and by Schill and Fischer (*Mittheilungen aus dem Kaiserlichen Gesundheitsamte*, Band ii, p. 133. Berlin, 1884), who dried phthical sputum, and, on using it for inoculating guinea-pigs, found it still active after the lapse of thirteen weeks. After twenty-five weeks, the same specimen had lost its activity, two guinea-pigs inoculated with it remaining healthy. Another specimen, found active after thirteen weeks, had diminished in activity after twenty weeks, only two out of three guinea-pigs becoming tubercular after inoculation; and had still further diminished after twenty-six weeks, only one guinea-pig out of three being affected. Finally, after thirty-two weeks, it became inactive, four guinea-pigs inoculated with it all remaining sound.

In most cases of phthisis, the sputum contains tubercle-bacilli, often in great numbers, and usually in the spore-bearing condition. This was very clearly shown by Dr. Gaffky (*Mith. aus dem K. Gesundh.* Berlin, 1884), who examined the sputum daily in twelve cases of phthisis.

The sputum was examined 982 times.

Tubercle-bacilli were found 938 ..

not found 44

Thus, the result was positive in 95.5 per cent. and negative in only 4.5, although, on each day, only one cover-glass preparation was examined.

The spores retain their vitality, and remain capable of growing and producing tubercle-bacilli, for a period of at least three months, provided only they meet with suitable conditions. It is important, therefore, with a view to checking this wide-spread dissemination of tubercle-spores, to take measures to disinfect phthisical sputum. With the purpose of ascertaining the most suitable method of effecting this object, Drs. Schill and Fischer carried out a series of experiments in the Hygienic Laboratory in Berlin (*Mittb. aus dem K. Gesundh. Berlin*, 1884). Corrosive sublimate, thymol, iodoform, arsenious acid, iodine, and carbolic acid, were employed among other things, and the most suitable was found to be a 5 per cent. solution of carbolic acid. When mixed with an equal quantity of this solution, fresh sputum was, after twenty-four hours, completely disinfected. Exposure to steam at a temperature of 212° Fahr. for half an hour to one hour, or to boiling water for ten minutes, was also effective.

Let us trace the phthisical sputum from the lungs, and see what is probably the usual fate of the tubercle-bacilli and their spores, contained in it.

In the process of expectoration, the bronchi, trachea, or larynx may, and not unfrequently do, become inoculated. Also, if during the process of expectoration, the pus be inhaled by some sudden disturbance of the respiratory movements, and carried into the other lung, or into an as yet healthy part of the same lung, a fresh growth of tubercle, and a fresh centre of infection, may be set up. For this there would appear to be no remedy.

A certain amount of the sputum is swallowed, and this occasionally—in fact, in a large number of cases, sooner or later—gives rise to tubercular disease of the intestine. The practice of swallowing sputum should be avoided, not only as a nasty habit, but as one involving some risk of auto-inoculation.

On leaving the mouth, some of the sputum is projected immediately on to the ground in the open air, and cannot be dealt with. Much of it eventually dries, and is carried about by the wind, clinging to particles of dust. The bacilli themselves die, but the spores retain their vitality and are capable of propagating disease.

A large proportion of the sputum is expectorated into special receptacles; these should contain a 5 per cent. solution of carbolic acid, equal in quantity to the amount of the sputum. This practice, suggested by Dr. Ransom, has been carried out in all cases of phthisis in the Nottingham General Hospital for the past two years or more, each spittoon containing two or three ounces of carbolic lotion before being used. If this process of disinfection be not carried out, the spores find their way in an active condition (for they are not killed by the growth of putrefactive bacteria among them) into the sewers or middens, and eventually, some of them, into the air. Handkerchiefs and sheets contaminated with sputum are thoroughly disinfected by boiling water; blankets and mattresses, etc., by exposure to steam for about one hour, as in the Washington Lyon disinfecting apparatus, on to a dry heat of 250° Fahr. for several hours, as in many other disinfecting stoves.

