well, both in emptying the rectum and relieving the pain. By February 8th the child had lost considerably in weight and had become very pale and weak. On the 10th the pain had left him, and by the 3rd of March he appeared quite well. The unusual feature in this case was the persistence of pain after the reduction. This pain, moreover, was situated just at a point where the lump was observed to have disappeared, and was periodic in character, being evidently determined by peristaltic action. It appeared possible that the intussusception had been incompletely reduced, as the caput cæci when congested has a tendency to retain the depression. As opposed to this view was the absence of gurgling or the rising of a coil when the pain occurred. The only other suggestion in explanation of the prolonged symptoms was the injury inflicted by the strangulation. That this injury was severe was proved by the escape of so large a quantity of blood. It is probable, therefore, that the continued pain must, according to Humphreys, be attributed to the remaining swollen condition of the intestine, with its accompanying local enteritis, or rather, colitis.

Case 2. An infant eight and a half months old, was first seen August 9th. It had apparently been in perfect health up to 3 A.M. on the 8th. At this hour it was seized with vomiting and pain, and a few minutes later passed a bloody stool. From that time up to 11 P.M. on the 9th, there was incessant vomiting and constant flow of blood-stained mucus and serum. Once a little solid darkish material passed. When seen, the condition was as follows. The infant was a fine one and breast-fed. It lay on its back with its knees drawn up, but every now and then put itself in the opisthotonos position, or one approaching it. It looked drawn and anxious. The pulse was full, the tongue red. Examination of the abdomen showed no change apparent to the eye; to the touch there was resistance under the right rectus, midway between the umbilicus and pubes, and dullness on percussion. The abdomen was tender everywhere, but especially so over the region of dullness. Under chloroform nothing further was detected. Rectal examination showed the bowel to be empty as far as the sigmoid flexure. Nothing like a tumor was to be found anywhere.

In spite of this, as the symptoms pointed to intussusception, the infant was first allowed to come out of its chloroform, and then a pint of water was injected with a Higginson's syringe, though a No. 8 catheter passed well into the rectum. The water was not retained, but a second attempt was more successful, and after injecting slowly sixteen ounces, the infant suddenly stopped crying and appeared to watch attentively the sensations it was experiencing in its abdomen, and its expression became one of relief. Four more ounces were then injected to make sure of the reduction. The blood ceased to flow at once. The vomiting went on for twenty-four hours longer, the temperature rising to 101.2° F., but most of this disturbance was accounted for by the child being in the act of cutting its teeth, as it made a rapid and perfect recovery.

These cases, provided that the diagnosis of intussusception was correct, illustrate the ease with which certain forms of invagination can be managed

if the treatment is early and prompt. (The case of invagination in an infant six months old, reported March 9th, 1882, by Rotch, presented conditions which, as shown by the post-mortem examination, would not only have received no relief from an injection of water, but from the twisted position of the retained cæcum would have become still more tightly fixed by the water.) Humphreys considers that the mechanical problems involved in the process of reduction of an intussusception seem to show the following results. If we take the invaginated portion of the intestine as wedge-shaped, it is evident that the base of the wedge may be considered as pointing upwards in the direction of the stomach or downwards towards the rectum, according as the invaginated part is swollen sufficiently to dilate the intestine outside it, or as it is smaller than its own neck where the compression takes place. If the wedge's base be directed downwards, then, since the intestine is fully dilated, and since a force applied to a mass of liquid under such circumstances acts equally in all directions, then a considerable part of the forces which act on the sides of the wedge tends to drive it downwards. This resultant will, at any rate, tend to retard, to a considerable degree, the reduction of the bowel. If, on the other hand, we have previously emptied the oedematous parts by pressure, either from within or from without, then we have the wedge's base directed upwards, and all the force applied at the rectal end tends to drive the invaginated bowel in the desired direction. As regards the other forces called into play, we need only consider that one which acts at the neck of the invagination in an upward direction, and half of whose power acting on the outer intestinal wall is at once lost, and that one which dilates the intestine. The former it is unnecessary to consider further; the latter, brought into play, as it is, on the same principle as is employed in a Bramah's press, may be enormous, and quite capable of rupturing the intestine if not kept carefully under proper control.

(To be continued.)

Clinical Memorandum.

SYPHILIS OR TUBERCULOSIS ?¹

BY F. W. STUART, M. D.

A. B., twenty-six years old, born in Germany, came to this country in 1884. His father and his mother, respectively fifty-eight and fifty-three years old, are both living in good health. His paternal grandparents died, the one at eighty-two, the other at seventy-nine, from causes unknown to him, or, as he expresses it, from old age. His maternal grandfather died at sixty from "old age," and his maternal grandmother at forty-five from intestinal obstruction. His uncles and his aunts were all living when he left Germany, and, so far as he knew, were all in good health. His only brother died at twelve from "dropsy," which was attributed to a blow on the chest resulting from a fall. He had no sisters. The patient claims that up to 1886 he always enjoyed good health. He says he never had any form of venereal disease, though he admits occasional

¹ Read before the Section for Clinical Medicine, Pathology, and Hygiene, of the Suffolk District Medical Society, Oct. 10, 1888.

intercourse with prostitutes before marriage. He denies loss of hair, headache, lumps or spots of any kind, sore throat, or any of the usual symptoms of syphilis.

