practice are exposed, criticised, and avoided; and the public could have access to the accumulated experience of the medical profession to guide them in legislation, and judge of its merits. It is needless for me here to enter into any plea of justification of such an inquiry, knowing well that those in authority consider vaccination a necessity, and enforce it by law; and that they admit that the present system has many faults in its working, as is evinced in the evidence given before the Royal Commission on Infectious Disease Hospitals, and their report. During the last debate in the House of Commons on the motion of Mr. P. Taylor, the amendment of Sir Joseph Pease for the abolition of accumulation of penalties for non-vaccination, which had passed the House in the form of a Bill two years ago, was countenanced by the Ministers and both sides of the House; and it is acknowledged in the amendment of Sir Lyon Playfair, that passed the House, that the law required such modifications as experience might suggest. I beg to observe that Parliament could not have access to the experience of the profession but only through such a systematic inquiry as I am conducting. With the increasing popular prejudice against vaccination, there is a growing tendency in the medical press to lose sight of the principles of vaccination, and to defend and explain away the shortcomings and abuses of the present system and its practice. Under these circumstances, the public look upon vaccination with increasing distrust, and the number of the unvaccinated class is annually increasing.

It would be a fruitless task for me to talk about the protective power of vaccination in individual cases, and its power for the prevention of epidemics, aided by isolation and other sanitary measures, before a representative assembly of the British medical profession, such as I am now addressing; but I do wish to draw their attention to the fact that the national statistics of small-pox and vaccination are much neglected; and the authorities should be asked to adopt some measure to render them complete. We are now on the close of the year 1883, and we have been favoured with vaccination-returns for the year 1879. I think these returns should be made to appear with the returns of the Registrar-General, so that we might have an opportunity of judging of the vaccination from year to year in districts throughout the country. In some districts, the vaccinators and the vaccination-officers are more scrupulous in returning these certificates than others; consequently, these figures do not always represent facts. Such a state of affairs is rendered more deplorable when it exists among the poorer classes and in crowded districts. Again, the vaccinated population has not yet been ascertained, by census or other means, in counties, throughout the country. Under these circumstances, I am of opinion that the system of vaccination-statistics requires a thorough reorganisation to render them trustworthy and useful.

The statistics of small-pox cases and mortality are still more unsatisfactory. We hope that the day may come, which must be far distant, when all the cases of infectious diseases in the districts will be known to the health departments, and from which we would be able to know the severity of the epidemics. At present our knowledge is principally derived from the returns of mortality, and such cases as are admitted to the hospitals and revealed to officers of health. I regret to observe that in the metropolis the statistics of the small-pox hospitals in connection with the Metropolitan Asylums Board are deplorably bad, giving us no knowledge of the quantity and quality of vaccination, separately or collectively, of the metropolis among the admissions. Before the year 1879, the statistics were arranged in tables, drawn up by the several medical superintendents as they liked. In my Report of the Fulham Small-pox Hospital for the year 1878, I strongly urged upon the authorities the uniform classification of the varieties of variola and of the standard and degrees of vaccination, so that such classified information arranged in tables would enable others to judge of the immunity from and prevalence of small-pox among the vaccinated, vaccinated, and unvaccinated classes. But the Asylums Board, constituted as it is of the managing guardians of the metropolis, do not think it necessary to do more than manage these institutions.

The medical superintendents, as a rule inexperienced at the commencement of their career, are left without scientific and skilful guidance in their responsible professional work, and the medical department of the Local Government Board think it no business of theirs to interfere. The consequence has been that the tables framed by their clerks are handed over to them to be filled up, which give only a rough idea of the admissions, deaths, and discharges, adding little more to the knowledge than that derived from the stewards' and gate-porters' books. I have abundance of evi-

dence to prove that these statistics lack much of necessary care and exactness. They have constituted a class of cases "doubtfully vaccinated," increasing with the cry of the antivaccinators, which bids a hearty welcome to their assertions that the severe cases are put down to the unvaccinated and the mild to the vaccination, and that the new creation is a sort of compromise. It also leads the public to think that the previous medical superintendents and other observers were influenced by some motive not to recognise the difficulty of expressing their doubts. I speak from a somewhat large personal experience, that this difficulty is not so much of finding out the marks, as to judge of the truth of the patients' statements, as it is due to the carelessness of the observers, and reliance of irresponsible persons. I hope these institutions will soon become the centres of scientific inquiries, and cease to be charities managed by the Asylums Board according to their convenience, bestowing patronage on their friends and dependants.

Lastly, I come to the important and vital question of injuries to health and deaths attributed to vaccination, which is at present agitating the public. My inquiry has not yet been complete so as to make any definite observations on the subject, but the *Transactions* of the Vaccination Inquiry, Part I, partially represent them. The scientific advisers of the Grocers' Company, three of the four of whom have had considerable experience in the administration of vaccination, seem to recognise the gravity of the question in offering the investigation prize for the discovery of a nonorganic medium for the propagation of vaccine-virus, which in itself has never been definitely ascertained and cultivated.

