strongly on the intestine, and that there is desquamation on recovery. This was so in my cases, the desquamation being strongly marked in the little girl. Durham and others have found bacilli after meat poisoning since Gaertner's cases, but these differ slightly, and probably belong to different groups. Klein found a bacillus (*B. enteritidis sporogenes*) in rice and milk puddings that were said to have given diarrhoea to the whole of the patients in a hospital ward. Gaertner mentions that his bacillus causes illness after 24 hours, but that the toxin acts much sooner.

Unfortunately these changes in food can occur without being perceptible to taste or smell. Twenty-seven hours elapsed from the cooking of the giblets to their consumption by my patients at 9 P.M. When eaten immediately after preparation they were shown to be harmless. The gravy would make an excellent culture medium, and we are told that the bacilli begin to increase and multiply in half an hour, and may have 17 million lineal descendants in twenty-four hours. Presuming that in some unexplained manner one germ inoculated the medium soon after it had cooled sufficiently, there seems time for the stew to have become poisonous before it was consumed by the sufferers.

I would draw special attention, from the diagnostic point of view, to the fact that diarrhoea was the first symptom, and that desquamation occurred during convalescence.

The coroner's jury, after an exhaustive inquiry, found a practically open verdict of "accidental poisoning."

A CASE OF LEAD POISONING BY BEER.

By E. RICE MORGAN, M.R.C.S.ENG.,
Morriston, Glamorganshire.

THE following notes of a case in which lead was absorbed by a person drinking beer which held small quantities in solution, and which eventually caused death, seem to be worthy of record.

W. O., aged 43 years, a wheelwright and carpenter in a tin works, came under treatment first on May 2nd, 1898; the diagnosis then was gastric catarrh. He improved, and was not again visited till May 16th, when he got much worse, and I find my assistant then changed the diagnosis to hepatic disease. Early in June I saw him. As he was emaciating rapidly and as he could not retain much food, I was inclined to look upon the case as one of carcinoma of the stomach. On June 17th we called into consultation Dr. T. D. Griffiths (Swansea), who could arrive at no definite conclusion; there were no physical signs to point to cancer, still it was not excluded. At this time there was great prostration and general muscular trembling; he could not stand, he could not lift a cup with his hand, and had scarcely sufficient control of the facial muscles to speak; there was constant vomiting, persistent constipation, pains all over, and progressive loss of flesh. On July 4th, after very thoroughly going over the case I felt that there ought to be a proper explanation of the great muscular weakness as well as the marked nervous depression, and I then for the first time examined the gums, when at once the explanation of everything became plain, for there was a very decided blue line. As I have held appointments to lead works and spelter works for some twenty years it is a matter of surprise to me that I did not detect the nature of the case much earlier. The only explanation I can give is that as this man worked in a tin-plate works I was put off the scent, whereas I have little doubt that had he come from one of the spelter works I would have jumped at the cause at once. At the end of July his friends persuaded him to go into the Swansea Hospital, where my diagnosis was confirmed.

The difficult question arises, how this man with a very healthy occupation came to absorb so much lead. Every possible source at his home had to be excluded, but a hint was given me to the effect that he was rather fond of his pint of beer. Though I little anticipated I should discover anything at the public-house where he was in the habit of calling for his beer, still I deemed it well to go and see the place. I asked the landlady in her bar which beer this particular man usually drank, and she showed me the tap which drew the beer up from the cellar in leaden pipes. I was allowed to in-

spect the cellar, and there were two sets of leaden pipes very old and much worn, and the distance from the cellar to the bar was at least 20 feet. From the landlady I gleaned another most vital bit of information, which was that this man very "commonly," or, as it should be read, "daily," called for his pint of beer early in the morning—before breakfast, in fact—on his way to or from his work, and that he generally was the first to get the "dra" through one of these leaden pipes. I asked her if she would allow me to have, say, a pint drawn the first thing in the morning from these pipes, and allow an analysis of it to be made. She readily assented to this, and on the following Sunday morning I sent my groom with two large bottles, and told him to witness where the beer was drawn from. About a pint from each tap was drawn, and this was sent the following day to Mr. Seyler, Public Analyst to the county borough of Swansea, who on July 13th, 1898, reported that both samples contained lead in solution.

I had earlier sent off a sample of the patient's urine to the Clinical Research Association, London, S.E., and they reported the unquestionable presence of lead in the urine.

