only be mentioned here. Cathartics, as calomel and jalap; anthelmintics, as turpentine and pomegranate; nervine tonics, as valerian and zinc (thirty years ago the last-named drug was held in high esteem, and was administered in very large doses, gradually reached). At the present time cathartics are little used in this disease; turpentine and pomegranate only as a vermifuge, and sulphate of zinc is nearly, if not quite, antiquated. The principal remedies employed in this day are arsenical and ferruginous preparations, with the free use of the cold shower-bath. When there is an anæmic state of the system, a combination of liq. ferri dialisat., and arsenic in the form of liq. potassæ arsenitis, is of great value. If there be no anæmia, arsenical preparations may be given alone, the best being, I think, the liq. potassæ arsenitis. The dose may be three or four minims thrice a day after food, gradually increased to twelve or fifteen minims. Some physicians give it more largely; but I have not seen this done, nor have I thought it in any case necessary. The higher doses being reached, it is usual to diminish the dose by degrees, and daily, just as it has been increased. Some authorities recommend the arsenic in a large dose rather than a small one at first, and this is gradually to be lessened; but I have no experience of this plan, and should not think it always a safe one, at least in young children. Whether arsenic and iron are given in combination or alone, the cold shower-bath should supplement them; but at first and in the younger patients the chill should be taken off, so that the shock may be less alarming. Many cases of chorea will yield to arsenic and the cold shower-bath employed separately, but when combined they seem to be more speedy and certain in their action. The patient very soon greatly enjoys the cold shower-bath, and its employment once or twice a day breaks in upon the monotony of hospital life. Galvanism has been recommended, but, except in the unfortunate cases which are hemiplegic, it cannot, I should judge, be beneficial. It is of the greatest importance, and cannot be too emphatically urged, that during the above-named treatment, or, indeed, during any treatment, the patient should be plentifully supplied with nourishing food, supplemented in some cases by alcoholic stimulants, and in thin, ill-fed children by cod-liver oil as well. I have known chorea recur once and again, and generally in the same form as at first, sometimes in other forms, but the recurring are as amenable to treatment as the primary attacks. [As the last sentence was being written,¹ a female child, aged three years and a half, very delicate and wasted in appearance, was brought by her mother to my private consulting-room for examination, whose only symptoms were frequent and striking movements of the lips, attended by a smacking sound, as when they are suddenly separated, and a kind of checked sigh or noisy respiratory cough. These strictly localised symptoms began three weeks before, and were doubtless choreic in character.] Yet another mode of treating chorea, whose author I do not recollect, has come under my notice, which should be named here, that nothing of importance in the management of the disease may be omitted. I refer to the very watchful administration of morphia and narcotics generally, so that the patient being kept in bed for many days if necessary, and more or less in a state of narcosis night and day, the excitement of the system and her own self-consciousness when awake may be subdued. In a most intractable case thus treated, being a second attack, well marked and peculiar, where the symptoms always began when the girl was noticed, especially by strangers, the patient was sent out of the hospital cured, if my memory is not at fault, in less than a week, and from subsequent inquiries I have learnt that there has been no return of the disease.

In bringing these remarks to a close, one other matter in connexion with the treatment of chorea must be named and emphasised—namely, that all remarks respecting the patient's case in her presence should always be avoided; all observations to students or others as to its peculiarities should be made, if made at all, behind her back; visits by friends, or even by her own parents, should not, as a rule, be permitted; and the greatest possible care should be taken, even to punctiliousness, that all imitation or mockery of her often grotesque movements by those with whom she must associate—as, if in hospital, the rest of the patients or strange visitors—should under all circumstances be discountenanced, for all attention drawn to the patient,

of whatever kind, is both physically and morally injurious. In those unhappy and rare fatal cases of chorea attended by fever and wild delirium, resembling, in fact, acute mania, no hopeful plan of treatment, so far as I know, has yet been discovered, and for the most part neither food nor medicine can be swallowed. In the only case of the kind which has come under my observation, hypodermic injections of morphia, which seemed to be called for, failed to calm the system or give relief in any way, but by the inhalation of chloroform some quiet and rest were obtained.

I have been satisfied with the mode of treatment of chorea described above, but others may have treated the disease quite as successfully by very dissimilar methods, some reports of which, indeed, have come under my notice in the medical journals. How many ways there are to Rome! In nervous disease, extending through several weeks, as this ordinarily does, better food and a better environment in the hospital wards are powerful agents in assisting Nature through her troubles. Finally, it must be confessed that in our treatment of all nervous diseases, we never can tell when a cure is effected, how much is due to drugs, and how much to altered and improved hygienic measures fully and wisely employed.

Shanklin, Isle of Wight.

ENDOMETRITIS.¹

BY ROBERT CORY, M.D., F.R.C.P.,

ASSISTANT OBSTETRIC PHYSICIAN TO ST. THOMAS'S HOSPITAL.

