Mr. CHAD WOODWARD (Royal Orthopaedic Hospital, Birmingham) demonstrated a model designed to show that if the nutrient foramen of the fibula were situated about the junction of the upper and middle thirds of the shaft, then its canal would take a downward direction, even if the lower epiphysis of the fibula united last. In the course of his observations he recorded the result of the examination of 1,091 human fibulae. In the majority of cases, namely, over 72 per cent., the nutrient foramen was situated at the position mentioned; he therefore regarded this as the normal situation. In 4.9 per cent. more than one foramen existed. Certain authors had written as if the direction of the nutrient canal influenced the time of union of the epiphyses, but this was a confusion between cause and effect. The true cause of the slanting direction of nutrient foramina was the fact that the bones increased in length at their epiphysial lines, while arteries underwent elongation by interstitial growth. In most bones the epiphysis which had joined last was indicated by the direction of the nutrient canal, this slanting away from it. Even in the cases in his series in which the foramen was abnormally situated (23 per cent.), the canal was directed upwards in 13.8 per cent. and inwards in 4.2. In all probability, therefore, the dates hitherto accepted as those at which the epiphyses of the fibula united were incorrect, the lower epiphysis really uniting last.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

PAGET'S ECZEMA OF THE NIPPLE.

A CONSIDERABLE number of reports on the *x*-ray treatment of this disease have been published, but with few successful results so far. Indeed, in *Wright's Medical Annual* for 1911, Dr. Reginald Morton says: "Paget's disease does not seem to be amenable in any degree to *x*-ray treatment."

The following case of apparent cure seems, therefore, worthy of being placed on record:

Mrs. G., a widow, aged 70, was sent to me for treatment in October, 1910. Her left nipple was retracted and the nipple and the areola were excoriated and discharged a thin watery fluid. She complained of considerable pain in the breast. The condition had lasted for twelve months, and had been treated with various ointments. Under and to the left of the nipple there was a definite localized tumour, to which the nipple appeared to be bound. The patient refused operation on account of her age.

Treatment.—The details of the treatment are as follows: From October 27th to December 29th nine applications of unfiltered rays, each sitting being three-quarters of a "pastille dose." The nipple was now quite healed and the tumour smaller; the skin around the nipple showed considerable brown discoloration and was desquamating freely. Eight more weekly sittings were given, the rays being filtered through aluminium and increased to a full "pastille dose." The tumour gradually diminished in size and could now no longer be felt. All pain had also gone. A few more applications were made at fortnightly intervals.

Result.—At the present time no difference can be seen or felt between the two breasts, except that the nipple of the affected one is slightly smaller than the other.

No microscopical examination was made in this case, but other medical men who saw the case agreed that, clinically, the case was a typical instance of Paget's disease.

I think the favourable result was due to the size and frequency of the doses and to the use of a filter as soon as slight dermatitis supervened, for this enabled the treatment to be continued with even increased doses.

NORMAN E. ALDRIDGE, M.B.,
Honorary Physician in charge of Electro-therapeutical Department, Royal South Hants and Southampton Hospital; Medical Officer to *X*-Ray Department, Royal County Hospital, Winchester.
Southampton.

THE PRESENCE OF KIESTIN IN URINE DURING PREGNANCY.

THE patient in the following case, a woman aged 34, consulted me on April 10th, 1910. She was a spare, delicate-looking, fair woman, whose history was as follows: She had one girl being then aged 13, one boy then aged 11; one miscarriage at five months in October, 1900, and one premature birth at seven months, November, 1901. She said she was about five months pregnant and was very nervous, as she had such a bad time with her premature confinement in 1901, and her symptoms now seemed to her the same as she then had, namely, constant headache, neuralgia, swelling of the hands and feet, and cloudy urine.

Condition on Examination.—I found she was five months pregnant. Her mouth was full of septic stumps; with the exception of a haemic murmur over the cardiac pulmonary region and a feeble slow action, nothing more was found. The urine showed a specific gravity of 1010, and was very alkaline; no albumen. A deposit settled in the centre of the glass resembling fine cotton-wool, afterwards rising to the surface, and finally settling to the bottom—kiestin.

I wrote to her late medical man, Dr. C. V. Crosby, of Leicester, who was good enough to give me the following facts:

"She was a pale, thin, unhealthy-looking girl, with bad teeth and a septic condition of the gums. Labour was normal, and as far as I can remember, it was several days after her confinement that I was called to her in fits. Her symptoms were very severe, and I gave chloroform for several hours to control them, later hypodermic of morphine. The urine contained a large amount of albumen, which cleared up entirely after a few weeks. She was extremely ill, and very weak for some time afterwards."