I think, therefore, that I have proved that this man was unquestionably suffering from the presence of lead in his system, that the evidence is fairly conclusive that he was in the habit of drinking beer early in the morning at this inn, and that by drinking the "first draw" of beer in the morning he ran the risk of taking a certain quantity of lead daily. He lived for years in the same house, he worked for years in the same works, and he passed this public-house some half a dozen times a day. I am fully satisfied that this beer was the source of his lead poisoning.

He remained some time at the hospital. When he came out he was still very weak, and scarcely able to walk. He was again confined to his bed in November, the main symptoms being much the same—great prostration and muscular tremors. Towards the end of the month he got a little better, and was able to get out a little; and from this date I lost sight of him as far as treatment was concerned.

As naturally follows in such chronic cases I found he was trying treatment elsewhere, but from occasionally meeting him out of doors I could see that he was making no progress, and the last I heard of him was that in the following January he fell down in a fit and lingered a few hours before he died. This is not an infrequent ending of cases of lead poisoning—the patient suddenly has a convulsive fit, which, with intermissions of 15 to 20 minutes, may go on for hours, but death nearly always follows in less than 48 hours.

If in this case it has been demonstrated clearly enough that the lead from the pipes from which beer is given to the public to drink is to be found in sufficient quantity to lead to lead poisoning and subsequent death, surely it is full time the public should be made thoroughly aware of the fact. I have heard of cases of men at large hotels complain of the first "draws" of beer in the morning that it does not taste nice and that it often will not stay on their stomachs—lucky for them that it does not stay there—but I have never heard of or read of a death from such a cause as this.

NOTES OF A SERIES OF CASES OF GLANDULAR FEVER OCCURRING IN EPIDEMIC FORM.

By LESLIE DURNO, M.D.,
Stoke Newington.

DURING the months of January, February, and March, 1900, a number of cases came under my notice presenting symptoms and a history very similar to those first described by Pfeiffer in 1889, and called by him "*Druesser Fieber*," and subsequently recognised by Dr. Park West and Dr. Dawson Williams.

With the exception of an adult, a mother who had nursed three of her children through the same illness, the ages of the victims ranged from 2½ to 13 years.

In every household in which the malady appeared very few of the younger members escaped.

The symptoms, physical signs, and general condition of the patients were practically the same, though differing very much in severity. There were no premonitory symptoms, the ill-

ness commencing with headache, nausea, and sickness, pain in one side of the neck, and in by far the greater proportion the left side. Head turned towards painful side, and pain on moving or raising head from pillow. Temperature ranging from 100° F. in the milder to 105° F. in the more severe types. Pulse-rate high. Respirations quickened. The tongue varying from moist to dry and brown, according to the severity of the attack. Constipation was the rule, with pale stools. Convulsions ushered in the attack in two of the cases.

From 12 to 36 hours after the onset there appeared a distinct and definite swelling on the affected side of the neck, generally under the anterior edge of the sterno-mastoid muscle. In a few cases in the anterior triangle. On palpation the swelling proved to be a group of from three to five lymph glands, ranging in size from that of a pea to a walnut; very tender; separate, and quite movable. There was very little subcutaneous puffing around the glands, no redness of the skin over them, and no tendency to suppuration. In about one-third of the cases from the fifth to the seventh day the corresponding glands on the opposite side of the neck were similarly attacked, though much less severely, but always accompanied by an aggravation of the general symptoms.

In a few cases the posterior cervical glands were enlarged, and in three cases the inguinal glands. In a large proportion there was general tenderness over the abdomen, presumably due to an inflamed condition of the mesenteric glands, though none could be definitely palpated. In most of the cases the glandular swelling disappeared during the third week.

Except in the very mild types, there was well-marked increased hepatic dulness and tenderness. In a few cases there was tenderness over the spleen. In every case there was a peculiar deep purplish blush extending over the mucous membrane of the fauces, tonsil, and pharynx of the affected side, contrasting markedly with the healthy side. There was very little oedema of the mucous membrane, except in the worst cases, and in those the throat symptoms were more pronounced. Dysphagia was present in all, but more marked in some.

There was no evidence of any nasal discharge, though in a good many cases a nasal tone was developed towards the end of the first week. Slight deafness on the affected side was common, and in a few cases earache. In two cases acute otitis media occurred as a complication towards the end of the illness.

No special pulmonary symptoms were observed. Urine was highly coloured and apparently normal, except in two cases in which hæmorrhagic nephritis was developed as a complication.

