.

The operation consisted in pulling the tumor through the longitudinal incision about four inches long in the median line and clamping it by the clamp devised by Dr. Mixter, and then cutting off the tumor. There were no adhesions. The operation was done with great ease and considerable rapidity. It was the first operation in the new abdominal ward. [One month later the patient was doing well, the wound having nearly healed.]

VESICAL CALCULUS.

Another specimen is that of a calculus formed about the fragment of a catheter which had been four years in a man's bladder. A man nearly seventy years old appeared at the hospital on a Friday in a state of great excitement and desired to have an operation performed immediately. It was done on Saturday. I intended to remove the stone by litholapaxy, but on passing instruments I found he had a very small urethra and the lithotrite entered with great difficulty into the bladder. He had almost the urethra of a child. As he was extremely emaciated and the bladder was quite prominent, and I had to select some other operation, I decided upon suprapubic lithotomy instead of the ordinary operation for lithotomy. It was carried out in a short time. Unfortunately, I discovered I had a crank to deal with who tore off all the dressings and behaved in a very obstreperous way. All the tubes were pulled out indiscriminately, and, notwithstanding that, he lived six days. Under these circumstances, a recovery was hardly to be expected. The specimen shows the catheter imbedded in the calculus.

ABDOMINAL TUMOR.

DR. C. B. PORTER showed a tumor removed by hysterectomy. It was in a woman past middle life although still regular with regard to her periods. The tumor as it now is weighs twenty pounds. About ten pounds of fluid were lost at the time of the operation from the various cysts which were opened. The uterus was dragged so far up to the front that the os could not be felt by the vagina at all. The large mass of the tumor filled the posterior cul-de-sac and pressed it well forward so that there was very little room in the vagina. There was a very considerable amount of ascites and that obscured to a certain extent the positive diagnosis of the character of the tumor before operation, although my opinion was that it was fibrous. The tumor was very adherent to the intestines and to various parts of the wall of the abdomen. The tumor had dragged the uterus so high that I was obliged to dissect the bladder from it and the upper part of the vagina. One ovary is cystic in character; the other is comparatively healthy. The specimen shows the probable presence of a corpus luteum filled with simply blood and clot. The clamp was put on to the upper part of the vagina. In removing the tumor in order to be able to get at the bleeding vessels behind and also to get rid afterwards of the smaller parts, from the clamp this