made a section with the iris knife, but she was but little improved. Two years afterwards I extracted the left cataract and she did well, and now (four years since) I hear that she has very good sight.

CASE CCXXVII. M., aged 68. I operated on the right, and he recovered well with good sight.

CASE CCXXVIII. M., aged 71. (This case has been published at greater length in the JOURNAL of May 3rd, 1856.) On making the corneal section in the left eye and trying to extract the cataract, it fell backwards into his eye and remained invisible. He recovered his sight for a time, and as the right eye gradually became more dim, the amount of vision which he retained in the left was more valuable. I afterwards extracted the right cataract, and he recovered well and had good sight.

CASE CCXXIX. F., aged 71. I operated on the left eye, and she did well, and now (five years after) has good sight, but the pupil is a little distorted.

CASE CCXXX. F., aged 63. Upon completing the section in the left eye and rupturing the capsule some vitreous humour escaped, but the lens and capsule were adherent to the upper margin of the pupil, and I could not remove them. The cataract, however, disappeared from the axis of vision, and she recovered and went home with fair sight.

Two years and a half afterwards I saw her again, and I found that her sight had remained good for a while, and after an attack of inflammation she became blind again, and finally struck her eye with the latch of a door and destroyed it. I, therefore, operated on the right eye, and extracted the lens, but with great difficulty, for it was adherent, as in the other eye. She recovered with good sight.

CASE CCXXXI. M., aged 73. I operated on the right eye, and extracted a large flat and very hard and dark cataract. Some muddy looking fluid escaped from the eye. He had a tedious recovery, and his sight being dim and the eye weak, I gave him some calomel and opium, with a blister on the temple, and under this treatment he mended, and went home with good sight.

Six months afterwards he could see to do all that he required with the right eye, but was anxious for further improvement. I, therefore, extracted the left lens, and he went home with clear corneæ and pupils, and seeing well with both eyes with a four-and-a-half inch glass.

CASE CCXXXII. F., aged 72, a very restless little old woman. I operated on her right eye, and extracted the cataract with great difficulty. When the knife entered the cornea at the outer side, she struggled, and strained, and kicked so, that the point passed behind the iris. I withdrew it a little, and completed the section very slowly, the iris bulging out at each side of the knife through the wound in the cornea in consequence of her efforts. As soon as the capsule was ruptured she squeezed out the lens by sudden muscular action on the eyeball, and some vitreous humour followed. I sent her to bed with very little hope of success. The next day she had pulled off the bandage and court plaster, and was extremely restless, complaining of the martyrdom of bed. On the fifth day she told me she could see as well as ever she could, and her eye was strong. She went home soon afterwards with good sight.

CASE CCXXXIII. M., aged 62. I operated on right eye, and he went home shortly after with excellent sight.

A year afterwards I operated on the left, and he recovered his sight in this eye also, the pupil being a little distorted, in consequence of a blow which he gave it a week after the operation.

CASE CCXXXIV. M., aged 56. I operated on the left eye, and he went home in about three weeks with good sight. He came up for a second operation the year afterwards, and did very well, going back to his work with good sight in both eyes.

CASE CCXXXV. F., aged 65. I operated on the right eye, in which cataract had existed five years, and removed a flat, hard, and dark amber lens. She described

the light as of a violet colour. She went home with excellent sight.

CASE CCXXXVI. F., aged 78, a strong, healthy old woman. I operated on both eyes, and she went home with excellent sight in them. I have seen her lately, now four years after the operation, and she sees well with both, being 82 years of age.

CASE CCXXXVII. F., aged 47. I operated on the right eye, and she recovered excellent sight.

CASE CCXXXVIII. M., aged 80, had cataracts in both eyes; but a year before I saw him he struck the right eye with the point of a rake, and thus regained enough sight to enable him to get about his farm and do a little work. This, however, afterwards failed, and the iris became tremulous, and I, therefore, operated on his left eye. He went on well until the ninth day, when I found him walking about with a clean and large pupil and very good sight. The next day his eye was painful and inflamed, and he complained of headache, and a week afterwards he said he could see nothing. When I could examine the eye fairly I found the iris rather green, but the pupil was circular, while the cornea was hazy, and altogether it looked very unpromising. He said that in the night before the inflammation came on he struck his eye, and this explained his state satisfactorily. His sight became much better before he left, and a month after his return home his sight was improving. I heard of him again a year and a half afterwards, and he had then excellent sight, and was able to attend to his farm. The blow on the eye in this case caused effusion of blood into the anterior chamber, and the absorption of it restored his vision.

[To be continued.]

REMARKS ON OBSTRUCTION OF THE BOWELS: WITH CASES.

