A CASE OF
COMPLETE INTESTINAL OBSTRUCTION,
ARISING FROM
DISEASE OF THE SIGMOID FLEXURE, OF THE
COLON AND THE RECTUM ;
IN WHICH THE DESCENDING COLON WAS SUCCESSFULLY OPENED
IN THE LOIN.

BY
FREDERICK FIELD, M.R.C.S.
OF BIRMINGHAM.

COMMUNICATED BY
JOSEPH HODGSON, F.R.S.

Received December 24th, 1849.—Read January 8th, 1850.

I WAS requested to see Joseph Ridding on the evening of Sunday, 3d of May, 1846. He was a strong man, of a lymphatic temperament, rather corpulent and muscular, and weighed about fourteen stone. He was by occupation a coach-axle forger, 33 years of age, the father of ten children, of whom six were living. He states that he had always enjoyed very good health, and with the exception of occasional sciatica, he never suffered from any serious illness or injury. In his employment he has been accustomed to drink about a gallon of beer daily, but he considers that his habits have not been generally intemperate.

He dated the commencement of derangement in his bowels about twelve months back, previously to which they had always been very regular and easily acted upon by purgative medicines. From that time he was occasionally subject to pain in the bowels, tenesmus and constipation, his stools becoming scanty, and voided with difficulty ; he had also a good deal of flatulence and distension of the belly, with weight and uneasiness at the stomach after eating. *Three months ago* all these symptoms became increased; they

were temporarily relieved by the action of purgatives, as castor-oil, colocynth, and magnesia, which he frequently took, but previously to their operation they greatly aggravated the symptoms. The distress which followed his meals now became more severe, and was often followed by vomiting, his bowels being obstinately costive, his stools being more scanty and voided with greater difficulty; he states also that they were more fluid, but he had not noticed that their diameter was less than formerly. Nine days before my visit his complaint was becoming worse, and he could obtain only very small quantities of stools by repeated doses of purgatives. However, he had been able to continue his employment till within four days of my visit, when the natural action of the bowels entirely ceased; all his symptoms became greatly aggravated, and he took repeated doses of brandy and castor-oil with the only effect of adding to his sufferings and producing vomiting.

On my first visit I recollected having seen him three months previously, at which time he cursorily mentioned his being occasionally subject to what he called "the windy bellyache," but for which he did not require treatment. The abdomen was now greatly distended and tympanitic; pain was chiefly felt in the situation of the transverse colon, and was much increased by pressure, and at this part some bulging was also observed; he described the pain as of a "twisting" character, and shooting down to the umbilicus. At short intervals the pain was aggravated in violent paroxysms, accompanied with strong tenesmus, which continued about a minute, and then as quickly subsided. He vomited almost everything which he took. The pulse was rather increased in frequency, full, strong, and compressible. Tongue coated with a thick, pale fur, and not dry; much thirst. He was ordered to take immediately—Calomel, gr. v; powdered opium, gr. ij: to be followed by a black draught every four hours.

May 4th.—There was some temporary abatement of symptoms after taking the calomel and opium last night, but there is no improvement this morning; the vomiting

still continues, the abdominal symptoms are unabated, and there is no action of the bowels; the urine is scanty and high-coloured. The calomel and opium pill was repeated, and followed by an effervescing draught containing four drops of diluted prussic acid every three hours; and he took one table-spoonful of castor-oil in peppermint water every six hours. In the evening the pain and vomiting were much diminished; the pills and castor-oil had not been rejected, but the abdominal distension and tenderness were very great, and the bowels were still not acted upon; the rectum, so far as the finger could reach, was found perfectly healthy, and no obstruction could be felt. He was ordered to have a warm bath immediately, and afterwards an enema, containing castor-oil and turpentine, of each one ounce, to be given with as much warm water as could be injected. The pill containing calomel and opium, and castor-oil to be continued.

