REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, NOVEMBER 14TH, 1882.

JOHN MARSHALL, F.R.C.S., F.R.S., President, in the Chair.

On the Endemic Hæmaturia of the South-East Coast of Africa.—This paper, which was written by the late Dr. VASY LYLE of Durban, Natal, was communicated by Dr. John Harley, who stated that, in his communication to the Society on the same topic some years ago, he had referred to Dr. Lyle as an authority. Dr. Lyle had, since 1864, taken much interest in the subject of hæmaturia in Africa, and Dr. Harley had been in frequent communication with him. He had, unfortunately, died of hydatid disease of the liver. In his paper, Dr. Lyle discussed the physical characters of the infested country, and the extent of the country infested. He stated, as an almost completely proven fact, that the Bilharzia hæmatobia infested the whole eastern littoral of Africa, from Egypt to the Cape; and that the entozoon found amongst the people of the Nile valley was identical with that found in South Africa. It appeared to inhabit the sluggish parts of rivers and low marshy lands, and to be absent from high lands; the interior plateau of South Africa being free from the disease. The present immunity of Port Elizabeth was attributed to the substitution of rain-water stored in tanks for that of wells and pits. Opportunities were obtained of examining the bladder in a case of the disease, and both the male and the female parasite. The bladder in one case was healthy near the neck, but was crossed thence diagonally to the fundus by fungous-looking growths, and the mucous membrane over these was granular and ulcerated, and contained embedded ova. One female Bilharzia was dissected out. The author agreed generally with the description given of the parasite by Dr. Cobbold, but differs in some minor points. In reference to the symptoms and progress of the disease, the author remarked that no symptoms of the affection had been observed antecedent to the appearance of the hæmaturia, the general course of the disease being that described by Dr. Harley, in his communications to the Royal Medical and Chirurgical Society. The portion of urine first passed was clear, but the last few drops contained blood, being expelled by the muscular action of the bladder. The presence of the Bilharzia usually caused little distress; only some lumbar or perineal pain in a few cases. Long after the cessation of the hæmaturia, the eggs of the parasite remained. In some cases, the discharge of blood was so great as to cause the urethra to become blocked by clots; and occasionally vesical catarrh was produced. He had never met with a case in which death could be traced directly to the presence of Bilharzia; it was, however, uncertain what influence it might have in the production of inflammation of the liver. In cases of long standing, nephritic colic was liable to occur; perhaps from the impaction of a clot of blood in the ureter, but more often from renal calculus of phosphatic nature. He had not been able to arrive at any satisfactory explanation of the cause of the affection. Griesinger had attributed it to the use of fish, bread, and fruit; but was not supported by facts. Its cause probably lay in the water used for domestic purposes. He agreed with Dr. Cobbold in believing that certain molluscs acted as intermediate hosts of the parasite. With regard to the supposed relation of the endemic hæmaturia to the Natal sore, he believed the latter to be an expression of general debility, but not to be connected with the hæmaturia. New comers were much more liable to the Natal sore than the old residents; and he did not think that the two diseases coexisted in the same person. He had not met with hæmaturia from Bilharzia among residents in Durban; but it was not rare in the rural districts of the infected regions, where impure water was used. European females above puberty were not liable to it; but it occurred among European males, especially hunters and overseers of labour, who often used impure water. The Kaffirs seemed to be not ignorant of the source of the disease; they avoided fish, gasteropods, and frogs as food; they drank water by throwing it to the mouth from the hand, in order, as they said, to avoid small floating things. Illustrative cases were given; and one of them contained the evidence of a Kaffir on the prevalence of the disease among the natives.—Dr. SPENCER COBBOLD said that, in the hope of being able to show some specimens of Bilharzia, he had applied to several former patients, most of whom had been resident in Egypt; and five of them had sent portions of urine, which, however, were comparatively free. One specimen was from a patient who had come to him a year ago with severe symptoms, but was now much improved. He had placed under the microscopes in the Society's room specimens of ova, and also ciliated embryos which had been hatching during the afternoon. The Bilharzia affected the ox, sheep, and other animals as well as man; in those animals, it differed in size from that of man, and the ova were cylindriform at both ends. In 1851, the parasite was discovered in Cairo by Bilharz, who at first called it distoma; it had, however, been thought better to give it a name derived from that of its discoverer. In 1864, Dr. John Harley made an interesting series of observations on its clinical importance. It had since been found in India; and was extending in Egypt. Some of the patients had resided near the so-called "Sweet Water Canal", and had been attacked a few days after drinking the water. The embryo had been shown by him (Dr. Cobbold) fifteen years ago; but he did not then succeed in infecting snails. Every fluke had its own intermediary host; and probably none of the British molluscs used were the hosts of Bilharzia. Investigations in Egypt, however, would probably soon discover the host of the parasite. As regarded treatment, three methods had been proposed: the heroic plan, the do-nothing plan, and the rational plan. Under the heroic system, medicated injections into the bladder had been carried out to an extreme degree. One author had recommended the injection of two drachms of a saturated solution of alcohol; this set up violent cystitis, and caused the patient great agony for twenty-four hours or even more. It had been concluded, because the patients did not return after this treatment, that it was successful; but a patient who had been subjected to it told Dr. Cobbold that he would rather endure the most severe torment than have it repeated. The do-nothing plan was based on the supposition that the patients would outgrow the disease. In 1870, he had under his care a patient aged 6 years, who was passing myriads of ova, and apparently bleeding to death. Under the use of iron, with a nourishing diet of milk, cream, eggs, etc., the fatal result was averted. He would, in cases of endemic hæmaturia, recommend supporting the system by nutritious food, and by the administration of iron and quinine. Buchu was also most valuable in soothing the irritation of the bladder. In severe cases, it would be worth while to try strong parasiticides. In some recent experiments on the larvæ of the Bilharzia, he had found that they were instantly destroyed on coming into contact with a very dilute solution of corrosive sublimate; one part in 10,000 had a decided effect. He did not agree with Dr. Sonsino in thinking that any bad results would follow this treatment.—Dr. RADCLIFFE CROCKER referred to the case of a boy, aged 12, who, at the beginning of the year, passed much blood with his urine, but now scarcely any; a few ova, however, were still voided. The boy was born in the Orange Free State, and contracted the disease in Natal. Specimens of the ova were exhibited.—Dr. JOHN HARLEY would speak of the treatment. What one had to deal with was one or two nematode worms in the mucous membrane of the bladder, or in the prostate gland, or at the sides of the urethra. As to the mode of introduction of the Bilharzia, various suggestions had been made, but it most probably entered by the urethra during the act of bathing. It was rare among females, but was common among schoolboys. The natives of South Africa prevented its ingress by tying a piece of tape round the penis while bathing. The affection in Natal was mostly confined to the pelvic organs, while, in Egypt, the parasite was no doubt taken in with the drinking-water, and affected the blood generally. He had early advocated injection of the bladder, and had found that, when properly carried out, it not only relieved but cured the patient. In the *Medico-Chirurgical Transactions*, he had described the case of a colonist in Natal who had the disease in a severe form. Solution of iodide of potassium was injected once or twice a week, and, at intervals, oil of male fern. Both these medicines were well tolerated by the bladder. Whether iodide of potassium killed Bilharzia he did not know, but a weak solution killed a leech. The oil of male-fern, injected in doses of about a drachm, in barley-water, was retained three or four hours; it was then expelled with an abundance of *débris*. The patient above mentioned, under this treatment, was cured of his malady; and he had remained hearty and active since 1870. Even after the disappearance of the hæmaturia, the patients might still carry the parasite. Dr. Harley referred to the case of two sons of a medical man who had suffered from hæmaturia. Both were apparently in good health, but in the urine of one of them he found ova. He afterwards had to attend them for symptoms of nephritic colic. He expressed his great satisfaction with the paper which had been brought before the Society. The author was apparently the only medical man who had undertaken the investigation of the disease in South Africa.

