subsided and the pains "all over the body" were somewhat relieved; but there was constipation (for which some simple saline aperient was given), complete loss of appetite, flatulence, and a bad taste in the mouth. On the 26th the temperature was very slightly subnormal and the pulse was 48; the gastric symptoms were as well marked as on the previous day. As the patient was subject to repeated attacks of double otorrhœa and as a severe headache had recurred I thought for the moment that some meningeal mischief might be impending, but the absence of other more pronounced signs and symptoms soon dispelled my apprehension and made me inclined to think that jaundice might develop, the more so since the skin and conjunctivæ showed a slight yellowish tint, but the tests for biliary pigment in the urine gave a negative result. I discontinued the cachets and prescribed small doses of quinine in an acid vehicle. The condition remained much the same for the next two days, but on the 29th the patient felt so well that he got up in opposition to my advice. This was followed by a further decline in the pulse-rate from 45 to 40. I sent him back to bed, but it was not until after the lapse of five days that the pulse rallied though stimulants had been freely given. There was a feeling of profound prostration which did not subside until the pulse was 56 or 58. The patient was kept in bed till Feb. 5th and he has recovered since though there is still some general weakness left.

CASE 2.—The patient was a woman, aged 27 years, who had never been ill before. On Jan. 28th she fell ill with shivering, violent vomiting, headache, pains in the back and limbs, and pains in the stomach, soon followed by severe diarrhœa. The temperature was 97.4° F. and the pulse was 56. On the 29th the prostration was so well marked that she fainted when sitting up in bed. The temperature was 98° and the pulse was 48. On the morning of the 30th her condition was the same, but there were now constipation, flatulence, furred tongue, a very bad taste in the mouth, and pains behind the eyes. Under the free use of stimulants she made a rapid recovery so that she was able to leave her bed on Feb. 3rd. The pulse showed a marked reaction, 82 being counted at the wrist.

CASE 3.—The patient was a woman, aged 48 years, who, though subject to gout, was otherwise healthy. She first sent for me on Jan. 31st when I found her very prostrate, with pains all over the body, anorexia, a furred tongue, dry lips, constipation, flatulence, and cough. The temperature was 99° F. and the pulse was 80. On Feb. 1st, the bowels having been relieved, she felt somewhat better though she was extremely weak. The heart was beating at the rate of 60 per minute and the temperature was 97°. During the following days the pulse rate was gradually reduced to 45, while the temperature was subnormal, varying between 96° and 97.2°. Champagne was ordered in large doses and brandy was given at regular intervals. On the 5th the pulse showed some improvement and on the 8th the patient was able to leave her bed, the pulse-rate being 68 and only some weakness remaining.

I may add that in these three cases, as well as in several others in which there was marked bradycardia, though not so extreme as in those described, all the organs were healthy and there was not the least sign of heart disease. In my experience the pulsus rarus is most pronounced in those cases where there is influenza of the gastro-intestinal type. Of course, bradycardia is frequently observed in states of exhaustion, particularly during convalescence from acute fevers. But in influenza bradycardia is not only met with during convalescence from a severe attack but as an essential sign on the height of the paroxysm. It is usually accompanied by a subnormal temperature, though there is no necessary relation between the range of temperature and the pulse-rate. But in the absence of all other signs there is very marked prostration inversely proportionate to the frequency of the heart-beats. I do not think that the slowing of the pulse is the outcome of the general weakness or *vice versa*, but that both bradycardia and constitutional exhaustion are the result of the same cause—the poisoning of the system with the products of influenza or of the influenza germs, for I have not the least doubt that the pulsus rarus is due to the immediate action on the pneumogastric nerve or on the ganglia of the heart by the influenza toxins and bearing this in mind it is imperative to keep the patient in the recumbent position, though all other indications of the disease have disappeared, until the pulse has rallied in order to give the heart the highest possible degree of physiological rest.

Swiss Cottage, N.W

A Mirror

OF

HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. MARYLEBONE INFIRMARY, NOTTING-HILL, W.

TWO CASES OF IDIOPATHIC DILATATION OF THE COLON.

(Under the care of Mr. JOHN R. LUNN.)

THAT there are cases in which portions of the large intestine are found enormously distended and yet no source of obstruction is discoverable is now generally admitted, but the true cause of this curious condition is doubtful. It is often attributed to chronic constipation which is always found in these cases, but the constipation is in all probability the result and not the cause of the dilatation. The nervous theory is the most inviting. One curious point is that the dilatation is sometimes limited to a part of the colon and does not involve the whole of the large intestine. The fact that the muscular walls are in some cases at least distinctly hypertrophied indicates that there has been increased pressure in the bowel, but the true significance of this fact is not clear. For the notes of the cases we are indebted to Dr. H. Sinigar, assistant medical officer.