5th.—He passed a much better night after the bath, but this morning his symptoms have returned as severe as ever. More than a pint of the clyster could not be injected, and this returned immediately, the patient being unable to retain it from the painful feeling of distension it caused in the lower part of the belly; only a very small portion of scybalæ was brought away. The colon tube passed up the rectum to the distance of about eight inches. This morning, in consequence of the urgency of the symptoms, twelve ounces of blood were taken from the arm, to the approach of syncope, and the following pills were ordered:

R Hydrargyri chloridi, gr. xij;
Pulv. opii, gr. iij;
Extract. coloc. co., ʒj.

M. et in pilulas vj divide, capiat unam tertiis horis. Repetatur mistura effervescens.

6th.—The blood drawn yesterday presented no inflammatory characters, the coagulum being neither buffed nor cupped; his symptoms were mitigated by the bleeding, but they have again become urgent. There is no action of the bowels, and vomiting is still frequent. Mr. Alfred

Baker accompanied me to see him to-day, and the following pills were ordered :—

R Olei tiglii, gt. j ;
 Extr. coloc. co., gr. x.
 M. divide in pilulas ij tertiis horis sumend. Repetatur mist.
 efferves. Habeat balneum tepidum.

In the evening there was no improvement ; the pills were quickly vomited, in consequence of the pain and sensation of burning which they produced in the stomach. The colon tube was again passed, but when about eight inches had been introduced it met with the obstruction as before. The following enema was injected into the rectum :

R Olei tiglii, ℥ iij ;
 Ext. hyoscyami, ʒss ;
 Misturæ assafœtidæ, ʒjss.
 M. fiat enema.

This was forcibly returned before the whole could be injected, bringing away but the most trifling portion of hardened fæces.

7th.—Remains in much the same state as yesterday. His strength as yet is but little reduced ; the pulse being full and strong ; the pain and tension of abdomen not materially increased ; the tongue is covered with a dry brownish fur, and there is much thirst. The pills appeared to aggravate his symptoms, and they were returned by vomiting. To have a warm bath ; to take two grains of opium in a pill directly, and one table-spoonful of castor-oil every hour. The colon tube was introduced to the same distance as before, and an enema of warm water was administered, but more than a pint could not be injected, and this brought away but a very small portion of fæces. In the evening it was found that the warm bath and opium had had the effect of considerably relieving his symptoms, and he had taken eight doses of the oil before the vomiting returned, when the whole was rejected. The opium pill was ordered to be repeated at night.

8th.—He passed the early part of the night rather

more comfortably, but this morning he was distressed by the increased severity of his symptoms, the vomiting being more frequent, and the tension and tenderness of the abdomen greater. He was now again bled to twelve ounces, when fainting was induced, and his symptoms relieved; croton oil was ordered to be rubbed on the abdomen. In the evening he was more comfortable; the colon tube was again passed, and warm water injected, with no better result than before. The two grains of opium were repeated at night. The blood drawn in the morning presented no inflammatory characters. During the four following days he continued much in the same state as previously described, his strength and spirits bearing up against the severity of his complaint in a remarkable manner; indeed, when free from pain and vomiting, his calmness and quietude were surprising. The more urgent symptoms were much subdued by the administration of an opiate night and morning, and the action of the bowels was endeavoured to be effected by an ounce of castor-oil daily and the exhibition of enemata, but these at length failed to bring away any fæcal matter.

On the 10th the cold douche was tried, but no other effect followed than profuse sweating, which temporarily relieved his symptoms. On the 13th the vomiting, and also the tension and tenderness of the abdomen, had become much more severe, and he was then seen by Dr. Fletcher. It was now thought advisable to administer the opium in a larger dose, in combination with calomel, and the following form was ordered:

R Opii, gr. iv;
Hydr. chlor., gr. x.

In pilulas ij nocte maneque sumendas.

