

and this must have been followed by a strong flow of water from the filth polluted water-bearing stratum. Also, after a high rainfall in January and February, little rain fell in March and April, so that the water entering the well during those two latter months must have been highly charged with organic matter. At that time also the ground water must have been falling.

It is to be noticed that the epidemic continued after the well was closed, on May 31st, and even after the pipe was removed and attached to the new well in July. There is indeed a case in the Home now in a girl who left for Rozel on September 10th, and returned ill on October 11th. Since May 31st, however, up to the present time rain water has been largely used for drinking purposes, and it was found a few days ago that the overflow-pipe of one of the cisterns, instead of leading into the brook, terminated in the subsoil not half way to it. No trace of introduction could be found, so far as evidence could be obtained. The milk was obtained from one farmer, and there had been no illness at his house nor amongst his servants. The new inmates received into the house during April and the beginning of May were all in good health, and continued well. The only possibility is that it may have been introduced by a visitor, but it is not easy at this date to collect reliable evidence on this point. The water seems to be the most likely vehicle by which the disease was conveyed, for the disease did not first occur in nor principally affect the dormitories more exposed to the influence of sewage gas—viz., those next the upper water-closet. Gases escaping by the urinals are not so likely to have acted as carriers, inasmuch as the urinals were separated by a passage from that part of the building which contains the dormitories. The emanations from the ash-pit and heap, containing the clearings from the earth-closets, may possibly have had an effect.

It is to be remarked that this outbreak was the first indication that there was any amount of enteric fever in the island. During the month of June a few cases occurred, there were more in July, and since August the disease has been very prevalent, the cases being in various parts of the town, and scattered all over the country in isolated houses. This is the usual manner in which an epidemic of enteric fever shows itself in Jersey; first a few cases here and there, and then a burst of the disease all over the island, with simultaneous cases in widely separated hamlets and houses between which there is no bond of connexion.

The States having taken the matter up, there is a good prospect of many needed improvements being carried out at the Home, not only in its sanitary condition, but also in its arrangement and management. The committee of the Home have at present the recommendations of Drs. Morison and Dunlop under consideration. More cubic space and better ventilation, with sufficient and suitable means for the isolation of infectious cases, are urgently required. The closets and their refuse and the urinals want better management, and the drains require proper trapping and ventilation. It is possible that the Home may be placed under the supervision of the States, a Bill embodying this suggestion having been brought forward by Deputy Durell.

Correspondence.

"Audi alteram partem."

THE STATE OF THE UTERUS IN PLACENTA PRÆVIA.

To the Editor of THE LANCET.

SIR,—A clinical observation by Dr. Roper must command attention. His statement that the cervix uteri undergoes "a peculiar induration" in cases of placenta prævia is especially interesting. It is in the highest degree important to dispel the old pertinacious and pernicious error that in these cases "the cervix is always dilated or dilatable." Dr. Roper's observations should help to dispel it.

But I must be permitted to call attention to the fact that in my "Obstetric operations" I have emphatically pointed out that the cervix in these cases is often rigid and unyielding. The following passage will be found in all the three editions of this work:—"So imperious is the dogma of unavoidable

persistent hæmorrhage, that the difficulty presented by an undilated os uteri is overcome by a special hypothesis, which assumes that in these cases of flooding the os uteri is by the flooding always rendered easily dilatable. Unfortunately this is not true. Proofs of laceration, of fatal traumatic hæmorrhage from the injured cervix, as the penalty of forcing the hand through the presumed dilatable cervix abound." And to immediate injury must be added the subsequent danger of septicæmia and metritis.

In so far as Dr. Roper's observations of indurated cervix in cases of placenta prævia support the view that this induration is of pathological import, they are, as far as I know, original. But I am inclined to think that the change is physiological in its nature, being pathological only as occurring in an abnormal situation. The gestation is in a physiological sense ectopic. The lower zone of the uterus proper is not so well adapted for the development of the placenta as are the fundal and equatorial zones. But the changes wrought in the placental seat are similar in kind. There is an enormous ectasia of the vessels, and concurrently two conditions ensue. First, some amount of transudation from the vascular channels—anatomically they are channels rather than vessels—into the proper tissues of the uterine wall takes place; some of the transuded serum remains fluid, some condenses or becomes the source of hyperplasia, and thus the uterine wall is not only greatly swollen by the expansion of the vessels by the growth and infiltration of tissues, but it may be hardened by the condensation of effused serum. Secondly, owing to the large proportion of fibrin in the blood, and to the comparative slowness of its movement in the containing reticulated channels, there is a disposition to fibrinous deposits or thromboses in these channels. These changes are observed wheresoever the placenta is attached. They are more marked in the lower zone when the placenta grows there; and these conditions extend to the cervix proper as coming within the range of the exalted action going on in the lower segment of the uterus.

