have not seen any record of this more heroic practice having been hitherto employed.

The first of these cases occurred as long ago as October 1878, and I then hesitated to report it; because I thought it better, for various reasons, to wait for the confirmation, or the contrary, of the advantage of the local use of these strong solutions of carbolic acid to the uterus in "puerperal fever". Now, however, the satisfactory result of this second case makes me hesitate no longer to report the two.

It may not be a waste of time here briefly to recall the present views as to the group of diseases classed under the generic name of puerperal fever. Dr. Matthews Duncan, in his admirable paper, recently read before the Birmingham Medical Society, points out that, as now understood, puerperal fever is not a simple entity, but that a case to which we give this name may be one, either, *a*, of traumatic inflammation, with general fever; *b*, of poisoning of the blood by absorption of putrid matters or discharges (sapremia); or, *c*, of infection of the blood by living germs or micrococci (septicæmia, pyæmia); the distinction, however, between these varieties of postparturient fever appears not always to be very well marked. And Dr. Playfair says, it is probable that two distinct groups may be formed—namely, those in which the patient is poisoned by her own septic matters; and those in which the septic poison is conveyed from without.

Let me further quote from Dr. Playfair's work on *Midwifery*, as to the pathological appearances of the vagina and uterus, in septicæmic cases, at the site of absorption. He says: "These are described by pathologists as identical in their character with the inflammatory oedema which occurs in connection with phlegmonous erysipelas." These seem to consist of swelling, oedema, diphtheritic-looking exudations, and softening of the vagina, of the cervix, and of the membranes of the uterus, as well as of the uterus itself—conditions which were present in both the cases now related, as observed during their progress.

The fact being allowed that the profession generally is fully alive to the great advantages of antiseptic midwifery, at least in doubtful conditions, and to the special utility of carbolic acid, the question arises, What is the best mode of employing this agent? I would venture to suggest that both the use of intra-uterine dilute injections, and of the local application of the strong acid, may each be best in varying cases. Where the septicæmia arises from decomposing placenta, membrane, or clot, within the uterus, it would seem probable that a full and continued stream of the dilute disinfecting fluid may be most useful; but, where we have a specifically poisoned surface to deal with, in the inoculated cases, that there the more potent application may be the best, and indeed the only reliable, mode of treatment. And this is indeed my own opinion, derived from general observation, as well as from the daily observed influence for good of the acid upon the sloughy tissue. In my cases, the acid unquestionably caused a diminution of swelling, a lessening of the oedema, and an improvement of colour, in the parts to which it was applied; and knowing as we do its destructive influence upon germ-life, and the equally destructive effect of these germs, when living and multiplying, upon the tissues which they invade, we may fairly consider such a theory reasonable, and probably true.

In any case, the two patients lived, whilst others died; and, with the confessed unreliability of leechings, turpentine, iron, quinine, and every other remedy, and in view of the terrible and intractable nature of puerperal fever, I think that any light, however small or vague, thrown upon the best method of treatment by the recovery of the patients, is not only earnestly to be welcomed, but to be pursued, as possibly leading to a more definite knowledge. I have good hope that the path here indicated may be in some respects the true one.

SOME CASES TESTING THE ANTISEPTIC METHOD.

By ALBERT WILSON, M.B., Leytonstone, N.E.

THE conflict existing between the opponents and the supporters of antiseptic surgery has done a great deal to forward the views of the latter. Whilst scientific evidence supports the theory, and careful trial proves the practice, nothing but the experience of various surgeons can be brought against it. It is surprising in this advanced age to hear surgeons condemning such a system, which requires so great and scrupulous care for success, merely because it has not succeeded in their hands. They forget their own fallibility, whilst overlooking the infallible and immutable laws which govern the universe, even in the minute and invisible. At the same time that these men condemn this system, they unconsciously testify to the truth of the principle, by their fear to do operations which they see antiseptic surgeons perform without hesitation or anxiety, and by their delay till the last extremity to operate in

other cases, as chronic abscesses, knowing full well that, from the day they operate, the patient will descend to a slow but certain death. We, who contend for that grand system of antiseptics, which is one of the greatest boons to humanity that surgery ever conferred, do not fight for one method so much as for the principle. If a new method were introduced, provided it were as perfect as that now employed, and more convenient, then it would be adopted in preference; and I venture to say by none more readily than by the founder of the antiseptic system himself.