14th.—His symptoms were much mitigated by the pills, which were ordered to be continued. To-day galvanism was tried, one extremity of the wire being passed into the rectum, the other being applied to the abdomen and down the spine. Rather strong and painful contractions of the abdominal muscles were thus produced, without relieving

the bowels. The cold douche was again tried ; but nothing more was done with the exception of administering 3 gr. of opium, night and morning, until the 15th, when an evident change was taking place in the condition of our patient ; his strength and spirits had given way to depression and anxiety, the features were pinched and of a sallow hue, his tongue was coated with a dark dry fur, his pulse was become quick and rather feeble ; vomiting had become almost incessant, and during the last three days the matters ejected were of a light brown colour and strong faecal odour. It was now sixteen days since he had had the least evacuation per anum. All further efforts to prolong life by medical means were evidently useless, and it now only remained to propose to our patient the operation employed by Amussat for opening the descending colon.

Having told him of the present hopelessness of his case, the nature of the operation was explained to him, and he readily consented to its performance, with an expression of confidence in our efforts.

The same day, at 4 p.m., the operation was performed, in the presence of Dr. Fletcher, Mr. Crompton, Mr. Alfred Baker, and Mr. Clarkson. As the patient lay on his back no indication of the precise nature or situation of the obstruction was observable. The abdomen was equally swollen on both sides, presenting everywhere the same elastic resistance to pressure ; the sound on percussion being generally clear, was duller as it approached the loins. As the patient lay on his belly no bulging was observable in the lumbar region of one side more than in that of the other ; percussion elicited a rather duller sound on the left than on the right side. The patient being extended on a bed with his face downwards, a transverse incision was made on the left loin, beginning at the ridge which marks the external margin of the erector spinæ muscle (about two inches from the spine), and carried directly outwards. This incision was five and a half inches long, and was situated a finger's breadth above the crest of the ilium, it passed through the skin and fat nearly one inch in depth, down to the latissimus dorsi muscle.

This muscle, and the quadratus lumborum were now divided to the extent of the incision of the skin, and a layer of fat bounded on the inside by the external margin of the erector spinæ muscle was brought into view. On dissecting this away to the depth of about half an inch, a thin transparent membrane was exposed. From the appearance of this membrane, which it was conceived might be the intestine, it was thought advisable to pass sutures through it, to retain it in its position, and subsequently to affix it to the edges of the wound. However, on penetrating it with the knife, a mass of soft granular fat started through the incision. A very large quantity of this fat was cautiously dissected away, and the finger was then introduced to search for the bowel, but no precise indication of it could be felt; the finger, when pressed upwards, rested on the lower part of the left kidney, while downwards it came in contact with the inner margin of the crest of the ilium. The wound being now of considerable depth, it was necessary to proceed with great caution, and clear away the fat little by little, which proceeding, from the looseness of the nature of the fat, was rather difficult, and occupied some time.

At length the bowel was brought into view, at the depth of about four inches; it was highly vascular, and having been cleared of fat, sutures were passed through it and held by assistants. An incision half an inch in length was made into the bowel, and an immense quantity of light coloured fluid fæces immediately escaped. The patient had been vomiting similar fæcal matter during nearly the whole of the operation, but this vomiting now entirely ceased, and he was relieved of all his symptoms. The opening in the bowel was fastened by sutures to the skin; a large bread poultice was placed over the wound, and retained by a bandage passed round the body, the patient being enjoined to lie on the left side to facilitate the escape of the fæces. Scarcely two ounces of blood were lost during the operation.

16th, 9 a.m.—He is going on well in every respect. Has passed a much better night than any during his illness; has been prevented from sleeping much by the frequent

evacuations through the wound, which are now more tinged with bile. Countenance calm and clearer; tongue rather cleaner; no thirst; wishes for more solid food; has had neither pain nor vomiting since the operation; belly perfectly soft, and without pain on pressure. Pulse 100, soft. The wound looks exceedingly well, the opening in the bowel being exactly in its centre, the fæces escape very readily. A large bread and water poultice was applied to the wound. To take beef tea, thickened with oatmeal; gruel, &c.

