respiration ceases before the heart fails, find in their tracings the proof that the failure of respiration is the primary cause of death. I, on the other hand, maintain that not only my own tracings but theirs too, conclusively prove that the failure of circulation is the primary cause of the failure of the respiratory centre.⁸ From this statement I think any unprejudiced reader would infer that it was upon their tracings that the Hyderabad Commission relied for proof that failure of respiration is the primary cause of death, but this was not the case. The proof that failure of respiration is the primary cause of death from chloroform narcosis consisted in the fact that 141 animals were chloroformed to death by the first Commission, and 430 by the second, and in every one of these 571 animals the respiration failed before the heart. It was evidence of this sort that led me to modify my views regarding the risk to the heart by the action of chloroform directly upon it.

A similar charge of inability to interpret the tracings correctly was brought against me by Drs. Gaskell and Shore, who say regarding the Hyderabad Commission: "Their large number of curves confirm again and again the observation of others, and point to heart failure as the cause of the fall of blood pressure."

In his letter of July 31st, 1897,⁷ Mr. Hill says: "The truth which I seek to establish is that chloroform kills by primarily paralysing the whole of the vascular mechanism." But in his lecture of April 17th, 1897, it is upon the paralysis of the vessels that he lays most stress. A comparison between Mr. Hill's lecture and the above quotation from Drs. Gaskell and Shore, will, I think, show how just was the conclusion arrived at by the Hyderabad Commission in the interpretation of the curves we obtained: for as I pointed out,⁸ "it was precisely because the second Hyderabad Commission, when going over their experiments, thought that although their results indicated paralysis of the vasomotor centre as a cause of the fall in blood pressure, yet the evidence before them was not conclusive that they did not formulate any conclusion on the subject." They left it as a point to be decided by further research.

To one statement made by the Hyderabad Commission, Mr. Leonard Hill says that he "must give a direct denial." This statement is to the effect that inhalation of chloroform has no effect on the length of the period in which the heart can be maintained in arrest by electrical excitation of the vagus. One would have thought that only an intense feeling of duty would have led Mr. Leonard Hill to the use of such language, yet later on he states that while he has "been able to kill animals by repeated and prolonged vagal arrest of the heart, such complete vagal arrest of the heart is never induced by chloroform, and therefore these experiments are of no clinical interest."

Fourthly, the last accusation may be regarded as one either of ignorance or carelessness, for he does not say which it is; but had his account been accurate, Mr. Hill would have been perfectly justified in condemning me as incompetent. He says: "The Hyderabad Commission carried out a few experiments on the effect of the alteration of the position during chloroform narcosis. The workers paid no attention to the fact of the absolute necessity of placing the arterial cannula in the axis round which the animal is turned. Their experiments were thus vitiated by the hydrostatic effect of gravity on the column of fluid in the tube which connected the cannula with the manometer. By the neglect of such a simple precaution the experiments on this point were rendered entirely worthless." I have sometimes felt inclined to ridicule the strong language in which some foreign writers, and especially very young ones, criticise each other's work and denounce each other's statements as absolutely false, and to rejoice that scientific literature in this country was free from this blemish. In his lecture Mr. Hill met one statement of the Hyderabad Chloroform Commission with a flat denial where, perhaps, less strong language might have been admissible, but I little thought it would be my own lot to use the expression "absolutely false" in relation to any statement contained in a scientific paper, yet there is no other by which I can characterise Mr. Leonard Hill's statement, for it is without the slightest foundation in fact. When I read it I thought that it must be a misprint, and that he meant to say that we had paid no attention to having the axis round which

we turned the animal pass through the indifferent point in its vascular system, which, as Herman and his scholars Blumberg¹⁰ and Wagner¹¹ have shown, passes through the apex of the heart. Had this been the objection raised by Mr. Hill to our experiments, it would have involved a matter of opinion, and something might have been said on both sides. But his statement involves a matter of fact, and not of opinion, and as such it can only be met by an absolute denial. The precaution which he says *was not taken* by the Hyderabad Commission *was taken* most carefully. For knowing the fallacy to which he refers I made it my own special charge to see that (1) the cannula in the carotid, (2) the axis upon which we turned the animal, and (3) the horizontal limb of the manometer, were in the same horizontal plane, or, in other words, were at the same level, and remained so throughout the experiment. I cannot think that Mr. Leonard Hill would publish a falsehood wilfully, but a falsehood his statement certainly is, and I shall be curious to learn how he has been led to make it.