MANY will think me a bold man for venturing to say a few words on this much-controverted disease. Some of our leading obstetricians even deny the existence of such a disease; others say, if it exist, it is very rare; while others affirm it is very common. On entering the discussion, then, I may at once state that I am one of those who believe that it is very common, and that its non-recognition is a serious error in judgment, and condemns those who seek our advice to continued pain, both bodily and mentally; for my experience after fifteen years' work in the out-patient room of St. Thomas's Hospital leads me to think it is not only the most common disease to which women are subject, but also, fortunately, one of the most easily cured.

Firstly, I will try to show why we should expect the mucous membrane of the uterus to be often deranged, and to this end I must be allowed to suggest an analogy between the uterus of the mammal and the ovarian duct of the fowl. It must be common knowledge to most of us that for a hen to lay an egg it is not necessary that a cock should be concerned in its production; but such an egg, I need not say, is sterile. Do women ever lay sterile eggs? Yes, most women lay a sterile egg every month when they menstruate; in fact menstruation, properly considered, is only the abortion of an unimpregnated ovum or egg.

The ovum of the hen takes about from four to six hours² to pass from the infundibulum of the ovarian duct to the so-called uterus, where it remains from twelve to twenty hours for the deposit of the shell. In the first part of its course through the duct there is a dense albuminous covering, the membrana chalaziera, given to the egg, which at either side becomes twisted, forming the chalaza; upon this is deposited the first layers of the soft albumen. This albumen is much added to in the more glandular part of the oviduct. When the egg arrives at the narrower part of the oviduct called the isthmus, denser layers of albumen are again excreted, forming the membrana putaminis. The egg, with its small end towards the cloaca, passes into the uterine or shell-forming dilatation.

The ovum of the human female is very much smaller than the ovum of a hen, owing to the very small amount of food yolk that it contains, but, as we know, the human ovum is developed into the infant within the body of the mother, and consequently there is not that need of nourishment which the ovum of the fowl requires, which, as everybody knows, is developed into the chick external to the body of the hen. But there is the same provision in kind in the human uterus for giving protection and nutriment to the ovum, and if the ovum is not fertilised it has to be got

¹ This paper was written more than six months since.

² A paper read before the Brixton Medical Society on Thursday, Nov. 20th, 1890.

² Owen: Comparative Anatomy and Physiology of Vertebrates, vol. ii., p. 253

rid of, not only the ovum itself, but also its nidus or shell, and as the nidus or mucous membrane is very intimately connected with the uterus, its expulsion gives rise to bleeding at the egg-laying, or, as we call them in the human female, at the menstrual times.

Now, I think if we can regard the mucous membrane of the uterus not only as an internal covering to the organ, but also as performing monthly important egg shell functions, then we can see more reason for its frequent derangement, for, as a rule, the more complex an organism, the more prone is that organism to disease. The chief cause of the disease is the admission to the uterus of foreign germs, which, growing there, produce disease of that part to which they gain entrance. The two great means by which these organisms gain admission is, first, during the act of parturition; secondly, the results of gonorrhœa. The symptoms to which this disorder gives rise are, firstly, pain, and the pain is usually situated over the sacrum. Here, be it remembered, there is an intimate connexion between the sympathetic and spinal nerves, and hence this is the region where the pain exists. The pain may radiate down the front of one leg, generally the left leg—that is, is present down the course of the anterior crural nerve. There is also almost invariably more or less leucorrhœa, or xanthorrhœa, as it should rather be called, because the discharge is yellow, not white. This discharge is irritating, like the mucus from the nose during a common head cold, and hence causes abrasion of the external os. Endometritis is almost always the cause of ulceration or abrasion of the os. When this abrasion is well marked, we shall have the symptom to which this condition gives rise, and this is an increase of the discharge; and as this comes from the cervical canal, the discharge is thicker, but still yellow. Pain is also felt in both groins, but chiefly the left; often, but not invariably, there is pain under the left breast, and also pain on sitting down. Menorrhagia and dysmenorrhœa are often complained of, but not invariably, and the disease almost always renders the woman sterile while it lasts. Constipation is generally present. The disease may continue for years if not properly treated; three or four years is by no means an unusual duration, but it may be cured in as many weeks.

I will now speak of the treatment. The most efficacious means of curing this disorder is the application to the uterus of carbolic acid saturated with iodine, which may be conveniently called iodised phenol. This is best applied by means of a Playfair's probe, round the end of which is smoothly, but not too tightly, twisted some cotton wool. This is dipped in the solution and then passed into the uterus. Before doing this we should always pass a full-sized Ferguson's speculum and the uterine sound in order to be sure of the direction of the cavity, as we should be able at once to introduce the probe with the application, otherwise the application will cause the canal of the cervix to contract, and its further introduction will thus be frustrated, and more harm than good may be done by only a partial introduction. Two applications as a rule are sufficient, the second three weeks after the first. The patient generally comes back the week after and says she is worse, and if the application be again repeated, the following week she will be still worse; but if let alone, she generally comes back the following week, saying she is much better. If she remains better I always leave well alone, but otherwise another application suffices; but this is never applied under three weeks or a month. As for medicinal treatment, this I look upon as only of secondary importance. Generally I give twenty grains of bicarbonate of soda and twelve grains of citric acid in an ounce and a half of water three times a day.