Treatment and Progress.—Quinine, iron, nux vomica, and digitalis were given three times a day, after meals. The heart's action improved. The ascites of the hands and feet quickly diminished, and after a month was quite gone. This medicine was continued until the beginning of July. The patient then, feeling so well, left it off. Within a week the headache, and ascites in the hands and feet returned, rendering it very difficult for her to get about; this cleared up on her resuming her medicine. The urine was repeatedly examined for albumen, with no results, the amount of kiestin keeping the same.

Result.—On August 3rd, 1910, she was confined, labour being quick and quite normal. There were no symptoms of any convulsions following, and she was able to resume her usual duties at the end of a month.

Remarks.—The old proverb, I think, may be quoted in this case: "To be forewarned is to be forearmed." The advantage of seeing the case early and following it through was great. The cardiac tonic, I think, assisted in keeping up the tone of the heart's action, and enabled the patient to weather the storm. Her child weighed 9½ lb., while her other two living children had been delicate and small.

J. MCOSCAR, L.R.C.P.Lond., M.R.C.S.Eng.
Buxton.

FATAL HAEMATEMESIS FOLLOWING OPERATION FOR APPENDICITIS.

MISS S. had had three attacks of subacute appendicitis, the temperature rising to 101° F. at the highest on one occasion. The attacks occurred at intervals of three months. She was under the care of my colleague, Dr. Walters, who asked me to see her with a view to operation. She had a very tender spot over the appendix at McBurney's point, and there was a feeling of thickening and resistance. Nothing abnormal could be felt by the rectum except some possible thickening. The appendix could not be felt. There was a history of gastric trouble two years ago, but as the description is vague nothing could be gathered from it.

On January 15th, 1911, I removed a long, irritable appendix with an exceptionally long mesentery; it dipped down behind the caecum towards the pelvic brim; no difficulty was experienced in its removal, and the operation was completed with invagination of the stump by purse-string suture, and the abdomen closed in layers; the incision was made over the outer border of the rectus. The operation was completed and the patient removed to bed in thirty-five minutes. Some delay was caused at first by troublesome bleeding from the superficial vessels above the muscle. The patient took the anaesthetic well.

There was no sickness for twelve hours; then she complained of difficulty of breathing and faintness; the pulse was 100 and the temperature was 99° F. She was sick once or twice, but only brought up some frothy mucus. She was given strychnine and digitalin hypodermically; the pulse improved, breathing became easier. About six hours later she vomited about half a pint of blood and some clots; the pulse was 120, the respirations 30; she was feeling very faint, and was wandering; the abdomen was quite flat, and there was no pain. She was given adrenalin, ice, and strychnine; the limbs were bandaged and the foot of the bed raised. No action of the bowels occurred; the patient became very collapsed, and continued to vomit

small quantities of dark blood. Her condition was too serious for any abdominal operation to tie the bleeding vessel to be entertained. She became gradually weaker without recovering consciousness, and died on the night of January 17th, fifty-six hours after operation.

Presumably she had an old gastric ulcer, which for some reason started to bleed. The sickness was hardly to be attributed to the anaesthetic, as it did not come on for twelve hours, and must have been due to some reflex disturbance of the circulation in the stomach. It would have been impossible to attempt any further operative procedures as her condition did not admit of it, and our efforts were directed to keeping her pulse going. There was presumably no perforation, as the abdomen at the time of death was quite flat, though, of course, this might have occurred. The appendix was very much inflamed, and inside there was an ulcer on the verge of perforating, and a haemorrhagic condition of the whole lining membrane. Mr. Jonathan Hutchinson attributes such gastric haemorrhage to "sepsis," but I cannot think that this was a factor here. There were some omental adhesions to the ascending colon, but with that exception the peritoneal cavity was normal. The case is of interest in the light of Mr. Hutchinson's paper.

Bovey Tracey. H. GOODWYN, F.R.C.S.Edin.

Reports

ON

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

LONDON TEMPERANCE HOSPITAL.

RENAL CALCULUS; DIAGNOSIS CONFIRMED BY "X" RAYS; STONE LOCALIZED BY NEEDLE; NEPHRO-LITHOTOMY; RECOVERY.

(Under the care of Sir WILLIAM J. COLLINS, M.S., M.D., B.Sc.Lond., F.R.C.S.Eng., Senior Surgeon to the Hospital.)