By EDWARD COPEMAN, M.D., M.R.C.P., F.R.C.S., Physician to the Norfolk and Norwich Hospital.

[Continued from p. 994 of volume for 1860.]

CASE XIV. *Fatal Obstruction from partial Stricture leading to Impaction: Cæcum opened by operation.* On July 20, 1857, I saw Mr. —, aged 48, a wealthy farmer accustomed to generous diet, and not particular in his choice of food, ruddy and portly; general health good, but occasionally interrupted by pain in the abdomen and constipation, which a dose of castor-oil had always hitherto removed. He had been suffering from obstruction of the bowels since Thursday the 16th, and had taken castor-oil without effect; neither had the most assiduous application of all the usual means of treatment produced any relief. He had several times vomited stercoraceous matter; the abdomen was tumid with a sense of general fulness; and in the right iliac region, there was tenderness on pressure with dulness on percussion, a sense of fluctuation, and also no perception, although not to that of the others present, feeling like the crepitation of air under the pressure of the fingers, or the creaking of inflamed surfaces of serous membrane rubbing against each other. Pulse small and rapid; general exhaustion; intellect clear, and manner composed, although he was under the strong impression of approaching death. We tried to inflate the bowels; but it was of no use. A consultation with the two surgeons who were attending him, Mr. Cadge of Norwich and myself being present, was then held to consider whether any form of operation could be practised with a chance of success. It was very difficult to determine where the obstruction had taken place; the tender spot in the right iliac region marked the seat of the mischief, and we thought it most likely that the ileum near its termination was the bowel stricture. It might, however, be the cæcum, although there was no very marked bulging in the right loin. At

length we determined that if an operation were performed, it ought to be in the situation of the tender part, which, at all events to myself, had afforded the emphysematous sensation to the fingers. Our reasoning was, that if the bowel had there undergone any serious change, an opening elsewhere would not save it; and should it turn out to be the ileum, it would be of no use to open the colon in the loin. As there seemed to be no possibility of saving life in any other way, we decided to cut down to the bowel at the most tender spot, and then endeavour to make out the nature and situation of the obstruction and relieve it; or if the bowel seemed disorganised, to open it, and discharge its contents by an artificial anus. At four o'clock the next morning the operation was performed; and on uncovering the bowel, it was found to be dark-coloured, and so tender that it ruptured under the pressure of a director; it was therefore freely laid open and secured to the edges of the wound, having discharged a very large quantity of liquid fecal matter, black currants, etc. The peritoneal cavity was protected by adhesions which had formed around the injured part. The stricture was not discovered; but from the distance the finger could be passed towards the right loin, and the large calibre of the bowel, it was presumed to be the cæcum that was opened. The wound was partly closed by sutures, and a sponge fastened over the rest of it. The patient was remarkably relieved in all respects for several hours; but afterwards, fecal matter ceased to escape by the wound, sickness and abdominal pain returned; and after lingering, I believe, two days, he died.

On examination, it was found that the cæcum was the part which had been opened in operation; and it still contained large quantities of whole currants, pieces of bone, and other imperfectly digested substances. The seat of stricture was the middle of the transverse arch of the colon, where the bowel was narrowed, but not sufficiently to arrest the progress of a proper quantity of healthy, natural fecal matter, neither very large nor solid; it would not allow, however, the passage of the enormous quantity of all kinds of indigestible matter which had accumulated in the cæcum, and had thus become the cause of fatal impaction. The obstruction was sufficient to paralyse the cæcum, which was not able to discharge its contents even after it had been opened by operation.

CASE XV. *Obstipation from the Stricture of the Rectum.* In December 1858, I visited a clergyman, the history of whose complaints is as follows. He consulted me several years ago for piles, to which he had long been subject; and I understood he had since at various times suffered from colic and constipation, having had a more painful attack than usual in the early part of this year. From that time up to the Tuesday before I saw him he was as well as usual, taking food heartily and indiscriminately, and, as was his custom, swallowing it quickly without proper mastication. His bowels had been kept in a regular state by an electuary prescribed by his surgeon, and his general health was good. He was 65 years of age, and a person of active habits. Early on Tuesday morning, December 21st, 1858, he was seized with pain in the body and constipation, which induced him to send for his surgeon, who treated him as on former occasions, but this time without success. He gave him calomel, colocynth, salines, castor and croton oil, injections, etc.; but nothing answered; he had no motion; his abdomen became tumid and tympanitic, and he could get no sleep; and as these symptoms increased, I was summoned in the afternoon of Thursday, December 23rd, and found him in a very critical state. There had not been the slightest fecal evacuation since Tuesday morning; the abdomen was much distended, and he had every now and then severe tormina, the abdominal walls becoming spasmodically contracted, and causing him to writhe in pain. The coils of bowel were distinctly marked, especially during

