sit up some hours daily. She is to take one of the pills prescribed on the 25th after each of the two principal meals; and, when necessary, she is to have a tumbler of Pullna water as an aperient.

November 5th, 11 A.M. Since November 1st till yesterday, her condition in respect of the hemiplegia has remained stationary. Her general state has been less satisfactory; but till yesterday, except occasional complaints of frontal headache, there has been nothing in her symptoms to attract particular notice. She awoke yesterday morning with severe headache, flushed face, and dry tongue; and has not since been able to sit up for a short time, as she had been doing daily. Her relapse is probably the result of over-eating and having had more than enough wine. Prior to the 1st, she had for some days been quite ravenous for food. For wine, her craving was also inordinate. To satisfy these desires, she had been supplementing her own very abundant alimentation by using secretly wine and meat which other patients gave her from their superabundance. Her pulse is 120, and her temperature 39.0 cent. The urine is rather scanty. The bowels are confined. She has no appetite. She is to return to a liquid diet, to discontinue the pills, and to have forthwith a tumbler of Pullna water. Till the headache and heat of head cease, cold water is to be diligently applied to the head.

November 9th, 11 A.M. Both symptoms and treatment have continued very much as reported on the 5th instant till this morning, when some amendment in her state is observed. There is a slightly increased power both in the arm and leg. The headache continues, but is rendered bearable by the diligent application of cold water to the entire head. She still sleeps badly, but she slept better last night than for some previous nights. The bowels are moved once or twice daily—sometimes without, and sometimes with, the aid of Pullna water and an enema. The tongue is cleaning. The respiration is natural. The skin is soft, but not moist. The pulse is 104, very compressible; the temperature is 37 C. (98.6 Fahr.) She refuses her food, but takes wine greedily. A very careful examination of her state has now been made. The veins are rendered invisible by the swollen state of the limb and their deep-seated subadipose position. Digital examination occasions so much pain, that it cannot be satisfactorily employed to determine their condition; but it is nevertheless correct to state that the touch gives to a certain extent the impression of cord-like bodies existing in the course of the veins. There is not the slightest voluntary motor power in either the upper or the lower left extremity. The mouth is considerably drawn to the right side; this is much less apparent when the countenance is in a state of repose; it is very striking when she smiles, as she has often done during the preparation of this report. When asked to show her tongue, she protrudes it very slowly and with an air of thoughtfulness, as if she were performing an operation demanding the exercise of the greatest skill. The protruded tongue deviates to the right.

November 16th, 11 A.M. Since the 9th instant, there has been a distinct daily amendment in all the symptoms. To-day, she is ordered to have ordinary diet. The only addition to the ordinary allowance of food and wine is a continuance of the morning ounce of rum in a tumbler of milk. She sits up daily for an hour.

November 17th, 11 A.M. She is up and dressed. She looks well. The pupils are now very moderately dilated. The tongue is clean; the pulse is 70. She speaks without hesitation, and her articulation is distinct and perfect. She cannot, unless supported, take more than three or four steps; even when supported, her gait is very unsteady, and the left leg is slightly dragged. She says that she has not quite as much power in the left arm and hand as in the right; but she uses both arms apparently as well as other people, and the grasp with the left hand is not weaker in proportion to the grasp with the right hand than is usual.

December 1st. She is now quite well. Except a very slight weakness in the left leg, no trace of any paralytic symptoms remains. The rum and milk to be discontinued.

December 8th. No trace of the paralytic symptoms remains. She can walk up and down stairs. The catamenial discharge has returned in a normal manner after missing three periods.

December 16th. She has remained since the 8th free from any paralytic symptoms or local weakness of any kind. She leaves the hospital to-day, plump, and in excellent health.

On every occasion in which the temperature was taken in this case, the thermometer was introduced into the axilla. The cold affusion was frequently used in a modified form throughout the treatment, and generally with the result of abating restlessness, and sometimes of inducing sleep.

[To be continued.]

THE USE OF SULPHURIC ETHER AS AN ANÆSTHETIC.

By THOMAS KEITH, M.D., Surgeon for Ovarian Disease to the Royal Infirmary, Edinburgh.