WILLIAM W., aged 67, a decorator, was admitted into the London Temperance Hospital on July 17th, 1911, complaining that he had had frequency of micturition for several years, and two years ago passed "gravel" and some blood. For the last month he had had pain in the right loin, shooting to the pubes and penis. During the day he micturated every one or two hours, and at night two or three times. He located the pain, which he spoke of as "agony," in the right ilio-costal space. Urine: specific gravity 1010, acid, no albumen, blood, pus, or sugar. Urea =2.2 per cent. He was a spare, gaunt man, weight 8 st. 4 lb., life abstainer. A radiogram indicated a stone, not more than ¾ in. in longest diameter, in the right kidney, the edges of the outline were blurred by respiratory movements. Bladder sounding was negative.

On July 20th, under chloroform, Sir William Collins made an oblique incision 4 in. long in the right ilio-costal space and exposed the kidney, which he brought as far as possible into the wound. With a knitting-needle Sir William made two punctures, the second striking the stone in the lower part of the kidney. He then incised the cortex for an inch, and, inserting the left index finger, localized a stone in the lower part of the renal pelvis, then with forceps introduced along the guiding finger extracted it with little difficulty. It showed no evidence of branching, and appeared to be single and intact; the finger could detect no more. Rather free haemorrhage followed for a minute or two, but yielded to temporary gauze plugging. A large tube was inserted down to the kidney and gauze packed around it. The ends of the incision were closed with both muscular and skin sutures.

Recovery was uninterrupted; there was no pain after the first twenty-four hours, and no blood in urine after the sixth day. The temperature never rose above 100° F., and the wound healed by the twelfth day. He was discharged on the fourteenth day.

The stone was nut-brown, the size of a boy's marble, rather nodulated, and with a small incrustation of phosphates.

Reviews.

THE AUTOINOCULATION OF CONSUMPTIVES.

THE clinical study of consumption has afforded material for endless discussion and controversy, much of it mere repetition of well-worn ideas. It is refreshing to turn to a work on the subject which offers some new ground for thought, based as it is on observation and practical experience, and backed up by results which speak for themselves. Dr. MARCUS PATERSON, the Medical Superintendent of the Frimley Sanatorium, has enjoyed unique opportunities for putting to the test the views that he holds with regard to the clinical phenomena presented by cases of tuberculous disease of the lungs, and he has published the results of his experience in a handsome volume which will command attention, in the first instance, for the liberal manner in which it is printed and illustrated, and, in the second place, for the amount of original work that it contains.[1] He approaches his subject from a purely clinical standpoint, and regards tuberculous disease in the same light as diphtheria or other infective complaints as being due to accidental inoculation of a microbe which sets up local changes at its point of election and a general systemic poison which is the real trouble that has to be combated by the physician.

Hence he looks first for evidence of the general poisoning, and if it be only slight he disregards the local signs, even if they be considerable. In like manner he pays the closest attention to the general symptoms in cases where the evidence of local disease is hardly manifest, believing them to be due to excessive inoculation from a small focus. The local mischief in the lungs is to be regarded as a suppurating ulcer, liable to variations in amount of discharge, and at all times tending to heal under favourable conditions. The general symptoms, such as fever, lassitude, headache, etc., are the results of autoinoculation from the local focus and treatment must be directed toward its control and towards the increase of the resistance capacity of the patient. The control of this autoinoculation is, in the main, the problem which Dr. Paterson has been studying during the last few years. Like other observers he has found that absolute rest, mental and bodily, will often suffice to suppress the evidence of general poisoning, and that the more rigidly the rules of rest are observed the more rapidly does such evidence subside. Movement or excitement will often produce headache and rise of temperature, which tell of a systemic poisoning. These facts are well known, but it has not been so well recognized that this fresh autoinoculation may be followed by a period of lessened susceptibility, and that further movements may be sometimes undertaken without giving rise to further poisoning. Close comparison of the behaviour of the opsonic index with the course of the general symptoms has been found to give such corroborative evidence that its use has been dispensed with and the patients' symptoms have alone been relied upon to provide the required indications as to the use of graduated movements. To hold the balance between the phenomena of intoxication and the immunizing responses is thus the main object to be pursued in prescribing rest and exercise to overcome the activity of the disease.

