above, to which the attachment could be made. After this, the overlying structures and the skin were united.

During the entire time required to do this operation, one and one-half hours, the patient was kept in the stage of analgesia, being easily aroused and talking, but lying perfectly still and feeling no pain. Immediately following the operation and at frequent intervals for several days, the patient was given nourishment through the gastrostomy tube. The element of shock was practically nil, but the subsequent edema almost completely closed the glottis for a period of three days, during which time the patient depended almost entirely on the tracheotomy tube to furnish him air.

After the fourth day he was able to breathe naturally, with only slight attention being paid to the tracheotomy tube. His voice gradually began to return, and sound nearly normal, and his general condition showed improvement. December 19, nineteen days after the repair of the pharynx and trachea, he swallowed food by the natural route for the first time without discomfort, since which time he has taken most of his food in this way. January 1, thirty-one days after his last operation, the feeding tube was removed from his stomach, and he has since taken his food naturally. His voice is about the same as it was before he received the wound. He has gained 10 pounds in weight, his urinary findings have improved, and he is now, two and a half months after his operation, really in a better physical condition than he was before he attempted suicide.

I have reported this case in order (1) to show the many steps which are at times necessary to be taken to conserve life, and (2) to point out the advisability (a) of the preliminary gastrostomy and tracheotomy so that air and food can be introduced into the system at a point below the site of operation, and (b) of the conservation of the already diseased kidneys by using nitrous oxid gas anesthesia instead of ether. The carrying of the patient through such a prolonged period in the analgesic stage is highly desirable for his own protection, should blood enter the trachea or any other respiratory interference occur, and the fact should be emphasized that these wounds close more readily a few days or weeks, if necessary, after the infliction of the injury than they do when immediate repair is attempted. This we were able to prove by experimental work on animals.

The recurrent laryngeal nerve was carefully avoided with knife, scissors and hemostats. In the carrying of this case to a successful termination, I am indebted to Dr. C. W. Marks and Dr. A. D. Pollock for assistance.

Treatment of Pruritus.—Dr. Priestley Lipscomb, Denton, Texas, writes: I have noticed, from time to time, in Current Medical Literature in THE JOURNAL, abstracts on the cause and treatment of itching, or winter pruritus. I have been a sufferer myself for four years, and believe I have finally found a cure that is not only simple but also efficient. Heat, applied in the form of hot water, will give permanent relief. Wrap the legs in a good heavy turkish towel and pour hot water over it as hot as can be borne. Keep them heated for about thirty minutes, then unwrap them and apply a little cold cream to the skin. Repeat this procedure every day for thirty days. The first few treatments will relieve the itching, but the treatment should be continued longer if relief is to be of a permanent nature. I have prescribed this treatment for others and used it on myself, and have never been disappointed in the results obtained.

New Instruments and Suggestions

A SIMPLE METHOD OF GIVING SOLUTIONS BY BOWEL

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After numerous experiences in watching the routine use of the Murphy drip after operations in various hospitals, I have come to the conclusion that half of the distress complained of by patients is due to the retention in the bowel of gas or too much fluid. This is especially so in little children.

For many months I have used a method which consists of the usual container and dripper supplied by all hospitals, with a small glass funnel; a funnel holder, which will fit on the container stand; 5 feet of rubber tubing, with a glass tip, and an ordinary rubber catheter to suit the case. The funnel is to hang on a level with the patient's abdomen. The container is hung so that the dripper will drip into the funnel.

The solution is allowed to drip only as fast as it is absorbed, and it is unnecessary to keep it warm.

The advantages of this outfit are:

1. The catheter can be placed in the rectum after operation, and it will be unnecessary to remove it at any time.
2. The funnel can be taken out of the hanger and hung over the bed in a basin for siphonage whenever needed.
3. It can be used to flush the bowel two or three times a day with tap water, clearing away any gas which may be retained on account of the plugging of the eyelet of the catheter.

This outfit will greatly lessen the work of the nurse and the discomfort of the patient, not only by being handled less, but also by allowing the gas at all times to bubble out of the funnel and by irrigating out the fecal matter as it appears in the rectum. I have found it of the greatest advantage over the ordinary methods in use in the case of operations on children.

If properly used, there will be no complaint of patients from the so-called "gas pains" after laparotomies.

Patients absorb a great deal more of the glucose solution with this outfit,

principally, I believe, because of the lack of irritation to the rectum by too great a quantity of solution.

350 Post Street.

Apparatus for giving solutions by bowel.