I OUGHT ere now to have communicated to the JOURNAL my experience of sulphuric ether. I have given it in ovariectomy and other prolonged operations, or whenever it was necessary in feeble patients to give an anæsthetic, ever since the beginning of 1867, when I doubt if anyone used it in this country except myself.

In giving an account in the *Lancet*, August 1870, of my second series of fifty cases of ovariectomy, the following remarks were made.

"In Case LII, the excessive chloroform vomiting during the operation, and for some time after it, so prostrated the patient, that her chance of recovery was lost. In the early cases, I have frequently had to deplore the injurious effects of chloroform vomiting in ovariectomy, and so evident was the mischief occasioned by it in this unfortunate case, that I have since then entirely abandoned the use of this agent in ovariectomy and other severe and tedious operations, and now use instead anhydrous sulphuric ether, made from methylated alcohol, administered through Dr. Richardson's apparatus. The oftener ether has been given, the more I like it. How chloroform so quickly superseded it is a marvel. The anæsthesia of ether, though at first slower, is extremely steady and quiet. There is infinitely less vomiting than with chloroform, and, instead of the pallid face and feeble pulse of chloroform, the patient, after a long operation, is put to bed with a flushed face and a great surface-circulation. In cases of non-adherent tumour, vomiting is, I fancy, of little consequence; but, where there has been extensive adhesion, and when oozing may be set up by it after the wound is closed, vomiting can be no trifle, and may turn the scale. Sulphuric ether has now been used—at first with a small proportion of chloroform—in 53 cases of ovariectomy (of which 46 recovered), and something has been gained from the use of it. I would put in a word for the old anæsthetic. Chloroform certainly saves the surgeon five or ten minutes of time, and a little trouble. Had it never been heard of, I doubt if humanity would have suffered from the want of it."

This opinion was looked upon here as heretical, and, being adverse to chloroform, was attributed to personal motives; yet, after four years, I have little more to add than simply to endorse it.

The case above referred to was at the time published in the *Edinburgh Medical Journal*, and I felt so certain that chloroform vomiting killed the patient, that in the case which came next I took to sulphuric ether in a sort of despair. It was not new to me, for in 1847-48 we all looked upon ether as a good practical anæsthetic. When I began again to use it, a small proportion of chloroform was added; for the best English ethers were found to be very impure, and it was rare to get one with a specific gravity under .750. At length, Dr. Arthur Gamgee put into my hands a perfectly dry ether made from methylated spirit. It is manufactured by those conscientious chemists Messrs. Macfarlane. Its specific gravity is .715 to .717. It costs me three shillings a pound of twenty-four fluid ounces, and it answers admirably for local anæsthesia. For the last six or seven years, nothing but this ether has been used, except twice, when bichloride of methylene was given, and once, a few months ago, when operating at Newcastle, when chloroform was used. The apparatus employed has been the mask of Dr. Richardson's apparatus, with a sponge fixed in the bottom. It might easily be improved; but it answers its purpose well enough, though there is great waste with it. For many years, the ether was administered by my brother Dr. Keith; of late, it has been given by Dr. Foulis, who will at an early day give his observations upon it. There has been no difficulty in bringing patients under its influence. It is given freely, and plenty of air gets in with it. We have not observed the excitement which is said to accompany the inhalation of ether. It is always taken by the patient in bed, and no one is allowed to be in the room but the administrator and nurse.

But the great advantage of ether over chloroform in such operations as ovariectomy lies in the almost complete absence of after-vomiting. Vomiting with an open wound is of no consequence. With chloroform, after-vomiting was the rule, and, in the afternoon and first night of an operation, the nurse required to be always at hand with a basin for the vomiting. With ether, after-vomiting is quite the exception, and it is never severe or continued; while some patients sleep on, and often remain two or three hours without moving after being placed in bed.