The Life-History of the Liver-Fluke in Sheep.—Mr. A. P. THOMAS, of Oxford, exhibited and explained drawings and preparations illustrating the life-history of the liver-fluke, and the mode of its introduction into the bodies of sheep. This parasite caused a great loss among flocks, amounting in 1879 and 1880, it had been calculated, to three millions. Sheep were especially liable to it, especially those fed on low-lying grounds; but, though experiments had been made, especially by Leuckart, to discover its source, none had succeeded. In

1879, the Royal Agricultural Society offered a grant of money for the prosecution of researches on the subject. It was suggested that the late Dr. Rolleston should make the investigation: he, however, could not do so; and it was therefore entrusted to Mr. Thomas. He began to work in two directions; he tried to find whether there was an intermediate host, and, if so, what it was. He had made infection experiments on all the common molluscs, and on some small crustacea. He visited every field near Oxford where the parasite had been found, and examined the fauna very carefully, but could not for some time obtain a clue to the history of the fluke. He found in a field that had been badly infested a *Limnæus truncatulus*, which he subsequently found to harbour a peculiar cercaria, the origin of the liver-fluke. This cercaria had the habit of encysting itself on objects; the body became spheroidal and covered by a mucous exudation, presenting granules similar to those which he had observed in follicular organs at the sides of the animal. For some time afterwards, he had not been able to find the *Limnæus;* but, on visiting the fields after the floods of last July, he had found an abundance of specimens. The floods had cast these snails over the low lying grounds, and, in receding, had left them there. One cause of the difficulty of investigation was the fact that the *Limnæus* was amphibious. The eggs of the liver-fluke, which was very prolific, passed with the bile into the sheep's intestines, and were dropped over the field. If the ova were dropped into water or were washed into a ditch, development proceeded. He had watched the hatching of the embryos in water. The head-end was always turned in the direction of the operculum of the egg; this operculum suddenly gave way, and the embryo escaped and began to move about in the water. It moved very rapidly, and, when in contact with an object, stopped as if examining it. When it came into contact with the right snail, it began to bore into the animal, in which it soon became embedded. It was not all snails that it would enter; only the *Limnæus truncatulus*. When it had entered the snail, the body contracted and became elliptical; an outer covering of cells with cilia was formed, and the eye-spots, which the embryo had possessed, became detached. It thus became a degenerate spore-cyst, with a number of germinal cells, which increased in number and broke up into rounded masses, the germs of the second generation. These increased in size, became oblong, and provided with a pharynx and intestine, assuming the form of a *Redia*, which forced its way through the spore-cyst. The spore-cyst was developed in the pulmonary membrane of the snail; the *redia* reached the liver and fed on the liver-cells. A further formation of spores took place in the *redia;* one end was formed into a tail, while at the other the cells arranged themselves so as to form a sucker. A *Cercaria* was thus formed, which was very active, until it came into contact with some body, when it became encysted. In this way it became encysted on grass, and was devoured by sheep; it then escaped from the cyst and wandered into the liver of the animal. It might be asked whether and how far this investigation would lead to the prevention of the disease. Mr. Thomas believed that it would. The real preventive was salt, which, in a solution of 0.75 per cent., killed the snails. It should be scattered over all spots of soil infested with the worm. It was also very advantageous to feed the sheep on salt. Mr. Heath, a veterinary surgeon, had divided a healthy flock into two parts. Both flocks were placed in an infested pasture-ground. To one he gave daily half a pint of corn with half an ounce of salt, well mixed. When they were killed, in the next summer, not one of the sheep that had been fed with salt had a single fluke; while of the others, not one was free. It was long known that salt prevented the disease; but its action was not understood, and farmers were slow to use it. When the sheep had once become infected, there appeared to be no real cure; the only thing that could be done was to keep up the strength of the animal.