Attempts have been made to destroy the tubercle-bacilli in the lungs by the inhalation of antiseptic vapours and atomised fluids. For this purpose creasote, iodine, carbolic acid, eucalyptus oil, sanitas, etc., have been used. But Dr. Hassall (*The Inhalation-Treatment of Diseases of the Organs of Respiration, including Consumption*) has shown that the quantity of the antiseptic that enters the lung is so infinitesimal as to be quite incapable of destroying the tubercle-bacilli.

much less their spores. This applies not only to the oro-nasal inhalers, but also to the method of inhalation by the vapour of hot water, and to the inhalation of fluids atomised by the steam-jet. By all these methods beneficial effects are often produced, more especially in the way of allaying cough ; but the action is probably chiefly on the larynx and trachea. Whether the method of inhalation in specially constructed chambers, supplied with medicated air, will be more successful, is very doubtful. It has not, at present, been much used on account of the great expense.

PELVIC TUMOUR COMPLICATING PREGNANCY.

By P. HORROCKS, M.D., B.Sc., M.R.C.P.,

Assistant Obstetrician to, and Demonstrator of Practical Obstetrics
and Gynæcology at, Guy's Hospital.

E. D., aged 30, came to the gynecological out-patient department at Guy's Hospital, under my care, in July, 1883, complaining of profuse losses at the monthly periods, accompanied by severe pain. Each period lasted seven days, and the loss was so profuse that the patient was greatly weakened thereby, and stated that she sometimes "fainted away."

On examination, a tender, semi-elastic, solid tumour, convex below, was felt occupying the central and left lateral pouches of Douglas, the cervix being pushed forwards, and a little to the right. Bimanually, the fundus uteri, which was rather high up and to the right, could be felt distinct from the tumour at the top, but apparently intimately connected with it along the greater part of the posterior and left lateral surfaces. The mobility of the uterus was impaired, and the tumour moved somewhat rigidly with the fundus. The patient stated that she had had three children, all born alive at full term, and no miscarriages. The last child was born in November, 1879, and she dated her present complaint from about July, 1882.

The tumour was diagnosed as a fibro-myoma of the uterus, and half-drachm doses of liquid extract of ergot were given. Later, an uterine sound was passed for three inches and a half, with the concavity forwards and a little to the right, and the handle over to the left. Very little mobility could be obtained. She missed the next period, and the ergot was stopped, and bromide of potassium given instead; she missed two more periods, and, on October 4th, I found the uterus considerably enlarged, though, the cervix was not so soft as one would expect in pregnancy. I thought she was pregnant, but she was not sure about it. There was a little fluid in the breast. A week later, flooding came on, and a "tumour" was passed (ovum?).

November 17th. The uterus was decidedly smaller than on the last visit. Ergot was again administered. The tumour behind was larger, if anything.

In December and January, she had seven weeks' amenorrhoea, and suffered from bleeding piles. She menstruated at the end of January.

April 26th, 1881. There had been amenorrhœa during the last nine weeks. On examination, the tumour could be felt as before, but the uterus was considerably enlarged, and probably pregnant. The patient was carefully watched, and, the pregnancy advancing unmistakably, she was admitted into the hospital under my care on June 10th.

The uterus now reached midway between pubes and umbilicus, and more towards the left than the right side. The tumour could be felt as a large swelling in the pouch of Douglas. She complained of pain and difficulty in passing motions. There were large external piles. She was ordered an ounce of castor-oil immediately, and unguentum gallicæ cum opio for application. There was no action of the bowels. A mixture of magnesia and sulphate of magnesia was ordered. No action followed; and a soap-enema was ordered. This acted fairly well. I examined the patient three times a week, and each time endeavoured to push the tumour up into the iliac fossa out of the pelvis. Eventually I succeeded, and as it seemed to lie well out of the way in the left iliac fossa, I sent the patient home on June 25th. I saw her from time to time in the out-patient department, and she went on to full time, and was safely delivered of a living child. It was not until the child was about two or three months old that I saw the patient again. The fibroid tumour was much smaller, and lying more on the left side, in the left lateral pouch of Douglas, but not so low down as before. It had evidently involuted during the *post partum* period, and had been dragged from the left iliac fossa into the pelvis.