He was married in 1885, and an annual baby has been the result. The one born in 1886 lived to be six weeks, the one in 1887 to be fifteen days old. The mother could nurse neither of these owing to entire absence of milk. I have been unable to ascertain any facts about them that have any special bearing on the father's case. The third child, born in August, is still living, and seems to be in good health. This time the supply of milk was at first ample, but is already scant.

As stated above, until 1886 A. B. enjoyed good health, but then he suffered from attacks of acute pain, which were attributed by the attending physician to a movable kidney.

In June, 1887, he crushed the index finger of his right hand in some machinery, but the injury was so slight that he attached but little importance to it. In about one week he noticed a swelling over the metacarpal bone corresponding to this finger, and later similar swellings on the ulnar side and flexor surface of the wrist. These and other abscesses on his hands, wrists, and head were opened after four to five weeks of painless growth, but all failed to heal promptly. In November the right elbow began to swell, and at the same time he complained of short, shooting pains in his left knee, which were worse in wet weather, and prevented walking.

About the end of November the middle phalanx of the finger was removed, and two openings were made in the swelling on the under and outer side of the elbow and a drainage-tube was put through. The tube was removed at the end of twelve days, but the openings still discharge. In January the index finger was amputated at the first joint. He was now continually confined to the bed, and on March 31st entered one of the charitable institutions of the city. Through the kindness of the resident physician I have been able to consult the hospital records of the case. At the time of entering there were noted several crusts on the wrists and hands, a small fluctuating swelling between the knuckles of the third and fourth fingers of the left hand, cicatrices behind the right ear, on the brow, near the internal canthus of the right eye, and the external canthus of the left. The right elbow was enlarged, and stiff with two openings discharging pus. The left knee was enlarged, with a fluctuating swelling on the inner and the outer side. The knee was bent and could not be extended.

He was given ten grains of iodide of potassium three times daily, and appropriate local treatment was carried out.

On April 28th the knee was aspirated and four ounces of mucopurulent fluid were removed. On May 14th the amount of iodide was increased to fifteen grains three times daily.

On May 18th a free incision into the joint was made and considerable turbid fluid evacuated. The joint was filled with "tubercular" material, and some erosion of the cartilages was noted.

On June 12th the knee was amputated. The stump healed by first intention.

Towards the end of June the patient insisted on leaving the hospital.

He next was cared for by Dr. Thompson, who prescribed the "Mistura L" of the Boston Dispensary formula. This mixture gives about one-third of a grain of the red iodide of mercury and eleven of the iodide of potassium to a teaspoonful.

In August I was asked by some of his German friends to take charge of the patient solely because I could speak German to him. He told me he thought he was improving slightly. I found him emaciated, unable to sit up in bed, and the physical conditions practically the same as when he entered the hospital. In particular I noticed that the right knee was now swollen, and there was also an abscess on the stump of the left knee. There was a very large swelling on the inner side of the right elbow, which was markedly fluctuating.

The heart and the lungs presented nothing abnormal. Though a diagnosis of general tuberculosis had been made, I determined to push antisyphilitic treatment, and ordered twenty grains of the iodide of potassium before meals, in addition to the mixture L after meals.

Improvement was now rapid: the swelling of the right knee disappeared entirely, and that of the elbow was much reduced, the joint becoming freely movable. By the middle of September the patient was able to walk three miles, and complained only of the pain in the shoulders which the crutches caused him.

During the last week in September he failed to retain his medicines, and complained that merely looking at the bottle served to nauseate him. I accordingly told him to omit it for two weeks. The improvement in his general condition was so great that he expected to begin work as a cigar maker October 1st. No position being open, October 3rd he worked for ten hours at fret sawing, which required constant motion of the affected elbow. The next morning he complained of great pain in the joint, and on removing the bandage a considerable quantity of pus was discharged from the openings already spoken of. The joint was swollen considerably, and deep furrows marked the upper and lower edges of the bandage. I now renewed the antisyphilitic treatment, giving the iodide of potassium in tr. gent. co. before meals, and the mercury in pills after meals.

Present condition. Patient has gained greatly in strength and weight, and yesterday walked to the city. All of the ulcers on his hands have healed, and the swelling between the knuckles of the left hand has disappeared. The swelling on the flexor surface of the right wrist has almost disappeared. The elbow joint is greatly reduced in size. The swelling on the inner side is reduced to the size of a walnut, and that on the outer side is not marked, though the openings still discharge pus. The ulcer on the stump has healed, while that on the ulnar side of the wrist is about one half as large as when I first saw him.