There is a third special cause operating in this region. It is that in many cases—and the remark applies more forcibly to the central implantation cases—the area of growth of the placenta is more limited than when the placenta grows to the fundus or sides of the uterus. The lower zone, even when the placenta grows to it, is of smaller superficies, the placental structure is generally more concentrated, it is smaller in circumference and thicker. Hence there is greater development of uterine vessels at the corresponding site, greater thickness of uterine wall.

Another common cause of rigidity of the cervix in these cases is that, the labour coming on prematurely, the uterus is taken by surprise before its tissues have attained the development necessary for the easy accomplishment of delivery. The child's small and immature head impinging on the intervening placenta, or often giving place to the shoulder or breech, the natural agent of expansion is wanting.

The lesson to be derived from these anatomical and physiological facts, enforced as it is by clinical experience, is to distrust the old practice of the *accouchement forcé*. It is unscientific, violent—one might say brutal—and dangerous. We must adopt methods more rational and more safe. We must give time for the cervix to expand; remove the obstacle to its expansion which the adhesion of the placenta over the os internum presents by detaching it from this region, expand it gently by water-pressure if need be, not deliver until the parts are fairly dilated; and, if turning be indicated, to accomplish this by the bipolar method, which renders the introduction of the hand unnecessary.

Your obedient servant,

Harley-street, Oct. 1879.

ROBERT BARNES.

PLEURAL AND DIAPHRAGMATIC TENSION.

To the Editor of THE LANCET.

SIR,—In the letter you did me the honour to publish on the 25th ult., if I failed to convey the gist of his highly suggestive communication, I must ask Dr. Neale to accept my assurance that I had at least endeavoured to grasp his meaning.

When I wrote that rupture of air-vesicles "might occasion pneumothorax," I had not forgotten that the pleural covering must first give way. My words imply a chain of accidents, and according to Watson (Lectures, vol. ii., p. 189), this particular link is not always wanting. Further, I had

not forgotten, but never accepted as sterling, "the fact that communications exist in the mediastinal spaces, by means of which air from ruptured vesicles may pass into the cellular tissue of the neck." I had never been able to trace them, and could find no author who had, but I now believe that such channels are occasionally formed, for in Laennec's *Treatise on the Diseases of the Chest* and on Mediate Auscultation I have met with such a description of the condition, on the authority of his own observations, as has dispelled every doubt; whilst at the same time my scepticism is justified by his preliminary statement, that "The texture of the cellular partitions separating these lobules from each other is so compact that I doubted, a few years ago, the possibility of an infiltration of air within their substance." (Forbes' translation, 4th edition, page 158.)

In support of my charge of general inaccuracy in dealing with the subject of respiration in its physical aspects, will you kindly grant me space for one more quotation, which shows that we are not even agreed as to what is or is not a muscle of inspiration. "Its [pulmonary emphysema] production is mechanical, and occurs from the forcible compression of the air in the lungs, which is effected by the diaphragm and other expiratory muscles, whilst an obstacle exists to the egress of the air." (Reynolds' *System of Medicine*, article Whooping-cough.)

I remain, Sir, yours truly,

WM. M'LAURIN, M.B., C.M. (Glasgow.)

Islington, Nov. 2nd, 1879.

WORKHOUSE INFIRMARIES AS FIELDS FOR MEDICAL STUDY.

To the Editor of THE LANCET.

SIR,—I notice in the *New Quarterly Magazine* for this month a very good article, entitled "Workhouse Visiting and Management during Twenty-five Years." Amongst the improvement and reforms suggested for sick asylums and infirmaries is this, that a slight alteration should be made in Mr. Gathorne Hardy's valuable Act, passed in 1867, and these institutions opened to medical students for the *clinical* study of disease.

"It is proposed that students of third and fourth years should be admitted, as the larger institutions abound with interesting cases; and how valuable the assistance of these young men would be we need hardly urge, when we find as many as five hundred patients are sometimes placed under the care of two medical men."

If this change were effected it would not only be advantageous to the sick poor, but would also make these institutions serviceable for the study of disease, and indirectly a benefit to the public.

These sick infirmaries are full of cases which are met with in private practice, but are never seen at a hospital.

