that this day he noticed that the stream of urine was becoming a trifle smaller. Again the filiform passed easily and the sound No. 12 was passed easily in and all went well until I started to depress the handle in order to engage the tip in the membranous urethra, it seemed to catch and then immediately broke away and simultaneously the patient experienced severe pain in the penis. At that time I attributed this to the passage of the instrument over the sensitive prostatic urethra or traumatism to the verumontanum, but in reality it was due to the sharp edge of the metal fitting scraping the urethra. The apparatus was allowed to remain in place for 10 minutes and when withdrawn the filiform was missing, although its metallic fitting was still firmly screwed to the sound.

The patient arose and was told to urinate but no filiform appeared. He was then placed on the table and with a slender urethral alligator forceps, which just passed the stricture, the urethra was explored but nothing was obtained.

Operation (assisted by Dr. Alfred Fowler).—Cocain anesthesia of urethra and meatus was induced. The meatus was cut to 30 F. with scissors. Urethroscope tube 28 F. was introduced to stricture. With a Kollman knife the band was divided to 28 F. in three places, one ventral incision and one on each lateral wall. The tube was slipped past the stricture and digital compression made on it to check hemorrhage. Next the tube was removed and the bladder distended with water. The cystoscope (Fig. 1) was introduced armed with small vesical forceps (Cabot's), and after a moment or two of manipulation the filiform was located, grasped and removed.

For the relief of such conditions we have two general methods: 1. Cutting operations, suprapubic and perineal. 2. Intravesical manipulation. Cutting operations are simpler, requiring only general instruments and general skill, but they entail a convalescence of at least a week, and in conditions of this sort any opening made in the bladder tends to stay open as long as there is obstruction in the natural passages. Hence, after recovery from the operation, the patient is in the same or even worse condition than before.

Intravesical manipulations require special instruments and special skill, especially the ability to introduce the instruments through the urethra.

In this particular case the latter seemed the best plan of procedure as opening the urethral lumen to a sufficient size to introduce the cystoscope would also be a step

Fig. 1.—The vesical end of the Tilden Brown operating cystoscope (A), with the filiform (C), in the grasp of the intra-vesical forceps (B).

in the direction of giving the patient permanent relief from his troubles. The period of convalescence after this procedure is practically *nil*, and so, considering everything, I decided to do meatotomy, internal urethrotomy and cystoscopic removal of the filiform.

The Le Fort instrument (Fig. 2) employed was one of several purchased one year ago. Several of its fellows had cracked, as they usually do, and been discarded. This was the second time this particular filiform was used, and, on examination before using, it seemed to be perfect. The instruments are made with a single stout thread through the center and frequently crack, but this thread usually holds. In this instance, the entire filiform came away from its metal fitting.

The strain on the instrument during use is lateral

and depends on the weight of the sound and the force used by the operator. In actual practice this occurs at the entrance to the stricture, or in the normal urethra at the bulbo-membranous junction. The filiform is already in a fixed portion of the urethral canal and it must lift the following sound up to the opening. Just here the operator should be very careful to have the sound in the axis of the urethra and with gentle manipulations relieve the strain and guide the sound into the fixed portion of the canal.

Fig. 2.—The LeFort instrument separated into its component parts: (A), the sound; (B), metal fitting; (C), the filiform.

SUMMARY.

Conditions in This Case.—Man: Filiform in bladder; stricture hard, admitting No. 12 F. 2 cm. from meatus; meatus admitting No. 22 F.

Measures Employed.—Urination, failure; urethral forceps, failure; meatotomy to 30 F., internal urethrotomy through urethroscope tube with Kollman's knife to 28 F., hemostasis by digital pressure; cystoscopy, filiform grasped and removed by intravesical forceps, prescription given for urotropin (hexamethylenamin) and patient sent home.

Things to Be Learned.—1. To examine carefully all instruments before using them. 2. To remember that in using instruments or technic one should be prepared in armamentarium and in mechanical skill to meet any possible complication.

Result in This Particular Case.—The result was most happy. The man came into the office with a hard stricture of No. 12 F. and not nerve enough to have it operated on. When he left he had an urethral canal that was 28 F. in size and which with proper care will remain so.