I now leave it to the "trained physiologists," whose mouth-piece Mr. Leonard Hill has constituted himself, as well as to the whole medical profession, to decide whether the evidence that Mr. Hill has brought forward is sufficient to justify the charges of (1) prejudice, (2) carelessness, (3) ignorance, and (4) incompetence, which he has brought nominally against the Hyderabad Chloroform Commission, but really against me personally.

REFERENCES.

- ¹ BRIT. MED. JOURN., April 17th, 1897, p. 957. ² *Ibid.*, p. 958. ³ *Leçons de Physiologie Opératoire*, p. 265. ⁴ *Manuel de Visection*, p. 53. ⁵ BRIT. MED. JOURN., March 11th, 1893. ⁶ *Ibid.*, April 7th, 1897, pp. 959, 960. ⁷ *Ibid.*, July 31st, 1897, p. 313. ⁸ *Ibid.*, March 11th, 1893. ⁹ *Ibid.*, April 17th, 1897, p. 960. ¹⁰ Blumberg, *Pflüger's Arch. f. Physiol.*, 1885, vol. 37, p. 467. ¹¹ Wagner, *Pflüger's Arch.*, 1886, vol. 39, p. 371.

A CASE OF SUCCESSFUL OVARİOTOMY IN A CHILD FOUR MONTHS OLD.

By D'ARCY POWER, F.R.C.S.ENG.,
Surgeon to the Victoria Hospital for Children.

THE following case is remarkable on account of the tender age of the patient, as well as the successful issue of the operation. It shows that abdominal section is not very serious even in the youngest children, if proper precautions be taken to minimise shock.

I am indebted to Messrs. P. C. E. Tribe and Walter Allingham for the careful notes of the case.

G. A. R., a breast-fed girl, aged 4 months, was admitted into the Victoria Hospital for Children, under the care of Dr. Carr, February 7th, 1898, suffering from distension of the abdomen. The child was in fairly good health until three weeks ago, when the abdomen began to swell. The child was not in pain. On admission the abdomen was enormously distended, and was very tense. It was dull on percussion, except in the left flank, and the area of the dullness did not alter with the position of the patient. A well-marked thrill could be obtained with ease. The child measured 20½ inches in circumference at a point 2 inches above the umbilicus, and 10½ inches from the symphysis pubis to the tip of the xiphisternum. The urine was normal, and there was no oedema of the legs.

An abdominal section was performed on February 10th, an incision 3 inches long being made in the linea alba above the umbilicus. A small quantity of fluid escaped as soon as the peritoneal cavity was opened, and a thick walled cyst immediately presented at the opening. The cyst wall was bluish in colour, and many delicate blood vessels ramified over its surface. It was quite smooth, shiny, and there were no adhesions. A very fine cannula and trocar were inserted into the cyst, and about two pints of clear yellow fluid were drawn off as slowly as possible, to enable the circulation to adapt itself to the altered abdominal conditions. The whole cyst was then drawn out of the abdomen, a large incision was made in its wall, and the remainder of the fluid was allowed to escape. The total contents of the cyst amounted to 59 ounces. The cyst was then found to be attached by a pedicle about the size of a slate pencil in thickness. The pedicle was transfixed, tied in the usual manner with fine silk, divided, and was allowed to drop back into the abdomen.

The child was a little collapsed after the operation, but it soon rallied, and made a perfectly uneventful recovery, being ready to leave the hospital within a fortnight of the operation.

Subsequent examination of the cyst showed that it was a simple sac containing in its wall one or two thickened nodules which were themselves undergoing cystic degeneration.

MEMORANDA:

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

EXTRUSION OF UTERINE FIBROID.

THE following case may be of interest to some of your readers. I have failed to find any reference to a similar case.

I was called to see M. W., aged 37, who I was told was in labour (she being pregnant six months and a half), the child's head having been born. On arrival I found a large tumour between her thighs which had the appearance of a child's head in membranes. On examination I found the tumour had no connection with the bladder or uterus, having descended from between the bladder and uterus, taking with it the anterior wall of the vagina, by which (stretched out) it was covered. The veins over its surface were very

much enlarged, and a good deal of hæmorrhage had taken place from one of these which had ruptured, either from rough handling or otherwise. We gave her chloroform, and on opening up found a large fibroid, which shelled out easily. It had the appearance of an ordinary fibroid, nearly round in shape, and weighed $1\frac{1}{2}$ lb. I sutured the opening, and on the second day after the operation she was delivered of a 6½-months' child.