It is unfortunate that they fail to recognise the importance of the investigations I am conducting by not favouring me with a research scholarship, on a promise to make a tour to all the important vaccination-stations in Europe and America, and gather the experience of all the civilised nations. I hope the medical profession will fearlessly speak out the truths of their experience in vaccination, and give the vaccination-inquiry their deserving support. It is by the expression of their experience collected in a record, the exposures and criticisms of the shortcomings, that we shall be able to understand its principles, better improve its practice, judge of the necessary reforms, and guide future legislation on vaccination.

A CASE OF EXTRA-UTERINE FETATION.

Read in the Section of Obstetric Medicine.

By W. DUNNETT SPANTON, F.R.C.S.Ed.,

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I FEEL some diffidence in bringing before the Obstetric Section a single case of this kind; but the records of such are so scanty, the views concerning treatment so vaguely expressed, in most writings on the subject, that it may, perhaps, serve some useful purpose, if, by relating one successful case, we can elicit the opinions of those who have had a larger experience as to the best modes of dealing with extra-uterine pregnancy.

Mrs. W., aged 26, living in the country, was sent to me by Dr. E. Tylecote, of Great Haywood, in February 1883. She had always been an active woman, but never very strong. Catamenia continued regularly up to June 1881, six months after her marriage, when she believed herself to be pregnant. Morning sickness was followed by abdominal enlargement, and about the following Christmas, something like movements were felt. Her medical attendant was never able to hear any foetal sounds. The abdominal enlargement continued up to the end of March, when she was of the size of a woman at the full term. She remained about the same until the beginning of May 1882, when she was seized with abdominal pains and sickness. The pain did not last long, and returned only once. There was a free watery discharge, sudden and profuse, which was supposed to come from the uterus, and she was thought to be in labour. Dr. Tylecote says: "On making an examination *per vaginam*, I was surprised to find the os small and undilated, with an elongated cervix." She was confined to her room for two months after this, with what appears to have been a low form of peritonitis, which left her very weak. From this time, the abdomen gradually diminished, and, in November, she was nearly of her usual size, with "a hard roundish tumour, larger than a foetal head, remaining, rather to the right of the mesial line." Menstruation was re-established in August 1882, and has continued fairly regularly since.

In December, the abdomen again began to increase in size, and became more or less painful, so that she was quite unable to attend to any household duties. The enlargement was most marked to-

wards the left side, and steadily increased until the time I saw her.

She had then the appearance of a woman in the sixth month of pregnancy, with a rounded, firm, elastic, but indistinctly fluctuating tumour, occupying the hypogastric region, and extending as high as the umbilicus. The cervix and os uteri were normal; the uterine cavity measured three inches. The uterus was somewhat fixed, especially on the right side, where there was a greater sense of resistance than on the left, but no decided tumour could be made out. The flanks were clear on percussion. There was an entire absence of any sympathetic signs of pregnancy. It appeared to me that we had to deal with an extra-uterine pregnancy almost certainly; but the question then arose: What else was there? What had caused the recent increase in size? The possibility of normal pregnancy at first caused me to hesitate about passing a sound, and this was done only because it was essential to confirm the diagnosis. At the worst, only a miscarriage would occur. Then an adherent ovarian tumour seemed probable, or a fibro-cystic enlargement of the uterus, or perhaps suppuration occurring in a mass of pelvic cellulitis, or in the interior of the sac of an extra-uterine foetus. It was clearly one of those cases in which an abdominal section was the proper course. This was done on May 14th, 1883, under ether.

An incision, about four inches in length, into the peritoneal cavity, exposed what seemed to be a universally adherent omentum, covering a large tumour occupying the uterine region. The adhesion to the abdominal wall on the whole of the right side was so intimate, that the hand could not be passed at all in that direction. The slightest attempt to do so caused free bleeding. On the left side a dark, purplish, smooth portion of tumour could be seen and felt, firm, tense, and apparently semi-solid, and continuous with the uterus. On handling this carefully I felt some crepitus, which decided its character. The cyst was opened, and found to contain a large quantity of foetid, dark, purulent fluid, and a macerated foetus. The bones show that it was almost, if not quite, mature. The contents were carefully removed, care being taken to prevent any escape into the peritoneal cavity, and the edges of the cyst were secured to the centre of the abdominal wound by silk sutures. The cyst-wall was thick, and muscular; it was firmly adherent over the whole of the right side and posteriorly for some inches to the colon, at which point it had thinned, and was very soft and friable. An India-rubber drainage-tube was left in the cavity, and a glass one in the pelvis, through the lower portion of the wound. Gauze dressings were used. Slight sickness followed the operation, and the next day she appeared little the worse for it. Temperature 100.4° Fahr.

Progress continued satisfactory up to May 24th (ten days after the operation). The abdominal drainage-tube was removed on the fourth day, and the wound was closed. The cyst drainage-tube was exchanged for a smaller one, as the cyst appeared to be contracting rapidly, and the discharge was diminishing, and, instead of a dirty-brown colour, was assuming the character of healthy pus. It was syringed out daily with sanitas fluid. The sutures had all been removed.