The time squandered by students and clinical clerks struggling to see, and hopelessly trying to get near a bed, during the rounds of one of the visiting staff to our London hospitals, would be far more profitably spent watching and observing disease in the roomy wards of the large London sick asylums, their visits of course being regulated under the direction and rules of the medical superintendent.

The field of pathological study in these places can be best realised by a glance at the Pathological and other medical societies' reports for the past few years.

Further, these institutions, when under proper management, are admirably suited for the training of nurses; and there are numbers of women who would gladly avail themselves of these advantages if facilities were offered them.

I am, Sir, yours faithfully,

SAMUEL BENTON.

Bennett-street, St. James's, S.W., 29th Oct., 1879.

USE OF CONTINUOUS ELASTIC PRESSURE IN SURGICAL PRACTICE.

To the Editor of THE LANCET.

SIR,—In addition to what I said in THE LANCET of last week, I should like to indicate briefly three other operations in which I have found the conical dilators of great service. These are, the induction of premature labour, which was recently done under my directions by the house-surgeon of our hospital, in a case of placenta prævia; the treatment

of uterine dysmenorrhœa, by slight notching of the cervix and the use of No. 1 dilator for an hour a day, continued for a fortnight; and the treatment of stricture of the rectum.

I would suggest its extension to the treatment of stricture of the urethra and of the lachrymal duct by some surgeons in whose practice such cases occur.—I am, &c.,

Birmingham.

LAWSON TAIT.

PARIS.

(From our own Correspondent.)

THE last number of the *Gazette Médicale de Paris* contains an account of five cases of paralysis cured by the external application of magnets. In one of these the disease was the result of lead-poisoning, and in another it followed upon an attack of epilepsy. In a third instance the patient, a woman aged sixty-seven, had been seized with apoplexy in May, 1878; from this she recovered without any motor or sensory disturbance, but remained aphasic. Last April she came under observation at the Hôtel Dieu with symptoms of ulcer of the stomach. Whilst there, after an attack of giddiness, the limbs became contracted, and complete right hemianæsthesia developed. The application of a magnet dissipated these troubles, and the patient then left the hospital. The recurrence of gastric symptoms brought her back a few days later, when another attack of apoplexy occurred, which left the patient anæsthetic, choreic, contracted, and paracic, all on the right side. According to the physicians, this was evidently an example of post-paralytic hemichorea and hemianæsthesia, clearly depending upon a thrombus located in the posterior third of the external capsule. Here again the action of magnetism was most beautifully demonstrated, its application for one hour sufficing to effect a cure. MM. Proust and Ballet made a communication upon the same subject to the congress at Amsterdam; and, like most observers in this field, they relate some new and astonishing discoveries. These are duly chronicled in the *Paris Médical*. When a metal is applied in a case of anæsthesia the sensibility first returns at the seat of application; but when magnets are used, wherever they may be placed, their action begins at the thorax and extends to the periphery. Those who *manage* to obtain results with metals have described a transfer of sensibility which occurs during their application. MM. Proust and Ballet prevent this by applying a magnet (in a case of anæsthesia) to the insensible side, but *towards* the sound half of the body. When this little detail is observed sensibility returns on the side of application without disappearing on the opposite side. In one of their patients suffering from cerebral tumour and hemianæsthetic, a magnet restored feeling on the affected side, but caused spinal epilepsy on the other. These observers also find that when two patients join hands, the action of the magnet applied to one passes through to the other. When, however, hysterical subjects are chosen, the *phénomène de transfert* does not occur in the person to whom the magnet is applied. Some of these experiments, related to show the physico-vital action of magnets in disease, forcibly suggest the possibility of their giving rise to psychical disturbance in the healthy. If a magnet acts *à distance* there is no reason why it should not influence the experimenter as well as the subject—and an experimenter with disturbed hemispheres might observe that which is not obvious to others. This perhaps may account for the discordance of the results obtained in these matters by different observers.

M. Paul Bert's gaseous mixture for the induction of anæsthesia is now being used in two of the Paris hospitals, on Tuesday at Lariboisière by M. Labbé, and on Thursday at St. Louis by M. Péan. A few days ago it was administered during an operation which lasted over an hour.

THE ravages of the epidemic of "spotted fever," so-called, at Cape Clear continue to extend. On Saturday there were one hundred cases on the island, and many of the inhabitants had left the place. Sir Henry Wrixen Beecher, the landlord, has had a temporary hospital erected at the place, and the Local Government Board inspector, Dr. Brodie, has proceeded to the locality to make arrangements for isolating the infected.