THE USE OF THE SAND TUBE IN ISOLATING THE BACILLUS TYPHOSUS

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In July, 1915, Gautier¹ reported thirty cases of typhoid fever which had been diagnosed by the aid of the sand tube method initiated by Carnot and Hallé.

During the past three months, I have been using this method in isolating the typhoid bacilli from duodenal contents, blood, spinal fluid and feces, and because of its satisfactory results and simplicity in technic, feel that it should be called to more general notice.

The technic employed is the same as given by Gautier except that neutral red was not used:

A pipet 33 cm. long and 5 or 6 mm. in diameter is bent in a U shape. One arm is filled to the height of 10 cm. with very

1. Gautier, P.: Rev. méd. de la Suisse romande, July, 1915; abstr., THE JOURNAL A. M. A., Sept. 4, 1915, p. 907.

fine sand (passed through a No. 40 sieve). The other arm is filled with hot bouillon (tinted with neutral red.) This works up to the same level in both arms. The arm without sand is then inoculated with a few drops of the infected solution and the tube incubated for eighteen hours. Only the most motile bacilli pass through the sand and develop in the layer of bouillon above the sand. The typhoid bacillus is usually the only one which penetrates the sand in eighteen hours, though occasionally the *Bacillus coli* also passes through. In all of our cases an agglutination test was done with a known positive serum, dilution 1:40.

In those cultures in which there seemed to be a contamination, subcultures were made on Endo's medium, Russell's medium, in litmus milk, and in dextrose bouillon, and in each case showing a positive agglutination test from our original sand tube culture, the growths were typical of the typhoid bacilli.

By use of this method we have been able to arrive at a fairly definite diagnosis from twenty-four to forty-eight hours earlier than by the other methods used.

A SUGGESTION FOR THE TREATMENT OF FRACTURES OF THE LOWER JAW

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Fellow of the American College of Surgeons; Visiting Surgeon to the Mount Zion Hospital

That fracture of the lower jaw has been a nightmare to the surgeon is shown by the fact that many surgeons, as a matter of routine, refer this type of fracture to the dentist.

Fig. 1.—Plate applied to the chin.

The latter succeeds in obtaining fair results in complicated fractures, but these results can be achieved only after great trouble to the dentist and infinite annoyance to the patient.

Simple fractures of the lower jaw, more particularly in the median line, are comparatively easily treated but oblique fractures in any part of the mandible, especially at the angle, as well as bilateral fractures, are associated with great difficulty in maintaining approximation of the fragments so that the articulation is satisfactorily restored.

As far as my experience goes, pseudo-arthritis of the jaw which has been wired or plated is rare, and it would appear from a review of the literature, as well as personal inquiry, that the inferior maxilla is not so prone to nonunion as a result of the employment of mechanical devices as are some of the other bones, so that the objection that is raised against the employment of plates, etc., would hardly obtain in this type of practice.

The following method for the treatment of fractures of the mandible has been found very satisfactory as far as ease of application and ultimate results are concerned, and the patient is subjected to the minimum of discomfort.

The illustrations are self-explanatory.

The plates used are made of German silver, $\frac{1}{8000}$ inch in thickness, and the metal can easily be cut with metal shears. The shape of the plate assures the maximum of fixation.

If necessary the plate can be strengthened by soldering on its middle a small piece of the same kind of metal.

The drill to be used for making the holes is a No. 48 twist drill, and the screws can be obtained in any supply store.

The ease of application of the plates and the excellent approximation, as compared with the use of wire and other methods, can best be appreciated with their employment. One great advantage of the fixation of the jaw with plates

Fig. 2.—Plate applied to the angle of the jaw.

is that the patient can use his jaw with comparative ease immediately after the operation.

The plates are to be removed at the end of four or five weeks.

516 Sutter Street.

AN EYE-SHADE FOR USE WITH THE MICROSCOPE

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Probably no work on microscopy has ever been written without including several paragraphs, or even an entire chapter, on the care of the eyes. In earlier times when lenses and illumination were less perfect than at present, eye-shades

Fig. 1.—Forms of eye-shade for microscope by various designers.

of varying construction were in common use. These usually were intended to afford a blank surface to shield the unused eye, and consisted of a flat piece of board, fiber, or metal with a perforation at one side to admit the drawtube which supported the shade. Such shades have been designed by Gage, Ward, Pennock, Clark and others. Some of these are illustrated in Figure 1.

Laboratories are now constructed with large windows which permit an abundance of light to flood the microscopic