On the 24th, the temperature rose to 103°. There was a free mucous discharge from the bowel, and floating in it numerous flakes similar to the fluid in the cyst. A careful examination of the wound showed that the cyst had greatly contracted, and a probe would pass only a short distance. Discharge was very slight. Two days afterwards, the temperature fell to 99°, and a purulent discharge took place from the lower wound, which had reopened. A drainage-tube was reinserted, but it did not seem to communicate with the cyst.

From this time, she continued to improve again, having considerable pain, however, at times, relieved by full doses of opium. The discharge continued free for some time from the cyst and the wound.

On June 10th, she was allowed to sit up, but at night the temperature rose to 102°, and remained high (101° to 104°) until the 17th, when it again subsided.

On July 1st, a small bone came away, and as the temperature kept fluctuating, and the discharge continued, I had ether administered, and explored the wound thoroughly with the finger. The cyst had contracted into a sort of hour-glass shape, from the lower portion of which I removed three or four fragments of bone, which were almost embedded in the cyst-wall. I was unable to feel the cyst, with my fingers in it, through the vagina with the other hand, but it appeared to be near the fundus of the uterus, pressure within it depressing the uterus, and *vice versa*. From this time, the patient steadily improved. The wound has closed, and she is now well.

REMARKS.—The primary difficulty in this, as in all such cases, lay in the diagnosis. There was, it is true, an obscure history of extra-uterine pregnancy to begin with; but the rapid subsidence of the original enlargement, and the subsequent steady increase eighteen months afterwards, tended to complicate it and render it more difficult. It certainly looked like normal pregnancy following an extra-uterine one; but the absence of most of the usual signs of pregnancy precluded this conclusion. The passage of a sound decided it. The probability then was that it was an ovarian cyst, adherent to the uterus, with or without abnormal pregnancy, perhaps suppurating, or a fibro-cystic tumour of the uterus, a supposition which the increased length of the uterine cavity appeared to favour. The tumour, whatever its nature, was clearly connected with the upper part of the uterus, and moved, as far as its attachment would permit, with it. It was probably, therefore, of the interstitial form, if extra-uterine pregnancy were present. This view would accord with the supposition that the gush of fluid said to have taken place when labour was expected, may have been amniotic; and this may also explain how putrefaction may have been initiated; although it is possible this might have occurred through a minute perforation in the adherent colon, too small to be detected in the operation. The central position of the tumour, the inability to feel it with any distinctness on either side of the uterus *per vaginam*, and its firm elastic feel on palpation, pointed further in the direction of this view. There is nothing easier, as Dr. Thomas points out, than to describe these varieties of conditions in the lecture-room—especially after the event—but few things more difficult than to decide upon them at the bedside of the patient. This was clearly one of those cases in which an exploratory incision was urgently demanded, as the only means of determining the precise nature of the case on the one hand, and the first step necessary for its cure under any circumstances. The wisdom of this course was justified by the result; and I feel convinced that, if this foetid putrid mass had not been removed, it would, ere long, have burst into the peritoneum, and have inevitably caused the death of the patient. If the sac and its contents had remained in the shrunk condition which was observed about three months after delivery was expected to have taken place, possibly no harm would have ever resulted. But this instance shows very plainly, I think, the danger incurred by assuming that such a mass will remain in a quiet state, and will not do as this one did—begin to suppurate rapidly, bringing the patient slowly but surely into a condition of the gravest danger.

NOTE ON A HITHERTO UNDESCRIBED APPEARANCE OF THE RETINA, OR "SHOT-SILK" RETINA.

Read in the Section of Ophthalmology.

By W. SPENCER WATSON, F.R.C.S.

OUR mental conception of the living and healthy retina is derived from the absence of any visual perception of its essential elements. We can, it is true, see its larger vessels, and can even trace the position of the fovea centralis, but, for the rest, the less we see of the retina, when examining the fundus oculi by means of the ophthalmoscope, the more satisfied we feel that it is sound. This is, of course, equally true of all the transparent tissues within the eye, but I think it right, at the outset of my remarks, to insist on the almost perfect transparency of the retina, (1) because it is apt to be overlooked, and (2) because, as seen by the anatomist, the retina is not transparent.

Considering that the ophthalmoscope has only been in general use about twenty, or perhaps twenty-five, years, it is only to be expected that appearances, difficult to interpret, should now and then present themselves. That this is so, the following anecdote may serve as an illustration. A country practitioner, affected with serious impairment of vision, consulted a well known London oculist. He was naturally anxious to obtain from the latter some definite opinion as to the cause of his malady. The oculist, however, observed something hitherto undescribed, and found it convenient to shelter himself under negative statements. "It was not a cataract." "It was not glaucoma." "It was not intraocular hæmorrhage." "It was not this, nor that, nor the other." At last, our country friend's patience becoming exhausted, he bluntly exclaimed—"Is it a tenpenny nail?" "No," replied the oculist gravely; "it is not a tenpenny nail." With this oracular statement the sufferer had to be content.

I can quite sympathise with the oculist in this case. There is often much difficulty in naming intra-ocular appearances if pre-