between the thickness of the seams and the incidence rate." In support of this statement, which is in direct opposition to Snell's painstaking work on the subject, they give their Table VII., "showing thickness of seam in which 1613 coal-face men worked." However, on looking at the table we find that the number of cases of *nystagmus* is 1613, and that only one case of *nystagmus* occurred where the thickness of the seam was less than 2 feet, while 650 cases were found where the thickness of seam was 6 feet and over. Such a table is absolutely useless, unless the number of men employed at each thickness of seam is given. Obviously more men are employed in the thick seams than in those less than 2 feet. There might be only two men employed in the seam less than 2 feet, and 40,000 in the seams 6 feet and over.

On p. 40 a curious example of reasoning is quoted: "If lights amounting to 100 candle-power are placed in a room having walls, floor, and ceiling of a reflecting power of 80 per cent., one-fifth of the light will be absorbed and four-fifths reflected. This reflected light is for all intents and purposes a new light of 80 candle-power. The total effective light in the room is therefore the same as if the walls and ceiling had been black, and 400 lamps of 1 candle-power each had been spread evenly over the walls, in addition to the original 100 candle-power."

But it is to the amazing neglect of first physiological principles that I wish to call attention. The miner cares not in the least for the total effective light in the pit; what he does care about is the light on the coal-face that he is hewing. Everyone knows that in a fairly dark room contrast of illumination is of supreme importance; one will see an object illuminated by a $\frac{1}{2}$ foot candle when the rest of the room is lighted by a $\frac{1}{10}$ foot candle far better than if the whole room has an illumination of $\frac{1}{2}$ foot candle.

I might criticise other points, but finding fault is always an invidious task. My object is only to urge the Committee to take more care in drawing up their second report so that it may be throughout of scientific value.

I am, Sir, yours faithfully,

ARCHD. STANLEY PERCIVAL.

Newcastle-upon-Tyne, June 1st, 1922.

WHY IS SEPTIC AURAL DISCHARGE SO COMMON?

To the Editor of THE LANCET.

SIR,—It is to be hoped that the correspondence in your columns upon this subject will not be closed until the question has been thoroughly ventilated. As one who has for some 14 years had daily experience of ear disease among school children, I would like to draw attention to certain points which are of great importance.

1. Dr. Knyvett Gordon has done pioneer work in the question of the occurrence and treatment of suppuration in fever hospitals, and every otologist is persuaded of the necessity of having otologists on the staff of all such institutions. Until this is done children will still be discharged with running ears, some of which (as pointed out by Dr. Kerr Love) are infective. But we are a very slow nation in matters of reform, and, although nearly two decades have passed since this question of specialists in fever hospitals was first mooted, nothing has been done.

2. In many cases of acute suppuration paracentesis is still delayed by general practitioners in spite of universal teaching to the contrary. I have always taught that it is better to incise the membrane clumsily than not to incise at all. I suppose that so long as otology remains the Cinderella of the special departments in general hospitals this state of things will remain.

3. Dr. Ambrose Owen emphasises a very important point when he speaks of the condition in which most of our hospital patients and State school children live. They are constantly exposed to reinfection, they are ill-housed and ill-fed; consequently recurrence of

discharge occurs almost as soon as it is cured. Even the radical mastoids become reinfected. School clinics have done much, but aural disease is still classed as a "minor ailment." Every school clinic should have a properly constituted ear department, and this should be under the supervision of a specialist.

4. Another important point is the treatment of adenoids. Parents frequently assert that their children have been worse "since their throats were done." In many cases operation fails because after-treatment is inadequate or wholly neglected. The adenoids infect the nose, the nose reinfects the naso-pharynx after the adenoids are removed—there is a vicious circle. Much harm is also done by persons who rail against the adenoid operation and endeavour to foist inappropriate and inadequate methods (often based upon a total misapprehension of the conditions) in its place. The future treatment of adenoids will be preventive, but its time is not yet come.

5. Scarcely a week passes without my hearing the extraordinary statement that a doctor has said that the child will be "all right at seven," or "in seven years," and inquiry generally shows that the assertion has been made.

The question of the prevalence of septic aural discharge is a very large one and does not concern medical treatment alone. It embraces better feeding, better housing, better organisation in health matters, and better organisation of treatment centres.

I am, Sir, yours faithfully,

MACLEOD YEARSLEY,

Consulting Aural Surgeon to the L.C.C., Consulting Aurist to the St. James's Hospital, &c.