Fully aware of its difficulties and drawbacks, Professor Lister has spent years of untiring zeal and energy, not only in perfecting, but also in simplifying it. He has now obtained for healing wounds much the same conditions as if they were subcutaneous. What more can be desired than this to justify the statement that the system is nearly perfect?

Many object to practise antiseptics because it is an "awful nuisance" to carry a spray about, and waste of time is caused by the spray and attention to other details. Doubtless, these are inconveniences, but they ought not to be obstacles, considering the brilliant and certain success which will be the reward for such extra energy and patience, not to speak of the gratification afforded by saving life or preventing unnecessary suffering.

I will briefly relate some of my results while opposed not only by the inconveniences met with in private practice, but also by extremely unfavourable hygienic conditions, such as I think could hardly be exceeded.

Whilst resident at the Cowgate Dispensary, in Edinburgh, I did several operations which thoroughly tested the efficacy of the antiseptic treatment.

CASE I.—A woman, aged 23, had an exostosis growing from the internal condyle of the femur. I removed it on January 26th, 1879. In chiselling off the tumour, I removed a piece of the external shell of the femur. The woman was in very destitute circumstances, she and two others inhabiting a small room up one of the narrow closes or wynds of the Cowgate. A dingy window with four broken panes looked out on a small stable-yard, where they were loading manure within five yards of the house. The broken panes were stopped up with garments, and the operation was performed in an atmosphere most unfavourable. The wound was stitched with catgut, and a drainage-tube inserted. A gauze dressing was applied, and a posterior splint to keep the knee at rest.

Next day, the temperature and pulse were normal, and the patient was quite comfortable during the whole time of treatment. The wound was dressed on the 28th. There was no inflammatory blush. It was dressed again on March 4th and 8th, when the wound was united except where the drainage-tube, which was removed last time, had been. It was subsequently dressed on the 14th, 21st, and April 2nd, when it was quite healed.

CASE II.—A woman, aged 23, suffered from mammary abscess. It was opened on November 13th, 1878, and about three ounces of pus evacuated. It was dressed on the 15th. There was no inflammatory blush. The cavity was filled with blood-clot, but the drainage-tube prevented any tension. Only serum could be pressed out of the wound; no pus. The breast was full, with diffuse hardness, though there was not the slightest pain.

The wound was dressed on the 18th and on the 22nd. The drainage-tube was now removed. The general swelling of the breast had gone, and the hardness now existed as a lump in the gland-substance. The sinus was very slow in healing. The breast was dressed on the 29th, December 6th, 11th, 20th, and 26th, on which last date it was quite healed. There remained a very hard lump running from the cicatrix to the gland-substance, which, but for the history, might have aroused a suspicion of scirrhus. After the first dressing, the patient went about her usual employment, and never found any pain or inconvenience from the breast. I never saw her except on the dates above mentioned. This case is rather a contrast to the ordinary course of mammary abscesses; and I think, in it and similar cases, antiseptics, though complicated with a spray and what some call tedious details, amply repay the surgeon by the fewness of the dressings.

I treated several other mammary abscesses, with similar results—absence of constitutional or local disturbance. I think that this, among the poorest and lowest class of society, shows how easy it is to carry out antiseptics in private practice.

CASE III.—Another case, which tests most conclusively the efficacy of the antiseptic treatment, was one of empyema of seven weeks' duration, which came under my care whilst acting temporarily at one of the children's hospitals.

A little girl, aged 4, having all the symptoms of empyema on the right side, was admitted on January 12th, 1880. The dullness

extended downwards from the nipple in front, and from the inferior angle of the scapula behind, while the apex-beat was external to the left nipple.