RECOVERY FROM PIERCING OF BODY WITH HAY HARPOON.

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While recoveries are recorded in cases of bullet wounds of the lungs, it is more rare to have recovery take place after a wound by as large an instrument as a large prong of a harpoon hay fork.

On July 18, 1906, W. Z., 23 years of age, in robust health, was injured by the fall of a double-harpoon hay fork, weighing 20 pounds, from its attachment in the barn, 25 feet above him. One prong of the fork, having a diameter of 2 inches one way by $\frac{7}{8}$ of an inch the other, perforated the chest, entering in the first intercostal space half an inch to the left of the sternum and emerging in the seventh intercostal space about five inches to the left of the spinal column. The distance between the two wounds was about 12 inches. The man fell on his knees, but did not lose consciousness and, seeing the crossbar of the fork just in front of his eyes, pushed it upward until he removed

the long piece of steel from his body. He was able to get off the wagon unaided and with a little assistance walked about ten rods to the house.

The patient was found in a condition bordering on collapse from shock and loss of blood. Penetration of the lung was indicated by the air mixed with the blood that was flowing from the wounds. Fortunately neither clavicle nor ribs were broken, but the clavicle was grazed. Assisted by my son, Dr. J. J. Heaton, I proceeded at once to dress the wounds, using every care to have them as aseptic as possible. The wound of entrance, which was about two and one-half inches long, was closed with several stitches and an antiseptic dressing applied, but the wound of exit was left open to provide for drainage. This wound was about one and a half inches in length, slightly smaller than that of entrance on account of the tapering of the prong of the fork toward its end.

The patient was put to bed in a semirecumbent position inclining to the left. He received during the night three hypodermic injections of morphin sulphate, grain $\frac{1}{4}$, and a little brandy in hot water. The wounds were dressed twice daily for two weeks. His improvement was continuous and without incident except a chill which occurred one night a week later. This, although exciting apprehension of septicemia, was followed by no serious result.

ACUTE ATROPHY OF THE LIVER FROM CHLOROFORM POISONING.

H. E. CUSHING, M.D.

CHAMPAIGN, ILL.

History.—On Aug. 23, 1906, I operated on Mrs. C., aged 27, for appendicitis. She had had two previous attacks and refused operation for three days before I operated. Her history, except the previous attacks, has no bearing on the case. She had taken nothing into the stomach but water for 48 hours, and only one-half cup of chocolate for 64 hours. The bowels had been loose before the attack and were in the best of condition at the time of the operation. The administration of chloroform was begun at 9:45 a. m., and lasted one and one-half hours. It was given with great care and was well taken, but required a large quantity, four ounces being used. The operation was what we call clean. The patient rallied well from the anesthetic, vomited only three times, the last time at 5 p. m., and was only slightly nauseated.

Postoperative History.—On being put to bed the pulse was 96 and of good quality. Nitrate of strychnin, gr. 1/40, administered hypodermically every three hours. The pulse continued rapid all day, being 94 at 5 p. m., with respiration 24.

August 24: The patient slept brokenly during the night. At 6 a. m. temperature was 98, pulse 96, respiration 20. At 3 a. m. she began taking tablets of mild chlorid of mercury, gr. 1, soda bicarbonate, gr. 4, every hour until she had taken eight. She took water freely. At 11:30 a. m. she took 2 drams of a saturated solution of magnesium sulphate, and this dose was repeated once an hour for three doses. At 2:30 p. m., at her request, an enema of soapsuds was given by the nurse. This she retained for an hour, when it passed with a slight bowel movement and some flatus. The bowels moved freely at 5 p. m. and at 7 p. m., there was a slight involuntary movement. The kidneys had acted freely, once by catheter, at other times involuntarily. At 8 p. m. the temperature was 99, pulse 100, and of good quality, respiration 24. The patient had been very nervous and restless all day; there was no pain, but she was continually calling for something, and complained of being hungry. There was a peculiar look about the face which I did not like. It had a waxy appearance as seen after death.