Lambeth-palace-road, S.E.

CASE OF ACCIDENTAL POISONING WITH EPSOM SALTS (SULPHATE OF MAGNESIA).

By WILLIAM SANG, M.D. EDIN.

ON Friday, Aug. 21st, I was sent for hurriedly to see Mrs. M—, who was suddenly taken very ill. On arrival at the house at 10 50 A.M., the patient, who was a tall, slender, and slightly anæmic woman, about thirty-five years of age, told me that she had sent about an hour previously to a neighbouring chemist, and purchased twopennyworth (four

ounces) of ordinary Epsom salts. She had emptied the whole packet into a tumbler, pouring sufficient hot water to dissolve them, or nearly so, and then drank off the whole quantity. I asked her why she had done it, but she said that she would tell me some other time. Meanwhile, she was leaning over the bed, and complained of a burning pain in the stomach and bowels (which was not, however, excruciating), also of difficulty of breathing or rather a choking feeling, and especially a peculiar feeling as if the power was going out of her arms and legs. The tongue and mucous membrane of the mouth were normal; there was no sickness, no vomiting, and no purging. Pulse about 96, regular. I immediately gave her an emetic of thirty grains of zinc sulphate, but it failed to act. I ran home for a stomach-tube &c., which took me about five minutes, not more, but on my return I found the patient in a state of hopeless collapse. The pupils were dilated, there was slight twitching of the muscles of the face, and complete paralysis. She rapidly became comatose, and died at 11.15 A.M.—that is, about twenty minutes after I first saw her, and about an hour and fifteen minutes after taking the dose. The radial pulse was distinctly felt about two or three minutes after the respiration had ceased. There was no post-mortem examination.

Remarks.—I have little hesitation in giving the following explanation as the poor woman's reason for taking the medicine. She had probably passed a monthly period, and, fearing that she might become pregnant, had sent for and, as she thought, taken a big dose of salts in order to put herself right. She had taken the whole quantity which she had received for twopence, never dreaming that she was taking more than an ordinary good dose. Cases of poisoning with Epsom salts seem to be of rare occurrence. I have looked into one or two works on poisons, and find a case noted in Sir R. Christison's work on Poisons. The case happened in 1842, and, as it is of some interest, I take the liberty of quoting it: "A boy, ten years old, took two ounces of this laxative, partly dissolved and partly mixed in a cupful of water. He had hardly swallowed it before he was observed to stagger and become unwell. When a surgeon saw him half an hour afterwards the pulse was imperceptible, the breathing slow and difficult, the whole frame in a state of extreme debility, and in ten minutes more the child died without any symptoms of note, and, in particular, without any vomiting. The case was investigated judicially. The father was doatingly fond of the child, and gave the laxative on account of some trivial illness, which he supposed might arise from worms. On the most careful inspection, no marked appearances could be found. The substance taken was pure Epsom salts." In Taylor's book on Poisons a case is reported of a trial that took place at Huntingdon in 1844, in which two men were indicted for feloniously killing another man by administering a large quantity of Epsom salts in beer. The deceased was an old man, and in the habit of drinking beer to excess. He had drunk several pints drugged with sulphate of magnesia, and was seized with violent purging, and died in forty-eight hours. I have quoted these two cases in order to draw attention to the two following points.

1. Epsom salts, when given in repeated doses, as in the case recorded in Taylor, acts undoubtedly as an irritant poison.
2. In the case which came under my notice and the one I have quoted from Christison, where a large quantity of the drug was taken at once, the irritant effects of the salts were by no means marked, and death was more probably due to a direct action on the cerebro-spinal system. The ordinary dose of Epsom salts is half an ounce, but I have often known as much as two ounces taken with no other effect than smart purging. Even such a quantity as proved fatal in the case of this poor woman might not be more than a strong dose for a healthy, able-bodied country labourer. I fancy a good deal depends on the constitution and idiosyncrasy of the individual as to the dose-effect. I may say that I satisfied myself that what the chemist supplied was four ounces of (Howard's) Epsom salts, and was labelled "Epsom salts." One cannot be too careful in dealing with even simple drugs, and I think it would be an advantage if every label gave prominence to the dose as well as the name of the drug.

Dundee.

At a meeting of the governors of the North Wales University College at Chester on the 28th ult. the committee reported that the trustees under the will of the late Mr. Evan Thomas had paid over to the University nearly £30,000, but some time must elapse before the total amount could be definitely ascertained.