4 p.m.—Continues improving; tongue much cleaner, a slightly brown fur only in the centre; pulse 94. Has no pain nor vomiting. Fæces less in quantity, and rather more consistent. Some orange taken this morning has passed through the wound.

9 p.m.—Has had an hour's very comfortable sleep since the last visit, from which he awoke rather restless and delirious; no other unfavorable symptom; pulse 98, soft and compressible. To have two table-spoonfuls of brandy in gruel, and should restlessness continue, to take two grains of opium.

17th, 9 a.m.—Fell asleep soon after taking the brandy at last night's visit, and continued to sleep till this morning, when he awoke considerably refreshed, and quite calm and comfortable; the opiate therefore had not been given to him. This was the first quiet and continued sleep he had had since the commencement of his illness; pulse 94, rather increased in strength; tongue moist, slightly brown in the centre, clean and natural in appearance at the margins; countenance clearer and more natural; belly soft and without any tenderness on pressure; has made a large quantity of urine of a clear and healthy appearance. The surfaces of the wound are rather pale; the inner half is gradually filling from the bottom, the outer half is still deep and more inactive; the sutures have ulcerated from the intestine, which is adherent all around to the surface of the wound, which is to be dressed with lint dipped in warm oil; the surrounding skin to be smeared with a stiff cerate of lard and white wax, to protect it from irritation from the

fæces. In the course of the day he had several hours' excellent sleep, and in the evening he expressed himself as "getting much better," the pulse being 90, full and strong, but readily compressible. Up to this time he had drank a large quantity of good beef tea, which was now ordered to be lessened.

18th, 9 a.m.—Has had several hours of comfortable sleep during the night, and expresses himself as feeling "very well, and getting up his strength," and wants more solid food; features have become perfectly natural and cheerful, tongue as before; pulse 86, rather diminished in strength and fulness since last night; strong pressure on the belly, which is soft, and of the natural size, produces not the slightest pain anywhere; has had several stools through the wound, but they are now become less frequent and more consistent, generally of a yellow, but occasionally of a green colour. No pain in the wound with exception of slight "smarting," probably from contact of fæces; the wound has a rather inactive appearance, and fetid odour; the probe readily passes to the depth of two and a half inches, and becomes blackened; to be dressed as before. To take flour pudding, rice pudding, milk, gruel, beef tea, &c. &c.

On examination of the wound at 8 p.m., it had a still more inactive appearance and fetid odour; its lips are swollen, and some hardness and redness exist around it, particularly on its outer half. It was now well syringed with a mixture of yeast and warm water, and dressed with small portions of lint dipped in warm olive oil, the surrounding skin being smeared with the cerate as before, and the whole covered with a bread poultice mixed with yeast. He expressed great comfort from this mode of dressing the wound. He has had a strong dry occasional cough during the last two days, which produces a considerable gaping of the wound, with a strong forcing of the bowel, and generally an evacuation of fæces. His tongue is drier than usual, and coated with a white fur; pulse 94, rather weaker than it was this morning; thirst not increased; he feels no pain, has slept comfortably, and expresses himself as continuing to

improve. To take a pill consisting of—Ext. conii, gr. iv; Pulv. ipec., gr. j, every six hours; and a draught of Ammon. sesquicarb., gr. v; Confect. aromat., ℥j; Aq. anisi, ℥j, every four hours. He begs strongly to be permitted to change his position, constantly remaining on his left side having become painful and irksome. He is, therefore, allowed to lie nearly on his back, inclining to the right side, the left being raised from the bed by pillows, so as to take all pressure from the wound, and to allow the easy escape of fæces.

19th.—He is going on well; and his cough is better. The wound is still rather dark and sloughy in appearance, but the surrounding swelling is very much diminished; pulse 92, full, and tolerably strong. To take beef tea, and one table-spoonful of brandy three times a day.