these painful contractions; but there was not much tenderness in the intervals. He had no fever; the pulse was between 80 and 90; there was no sickness; the tongue was not much furred. The purgative plan had, as I thought, been carried far enough, and signally failed. We tried an injection of soap and water and oil; but it came away untinged, although passed through a long stomach-pump tube, which had gone more than a foot up the bowel. We then tried inflation with a pair of bellows, but could not get the air to pass along the canal. We therefore covered the abdomen with a warm bran-poultice sprinkled with laudanum, and gave every hour or two a pill containing a grain of watery extract of aloes and half a grain of opium. He had been in a warm bath several times, which soothed a little for a time; but I left him late at night with a very unfavourable impression as to the result of his illness. There was no one part of the abdomen more tender than another, nor any indication as to the precise seat or nature of the obstruction. On the following day, I received a message that he had passed a very uncomfortable night, being frequently in great pain. There had been no evacuation from the bowels; he had some difficulty also in passing urine, which had to be drawn off in the morning, and was high-coloured and disagreeable in smell. I saw him at night; his general condition was much the same; he had taken the pill almost every hour, but the bowels had not been relieved. The abdomen was still much distended, but not tender on pressure. The pulse was under 100, and weaker. He had no sickness, but slight hiccup occasionally, and frequent hawking of what he called "mucus" from the œsophagus; he had used several injections himself during the day, and sometimes a little air escaped. We gave him an enema with sulphate of magnesia, jalap, and castor-oil, but it immediately returned as it went up. We then tried inflation again by means of a well-acting enemysyringe, and after a while succeeded in forcing air all along the colon, producing a considerable rumbling in the bowels, some of the air coming away again with loud reports, with some relief to the pain and tension. There was, however, no fecal smell, and on continuing the inflation a little longer, we heard the air passing in the situation of the cæcum, but as he complained of more distension we discontinued it. Almost immediately afterwards we heard a loud rushing of air along the canal, as if it had suddenly forced its way through some obstruction, and the upper half of the abdomen became painfully tense, causing him great uneasiness, for which we gave him a dose or two of liquor opii sedativus. He became much exhausted with the pain and distension, and we could not get the air to pass away, although we introduced a very long stomach-pump tube its entire length into the bowel, leading us to infer that the air was not pent up in the colon, but in the small intestines. I stayed with him all night, and left him on the morning of Saturday, December 25th, comparatively easy as to abdominal pain, but with the abdomen immensely distended, he having had no evacuation from the bowels, except a little mucus from the rectum. He was much worn with the long continued pain and want of sleep. The pulse was 120; the countenance anxious; the nervous power was decidedly diminishing; and there was no increased probability of intestinal evacuation. He had slight hiccup, and occasional gulping up of fluid from the stomach, but no actual vomiting or feeling of sickness. The pills were ordered to be continued as before. Bran poultice, and an opiate draught in addition to the pills, if in more pain, were also ordered.

I visited him again next day, December 26th, and found him much easier, although the abdomen was still very large and tense. There were no signs of peritonitis, and there had been no sickness. Nothing had passed from the bowels. The same treatment was continued. We passed a stomach-pump tube of consider-

able length, but neither air nor fluid escaped; and an injection of warm water passed through it returned uncoloured.

December 28th. I found him in the same state. He had no fever, no vomiting; the pulse was 100. There was no evacuation, nor sign of peritonitis, but a countenance indicative of serious mischief. His mind was quite collected. He had taken the opium and aloes pill regularly; and we now gave him, almost at his own request, two drops of croton oil. I left him in the night with the impression that he could not live; and heard that he died about ten o'clock the next morning, without much suffering, and with a mind clear and collected to the last.

At 4 p.m., on the 30th, we examined the body, and found that the cause of mischief was a stricture of the upper portion of the rectum. The sigmoid flexure of the colon was enlarged beyond what I have ever seen before, and, when laid open, measured more than a foot in width. It seemed to form two distinct pouches, each as big as an ordinarily sized stomach, and occupied the whole central portion of the abdomen, from the pubes to the epigastrium, and from one crest of the ileum to the other. The small intestines lay behind it, compressed and empty; and the colon, distended, but not immoderately, bounded it from the cæcum to the natural site of the sigmoid flexure. There was no trace of peritonitis; the contents of the bowels were of a relaxed nature, pulpy, and such as ought to have passed readily through any slight obstruction; but the mucous lining of this enormously dilated and enlarged sigmoid flexure, in which all the fecal matter and air were contained, was softened and intensely congested; and the walls of the intestine were in places a quarter of an inch or more in thickness, from long continued distension and infiltration. This enormous dilatation had evidently been the result of several years more or less obstruction to the free passage of fecal matter into the rectum, on account of an organic narrowing at the point where the colon and rectum unite; and no doubt, in the present attack, the constriction was rendered greater, and indeed impenetrable, by the enormous distension and displacement of the bowel immediately above it. I never saw a human stomach half so large as this diseased portion of colon. There was no great thickening around the stricture; but it was sufficiently tight to prevent the fluid fecal matter running through it when the bowel above it was held straight up.