—Dr. COBBOLD had been interested in the subject many years. Even the elephant and giraffe were affected with flukes, and these were also found in whales, dolphins, and porpoises. He thanked and congratulated Mr. Thomas for his researches. Before Mr. Thomas announced his discovery (and it was a real discovery), it had been stated that Professor Leuckart had found that *Limnæus truncatulus* was the intermediate host of the liver-fluke. It had, however, been ascertained that the snail on which Leuckart made his experiment was not *Limnæus truncatulus*, but *Limnæus pereger*. In Leuckart's experiments, the snails were infected, but the embryos did not arrive at the cercarial stage. It was reserved for Mr. Thomas to throw a flood of light on the subject, and to work out the entire process of development; and it would be an honour to him to have his name associated with that of Leuckart in the work.—Dr. GEORGE HARLEY said that in 1879 a labourer, aged 52, was admitted into the Dorset Hospital with anomalous symptoms. He had pain in the region of the liver, with sickness, but no jaundice; there was also abscess. He died in four months. At the necropsy, twenty-six flukes were found in the hepatic duct. He had not been in the habit of eating meat; his ordinary diet consisted of bread and cheese, with which he often ate water-cresses.—Dr. T. J. MACLAGAN said that a gentleman, residing near Dorchester, had informed him that in 1879 and 1880, when many sheep were lost, the whole of a flock that had been fed with corn and salt was preserved.—The PRESIDENT, in expressing the thanks of the Society to Mr. Thomas, said that his researches clearly showed the close relation between diseases of man and those of animals; much might be expected from their combined study. They also pointed to the extreme importance of prevention in preference to attempts to cure.

Specimens.—The following microscopic specimens illustrated the discussions.

Dr. COBBOLD showed: 1. Specimens of *Bilharzia hæmatobia;* 2. Eggs and living embryos hatching out (the living embryos were very active in this specimen); 3. *Distoma heterophyes*, the small Egyptian fluke, from the only known case (presented by Professor Leuckart); 4. *Anthomyia* or *Homalomyia scalaris*, from the human intestine (this parasite has been figured, but not named, by Dr. Lionel Beale). Dr. Cobbold also exhibited Lung-sputum full of fluke's eggs; Human liver with flukes; *Filaria Bancroftii*, in the adult state, commonly spoken of as the *Filaria sanguinis hominis* of Lewis, removed from a tumour (helminthoma elasticum) of the axilla by Dr. Bancroft; Five samples of urine containing eggs of *Bilharzia* from patients from Egypt and Natal.

Dr. RADCLIFFE CROCKER showed: 1. Ova of *Bilharzia hæmatobia* from blood from bladder of a boy aged 12; 2. and 3. Ova and embryo in process of hatching.

Dr. BASTIAN showed: 1. *Trichina* from the muscles of a wild boar; 2, 3. *Sylenchus* (a nematode allied to *Pelodera*, causing tubercular nodules in the roots of cucumbers; 4. Embryos of guinea-worm (*Dracunculus*), stained with Bismarck brown.

Dr. STEPHEN MACKENZIE showed: 1. *Filaria sanguinis hominis* (embryo), from stomach of Australian mosquito; 2. The same, from stomach of Chinese mosquito: 3. The same, from human blood; 4. The same, embryos stained to show sheath.

Mr. A. P. THOMAS showed specimens of the liver-fluke in sheep (*Fasciola hepatica*): 1. Eggs of *Fasciola hepatica;* 2. Free embryo; 3. The same, stained with picro-carmine, the embryo being very transparent; 3. *Redia* (one of the nurse-forms of the liver-fluke), containing *cercariæ* and germs of *cercariæ*; 4. *Cercariæ* of the liver-fluke killed in the act of forming their cysts. Also specimens of the shell of the univalve mollusc *Limnæus truncatulus*, the intermediate host of the fluke.

CLINICAL SOCIETY OF LONDON.

FRIDAY, NOVEMBER 10TH.

JOSEPH LISTER, F.R.S., President, in the Chair.

Specimens.—Three living specimens were shown—one by Mr. Golding-Bird, of the good result of a transpatellar excision of the knee in a boy; one by Mr. Christopher Heath, of the well known case in which the tongue and part of the lower jaw had been removed for cancerous disease many years ago; and a case in which a double Macewen's operation had been done for genu valgum.