In making the diagnosis I think only two diseases need be consulted, namely, tuberculosis and syphilis. It seems to me that the history of the case does not point in either direction. The family history is good and the lungs are healthy. He denies syphilis, but, where it is suspected, I think it unwise to give

any weight to the patient's denials. I do not see how we could differentiate between these two affections, except by noting the results of careful and persistent treatment.

If the lesions be due to syphilis there is moderate hope for complete recovery, whereas if they be of a tubercular nature the prognosis, it seems to me, is bad, even as regards time. Therefore, to facilitate making a diagnosis, and to give the patient his better chance, it seems to me antispecific treatment is indicated.

This was begun at the hospital, but in my opinion not so thoroughly as could be desired. Personally I should hardly be satisfied with the exhibition of fifteen grains of iodide three times daily, and, indeed, would give certainly double that dose.

Moreover, I believe that a mixed treatment is indicated in these cases. I have formed an opinion, based on an insufficient number of cases, it is true, that the treatment of the tertiary lesions of syphilis is to be based on the previous treatment. Where the patient has received at the outset of his syphilis a thorough course of mercurial treatment, I believe that the tertiary lesions yield readily to the exhibition of iodine alone. Where there has been little or no treatment during the early manifestations, I believe the tertiary lesions are more persistent and difficult of treatment, and in my experience only a mixed treatment, that is, the exhibition of both mercury and iodine, gives anything like rapid results. Whether this view be correct or not, I think it wise never to despair of antispecific treatment until these drugs be given together.

Has the improvement in the patient's condition under the treatment indicated been sufficient to warrant a diagnosis of tertiary syphilis? I think it has. Were the lesions of tubercular origin, considering their number and extent, I should not expect so much improvement under any mode of treatment, least of all under that followed. I certainly feel encouraged, and shall continue in the hope that I may soon see my patient again the support of wife and family.

Dec. 8. Patient has continued to improve, and considers himself so well that he neglects to take his medicine regularly. F. W. S.

Reports of Societies.

MASSACHUSETTS MEDICAL SOCIETY. SUFFOLK DISTRICT. SECTION FOR CLINICAL MEDICINE, PATHOLOGY, AND HYGIENE.¹

ALBERT N. BLODGETT, M.D., SECRETARY.

Dr. E. W. CUSHING² said: I desire to call to your attention certain changes in the uterine mucous membrane, with reference to the diagnosis of a class of cases which I have no doubt most of the gentlemen in active practice see repeatedly: An elderly woman, past the menopause, has intractable hæmorrhages, finally requiring curetting. After operation, for a few weeks there is some discharge, and the woman

¹ Concluded from page 287.

² Dr. Cushing's paper was illustrated by some forty photo-micrographs, projected on the screen by the stereopticon. As it is obviously impossible to reproduce these here, much of the paper, explanatory of the pictures, has been omitted. The outline here given is illustrated by the beautiful drawings of C. Ruge and Orthmann, from Martin's "Pathology and Therapeutics of Diseases of Women." These were also exhibited with the stereopticon and contrasted with the photo-micrographs made by Dr. Cushing from his specimens.

gets better. She goes three or four or five months, and the curetting has to be done again, and perhaps, after three or four months, again. Finally, some fine day, you find the uterus fixed immovably, the symptoms of cancer develop, and the woman eventually perishes. These cases can be recognized by microscopic examination of the mucous membrane at an early stage, before there is any infiltration of the broad ligament, and before there is any systemic infection, and while the uterus can yet be removed with a very good chance of recovery. If done in time, before the uterus becomes too much involved, it is not a particularly difficult operation — not as difficult as where there is a cancer of the cervix, which is very apt to involve a part of the vagina or of the floor of the pelvis. In the beginning, this condition is strictly limited to the uterine mucous membrane, does not go through the uterine wall, does not affect the broad ligament, and should be removed.

I may here remind you of the difference in the structure of the mucous membrane of the canal in the cervix and in the vaginal portion. The latter has a layer of flat epithelium, but the cervical canal, as well as the cavity of the corpus uteri, is lined with cylindrical epithelium, and is studded with glands, more or less deeply burrowing into the mucous membrane. Therefore, the epithelial covering of the vaginal portion and that of the cavity of the uterus are to be considered as distinct in their function. Although the glandular formation is much more abundant at the fundus, and the functions of the glands of the cervix and of the fundus are different, yet the whole cavity of the uterus can be compared to one great gland, to which these other little glands are branches. Epithelioma or flat-celled cancer has its home in the portio vaginalis, especially at the margin of a lacerated and everted cervical canal. The cervix itself is more liable to the invasion of a carcino-sarcoma or glandular cancer. The glandular development of the fundus is of a different order and function, and liable to adenoma and cylindrical-celled carcinoma. This is a picture from "Martin's Handbook" (Fig. 1), in which he shows diagrammatically at the top the mucous membrane (m) of

FIG. 1. — Normal mucous membrane of uterus, perpendicular section. m, Mucosa; m¹, muscularis (Orthmann).

the uterine body lined with cylindrical epithelium, and then the glands burrowing in every direction down to the thick muscular layer (m¹) of the uterus