About the end of the first week in most cases the previously existing constipation was replaced by diarrhoea, with slimy stools varying in colour from pale yellow to dark green, and very offensive. The onset of the diarrhoea seemed to mark a crisis, for in all the cases except those with complications there was a distinct improvement in the general condition of the patient. Nausea and sickness were specially prominent symptoms during the first stage, and in not a few cases persisted more or less during the whole illness.

Acute anæmia developed very rapidly, and in the worst cases was extreme. Convalescence in the majority started between the second and third week of the illness, was very protracted, even in the mild types, out of all proportion to the severity of the attack. There were no deaths.

So far as I am aware, the pathology of the disease is still unknown. That it is highly infectious—specially attacking the lymphatic glands—and is almost entirely confined to childhood, there can be no doubt. It has been suggested that the most likely centre of infection is the intestinal tract. The peculiarly disturbed condition of the mucous membrane of the fauces, tonsil, pharynx, and also in many of the cases that of the nasopharynx, Eustachian tube, and middle ear, and the very early inflamed state of the cervical glands seem to point to the throat as the most probable primary region of infection.

Sodium salicylate, with one or two calomel purges in the feverish stage, arsenic and iron during convalescence appeared to give good results. It would seem that an important element in the treatment is to maintain as thorough an antiseptic state of the mucous membrane of the throat and pharynx as possible. In a few of the earlier cases this precaution was

neglected, and it was in two of these that otitis media occurred. Either a spray of 1 in 5,000 mercuric perchloride or a swab of glycerine and carbolic acid was used to disinfect the throat. This had the effect of checking any further trouble in the middle ear.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

THE "HEPATIC ODOUR" IN ABSCESS OF THE LIVER.

IN an interesting article on hepatic abscess, published in the BRITISH MEDICAL JOURNAL of September 1st, Mr. Johnson Smith gives a summary of the symptoms met with in cases of this disease, and truly remarks that the difficulties in diagnosis are considerable. There is one symptom which I have several times noted, but which I have never seen referred to by any writer, and that is "a strong hepatic odour from the patient."

No doubt this symptom would be most likely present only when there was an abscess of considerable size present, and therefore its value may not often be very great. Still in a patient who had suffered and had been treated for chronic diarrhoea of two months' standing, the presence of this smell guided me to suspect the liver, and as the temperature was subnormal and the liver very slightly enlarged, the medical attendant had not considered the liver at all affected. I tapped and afterwards evacuated the abscess, which was rather a large one. In hospitals so well ventilated and open as ours in Bombay it is very difficult to detect the odour, but I have done so and pointed it out to my colleagues and class. In a small, close room such as the poorer class natives inhabit it is often easy to at once perceive the odour, especially when the clothes are turned down for examination purposes. It would be interesting to me to know whether others have had a like experience.

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LAPAROTOMY FOR INTESTINAL OBSTRUCTION REPEATED WITHIN SEVEN MONTHS.

ON April 21st, 1899, I received a telegram from Dr. Humphry, of Kurseong, near Darjeeling, asking me to go there prepared to operate on a case of intestinal obstruction. On arrival I found the patient, a young lady of 28, with all the symptoms of an advanced stage of obstruction, such as collapse, intense pain in the abdomen, which was distended, and constant retching. Assisted by Dr. Humphry and Dr. Seal, I opened the abdomen by the usual median incision, and found about 6 inches of the small intestine contracted to about the diameter of a lead pencil, the part above being greatly distended. No constricting band could be found. After pressing the contents of the upper part of the bowel through the constricted portion the incision was closed in three layers, and she made a good recovery. But about three months later she began to complain of abdominal pain, which felt, she said, as though "something was drawing the cicatrix backwards to the spine." I heard no more of her until November 5th, when Dr. Humphry telegraphed again under the same conditions as before, but as I could not go to Kurseong he brought the patient to me, and on November 6th I again opened the abdomen through the former cicatrix. I hoped the operation might have thrown some light on those abdominal pains of obscure origin which are not uncommon in the after-years of patients who have undergone abdominal section; but it did not do so; no bands or adhesions were found, and the condition of things was a precise reproduction of that found at the previous operation—namely, extreme contraction or collapse of a few inches of the small intestine. Again she made a quick recovery, and there has been no return of abdominal pain since the second operation. Of the anatomical cause of the obstruction nothing definite can be stated further than to say it was not due to either a band or an opening in the mesentery, nor did the constricted part of the intestine appear to lie in a retroperitoneal pouch. Hence one is almost driven to conclude