August 25: At 5 a. m. the temperature was 98, pulse 98, respiration 24. She had not slept much and was restless all night. The patient complained of rheumatic pain in the shoulder and chest. She had taken one-half cup of chicken broth. She complained so much of pain that I directed that she be given codein, gr. $\frac{1}{4}$, every half-hour until relieved; she took five of these tablets. At 12 o'clock, noon, temperature was 98, pulse 96. At 5 p. m., temperature was 98.3, pulse 102, respiration 26. She had taken one-half glass of egg-nogg at 10:30

a. m., a cup of broth at 1 p. m., and an egg-nogg at 4 p. m., but she vomited immediately after the last. She slept nearly all the afternoon. At 7:30 p. m., she took a cup of broth, and at 10 p. m. vomited. At this hour temperature was 98 and pulse was 102.

August 26: At 5 a. m. temperature was 97.4, pulse 102, respiration 26. The patient had been very restless and irritable all night. She vomited at 2 a. m. and 5 a. m., and called for water continually, but was given only a small quantity at a time after 5 a. m. The abdomen was flat and flatus was passed freely. The pupils were dilated, but both the same. A marked icteric hue was noticeable on the legs and body. The kidneys were acting well, but the urine was dark. The patient slept one hour during the morning, but was restless when awake. At 11 a. m. temperature was 98.4, pulse 120. At 2 p. m., temperature was 99.1, by rectum, pulse 130. At 12:30 p. m. the mind seemed to be wandering. At 2 p. m. the face was deeply flushed and the jaundice color was deeper and had spread over the whole body and face. The patient was very restless, throwing her hands to her head, crying out hysterically as if in fear, and pleading piteously. Her breath was very offensive, almost fecal in odor. The tongue was covered with a dirty brown coat. Dr. Gray saw the case in consultation with me at 3 p. m. The abdomen was flat, no tympany. There was no tenderness except over the gall bladder, where pressure caused flinching. The dressings were raised and the wound found in good condition. The patient was so restless and was crying out so much that codein, gr. $\frac{1}{4}$, was administered hypodermically, and digitalin, gr. 1/50, was given in the same way every three hours. At 7 p. m. urine was passed by catheter, at least one pint in quantity. At 9 p. m. the pulse was 120, respiration 26. She was so delirious and restless that codein, gr. $\frac{1}{4}$, was given. The jaundice color was pronounced over the whole body.

August 27: At 3 a. m. the pulse was 140. At 6 a. m. pulse was 130. At 8 a. m. temperature, axillary, was 100.4; the patient was very yellow in color. Every point where the hypodermic needle had been used showed a hemorrhagic spot and hemorrhagic spots appeared on the body. The patient was in a comatose condition all night; the pupils were dilated to the full extent. At 7 a. m. 10 ounces of urine were passed by catheter; this was saved and analyzed. The temperature and pulse rose; at 12:30 p. m. axillary temperature was 104.8; pulse, 148.

The patient died at 1:45 p. m., one hundred hours from the time of beginning the anesthetic. No postmortem examination was allowed.

Examination of Urine.—Dr. Jennie Lyons made a thorough examination of the urine and made the following report:

Urine, catheterized specimen. Chemical examination: Color, greenish-yellowing-brown. Urine not clear, precipitate yellow. Specific gravity, 1.015. Reaction, acid. Albumin, small amount. No sugar. Bile, by nitric acid test, acetone.

Microscopic examination: Granular casts. Leucin. Tyrosin.

TYPHOID FEVER IN A PATIENT AGED SEVENTY YEARS.

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The infrequency of the occurrence of typhoid fever in persons of advanced years has long been a matter of note and makes it seem important to place on record the following case which came under my observation:

Patient.—Mrs. E. P., aged 70, had never had a serious illness. Family history was negative.

Present Illness.—Patient passed most of the winter of 1905-06 in Florida, and noticed no departure from her usual health until late in March, when she found herself very easily fatigued. She left Florida, March 29, for Savannah, Ga., and remained in the latter place until April 12. While in Savannah she had more or less diarrhea and marked lassitude. She arrived in Washington, D. C., April 13. The lassitude per-