My confidence in sulphuric ether as the best practical anæsthetic we yet have does not thus diminish. Its low specific gravity must make it less dangerous than the others. It is not perfect, but it answers my purpose better than any other. It saves my patients from the misery

of after-vomiting, and, in ovariectomy, from the chance of losing their lives in certain cases of bad adhesion from bleeding being set up by the sickness after the abdomen is closed. Whether of itself it diminishes the risk of operations, I cannot tell; but I am inclined to think that it does often save the feeble ones. This much I can say, that ether has now been given in one hundred and thirty-five cases of ovariectomy, and in two cases of successful removal of the uterus for fibro-cystic tumour. In every case, the anaesthesia was profound, many of the operations were very tedious, and, of the last sixty-six operated on, sixty have recovered.

In the beginning of 1848, Sir James Simpson wrote in the *Edinburgh Medical Journal* an elaborate statistical paper, showing that the mortality after amputations of the limbs, especially of the thigh, performed in hospitals under ether was much less than before ether was known. The results of upwards of three hundred amputations were obtained by circulars sent out in the usual way. This paper is worthy the attention of those interested in the statistics of the more recent results of operations in hospitals. Either chloroform has increased the mortality of hospital operations, or, in the early days of anaesthesia from ether, the results were better than at a later period. It may be also well to note that, when this paper was reprinted some years afterwards, the words ether, etherised, and etherisation were in almost every instance displaced by the words anaesthetic, anaesthetised, and anaesthesia. Perhaps the results of operations were then considered too good for ether, which latterly came to be given the merit of being only an improvement on the mandragora and other rubbish of the middle ages.

THE TREATMENT OF SYPHILIS BY MOIST MERCURIAL FUMIGATION.

By JAMES R. LANE, F.R.C.S.,
Surgeon to St. Mary's and the Lock Hospitals.

I REGRET that in some recent remarks on the modern treatment of syphilis, lately published in the *BRITISH MEDICAL JOURNAL*, I should have said anything displeasing to Mr. John St. S. Wilders of Birmingham, who writes in the *JOURNAL* of January 23rd in the character of an old pupil and friend of the late Mr. Langston Parker, and who thinks I have not shown sufficient appreciation of the system of moist mercurial fumigation, which that gentleman was the first to introduce.

In referring to the different modes of administering mercury, I said I believed it to be comparatively unimportant whether it were by the mouth, by inunction, or by fumigation. I said also, as quoted by Mr. Wilders, that "inunction is perhaps, on the whole, to be preferred, especially for hospital patients; but it is troublesome and dirty, and, therefore, it is often undesirable to resort to it in private practice. The same objection applies to fumigation, with the addition that it is, as a rule, more debilitating, for the nightly vapour-bath has a decidedly depressing influence." For these reasons, I prefer, in all ordinary cases, to administer the remedy by the mouth.

Mr. Wilders, on the other hand, "affirms with the utmost confidence that the treatment of syphilis by moist mercurial fumigation is neither troublesome nor dirty, nor has it a decidedly depressing influence on the patient; but that it is, on the contrary, a cleanly, rapid, and most manageable method, and the most powerful therapeutic agent in the removal of disease, and the least hurtful to the constitution of the patient". He then refers to Mr. Parker's large practice, and also to his book, in which ninety-one cases are to be found, many of them reported by Mr. Wilders himself, who "most fearlessly affirms that they are a trustworthy record of the marvellous efficacy of the treatment".

Mr. Wilders's zeal for the reputation of his late teacher (of whom I wish to speak with all respect) is greatly to be admired; but I cannot say as much for his logic. I would venture to suggest to this very affirmative gentleman that Mr. Parker's ninety-one cases, even with the addition of one of his own, which he gives in detail as a "reply to my allegations", have no bearing whatever on the question as to which plan of treatment should be preferred. They merely show that syphilis may be successfully treated by mercurial fumigation—a fact which is not denied; but they are worthless to show that fumigation is a better method than that by the mouth or by inunction. This point cannot be settled by assertions, however positive, but only by a careful trial of all three on a sufficient scale, and an impartial comparison of the results.

In forming the opinion which I expressed, I was not guided by what I had read in books, or what I had been taught by others, but by what I had observed for myself. Having no predilection for any particular method, and being desirous of learning whether any one of these three plans deserved to be preferred before the others, I was in the habit for years at the Lock Hospital of employing each in turn for a period of

months together in every case requiring mercurial treatment, and I failed to find any material difference in the results. In fact, I might easily have published a very large number of cases of each plan of treatment, showing equally "marvellous efficacy".