CASE 1.—A woman, aged 86 years, was admitted into St. Marylebone Infirmary in October, 1897, for bronchitis, but she was found to be also suffering from marked abdominal distension. She was a well-nourished woman who, owing partly to the bronchitis and partly to the abdominal distension, had to be propped up in bed. She gave a history of simple constipation with no attacks of diarrhœa and no loss of blood from the bowel. There was enormous distension of the abdomen which was tympanitic all over and not tender. Peristaltic action of distended coils of gut could be distinctly seen through the abdominal walls; no tumour was felt in the abdomen. Rectal examination revealed ballooning of the rectum, absence of rectal stricture or growth, and the presence of an enlarged, hard, and globular uterus of about the size of a fist. She had considerable bronchitis, the heart's apex beat was displaced outwards, and there was an apical systolic murmur. The liver and spleen were not enlarged. The constipation was successfully treated by enemata and castor oil. Charcoal was given by the mouth with the view of lessening the distension, but without any beneficial effect. She remained in the same condition for some months, complaining at times of abdominal pain which always appeared to be due to a temporary increase of the distension. She died from bronchitis and heart failure in March, 1898.

Necropsy.—On opening the abdomen at the post-mortem examination the distended coils were seen to consist of large intestine only, the small gut lying hidden behind. The distension began at the cæcum and included the whole length of the colon and rectum. The transverse colon was much increased in length and was tortuous. No growth, stricture, or compression of any part of the intestinal tract could be discovered. The mucous membrane appeared to the naked eye to be normal everywhere and the muscular coats were only slightly thickened. There were no scybala in the colon or rectum nor was there any evidence in the gut of previous fæcal impaction. The circumference of the distended colon was about 15 inches. The uterus was retroverted and contained a calcified fibroid, but this was not so large as to fill up the pelvis. There were no marked changes in the other viscera.

CASE 2.—A woman, aged 66 years, was admitted into St. Marylebone Infirmary for obstruction of the bowels on Oct. 11th, 1898. She was very emaciated, with an anxious expression, sunken eyes, dirty complexion, and sordes on the lips and tongue. The history obtained from her husband was that she had been fairly healthy until six years before admission. Then she began to be troubled with flatulence

and obstinate constipation. She had for many years been in the habit of taking aperients regularly. She had been gradually losing flesh for five years, during which time the abdomen became more and more distended. She had never passed any blood from the bowel. Vomiting began a fortnight before admission. On admission the abdomen was greatly distended and tympanitic all over; no tumour was felt. She vomited frequently, the vomit consisting of an offensive dark-brown fluid. The rectum was ballooned and was full of soft semi-liquid fæces; no stricture or growth was discovered. There had been no action of the bowels for a week, so a large enema was given at once, but was retained. Another enema which was given a few hours later was also retained. Vomiting continued and soon became feculent, her general condition at the same time getting steadily worse. As soon as the patient's friends could be seen it was decided to open the colon for drainage purposes. The operation was begun 36 hours after admission and as the patient was very feeble it was performed on the bed. A 5 per cent. solution of eucaïne was injected and a small incision was made in the left iliac fossa. Large intestine at once presented in the wound, but owing to the enormous distension no attempt was made to pull out a loop of gut and thus the actual condition found post mortem was not realised at the time of the operation. The presenting gut was stitched to the abdominal wound and opened four hours later. Large quantities of flatus escaped and the abdomen soon became flaccid, but very little fæcal matter was discharged. There was no shock from the operation; the patient died 26 hours later.

Necropsy.—At the post-mortem examination a most remarkable condition presented itself on opening the abdomen. Rising up from the pelvis for 13 inches above the symphysis pubis was a greatly dilated rectum which occupied the whole of the front of the abdomen. The only other part of bowel visible was the sigmoid flexure which had been opened at the operation. The rest of the large intestine and the whole of the small intestine were hidden behind the dilated rectum. The first part of the sigmoid flexure was only moderately distended and the lower part was both distended and lengthened; from the brim of the pelvis it turned sharply upwards and passing in front of the descending colon it reached as high as the splenic flexure of the colon; then it was again turned sharply on itself and at that level became continuous with the rectum. The gradual broadening of the longitudinal muscular bands of the sigmoid flexure until they formed a complete coat of longitudinal muscular fibres in the rectum was remarkably well seen; at the lowest part of the sigmoid flexure these bands attained a width of one and a half inches, and even then were quite distinct from each other. The arrangement of the longitudinal muscular fibres as a complete outer covering, and not as three separate bands, showed that the dilated gut was rectum and not sigmoid flexure. Although quite flaccid the circumference of the rectum at the level of the umbilicus was 26 inches. Its muscular walls were hypertrophied; the longitudinal fibres on the anterior surface were especially well marked. The rectum contained a very large quantity of semi-liquid fæces and appeared to be capable of holding as much as a domestic bucket. No scybala were present. The mucous coat was somewhat thickened; there was no ulceration of its surface.