This case is remarkable and instructive in several points of view. The diagnosis that there was no peritoneal inflammation, was perfectly correct; and the expected effect of the treatment, in relieving spasm and softening the contents of the bowels by aloes and opium, fully realised. The absence of sickness was a reason for suspecting the cause of the obstruction to exist in the large intestines rather than in the small. But then, again, where did the very long tube go which we passed up into the bowel its whole length, or rather, which the patient himself passed easily and without giving himself any pain? It seemed to pass straight along the bowel, and if so, must have reached far into the colon. Was it doubled up in the rectum? One would have thought if it had entered the enlarged sigmoid flexure, both liquid feces and flatus, of which it was full, must have passed through it and relieved him; and yet, it seems impossible for the rectum to have contained the whole of it doubled up without its either occasioning pain, or being able to be felt by the finger. It did not certainly pass into the cavity of the abdomen, nor had it done injury to any part with which it came in contact.

We may add this case to a long list of others which prove not only the irremediable nature of the disease, but also the impossibility of arriving at a satisfactory and clear diagnosis either of the precise seat or the exact nature of the fatal obstruction. Increased experi-

ence of cases of this nature strengthen the conviction, in my mind, that purgatives are not only frequently ineffectual, but positively injurious; increasing the amount of stricture, whatever may be its cause, by forcing down upon it a larger quantity of material, and exciting a degree of spasmodic resistance in addition to that occasioned by the previously existing mechanical impediment. I believe aloes and opium to be the best medicine to give internally; the former to liquefy the fecal contents, and the latter to relieve spasm; and that after one or two trials, with an aperient, all our further efforts to force a passage should be directed to the rectal end of the canal.

CASE XVI. *Obstruction of the Bowels from Impaction: Recovery.* February 11th, 1852. Mr. —, aged 65, a very healthy retired tradesman, had been in the habit of taking Morison's pills occasionally for years, believing them to have been of great service to him. He took two or three doses a week before I saw him, which produced violent purging, followed by pain in the situation of the ileo-cæcal valve. This pain continued without intermission until the day of my visit, and I found considerable tenderness on pressure. He had had no relief from the bowels for several days, and the pain in the right side of the abdomen was at times very severe; there was also fulness in the same situation, but not a great deal of constitutional disturbance. Six leeches were then applied, followed by fomentations, and he took a dose of calomel and Dover's powder.

February 12th. Pain relieved, but not removed. No action in the bowels. Six more leeches were applied.

February 13th. He had an enema this morning, which brought away a large quantity of lumpy fecal matter. Pain much less. Powder repeated at night.

February 14th. Another enema this morning, after which the bowels acted three times, and he was quite free from pain.

February 16th. I was called to him in the middle of the night on account of a return of severe pain; for this he had six more leeches, followed by poultices; also another dose of calomel and Dover's powder, and a mixture containing ammonia and laudanum. At 10:30 a.m., he was still in pain, but it was less severe; the pulse was not quickened, nor was there any fever. The abdomen was kept covered with bran poultices; and as there was no relief from the bowels, and the abdomen was full and tense, I gave him half an ounce of castor-oil and twenty minims of laudanum. At 7 p.m., I found he had had a good deal of pain all day, and at 4 o'clock he vomited. At 6:30 he had an enema, part of which returned with a little fecal matter, since which he has been easier. Abdomen still tumid, but not so tense as in the morning. There was no general peritoneal pain, but considerable tenderness still in the original spot near the ileo-cæcal valve, with a sensation occasionally as of something passing there. Pulse quiet; tongue, but little furred. I ordered turpentine stupes to the abdomen, and a draught, with tartrate of potash and rhubarb.

Another enema was given the following morning, which brought away a considerable quantity of hard, lumpy matter, with great relief to the patient. The treatment was continued for a few days; the bowels were effectually emptied; and although at one time he seemed to be on the verge of peritonitis, he very soon got well. Indeed, it was very difficult to determine whether or not peritoneal inflammation had actually set in; but the quiet pulse and absence of constitutional disturbance, led me to decide this in the negative, although the merely local symptoms were severe enough to give rise to the suspicion. I imagine the strong action of Morison's pills had so irritated the bowels as to induce them to contract upon their solid contents, and prevent their further movement along the intestinal canal.

[To be continued.]