forearm and arm, owing to stretching of the flexors, which had been so long contracted. This pain had prevented my practising any continuous extension preliminary to operation. Morphine gave but little relief, and insomnia was troublesome. After a week, very gentle passive movement was begun and kept up daily for a minute or two, the thumb being kept over-extended on the splint. On the nineteenth day a new splint was applied, fitting the radial side of the forearm, and fixing the thumb out, while the fingers had freedom, and the patient was able to do her work. In three weeks from the operation she was able to perform feeble extension of the thumb, but flexion took place if it was left off the splint. The constant current was now applied to the muscle for ten minutes daily (15 cells Leclanché).

Three months after operation the thumb became loosened from the splint in the night, and contracted towards the palm, but not to the former extent. It was secured and always kept on the splint except when exercised and galvanised daily.

In June, 1896, improvement continued, but slowly. If the bandage was taken off the thumb became flexed and adducted to beyond the line of the index finger. Movement in the direction of extension was stronger, however. There was still some pain in the forearm.

In October the patient could leave off the splint for fifteen to twenty minutes, and use the thumb a little. She was advised to take the splint off frequently and exercise the muscles. The current from ten cells was used. On October 27th the patient wrote a letter, using the thumb. On November 1st the splint was off for three-quarters of an hour, and she had a light steel spring attached to the thumb, rivetted to a leather wrist strap, which exerted a pull equal to 3 ounces. The tendon could be distinctly felt, with some thickening at the site of union. Since the operation the extensor indicis is much stronger, which I attribute to the disturbance of the adhesions throughout the old scar which then occurred.

At the time of writing—November, 1896—the thumb is practically, except for a little weakness, as good as the other one, and the patient will very soon, I hope, be able to dispense with all artificial support.

REMARKS.

I have thought this case worth recording in view of the long time that had elapsed since the division of the tendon, and the resulting confirmed deformity, which had induced more than one surgeon to advocate amputation. The ultimate good result I attribute to: (1) Early passive movement, very limited in extent, and gentle, not enough to disturb union of the tendon, but sufficient to prevent its adhesion to the scar tissue, there being no tendon sheath present. (2) Perseverance in over-extension of the thumb on splints, to overcome the action of the long-contracted flexor muscles. (3) Daily application of the constant current to the extensors of the thumb, long disused, and persistence in active exercises of the same muscles.

THE BACILLUS OF FRIEDLAENDER IN PHARYNGITIS AND TONSILLITIS.

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MM. NICOLLE and Hébert have published an account¹ of the occurrence of the pneumobacillus of Friedlaender on the throat of patients suffering from tonsillitis, follicular tonsillitis, or membranous pharyngitis. Upwards of 1,600 serum tubes inoculated from the throats of patients were examined by them, and they found the pneumobacillus of Friedlaender eight times, six times alone. Since November, 1894, upwards of 500 serum tubes inoculated from the throats of patients in the wards or out-patients of Guy's Hospital have been examined. In 5 cases I have found the bacillus of Friedlaender; twice it was found on the surface of the serum in pure cultivation, twice in association with the Klebs-Loeffler's bacillus, and once with the staphylococcus aureus.

BACTERIOLOGICAL EXAMINATION.

In each of the 3 cases which were not pure on the serum I

succeeded in obtaining pure cultures on the second subcultivation by inoculating three agar tubes from the once inoculated platinum spatula. The morphological characters which they exhibited were:

1. Non-motility.
2. Polymorphism.
3. Decoloration when stained by Gram's method.
4. The presence of a well-developed capsule, especially when taken from the heart blood of the inoculated mice after death.

The cultural characters were as follows:

1. Whitish, semi-translucent, sticky growth in bouillon.
2. Aerobic and anaerobic growth in gelatine, causing no liquefaction.
3. Whitish, moist, raised growth on slanted gelatine, the growth slipping to the bottom of the tube after four or five days.
4. Abundant gas production in glucose gelatine shake cultivation.
5. Slimy and almost transparent growth on agar and blood serum.
6. Formation of acid in dilute lactose bouillon.
7. Coagulation of milk with an acid reaction (in 4 cases before the ninth day, in 1 case on the eleventh day).
8. Brownish abundant growth on potato.

Pathogenicity.—Mice were inoculated at the root of the tail with a small quantity of a young agar culture from each case. In 2 cases the mice were dead on the second morning; in the other 3 cases they were dead on the third morning. The typical capsulated bacilli were found in the heart blood and spleen of each mouse, and from the heart blood pure cultures were recovered.

My notes of the cases are unfortunately not as full as those of MM. Nicolle and Hébert. The patients were all attending at the out-patient department of Guy's Hospital, and although three of them promised to come again in about a fortnight, not one of them came.

CASES I and II were both children. There were small yellowish plugs on both tonsils, which were spreading towards one another. Klebs-Loeffler bacilli were found in conjunction with the bacillus of Friedlaender. The children were sent to a fever hospital and were lost sight of.

CASE III.—A man, aged 30, complained of a sore throat, which he had noticed for a few days. The fauces were red, and the tonsils red and swollen: there was a slight colourless exudation on both sides of the fauces. There was no constitutional disturbance, and the patient said that he felt perfectly well except for the sore throat. The cultivation on coagulated blood serum was a pure one of Friedlaender's bacillus. On the following day the throat had the same appearance, and the second cultivation again proved to be a pure one of the same bacillus.

CASE IV.—A man, aged 20, complained of a sore throat, which he had noticed for about a week. The fauces were red and injected, and there were two or three whitish plugs over the crypts of the tonsils, but no sign of membrane. The culture on blood serum was found to consist of the bacillus of Friedlaender and staphylococcus aureus. Two days later the throat was still inflamed, but less sore. A second cultivation revealed the presence of the same two organisms.

CASE V.—A girl, aged 6, was brought to the hospital because she had a sore throat. The tonsils were red and swollen, and a few plugs of whitish material were present. The temperature was 100° F. A pure cultivation of Friedlaender's bacillus was found on the blood serum. No further observation was made.

REFERENCE.

- ¹ *Annales de l'Institut Pasteur*, January, 1897.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

CASE IN WHICH ACUTE PAIN IN THE REGION OF THE STOMACH AND PANCREAS WAS APPARENTLY PRODUCED BY THE CONTINUOUS USE OF SACCHARIN.

A., aged 49, first seen 3½ years ago, complained of great pain in the epigastric and right hypochondrial regions. It began in the epigastrium about one hour before rising, and radiated through to the back and across the liver. It disappeared gradually after rising, and never lasted more than an hour. In bad attacks he described the pain as agonising, stabbing in character, coming on in paroxysms which lasted about two minutes, followed by a short period of comparative relief.

I saw him in one or two bad attacks, and they simulated very much biliary or renal colic. There was never any jaundice or change in the urine, nor had he ever passed gall stones. There was distinct tenderness on deep pressure in right hypochondriac region.

In spite of treatment by dietary and medicine for three months, he was no better, and had lost 1 stone in weight. He went to Homburg and took a course of the waters, but returned no better. For nine months scarcely a day passed without pain. He had lost 1 st. 6 lbs., and was very despondent. He never vomited, and took food fairly well. He consulted a physician, and his case was diagnosed as pro-