20th.—He is much better; pulse 92; the wound has undergone a favorable change, healthy granulations appearing in several places, and the surrounding hardness and redness having nearly subsided; he feels no pain except a slight smarting when the fæces pass over the wound. To have a mutton chop for dinner, and to continue the brandy.

21st.—The wound is now quite clean and granulating. To be dressed as before. Some flatus has passed per anum to-day, but no fæces. Towards evening the bowels were rather relaxed; there is no pain in abdomen, and no thirst. Pulse 98. To take—Mist. cretæ c., ℥iss; Tinct. opii, ℥x, 4^{tis} horis.

22d.—Still improving; the relaxation of the bowels has ceased; a small portion of fluid fæces was passed per anum. The wound looks remarkably well. He states that he frequently feels as though he could pass wind and fæces per anum if he were to strain, which he is afraid to do lest he should hurt the wound. He wishes to sit up, and believes himself "as well as ever he was in his life."

28th.—The wound is very nicely filling up. This morning I passed the colon tube up the rectum, but it proceeded no further than on previous occasions; about a pint of warm water was injected. No water passed out at the wound, nor did the finger, when passed through the wound

into the bowel, reach the situation of the water; but the side of the bowel opposite to the wound protruded through the latter, as though pressed on by the fulness of the bowel below; this protrusion disappeared when the water returned per anum, which brought with it no fæces. The tube was then introduced through the wound downwards. This portion of the bowel was also washed out with warm water. The obstruction seems to be situated in the sigmoid flexure, and appeared to be reached by the extremity of the tube when passed about eight inches in either direction. There is no pain or soreness at this spot; strong pressure at the end of the tube is felt, but the bowel does not appear morbidly sensitive. He had great objections to the introduction of the colon tube, and soon afterwards he had rigors, which continued about two hours, but no ill effect followed. The wound looks very well, and is diminishing rapidly in size, there being no hardness or inflammation around it. The fæces now pass less frequently. He is cheerful, and feels well; lying in bed is become irksome to him, and he is anxious to sit up, which he is now allowed to do.

June 3d.—He sat up the greater part of yesterday, and went into the open air; he is fast recovering his usual health and spirits, and can walk about without assistance. He has not passed fæces per anum since the last report, but this morning he feels “as strong an inclination as he ever did in his life,” and states that he feels tolerably confident of the re-establishment of the natural passage. He has three or four stools through the wound in the twenty-four hours; he has a short notice of these by a slightly painful sensation which immediately precedes the evacuation; the fæces pass through the wound with great facility; the opening into the bowel is closed in the interval of the evacuations by the apposition of the sides of the wound in the integuments, so as temporarily to shut up the artificial opening. The length of the wound in the integuments is diminished to about three inches; the sides are in close apposition, and between them a strip of lint dipped in oil is inserted. The deeper parts are well, and firmly filled with healthy granulations;

the wound gradually converges to the opening in the bowel, which appears at the bottom of the wound about the size of a fourpenny piece. He walks about during nearly the whole of the day without much fatigue; his step is steady and erect; he has no pain or feeling of weakness in the back.

From this time the patient rapidly recovered his strength, nutrition proceeded perfectly, and he acquired his usual bulky form; the wound contracted to an aperture in the centre of the incision no larger than would admit an ordinary goose-quill, through which the *fæces* passed with facility. He was now able to resume his laborious employment of coach-axle forger, in which great and rapid muscular exertion was constantly required in lifting and striking heavy weights of iron; and in which also he was obliged to keep pace with two other "strikers" who worked under him at the same forge.

He thus continued from Midsummer, 1845, to Christmas, 1846, during which period I have several times heard him remark that he had acquired as great weight, and could do as much work as at any time in his life. There was nothing in his appearance and manner that would lead to the belief that he was otherwise than a strong and healthy man, or that would convey the most remote idea of his being the subject of so remarkable a deviation from nature as an artificial anus. Had his occupation been a light one, and his habits temperate and regular, he might have passed through life with little inconvenience from the artificial anus.