The PRESIDENT informed the members of the receipt of a letter from Professor Pantaleoni, of Rome, thanking the Society for the honour done him by his election as an Honorary Member of the Society.

Removal of a Fibroid Tumour, with Extirpation of the Uterus, and Fatal Termination.—Mr. GOLDING-BIRD narrated this case. The patient was thirty-seven years of age, and had suffered from the tumour for three years. Its increasing size, the pain and weight accompanying it, and the repeated and prolonged attacks of nausea with which it was attended, compelled her to seek surgical relief. The tumour, of the size of the uterus at the sixth month of pregnancy, grew from the anterior wall of the cervix, and lay between this and the bladder; to which it was intimately connected. The uterus itself was all but drawn out of the pelvis, and the ovaries (both cystic) could be felt through the abdominal parietes. Prior to the operation, however, they were thought to be bases of the tumour. The operation was fully described, and special mention was made of the use of an "apron" of "green carbolised protective", well tucked in over the intestines when the abdomen had been opened, whereby they were easily kept out of the way and sheltered from the spray. The tumour had its peritoneal investment circumferentially divided, where it was reflected on to the pelvic walls or viscera, and it was there shelled out from its bed, the broad ligaments being previously divided. The union with the uterus was intimate, and had to be divided, while the fusion of the fibres of the

tumour with those of the bladder rendered the separation very difficult. All bleeding was stopped with carbolised silk ligatures, and the peritoneum, where divided between rectum and bladder, at the completion of the operation, was united with a continuous suture. The uterus and ovaries were removed after the tumour, a pedicle being formed out of the cervix uteri: it was tied in four parts, as in Erichsen's method of tying nævi. Before the closure of the peritoneum, a rent in the bladder had to be carefully sewn up. A catheter was tied in. The general conduct of the case was that of an ovariotomy. For forty-eight hours all went well, and then severe vomiting set in, which eventually exhausted the patient, having continued till the fourth day, when she died. The *post mortem* examination showed repair to have been perfect as far as it had gone. There was no evidence of the urine having passed beyond the bladder. There was no suppuration, and only slight pelvic peritonitis. There did not seem to be enough to account for the vomiting; and the author explained this symptom as depending upon some idiosyncrasy of the patient, inasmuch as, when she had typhoid fever, ten years before, vomiting, severe enough to threaten life then, was the most prominent symptom. The specimens removed at the operation, and the parts reserved at the necropsy, were exhibited.—Mr. KNOWSLEY THORNTON asked whether a record had been kept of the pulse-rates. He thought that vomiting might well have been the actual cause of death—the sickness, however, being due to septic poisoning, which might not manifest itself in increased body-heat; hence the importance of ascertaining the frequency of the pulse. With regard to the general question of operation, he was inclined to think that interference was less hopeful than had once been supposed. The operation was too much in vogue, and ought not to be done without much graver reasons than seemed to have existed in the case narrated. The only justification for hysterectomy existed when the hæmorrhage was excessive, and threatened life; so that the number of cases requiring such treatment would probably be but few; and most likely the extraperitoneal method advocated by Hegar, Kaltenbach, and others, was the best, direct peritoneal sepsis being thereby avoided. Mr. Lawson Tait had shown that cystic ovaries rather frequently went with fibroid disease of the womb; and had, indeed, gone so far as to think that this ovarian condition might own a causal relationship to the uterine fibromata. Mr. Thornton was fully convinced of the value of the less severe operation of oöphorectomy, and thought that removal of the uterine appendages would have been the proper treatment of Mr. Golding-Bird's case, because the removal of the ovaries, etc., seemed to present no difficulty in this case. Oöphorectomy was, however, by no means always without its incumbrances. In the present position of our knowledge of the subject, he believed that excision of the uterus ought not to be practised until the minor operation of extirpation of the uterine appendages had been tried and failed. Removal of the ovaries probably did good by lessening the blood-supply. However that might be, Mr. Thornton had now had nine cases in which this operation had completely succeeded, the tumours having entirely disappeared in periods varying between five and ten months.—Mr. GOLDING-BIRD, in reply, said that Mr. Bryant had discussed with him the propriety of oöphorectomy, but had advised hysterectomy in this case. The pulse-rates had not been (but should be) recorded in the paper, because ittle reliance could be placed on them, owing to the patient being so nervous and excitable.