It seems strange that a large tumour should have existed without causing any symptoms, the first she felt of it being the symptoms of labour, as she thought. Two years before she gave birth to a healthy child at full time.

I have to thank Mr. J. K. Couch for his assistance.

Manselton, Swansea.

JOHN D. DAVIES, M.B.

RHEUMATIC HYPERPYREXIA.

On January 13th I was asked to see S. F., a dairymaid, and found her suffering from rheumatic fever, the heart labouring badly, and a mitral murmur. I put a blister over the heart, and gave her 10-gr. doses of sodium salicylate every four hours. On January 17th the affected joints were quite

relieved, but from that time the daily temperature was about 105° F. Thinking that the salicylate might be disagreeing, I stopped it. On January 19th, about midday, the temperature was fully 106° F. She complained of a sinking feeling at her heart, and there was slight tympanitic distension of the belly; otherwise she did not look very ill. I ordered 10-gr. doses of phenacetin, of which she only got one dose. I was called through the night and found her dying. About two or three minutes before she died I put the thermometer in her armpit, which was wet with perspiration, and found that after a very short exposure it stood at 110.7° F. After the breathing had ceased for a short time I put the stethoscope over her heart before pronouncing her dead, and was astonished to find the heart beating regularly and distinctly. The thermometer is an ordinary one but registered at Kew, and has been in use for a few months.

Lesmahagow, N.B.

J. LINDSAY, M.D.

THYROID EXTRACT AS AN AID IN THE DEVELOPMENT OF BACKWARD CHILDREN.

IN all that concerns the well-being of children—in their growth and development, in their education, and in their treatment in abnormal conditions—I am keenly interested. My position naturally leads me mainly to the consideration of well-to-do children, who are sound and well-grown in every respect; the delicate and backward have little part or lot in healthy school life. Were it not for this fact I should have withheld the communication until I was enabled to bring forward other like cases. But inasmuch as it may rarely, if ever, fall to my lot to see another such case as I am about to relate, I have thought it advisable to lay it before the profession, so that those who have more scope for the investigation of such children may follow it up, and establish the fact on a firm basis, to the infinite gain of backward children whose educational life is not one of the happiest.

It may be that the fact is already well-known, as there is nothing new under the sun. Anyway it may bring the fact anew before others who are not cognisant of it.

In a large family to whom I am the medical adviser there is one child, of whom all that can be said is that she is backward. Were her age not known no remark would be made concerning her except that she is pale. When told that she is over 13, one would naturally say, Why, I thought she was between 8 and 9. She is well formed and intelligent; eats, drinks, and sleeps well, and is very well nourished; takes her part at home and at school the same as other children; she is affectionate and amiable. In fact, she is exactly like all the other members of the family with these exceptions: She is short in stature, and small made altogether; she is very pale, which neither arsenic nor iron have ever remedied. At the age of 13 she measured 52½ inches, instead of 58½ inches, and weighed 62 lbs. instead of 88 lbs. Her sister, who is only 8 years old, measures 50½ inches, and weighs 60½ lbs. The remarkable results obtained from the administration of thyroid gland upon still more backward children, such as cretins, led me to try the effect of the gland upon her. I commenced giving one 5-grain tabloid a day, and after a month two a day. Her pallor has disappeared, and a healthy aspect has taken its place. She is much more brisk and lively; and she has started growing. In fact, she is a different child altogether.

CLEMENT DUKES, M.D.Lond.,

Physician to Rugby School, and Senior Physician to Rugby Hospital.

REPORTS

ON

MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

BASE HOSPITAL, NOWSHERA, NORTH-WEST FRONTIER OF INDIA.

NOTES ON GUNSHOT WOUNDS.

(By Surgeon-Captain J. M. CRAWFORD, I.M.S.)

SIXTY-TWO cases of the gunshot wounds received in the attack on the Malakand on July 26th, 1897, and in the operations immediately following it, were transferred to the Base Hospital for native troops at Nowshera for treatment.