Remarks by Dr. SINIGAR.—These two cases are examples of so-called idiopathic dilatation of the colon occurring, as Treves¹ points out, independently of mechanical obstruction in adults, thus differing from dilatation of the colon in children which he believes to be due to some congenital defect in the lower gut. As regards the causation of this rare condition Hale White² points out that chronic constipation is probably not in itself a sufficient explanation; if it were so one would expect to find the condition more commonly in women, whereas 11 out of 12 cases reported have occurred in men. He is inclined to regard the condition as analogous to non-obstructive dilatation of the stomach. Case 2 reported above certainly seems to me to support his view. In this case the dilated rectum descended practically in a straight line from the diaphragm to the anus and kinking of the sigmoid or rectum, which was suggested as a cause in some of the published cases, could not possibly have occurred as the rectum almost entirely filled the

abdomen. It is, of course, possible that excessive action of the sphincter may have caused difficulty in the expulsion of the rectal contents, but it is worthy of note that in neither case did the examining finger meet with any resistance at the anus. Then, again, the descending colon was of normal calibre and the transverse and ascending colon were actually rather less than the normal size—a fact difficult to understand if the kinking view be accepted. The analogy to dilatation of the stomach is further strengthened by the marked impairment of the absorptive power of the colon, as in both cases the fæces were semi-liquid. On the whole it seems to me that some anomaly of the innervation of the affected gut is a not unreasonable explanation of the condition. In Case 1 the chief trouble was bronchitic and as an action of the bowels could always be caused by enemata or aperients and as the case was diagnosed as one of idiopathic dilatation of the colon it was not considered advisable to resort to any operative measures. Case 2 presented an entirely different clinical picture. The symptoms were obstructive and urgent and were regarded as due to malignant disease. Colotomy, however, gave no relief since the opening in the bowel was entirely above the collection of fæces in the rectum. The great capacity of the rectum easily explained the inefficacy of the enemata. I am indebted to Mr. Lunn, medical superintendent of the infirmary, for permission to publish these cases.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Discussion on "Pseudo-Tuberculosis."

A MEETING of this society was held on March 7th, the President, Dr. PAYNE, being in the chair.

Professor JOHN MCFADYEAN, in continuing the discussion on Pseudo-Tuberculosis, agreed with speakers on the previous occasion who considered the term "pseudo-tuberculosis" unscientific and open to objection. But it was often extremely difficult to say positively if a lesion were true tubercle as there were no macroscopical or microscopical characteristics which were absolutely distinctive and there were fallacies even in the bacteriological examination owing to some bacilli having similar staining reactions. In practice, however, a trained inspector, who had special experience of the appearance of tuberculous lesions in any particular species was very likely to be wrong in basing his diagnosis on the naked-eye appearances and general characteristics; less likely if he employed histological and bacteriological methods of investigation, as it was often extremely difficult to demonstrate the presence of the tubercle bacillus in an undoubtedly tuberculous specimen and to discriminate it from other bacilli. As an example, he had met with a bacillus in milk which stained exactly like the tubercle bacillus but which was distinguished from it by its morphological characters. There were many true tuberculous lesions which were difficult to recognise, of which illustrations were shown on the screen with the lantern. The first was a specimen of villous-like projection over the peritoneal surface of the liver which contained capillaries and giant cells at the periphery. The second was a specimen of tuberculous mastitis in the cow where the appearances were those of a diffuse cirrhosis of the gland. There were also many conditions to which the term "pseudo-tuberculosis" had been applied of which he showed the following specimens: 1. Small pin-head shotty nodules occurring in the lung of the sheep, in which the microscope showed the presence of an undetermined worm in the centre surrounded by leucocytes and these by giant cells. The resemblance to tubercle was increased by the tendency to softening of the centre. 2. Grey patches from the lungs of the sheep, a scraping from which showed abundance of embryo worms and ova. 3. The so-called "scrofula" of sheep which affected the glands of the head and face which formed abscesses. The septum nasi was covered with nodules which had the same structure as tubercles but contained a different bacillus which could be cultivated. Neither the culture, however, nor the pus itself gave rise to similar lesions if inoculated. 4. "Bacterial necrosis" in the liver determined

¹ THE LANCET, Jan. 29th, 1898, p. 276.

² Clifford Allbutt's System of Medicine, vol. iii., where a complete bibliography may be found.