Spina Bifida.—Mr. CLUTTON said that, when three weeks old, the infant was brought to St. Thomas's Hospital, and was found to be a well-nourished, healthy child, with the exception of the above imperfection. The spina bifida was situated in the lumbar region, sessile, and with exceedingly thin walls. The impulse when the child cried was very marked, and the aperture in the bony canal large. There was no paralysis of the lower limbs, and the cyst, examined by transmitted light, did not appear to contain the cauda equina. The skin had been so stretched that the walls were quite translucent, and would evidently soon have given way, and allowed the fluid to escape. A week after it was first seen, and when the child was four weeks old, the cyst was injected with a drachm and a half of Morton's fluid, as little as possible of the contents of the sac being allowed to escape. A pad with collodion, and bandage, completed the treatment. The mother was instructed to keep the baby on its back, to prevent, as far as possible, the gravitation of the fluid into the vertebral canal. The constitutional disturbance was very slight, and on the third day the child was in its usual health. The cyst began immediately to shrink, and by the end of a week the skin was in loose folds. At the end of the third week, there was nothing to be felt of the spina bifida except a small puckered lining of cutaneous tissue. Mr. Clutton also related a second case, in which the injection of Morton's fluid was immediately followed by convulsions and death. In this instance, the spina bifida had an ulcerated skin, and was much distended. He had advised treatment as giving the only chance of life. It was necessary to tell the parents plainly that there was great risk attached to the operation.—Mr. MORRANT BAKER asked whether any fluid had been allowed to escape before the injection was made, and whether this child was placed in the dorsal position after the operation. He did not think that the fatal case in any way detracted from the value of the successful one.—Mr. PEARCE GOULD inquired whether the skin in the first case was quite healthy, and whether the fluid of the spina bifida had been tested for sugar. The case was more favourable if the skin were healthy over the tumour, and it was also a matter of importance whether the dilatation was of the arachnoid or subarachnoid space. In the second case, was it true that the child would certainly die? He mentioned a case of large spina bifida which had sloughed, and which recovered, the wound soundly granulating, though the child died, some time after, from marasmus, not from the spina bifida.—Mr. BARKER had used the injection of Morton's fluid once in a case of spina bifida, without producing any effect on the tumour, or any unpleasant symptoms. The child died later from bursting of the tumour.—Mr. HOWARD MARSH said the subject was a most important one in the surgery of childhood. He narrated a case in which the injection of about a drachm of the fluid produced immediate pallor and collapse of an infant four months old; the tumour had a healthy covering of skin, was of the size of a Seville orange, and was situated in the usual place. The child died in the collapsed state, sixteen hours after the injection. He could not conceive that the treatment was not free from risk. The relation of the tumour to the spinal canal and the size of the aperture in the bone were important points; the introduction of the fluid should be made slowly, so that it might gravitate by its own weight to the bottom of the sac, and then the patient should be kept in the dorsal recumbent posture.—Mr. HEATH narrated a case of anterior meningocele, which was recorded (along with one by Mr. Prescott Hewett) by Sir James Paget in an early volume of the *Transactions of the Pathological Society*, in which iodine must have been injected into the cavity of the lateral ventricle without producing serious symptoms. He thought that talipes calcaneus was very common in cases of spina bifida.—Mr. R. W. PARKER had treated about a dozen cases in the way recommended by Dr. Morton, with one successful result, and without any bad effects in the other eleven cases. The size of the osseous aperture was of much importance, as was also the circumstance whether the membranes alone formed the tumour, or whether the central canal of the spinal cord was also dilated. He had injected about half a drachm of Morton's fluid every week for two or three weeks, without producing any apparent effect. Recently he had had a case under his care, where the child when first seen was twenty-four hours old. The fluid oozed very freely from the tumour for fourteen days. The sac had sloughed, and left a cleft sufficient to admit two fingers; opisthotonos had developed, and the child was now in a very bad way. In this case there was double talipes calcaneus. In the case which recovered there was talipes calcaneus on the one side only; in another instance there was equino-varus.—Mr. GODLEE had had a successful case. The spina bifida had a very thin wall of healthy skin. A drachm of fluid was slowly injected; the dorsal posture was resorted to; and the sac gradually dwindled away.—Mr. BENNETT had treated one case without any success, but there was no immediate bad effect. Another instance of spina bifida had come under his care, in which he declined to operate because the child was indisposed at the time. This child died on its way home, in convulsions. If he had used the injection, probably that would have been credited with the convulsions.—Mr. MORRANT BAKER mentioned a case in which spina bifida had been consolidated, the patient afterwards becoming hydrocephalic, and losing power in the legs. Was there any connection between the cure of the spina bifida and the subsequent course of the case?—Mr. CLUTTON, in reply, said that sugar was found in the fluid of his first case, and the skin, although very thin, was not ulcerated. The explanation of success or failure might be found in this: that the aperture in the bone did not necessarily correspond with the aperture in the theca vertebralis; one might be very different in size from the other.

A Case of Separation of the Epiphysis of the Clavicle by Muscular Action.—Mr. CHRISTOPHER HEATH brought forward this case. A boy aged fourteen, whilst raising his arm violently to bowl at cricket, felt something give way at his collar-bone. The inner end of the clavicle was found to be unduly prominent, and presented a sharp edge beneath the skin, quite unlike the smooth end of a bone covered with articular cartilage. The suprasternal notch was quite distinct, and equally defined on both sides, and a thin lamella could be felt on the right side, intervening between it and the gap caused by the starting forwards of the inner end of the clavicle. The treatment consisted in laying the patient down, when the bone at once dipped into place, and it was retained by a plaster-of-Paris bandage. Mr. Heath

referred to the great rarity of the accident, and the diagnosis of it from dislocation of the clavicle, and insisted upon the great utility of the plaster-of-Paris bandage in fractures of the clavicle and humerus.—Mr. LISTER regarded the case as of exceeding interest. It was one of great rarity, even if such a sample had ever been recorded. There was no doubt about the diagnosis; the sharpness of the end of the bone and the fact that a lamella was felt, were pathognomonic.—Mr. COLLINGRIDGE brought a living specimen to the Society, in which partial forward dislocation of the inner end of the clavicle had taken place spontaneously in connection with lateral curvature of the spine, in a patient sixty-three years old, who, at the age of three years, had dislocated the right hip. He had not been able to find any other case in Hamilton's work, nor any reference in Neale's *Medical Digest*.