Acting upon this theory of suppression of the tuberculous poison by means of graduated autoinfection, Dr. Paterson makes use in the first place of walking exercise, and follows it up with gentle manual labour with intervals of absolute rest whenever it becomes obvious that an autoinoculation has taken place, and he maintains that after each such set-back the powers of resistance are increased. The immediate effects of this line of treatment, he tells us, are eminently satisfactory in early cases and an amount of work is annually performed by his patients at Frimley which would appear to have materially benefited the immediate surroundings of the sanatorium as well as its inmates, very large improvements having been undertaken and carried to a successful conclusion by consumptive patients of both sexes who have taken an interest in the work for the work's sake as well as for their own.

[1] *Autoinoculation in Pulmonary Tuberculosis.* By Marcus Paterson, M.B., B.S., Medical Superintendent of Brompton Hospital Sanatorium, Frimley. London: James Nisbet and Co., Ltd. 1911. (Med. 4to, pp. 242; charts and illustrations 58. Price 21s. net.)

possess a battle-axe with which, it is said, one of its members saved the life of the king. For this he was offered a peerage, but is reported to have declined the honour for the unusual reason that "he was of such high standing in the county and so well off."

The Services.

TIME-EXPIRED OFFICERS.

THE time-expired officers of the Royal Army Medical Corps in India as here detailed are nominated to proceed to England in the transports named. The services of these officers will be utilized, if necessary, with troops proceeding from divisions or brigades in which they are stationed for embarkation in those vessels, and those whose time of service expires before embarkation are detained in India for duty with troops proceeding by transports. Officers in medical charge of transports are required to be at Bombay or Kurrachee, according to the port they are embarking from, three clear days before the date of sailing, so as to assist in arrangements for the accommodation and segregation of special cases. The remainder must be at the port of embarkation at least forty-eight hours before the date of sailing. First transport, *Rewa*, October 12th, from Bombay: Lieutenant-Colonel W. C. Beevor, C.M.G., M.B., Major T. McCulloch, M.B., Captain J. W. S. Seccombe. Second transport, *Dongola*, October 26th, from Bombay: Lieutenant-Colonel S. Westcott, C.M.G., Captains C. E. W. S. Fawcett, M.B., and M. J. Cromie. Third transport, *Plassy*, November 9th, from Bombay (leaves Aden November 14th): Lieutenant-Colonels J. M. F. Shine, M.D., and R. L. R. Macleod, M.B., Captains E. W. Powell and A. D. O'Carroll, M.B. Fourth transport *Rewa*, December 9th, from Kurrachee: Lieutenant-Colonel A. L. F. Bate, Major A. Chopping, Captain M. Keane. Fifth transport *Dongola*, December 28th, from Bombay: Major J. Hennessy, M.B., Captains H. G. Sherren and C. F. White, M.B. Sixth transport *Plassy*, January 11th, 1912, from Bombay: Lieutenant-Colonel W. A. Morris, Captains R. E. Humphry, W. Benson, M.B., and W. C. Nimmo. Seventh transport *Rohilla*, January 31st, from Kurrachee: Major C. W. Reilly, Captain T. S. Blackwell. Eighth transport *Rewa*, February 14th, from Kurrachee: Lieutenant-Colonel B. M. Skinner, M.V.O., Captain T. Scatchard. Ninth transport *Dongola*, February 23rd, from Bombay (leaves Aden February 28th): Major H. W. Dunn, M.B., Captains G. G. Tabuteau and G. W. W. Ware, M.B. Tenth transport *Plassy*, March 13th, from Bombay: Lieutenant-Colonel H. S. McGill, Captains E. G. Anthonisz and A. E. F. Hastings. Eleventh transport *Rohilla*, March 28th, from Kurrachee: Lieutenant-Colonel E. H. L. Lynden-Bell, M.B., Major H. G. Martin, Captain J. S. Durme.

Medico-Legal.

WORKMEN'S COMPENSATION ACT.

Aneurysm as the Result of Accident.

IN Cohen *v.* Bolckow Vaughan and Co. (Middlesbrough, July 17th) it appeared that whilst working for the firm on August 5th, 1910, the workman fell from a wagon and injured his head and left shoulder. After being off work for about three weeks in consequence, he resumed his old occupation. Very shortly afterwards, however, an aneurysm developed. This had rendered him unable to work, and the question was, Had the accident caused the aneurysm or had it been contributory? He stated that after the accident he was not able to work every day, nor was he able to do his work properly. He suffered a great deal of pain, and a swelling gradually appeared in his neck. He also had a choking sensation. Ultimately, in November, he was obliged to give up work, being for fourteen weeks in Eston Hospital. He had never had any trouble with his chest or heart prior to the accident. Dr. Murray and Dr. Howat expressed the opinion that the accident Taylor met with had contributed to his present incapacity. Dr. J. Hedley, for the respondents, said he was of the opinion that the aneurysm had been in existence long before the accident, and that it was neither caused nor accelerated by the accident. Dr. Samuel Walker, the medical referee, advised His Honour that the accident did not cause the aneurysm. His Honour concurred, but said he could not come to any other conclusion than that the accident did aggravate the disease. An award was accordingly made.