Welbeck-street, W., June 5th, 1922.

DIFFERENTIAL DIAGNOSIS BETWEEN CHOLELITHIASIS AND ULCUS DUODENI.

To the Editor of THE LANCET.

SIR,—In your issue of June 3rd, Dr. W. J. McKeand describes a case illustrating the difficulty in differentiation between cholelithiasis and duodenal ulcer. He suggests that a test-meal might have helped in the differentiation; it might, on the other hand, merely have added to the difficulty, for, employing the fractional test-meal, I have obtained in cases of proved cholelithiasis curves of hyperacidity indistinguishable from those obtained in the majority of cases of duodenal ulcer. The hypersecretory curve has now been shown to be merely an expression of reflex pyloric hypertonus sometimes accompanied by hypersecretion, and may therefore result from any lesion in the alimentary tract likely to induce such reflex phenomena. Those cases of gall-stones which simulate duodenal ulcer in their symptomatology are particularly likely to show a hypersecretory curve since the symptoms themselves in all probability depend on reflex pylorospasm. It is possible, therefore, in a case of gall-stones to have hunger-pain, relief by food, tenderness over the right upper rectus, and X ray and test-meal evidence all pointing to a diagnosis of duodenal ulcer, and a positive guaiac test being obtained in the stools (as it frequently may be from slight bleeding from other sources than an ulcer) the picture seems to be almost conclusive.

In these cases the correct diagnosis must depend on a careful clinical history and an inquiry into associate symptoms not usually stressed in cholelithiasis, and finally upon a very complete physical examination in the course of which particular attention is paid to certain areas of referred tenderness which I personally have found most valuable in differentiating gall-stones from the many other causes of epigastric pain. Of the clinical points which I should stress, age and sex and general habit cannot be ignored and in Dr. McKeand's case age and sex were certainly strong points in favour of cholelithiasis. Of symptoms common in gall-stones and uncommon in duodenal ulcer the more important are nausea; a tendency to the occurrence of pain in the early hours of the morning and later than the usual time

of the night pain in ulcer; diarrhoea or slight looseness, especially just after an attack; shiveriness in an attack; a type of pain which may be described as a sense of great fullness or distension in the epigastrium before it becomes too severe to permit description; and the reference of pain to a point between the shoulder-blades or the angle of the right scapula. Of clinical observations likely to prove helpful the temperature taken during or just after a bout of pain is important. It is frequently slightly elevated in cases of gall-stones. The points of abdominal tenderness have been admirably described by Chauffard in his classical book, "La Lithiase Biliaire," and are as follows: (1) under the right costal margin, especially on deep breathing—this is higher than the common point of tenderness in duodenal ulcer; (2) immediately above the umbilicus in the mid-line; (3) on firm pressure on the eleventh rib behind; (4) over the spines of the eighth, ninth, tenth, and eleventh dorsal vertebrae. To these I would add tenderness which spreads down into the appendix region but which is really superficial, and tenderness over the third, fourth, and fifth dorsal spines, which I have found much more constantly present and more definitely marked than that over the lower vertebrae. With the exception of the epigastric and right upper rectus tenderness, these points are not in my experience encountered in cases of duodenal ulcer.

I have recently had under my care a case closely resembling that described by Dr. McKeand, with the added difficulty that the patient was a young man and that, in addition to a suggestive clinical picture, a positive guaiac test in the stools, and an X ray report of irregularity and tenderness of the duodenal cap, he had a hypersecretory curve with the fractional test-meal. I decided to treat him as a case of duodenal ulcer and gave liberal cream and butter, as well as rest, belladonna, &c. He became definitely worse. On re-examination I found that he had well-marked tenderness high up under the costal margin, immediately above the umbilicus and on pressure over the eleventh rib behind. His temperature was 99°F. during an attack. All fats and eggs were excluded from his diet, he was made to take exercise and given urotropine and aspirin, and rapidly lost his symptoms. Later he passed what he took to be a gall-stone, but it was not preserved for investigation.

The failure of duodenal ulcer treatment to relieve symptoms is a further diagnostic point, as the response to strict treatment in duodenal ulcer is usually so good, and fats and eggs are not well tolerated by gall-stone cases. In conclusion, I should like to emphasise the very great importance of examining the patient during an attack of pain, when direct and reflex tenderness are both more likely to be clearly defined; the patient does not have to rely on memory for his description of his symptoms, and the gall-bladder may be palpable. In two cases recently I have felt and heard friction-sounds over the gall-bladder.