Six Cases of Diphtheria treated by the Local Application of Borax or Boracic Acid.—Dr. GOODHART narrated these cases. In four, a saturated solution of boracic acid in glycerine was used, the application being made in part by a hand-spray, in part by a laryngeal brush, and as often as every two hours in some cases. In the other two, a dilute solution of the glycerinum boracis was used. The first case was a very severe one, and it died from the renal complication on the seventh day, but the boracic acid and glycerine seemed to be so successful in relieving the throat-symptoms and in preventing the re-formation of membrane, that it was determined to try it again. Of the other five, three had "croup" as well as membrane on the fauces; one had nasal diphtheria; all had albuminuria. All recovered. Tracheotomy was necessary in one case, and the glycerinum boracis was freely applied to the interior of the trachea and larynx from the wound, and to the surface of the wound itself; and it seemed to be very beneficial in loosening, dissolving, and preventing the re-formation of membrane. In another case, it is believed that tracheotomy would have been necessary had not the rigorous application led to the expulsion of membrane by the mouth. In all cases, it seemed to give such relief, that very little difficulty was experienced in carrying out the treatment. Both borax and boracic acid have been occasionally in use as a topical application in diphtheria, doubtless for a long time past, but not, so far as is known, with any decided success; nor can it be supposed that any remedy will not often show a good proportion of failures in combating a disease such as this. It is enough to say that these agents are known to be good antiseptics, that their action is harmless when not beneficial, and that they are certainly useful in some cases.—Dr. PHILLIPS spoke of two other cases in which glycerinum boracis had been used. It was discovered that glycerine would take up three times as much boracic acid, so that the solution could be made very strong; but this must be diluted once if used in Siegel's spray. Both the cases were *in extremis*, and died, despite tracheotomy, membrane being found after death in the smaller bronchi.—Dr. O'CONNOR had notes of about forty cases of diphtheria. He had sometimes used a saturated watery solution of boracic acid, but without special success. The most favourable results were got from a solution of chlorate of potash. He had never seen a case of diphtheria in which, on removing a piece of membrane once, there was no re-formation, though this new membrane might be thinner and more delicate-looking than the first portion.—Dr. LONGHURST thought that the great point was, to be very careful not to irritate the parts affected. Diphtheria was a constitutional disease, and we could not expect much from local applications. We should rather rely on the powers of nature, and see that the patient had lots of nourishment and fresh air. He considered the boracic spray to be good because it did not irritate.—The PRESIDENT said that persons who adopted local applications generally extolled their own particular remedy. He could not agree with the last speaker that local applications were of no great moment. Diphtheria was of a decidedly infectious character, and infection must take place locally, even if the disease ultimately became constitutional. As an example of the efficacy of boracic acid, which he was the first to introduce into surgery, the power it had of removing the smell of a putrid onychia was instanced. He had found out that glycerine, by the aid of heat, could be made to dissolve almost any amount of boracic acid. He had used such applications to sores of the nasal and buccal mucous membrane with favourable results. No doubt the glyceride kept the acid longer in contact with the surface on which it was applied, and this was of great value.—Dr. GOODHART replied, that the notion that diphtheria was a constitutional disease was no argument against the use of local applications, for it was, frequently enough, this local trouble which was the cause of death.—The question having been raised by the President as to what was meant by the term "constitutional", both Drs. Goodhart and Longhurst said they meant a specific poison circulating throughout the body, and producing local effects.

Prior to the discussion on the above subject, Professor LISTER said that it had occurred to him, and the Secretaries concurred with his views, that it would be advisable to have a committee to inquire into the subject of the treatment of spina bifida by means of Morton's fluid; and the names proposed were those of Messrs. Howard Marsh, Clutton, W. R. Parker, and Pearce Gould.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, NOVEMBER 1ST, 1882.

J. MATTHEWS DUNCAN, M.D., President, in the Chair.

Interstitial or Tubo-uterine Gestation.—Mr. ALBAN DORAN exhibited a specimen of this condition. The clinical history of the case, under Mr. C. H. Robert's care, was reported in our pages in October. The gestation-cyst was situated at the right side of the fundus uteri. At the anterior and outer aspect of the cyst, the round ligament sprang from it, and the Fallopian tube passed into it, expanding as it did so into a funnel-shaped orifice. The lower part of the cyst bulged into the uterine cavity, and a bristle could be passed from the uterus through the tube into the cyst. The tube was here also dilated into a funnel-shape at its entrance into the cyst. The tubal origin of the cyst was thus proved. It had burst at the second month. There was a corpus luteum in the right ovary. Mr. Doran had examined the five other cases of the kind that are to be seen in the London museums, and gave an account of them. He remarked on the rarity of the condition and the tendency to early rupture. Had the abdomen been opened, amputation of the uterus would have been the only practicable treatment. He thought that many cases in which development in a supposed hernial pouch of the uterus was suspected, were probably tubo-uterine.

Cephalotribe.—Mr. C. E. JENNINGS exhibited an improved cephalotribe.

Hermaphrodite.—Dr. CHALMERS exhibited the genito-urinary organs of a child in which the internal parts were female, while the external resembled those of the male. The clitoris was grooved below, but not channelled.—Mr. DORAN said that grooving and even complete channelling of the clitoris by the urethra was normal in some of the lower animals.—Dr. FANCOURT BARNES informed the Society that the child he had exhibited at the last meeting had since died, and proved to be a female.—Dr. CHAMPNEYS exhibited the genito-urinary organs of a female with extroversion of bladder, described by him in the *St. Bartholomew's Hospital Reports*. The external genitals were such as might belong to either sex.