Up to the present time (February, 1886), I have had the patient under observation. The tumour is not much less, but is certainly not larger than it was. This is strongly in favour of the view that it is an uterine fibro-myoma.

The question of removal by operation was carefully considered at the time she was in the hospital, but I decided not to operate, and there is at present no reason whatever for doing so.

TOXICOLOGICAL MEMORANDA.

POISONING BY OXALIC ACID AND WHISKEY.

THE following case may be of interest. A domestic servant, in a fit of anger at receiving notice from her mistress, and with the intention, not of committing suicide, but, as communicated to a fellow-servant, of annoying her mistress, bought one ounce of oxalic acid and half a pint of Irish whiskey, put the acid into the whiskey, thoroughly shook the bottle and its contents, mixed these with equal parts of boiling water and sugar, and drank the whole as a "grog," glass after glass (in tumblers), till it was all finished. (These facts were proved beyond any possibility of error, but I need not state the circumstantial evidence.) Ten minutes after drinking the last tumbler, she rushed into the sitting-room, where her mistress was sitting, became violent and abusive, and was finally very sick over a fur rug; and her mistress, noticing that the vomit reddened the rug, sent for me. I found her in a state of deep collapse (she having suddenly "fainted"), with great coldness of extremities and a hardly perceptible pulse. She could be slightly roused by the pain produced by pressing over the abdomen, but in no other way; though all through the case there were violent twitchings of the left side of the face, which became more and more intense, in proportion as enforced semi-consciousness was established. I was soon able to ascertain for certain, from the nearest druggist, what poison she had purchased; and the immediate treatment adopted offers no points of interest. But there is this point of interest in the case: two hours after I had followed up several doses of saccharated solution of lime with a full dose of castor-oil, the patient gradually came out of the collapse, and became like one furiously and madly drunk, as though, at that late period of the case, five hours after her potations, the whiskey, which had been the vehicle for the acid, were suddenly exercising an overbearing influence over her. In fact, from the oxalic side of the case, save for the after-effects of throat-corrosion (on subsequent days), I had no more trouble; but, from the "drunken" side of the condition, I had unmixing trouble for about two hours more, having finally to subdue her excessive attempts at amateur pugilism with a lively application of water in considerable quantity to the top of her head. What surprised me was that the collapse should have preceded in so marked a manner any alcoholic symptoms, should have passed off suddenly, and have given place to an outburst of maniacal fury, which, though severe, was only in proportion to the depth of the collapse which preceded it.

G. H. R. DABBS, M.D., Shanklin.

OBSTETRIC MEMORANDA.

CHILDBIRTH DURING AN ATTACK OF SMALL-POX.

SOME years ago, I was called to a woman who had just been delivered of a child. She was suffering from a severe attack of bronchitis, and the small-pox rash was fully out on her. I thought matters looked badly for both; but the woman made a good recovery, and the child was not affected with small-pox. Some weeks after birth, I vaccinated the child, with a satisfactory result.

May not a case such as this be held to illustrate Mr. Hutchinson's papers on syphilis, as showing how seemingly capricious exanthematous diseases may be in their infectious character?

A. H. F. CAMERON, Liverpool.

THE following are details of another case, which goes to disprove the invariability of the rule of the transmission of diseases of this class to the child *in utero*, although the sequel was a fatal one.

I was called to a woman one evening, about seven o'clock, and found her with a varicelous rash just out, and a little over seven months' pregnant; but there was no indication of commencing labour. At 4 A.M. the following morning, I was again sent for; and, on my arrival, a male child in the eighth month of gestation was already born; it presented no evidence of small-pox. It survived four days, during which time there was no rash at all, death being due to its premature existence. The mother's eruption was confluent; it reached its vesicular stage on the third day of the appearance of the rash. The uterus was fairly well contracted the day after delivery, and was syringed out twice, and the vagina every subsequent day. Both the lochia

and milk were entirely suppressed; her temperature rose to 104° Fahr. twelve hours after delivery, but fell gradually to 99° Fahr. on the fifth day. There was no secondary fever, and, although the eruption became to some extent pustular, it was comparatively slight. Deglutition became very difficult, and ultimately impossible, except for very small quantities of fluid. Secondary symptoms were wanting, the temperature remaining a little above normal until death, which took place on the eleventh day after the appearance of the eruption.