The only interruption to perfect health which he suffered occasionally, arose from temporary constipation, caused, it is probable, by tendency to contraction in the aperture, and probably also by the *fæces* becoming somewhat more consistent than usual. These attacks would come on at intervals varying from one to two months, and after the evacuations had been interrupted for two or three days. They were accompanied with the ordinary symptoms of constipation, namely, a sense of fulness and uneasiness in the bowels, flatulence, &c. This derangement was very simply and quickly remedied by passing a small-sized bone clyster pipe

into the artificial opening, and injecting through this about a pint or more of warm water, which proceeding had the effect of dilating the passage to the required diameter, and also of softening the fæces to admit of their easy evacuation, when the whole of his uneasy sensations were immediately relieved. However, the necessity for adopting this course at length ceased, for the tendency to contraction of the artificial passage diminished, and constipation was relieved by a small dose of castor-oil.

He thus continued following his employment till the latter part of the year 1847, when he applied to me in consequence of severe pain in the right hypochondrium from which he was suffering. He had frequently complained to me of pain and uneasiness in the same situation for some months, and knowing that his habits were generally intemperate, I suspected the presence of hepatic disease. I therefore ordered the application of leeches and a blister to this situation. He afterwards came under the care of Dr. Fletcher and Mr. Carter, as a patient of the Dispensary, who again ordered leeches and blistering. The pain, however, still continued, and in time extended in a subacute form over the abdomen generally. His appetite now began to fail, he had frequent vomiting, the urine became scanty and ascites set in, and notwithstanding a steady perseverance in medical treatment, he became rapidly worse and much emaciated. The abdomen became greatly distended, and at length between three and four gallons of fluid were drawn off by tapping. The fluid, however, reaccumulated; he was troubled with constant vomiting of large quantities of depraved bile, and had frequent diarrhoea; his system became greatly exhausted, and he died on the 25th February, 1848; being three months from the commencement of his last illness, and *a year and nine months* from the time of the operation.

Examination, forty-two hours after death.—Body greatly emaciated. Lungs healthy, very slight old adhesions of the pleura on the left side, heart and large vessels healthy. The

parietal peritoneum opaque, thickened, and generally covered with lymph; the convolutions of the intestines adherent together, and covered with lymph; spleen healthy, kidneys slightly congested; the liver much thickened, and granular in texture; anterior margin of the liver greatly rounded, and adherent to the peritoneum by the whole of its upper surface. The strictured portion of the intestine was situated at the sigmoid flexure; it was about four inches in length and three fourths of an inch in diameter, throughout the whole extent of the contracted part. When cut into, the whole of this portion was found to be filled with a plug of apparently firmly coagulated lymph, which entirely obliterated the canal.

Having placed the diseased portion of intestine along with other morbid specimens in a jar of spirits of wine, intending it for further examination, I found after it had remained some time, that the plug had become broken up and detached from the bowel. On scraping the thin layer which remained from the bowel, the coats of the latter appeared contracted and slightly thickened, but were continuous, even, and in other respects apparently healthy, and not distinguishable in structure from their proper condition. In fact, with the exception of the contraction and slight thickening of the length above stated, there was no sign of disease in the coats of the bowel. The plug which existed in the contracted portion of the intestine seemed to be formed of successive layers of lymph or fibrine, or inspissated cancers. It exactly resembled the deposits which take place in the larynx in acute laryngitis.

The artificial opening, when viewed from within, was somewhat funnel-shaped, with the apex towards the integuments; it was contracted at the external orifice to the size of a small goose-quill. It appeared to be lined by mucous membrane. The side of the bowel opposite to the opening converged to the aperture so as to leave the entrance to the lower portion nearly obliterated. The lower portion of the intestine was much contracted, but the upper was rather dilated.