Torsion of Cord.—Dr. CHALMERS showed an umbilical cord presenting remarkable twisting and narrowing near the umbilicus.

Tumour of Placenta.—Dr. GALABIN showed (for Dr. J. C. Roberts) a placenta in which was embedded a tumour about the size and shape of an adult human heart. It was encapsuled, and on the uterine side covered by a complete layer of placental tissue. Near it were several small similar detached masses.

Description of a Kyphotic Pelvis, with Remarks on Breisky's Description.—This paper, by Dr. CHAMPNEYS, was read. The pelvis, except for slight asymmetry, and a process which the author termed "posterior spondylolisthesis", was a typical kyphotic pelvis. The author criticised Breisky's description, laying stress on the influence of sitting, which, in the hypnotic pelvis, he believed increased the inversion of the ischial tuberosities while, in the flat pelvis, it increased their eversion; the difference depending upon whether the deformity caused the ischial tuberosities to be inside or outside the line transmitting the body-weight, *i.e.*, the sacro-iliac synchondrosis.

Puerperal Diabetes.—A paper on this subject by Dr. MATTHEWS DUNCAN was read. The author pointed out the distinction between the slight glycosuria of pregnant and suckling women, and real diabetes, with its polyuria and large amounts of sugar. Physicians and surgeons were well aware of the dangers introduced into their cases by complication with diabetes. But the subject of diabetes complicating pregnancy and parturition had attracted almost no attention; and this probably arose from its rarity, which might be accounted for by the disease frequently destroying in women the sexual energies, as it was said to do in man. The author had collected twenty-two cases in fifteen women, and they demonstrated the great gravity of the complication, as respects both mother and child. Of the twenty-two pregnancies (including those ending prematurely), four had a fatal result soon after delivery. In seven of nineteen pregnancies in fourteen women, the child, after reaching a viable age, died during pregnancy; in two, the child was born feeble, and died in a few hours; making an unsuccessful issue in nine of nineteen pregnancies. The histories showed that diabetes might supervene on pregnancy; that it might occur only during pregnancy, being absent at other times; that it might cease with the cessation of pregnancy; that it might come on after parturition; that it might not come on in a pregnancy occurring after its cure. They showed that pregnancy might occur in a diabetic woman; that it might be not appre-

ciably affected in its natural progress and termination by the disease; that it was very liable to be interrupted by death of the fœtus.—Dr. JOHN WILLIAMS thought that these cases were less unfrequent than was supposed, owing to the fact that the urine was not always examined. He had met with four. A trace of sugar in the urine was common, but this was not diabetes.—Dr. ROBERT BARNES had investigated the condition of the urine in pregnancy, as to albumen, urea, and sugar. The occurrence of sugar was physiological, though not constant. Sinéty had shown that sugar appeared in the urine when lactation was suppressed; this was of interest in connection with the normal fatty change in the liver, shown by Tarnier to occur in pregnancy. He (Dr. Barnes) drew a parallel between albuminuria and glycosuria during pregnancy. Both were physiological, but might pass the physiological boundary, and then grave accidents ensued.—Dr. CHAMPNEYS inquired as to the treatment.—Dr. CARTER said that the tendency of diabetics to collapse and coma would make us expect danger from pregnancy and labour. —The PRESIDENT said that the terribly fatal complication he had been describing had no relation to normal glycosuria. He thought, with Dr. Williams, that, attention having been drawn to the subject, more cases would be published. He could lay down no special rules as to treatment.

On the Treatment of Post Partum Hæmorrhage by Hypodermic Injections of Ergotinine.—A paper on this subject, by Dr. C. CHAHBAZIAN (Paris) was read. Ergotinine was the alkaloid of ergot of rye, insoluble in water, soluble in alcohol or chloroform. One pound of powdered ergot yielded three grains of ergotinine. It was indicated in *post partum* hæmorrhage due to imperfect contraction of the uterus. The dose for hypodermic injection was five to ten minims of a solution containing one-fiftieth of a grain in twenty minims. This might be repeated, if necessary; but more than twenty minims should not be given. This produced strong and permanent contraction of the uterus, acted more quickly than ergotine (which was only an extract of ergot), and did not cause local abscesses or indurations. Ergotinine was to ergotine as morphia to extract of opium. It was discovered and prepared by Tanret of Paris.—Dr. CHAMPNEYS inquired how long ergotinine would keep.—Dr. WILTSHIRE suggested that the hypodermic injection of ether might, with advantage, be combined with that of ergotinine.—Dr. BRUNTON asked how long ergotinine took to act.—Dr. CHAHBAZIAN said that uterine contraction usually came on in from two to five minutes after the injection of ergotinine. He could not say how long it would keep.

REVIEWS AND NOTICES.

THE SURGERY, SURGICAL PATHOLOGY, AND SURGICAL ANATOMY OF THE FEMALE PELVIC ORGANS. In a series of Coloured Plates taken from Nature, with Commentaries, Notes, and Cases. By HENRY SAVAGE, M.D.Lond., Fellow of the Royal College of Surgeons of England; one of the Consulting Medical Officers of the Samaritan Hospital for Women. Fifth Edition. London: J. and A. Churchill.