The treatment consisted of the administration of stimulants, milk, and eggs by nutrient enemata, by which the strength was well maintained; but the absence of all secondary symptoms, including the later rise of the temperature, seems to indicate the non-elimination of the poison. The patient passed urine freely at first, but it afterwards became "smoky," containing large quantities of blood. Delirium set in during the last two nights.

F. SEPTIMUS BARNETT, M.R.C.S., Stoke Newington.

A CURIOUS CASE OF TRIPLE PREGNANCY.

SOME time ago, I was called to attend Mrs. T. On my arrival, I found the os uteri fully dilated, and the child was soon born, everything being perfectly natural. For three days, intense labour-pains prevailed, and some amount of bleeding was present. On the fourth day, I was surprised to see a mass, about the size of a small pigeon's egg, expelled after a protracted labour-pain; this proved to be twins, which I afterwards preserved in spirit for my collection. The patient now made a good recovery. She was 19 years old; this was her first confinement. She was also the subject of advanced Bright's disease.

HAYGARTH ADDISON, L.F.P.S.G., Holloway, N.

A CASE OF TRIPLETS.

I WAS sent for to Mrs. B., aged 28, at 9.30 P.M. on Sunday evening, February 21st. She was a multipara, in labour with her third pregnancy. She had been married seven years. The first labour was a "cross-birth" and difficult; the second, at three years' interval, was natural. In her present pregnancy, she quickened on January 1st, and considered herself to be about six months pregnant. I had been attending one of her children a short time before, and, when asked to attend her in confinement, noticed her appearance, which was that of a woman at full term; so that I could hardly believe that she was barely six months pregnant, and thought she must have made some mistake in her reckoning. Labour-pains set in at 9 A.M. on the morning of the 21st, and had continued at frequent intervals during the day.

On examination, I found the os dilated, and membranes presenting. On rupturing the membranes, the presenting parts felt were the cord, which soon became prolapsed, the ear and side of the head, a hand, and the hip, with the leg flexed on the trunk. After some severe pains, a small fetus, quite dead and discoloured, was born, doubled up in the position observed in spontaneous evolution. The cord was very long, and a loop had become completely prolapsed before the birth took place. The abdomen still remaining large, I examined, and found another bag of membranes presenting. This was ruptured, and a drachm of liquor scalis ammoniacus administered. A second child was shortly delivered; it was an ordinary head-presentation. The uterus, although in a state of contraction, still remaining bulky, a further examination was made, and a third bag of membranes ruptured; and the remaining fetus was delivered, the head presenting as before. Both of these latter children were alive, and cried, though feebly, on birth. Their umbilical cords were short, only about half the length of the first. The amnial sacs contained a large quantity of fluid. The uterus contracted well, and the secundines were delivered by manual expression.

On examination of the placenta and membranes, I found the three divisions of the amnion well marked. One of the placentae was separate, only united to the rest by non-vascular membrane; the other two placentae were united into one irregular shaped mass.

The two children born alive died during the night, one a few hours after the other. The sexes were two females and one male. The mother is making a good recovery.

HERBERT J. ILOTT, M.D., Bromley, Kent.

THE Ashby-de-la-Zouch Rural Sanitary Authority have appointed two medical officers of health, instead of one, upon the vacancy caused by the death of Mr. William Joyce.

FREDERICK BLAKESLEY, M.D. Edin., has been placed on the Commission of the Peace for the borough of Bolton; Charles Edward Prior, M.D. Aberd., for the borough of Bedford; and Augustus Rowland Tiechurst, M.R.C.S. Eng., for the borough of Hastings.