I am, Sir, yours faithfully,

Guy's Hospital, S.E., June 5th, 1922.

JOHN RYLE.

THE CASE OF MR. F. W. AXHAM.

To the Editor of THE LANCET.

SIR,—As we have been assured in repeated and uncontradicted announcements, that the honour recently conferred on Mr. H. A. Barker owes its origin, at least in part, to the efforts of certain leading members of the medical profession, it would seem inevitable that a not less strenuous attention should now be directed to the position of Mr. F. W. Axham. It will be remembered that some years ago Mr. Axham's name was removed from the Medical Register because of his active association with Mr. Barker's work. I make no pretence either to estimate the value of this work or to review the decision of the General Medical Council. It is, however, certain that but for Mr. Axham's coöperation, Mr. Barker's activities

would either have been restricted or, alternatively, would have cost much suffering to many of his patients. The profession can hardly defend a position in which, while the principal, by medical efforts, is promoted to honour, his colleague, by a medical verdict, is declared "guilty of infamous conduct." That both should come under condemnation, or that both should be approved, is at least a consistent judgment. But that one should be exalted and the other contemned stands open to obvious reproach.

I am, Sir, yours faithfully,

C. O. HAWTHORNE.

Harley-street, W., June 4th, 1922.

SCARLET FEVER IN THE PUERPERIUM: AN INSTITUTIONAL OUTBREAK.

To the Editor of THE LANCET.

SIR,—Undoubted cases of scarlet fever occurring during the puerperium and in new-born babies are of interest on account of the views held as to the susceptibility of mothers to this disease and the supposed insusceptibility of young babies. Recently I was asked to see certain cases in a maternity home and I am appending the case notes. I have looked up the hospital records and added three other cases, all of which, with the exception of one, came under my care. All were removed from the maternity home after I had seen them at the request of their medical attendants. All the patients diagnosed to be suffering from scarlet fever presented the full symptoms and signs of the disease. Two of the babies appeared to have been infected in the uterus, while the remainder developed illness after birth. A case of puerperal sepsis and two cases of scarlet fever and concurrent puerperal sepsis are included. All the mothers had escaped scarlet fever up to the time of their admission into the maternity home and were the only ones that had not been previously attacked. The first three patients made uneventful recoveries and occurred as isolated cases, the remaining six are from the recent outbreak.

1. Mrs. A. developed scarlet fever, rash appearing on the second day of puerperium. Baby commenced desquamating when 5 days old.

2. Mrs. B. developed scarlet fever seventh day of puerperium. Baby developed the disease seven days later when 14 days old.

3. Mrs. C. developed scarlet fever on the ninth day of puerperium and the baby showed definite rash when 11 days old. Vomited and had sore throat and a dirty tongue.

4. Mrs. D. was confined on 9/4/22 and developed scarlet fever on the 24/4/22. She was removed to the Infectious Diseases Hospital and ran a normal course. The baby was not infected when discharged.

5. Mrs. E. was confined 24/4/22 and on the 4/5/22 she was removed suffering from puerperal sepsis.

6. Mrs. F. confined 9/5/22. Developed scarlet fever on the third day of puerperium, rash well out. The baby showed a good rash and had sore throat when 7 days old, and died six days later from tonsillitis and oedema of glottis.

7. Mrs. G. confined 15/5/22. Developed scarlet fever third day of puerperium, some sepsis also present. Baby did not contract fever.

8. Miss H. confined 8/5/22. Scarlet fever sixth day of puerperium, markedly septic also; very ill; died nineteenth day, puerperal sepsis, septic pneumonia. Baby developed scarlet fever when 6 days old, ushered in by convulsions, definite strawberry tongue and rash.

9. Mrs. K. developed scarlet fever and puerperal septicæmia second day of puerperium 19/5/22. Died after nine days of high fever, some retained placenta having been removed. P.M.:—Acute septicaemia, gangrene of vagina. Baby K. showed a strawberry tongue and desquamated thoroughly.

In Nos. 7, 8, and 9, cultures from the blood-stream contained streptococci of the same strain as those recovered from the uterine and vaginal swabs. Most of the women had extensive vaginal and perineal tears. No. 9 was the subject of post-mortem examination. All the cases shown as scarlet fever desquamated and were thoroughly typical.