I know no reliable proof that fumigation is less hurtful to the constitution than the other methods, though nothing of course is easier than to make the assertion. Mercury, when given improperly, or in excess, will, I believe, be equally hurtful, by whatever channel it may be introduced into the system.

THE TREATMENT OF SCABIES.

By ROBERT LIVEING, M.D., F.R.C.P.,
Physician to the Middlesex Hospital, in charge of the Department for Skin-Diseases.

THERE are three principal methods of treating scabies: 1. By sulphuret of potassium baths; 2. By sulphur vapour-baths; 3. By sulphur ointment. It may be a satisfaction to those who cannot conveniently use the sulphur-baths, to know that the treatment by inunction of sulphur ointment is the most efficacious of the three methods.

There are three mistakes commonly made in treating scabies, especially in private practice: 1. In not applying the remedy over the skin of the whole body, except the head; 2. In using the ointment of the *British Pharmacopæia*, which contains one part in five of sublimed sulphur, and is too strong, especially for children; 3. In using the ointment for too long a time, and thus producing an irritable state of the skin. This often happens when people attempt to *treat themselves* for what they believe to be the itch. On the two latter points, most experienced observers agree; but on the former some difference of opinion exists. In a lecture recently published, my friend Dr. Tilbury Fox remarks: "It is a rule of prime importance in treating itch, to accurately determine at the outset how far the acari have disseminated themselves about the body. The reason is obvious. There is no need to apply parasitocides to parts in which the acari do not exist, because the irritation and eruption elsewhere are due to sympathetic action; and these irritated parts will get well, if the acari be destroyed, and they do not require the use of irritant remedies, such as parasitocides are, but soothing remedies. The practice is to apply the remedy to every part of the body where eruption exists in cases of itch. Clearly this is wrong, from what I have just said. My rule is this: if the disease be recent, if it be only slightly marked, if it began about the hands, and there be no cuniculi about the penis, I order the parasiticide to be rubbed into the interdigital, the palm of the hand, and the wrists, and I apply a soothing lotion to all other irritable parts of the body. . . . I repeat, then, by way of summary, in private practice, if the disease be slight and recent, use the parasiticide to the hands only, and soothe the other parts with some emollient or astringent lotion or ointment."

In the first place, I would remark, that in private practice it is in many cases next to impossible, and quite unnecessary, especially in women and girls, to examine the abdomen, thighs, and every part of the body, to ascertain how much of the eruption is due to scabies, and how much to sympathetic action.

The best plan of proceeding is, in my opinion, as follows. Having once ascertained that scabies exists, order one thorough application at night of mild sulphur ointment to the whole of the body, except the head, and direct the patient to sleep in the drawers, jersey, and socks that he has used the day before; this will secure the death of any stray acari about the body or in his underclothes; in the morning, he should use a warm-bath. The after-treatment should consist of the local inunction of the ointment, into those parts only which are especially affected, for two or three nights. In all mild cases, the cure by this plan is quite certain, and is attended with very little inconvenience. The objections to sulphur-ointment are its irritating qualities and its smell. The first is avoided by using an ointment made with half a drachm to two scruples of the precipitated sulphur to one ounce of lard. The precipitated is in finer powder, and less gritty than the sublimed sulphur, and more efficacious. A great part of the inconvenience arising from the smell of the sulphur may be avoided by using it only during the night. A drop or two of sandal-wood oil will quite disguise the smell. In cases of long standing, it is necessary to have the clothes baked; but a temperature of 190 deg. to 200 deg. Fahr. is quite sufficient, and the bed may be easily fumigated by using a little sulphur sprinkled on the cinders (not too hot) of a warming-pan.

It often happens that the irritation of skin remains after the scabies is cured, and thus induces people to go on with the sulphur treatment too long. Instead of doing so, a mild stavesacre ointment should be used, made with the oil of stavesacre and lard; this relieves the itching, and at the same time will kill any stray acari that may have escaped death from the sulphur.