THIS work has already been known to a section of the medical public for nearly twenty years, and it is to be regretted that the scientific study of the female organs has not, during that period, become more diffused in British medical schools. Every hospital has its obstetric staff; nor are patients wanting for the student to observe during his third and fourth years. But too often the student finds the study of diseases of women quite a new subject when he commences his clinical studies, after passing an examination in anatomy and physiology. The third year's student, when he first attends a case of vesical calculus, or assists at an operation for the relief of strangulated hernia, possesses, as a rule, the full command of his subject excepting experience. He has, at least, "got up" the anatomy of the perinæum, inguinal canal, and allied parts and structures, and their study essentially includes surgical as well as purely anatomical questions. We fear it is otherwise when he attends midwifery lectures, or uterine cases in the out-patient room. He, in all probability, has not devoted to the relations of the female organs one-tenth of the time expended in dissecting the male pelvic viscera. Often, indeed, does the demonstrator hear a dissector complain that he has had a female subject allotted to him for dissection of the abdomen and perinæum. He is actually disappointed at losing a chance of dissecting the male urethral triangle, so important for the knowledge necessary when undertaking operations for the relief of calculus and stricture. Yet, in actual fact, the chances are that an average student may never perform lithotomy; but his future practice will be poor indeed if he have not abundant opportunities for making use of a knowledge of the external and internal female organs.

There is only one road to a solid and sound knowledge of the diseases of women, and that is the same road which leads to competence in any other medical or surgical subject. That road runs through the dissecting-room; and the guide-book for travellers on that path will not be any of the usual manuals, which take full note of almost every object in the way, except what appertains to the female organs, which are ever treated as secondary questions, but a work like that of Dr. SAVAGE, where the anatomy of these parts is as minutely described as the anatomy of other spaces, triangles, and regions, is discussed in works on general practical anatomy.

The new edition contains many important additions and revisions, particularly with regard to the ligaments of the bladder and uterus, the normal mobility of the uterus, and the removal of the healthy ovary for relief of certain disorders. In relation to this last subject, we call attention to a very useful wood-cut at page 16, showing the ordinary course of the spermatic and uterine arteries. It can be seen, at a glance, how ligature of one spermatic, or rather ovarian, artery alone would cut off a large supply of blood from the uterus. In Battey's operation, both these arteries are, of necessity, ligatured in securing the stump of the broad ligament after the removal of the ovaries. This would, in itself, cut off the nutrition of a fibroid mass very appreciably; and, in cases of periodical pain, the habit of a steady local afflux of blood, which is, in some cases at least, the direct but unexplained cause of suffering, would cease when no vessels are left for the extra quantity of blood to flow into.

In his observations on operations for the relief of prolapsus, Dr. Savage objects to Marion Sims's method, where the vagina is made narrow near the cervix, by uniting the edges of a raw surface made by dissecting a triangular portion of the mucous membrane. "Experience," says our author, "has shown the futile character of these and such like plastic operations. The great sustensibility of the vagina defeats their object sooner or later."

In the preface, Dr. Savage states that the want of a good index has been felt and noticed by readers of the earlier editions. He excuses himself on the ground that the entire text is practically an index. But there is a vast amount of matter crowded into a small space; and, when this work is used as a book of reference by some one who is unacquainted with its somewhat peculiar arrangement, much time would be saved by the desired addition. For this and other reasons, we are glad to hear that the separate issue of an index is contemplated by the author.

ON INDIGESTION AND BILIOUSNESS. By J. MILNER FOTHERGILL, M.D. London: H. K. Lewis.

DR. MILNER FOTHERGILL is a man of many parts; at any rate, so far as writing is concerned. No subject seems to come amiss to him; and all that he handles he treats dogmatically, by the law of intimate acquaintance and special knowledge. His line is well marked out, and he keeps to it. Semiprofessional, or popular, perhaps it might be called. That is to say, he avoids pathology; occasionally even goes out of his way to thrust at its uselessness as compared with physiology, although the one is but the extension of the other; talks much of function, but very little of structural change; and he writes a book which the lay reader could read with much inward satisfaction; while at the same time he collects together a number of suggestions from all sources, which, from their great practical utility, make his work not unacceptable to the medical practitioner, to whom, of course, he alone appeals. He has nothing new to tell us; but, like the liquor pancreaticus which he recommends, he acts as a digestive ferment, and supplies us with pabulum in a very easily assimilable form. But Dr. Fothergill is more than a digestive ferment; he is also the personification of a "digestive relish", for no one can possibly avoid being instructed and amused. Herein lies the utility of such works as this. The professional mind naturally tends at first to judge of it as below the standard of the best work—as having possible background incentives, which must detract from its merits as of the first class. But such criticism is hardly just in this case; for Dr. Milner Fothergill has written a book which, from the amount of information it contains, will always be an exceedingly valuable one; and there is no doubt that a popular style of this kind is a supply to a demand which will always exist.

Biliousness is a vague term; so also are neurosal indigestion, reflex indigestion, etc., when we come to put what we know about any of them upon paper; but it is, at any rate, conceivable that more progress may be made towards a knowledge of functional conditions and the finer textural changes by a thoughtful speculation, than would be by advancing solely from the side of the assured basis of fact.

The present volume treats of natural digestion and the various forms of indigestion, with their appropriate treatment; and the second half