A Wasp Sting.

In a case at Attleborough County Court (July 10th) the question was whether a wasp sting was an accident within the meaning of the Act. It appeared that in October of last year a workman was engaged in threshing his employer's wheat, and while the work was in progress a swarm of wasps was seen on the drum of the machine upon which he was engaged. The evidence showed that he had been badly stung, and within a few weeks of the accident he died of blood poisoning. It was stated by medical witnesses that the only possible cause for it was the sting of a wasp. The widow and grandchild of the workman applied for compensation under the Act.

His Honour, after reviewing the authorities, said the work involved driving an engine. He had to use his eyes to watch and his hands to guide the machine. His duties left him less time than ordinary labourers to observe and to ward off the attacks of venomous creatures. The work brought the workman to the wasps, and it also brought the wasps to the workman. The employment was the source—the *fons et origo*—from which the sting and the poison arose, and in his opinion the accident arose out of and in the course of the man's employment. An order was made for compensation.

THE DUTIES OF A LOCUMTENENT.

QUAERENS.—The conduct of a locumtenent must be based on the principle that he is paid for the whole of his time, and must perform loyally the whole of the duties of the practice to the best of his ability. Such duties would include assisting a neighbouring practitioner at a case, and if any fee were paid this must be accounted for just like other moneys received for the practice.

Medico-Ethical.

The advice given in this column for the assistance of members is based on medico-ethical principles generally recognized by the profession, but must not be taken as representing direct findings of the Central Ethical Committee, except when so stated.

THE MULTIPLE DOORPLATE.

CYMRO.—The affixing of doorplates to any premises where the practitioner does not reside or attend regularly at certain times is, as we have often had occasion to state, a very questionable procedure, except in scattered districts where a place at which messages may be left is a convenience to both patients and practitioner. In the particular case cited the practitioner in question apparently attends at certain times, and to this there is no ethical objection, as telephones and motor cars have sensibly widened the range of a practitioner's daily round.

Public Health AND POOR LAW MEDICAL SERVICES.

FEES FOR OPERATIONS IN THE POOR LAW SERVICES.

D.M.O. writes to ask whether he can claim any special fee for the operation of tonsillotomy on a district pauper.

*** This is not an operation which carries a special fee, but if our correspondent were to apply to his board to pay him a reasonable fee, and the guardians consented to do so, the Local Government Board would, if asked, probably sanction such payment.

PRIVIES AND DUSTBINS.

M.O.H.—If a sanitary authority desires to have a dilapidated privy converted to a water-closet proceedings must be taken under Section 36 of the Public Health Act, 1875, and not under Section 91 et seq. Section 36 enacts that the authority may require the owner of a house to provide a sufficient water-closet, earth-closet or privy, or either of them, as the case may require. If the owner does not comply with this requirement the authority may do the work and recover the cost from the owner. The cost may be recovered through a court of summary jurisdiction. The justices at the hearing cannot enter into the question as to whether a water-closet, earth-closet or privy (as the case may be) should have been provided, but the owner may appeal on this question to the Local Government Board. By a like procedure a dustbin could be provided by the authority instead of an ashpit.

Medical News.

AT the last examination for the Diploma in Ophthalmology, now granted under the authority of the University Senate of Oxford, Messrs. R. J. Coulter and E. C. Temple-Smith were both approved.

THE second fortnight of the September post-graduate course at Edinburgh commences next Monday. The honorary secretary is Dr. Edwin Bramwell, University New Buildings, Edinburgh.

ON the occasion of the opening of the winter's work in the faculty of medicine in the University of Manchester on October 2nd, an address dealing with the Present Position and Scope of Anatomy is to be delivered by Professor Grafton Elliot Smith.

DR. D. FRASER HARRIS, Lecturer on Physiology in the University of Birmingham, has been appointed to the Chair of Physiology in the Dalhousie University, Halifax, Nova Scotia.