On the 14th, an incision was made, with antiseptic precautions, in the right axillary line between the sixth and seventh ribs. Fourteen ounces of pus were collected. A drainage-tube of India-rubber, two and a half inches long, was inserted downwards to drain the cavity in its lowest part. A large gauze dressing, sixteen folds, was applied, reaching from the middle line in front to beyond the middle line behind. The little patient, with its pinched features and difficult respiration, at once got relief from the outlet of pus. During the operation, a great deal of air was drawn into the chest. The spray, however, was a reliable one, and great care was taken that it should, during the whole time, cover the wound. The patient passed a good night. The dressing was changed next day, when it was found soaked with pus which had not been evacuated at the time of the operation. The pus was quite free from odour. The tube was drawn out, but now a discharge of clear reddish serum exuded from the cavity. The dressing was changed again on the 17th, the tube being taken out and put in again. The skin was washed with carbolic lotion at each dressing; but, of course, no carbolic lotion was injected, as such a proceeding would, by its irritant action, tend to set up suppuration, though of an aseptic character.

January 19th. The dressing was soaked with serous discharge. About an ounce of red-tinged clear serum flowed from the wound. Air as usual passed freely in and out of the pleural cavity—air, however, which was purified by the carbolic spray. The part was dressed again on the 22nd and on the 26th, when the tube was discontinued, as the discharge was very slight. The serum was now, as before, clear, which was proof positive that it was aseptic.

On February 2nd, when the dressing was removed, the wound was quite superficial, and on the 6th was quite healed. The child had improved very much in its general health, and on January 19th was enjoying ordinary diet. The physical signs showed a thickened pleura, by reason of the impaired resonance, while the respiratory sounds were audible, though of course faint, all over the base.

A few days later, on examining the chest, at the mammary level the healthy side measured nine inches and three-quarters, while the affected side was nine inches, showing that it had undergone very little contraction.

I have seen cases of empyema treated in Professor Lister's wards, and remember one man, who was almost at death's door when operated upon, but in three or four weeks he went out in a good sound condition.

I believe that a patient ought in no case to die of uncomplicated empyema, as long as free antiseptic incision can be adopted; but it must be thoroughly and carefully done; and if the discharge of pus continue and failure result, the operator has no one but himself to blame for it. It must be borne in mind that simply the opening of a door might, by causing a draught, blow the spray off the wound; and then, if septic air were drawn into the chest, a fatal result might occur.

Some are inclined to regard this scrupulous care as the whim of a fanatic; but, if it is demanded by the nature of the case, it cannot be regarded in this light, any more than the delicate care which is exercised in dissecting the sheath of a large vessel previous to ligature.

It is only after patient experience that one gets to practise antisepticism automatically, and without finding it troublesome; but when accomplished, what glorious results it brings!—results to which those who cling to the old decaying system cannot in the slightest degree attain.

SURGICAL MEMORANDA.

RAPID CURE OF A POPLITEAL ANEURISM BY DIGITAL COMPRESSION OF THE FEMORAL ARTERY.

JOHN KAY, aged 32, consulted me for severe pains in the right leg, and inability to flex the knee freely. On examination, I discovered a small aneurism in the popliteal space. I did not interfere at first, but the pain in a few weeks was so great that the patient could with difficulty walk across the room, and he urged me to do something to relieve him. I completely stopped the circulation through the femoral artery by pressure, applied to it just as it enters thigh. This was kept up for eighteen hours, when I asked the assistant to release the pressure a little, while I laid my finger over the aneurism. On the pressure being completely removed, the pulsation could scarcely be felt, but a thrill indicated the circulation was not entirely obstructed. At

the end of twenty-four hours pulsation had entirely ceased, the artery was completely occluded. The patient rapidly recovered the use of the leg, the pain immediately disappeared. There has not been a bad symptom since. The assistants employed were, the patient's sister, my own stable lad, and two medical friends.

Manchester, Dec. 16th, 1880.

JAS. BRASSEY BRIERLEY.

OBSTETRIC MEMORANDA.

A CASE OF PUERPERAL SEPTICÆMIA; PROLONGED HIGH TEMPERATURE. RECOVERY.

MRS. M., aged 19, a primipara, was confined on October 25th. She had a very good time, and no bad symptoms, until the 27th, when she was seized with pain in the uterine region.

She was ordered a mixture containing acetate of ammonia, spirit of nitrous ether, and aconite. On the 28th, diarrhoea and vomiting set in. She was ordered a bismuth and opium mixture. Next day, the vomiting and diarrhoea were relieved. On the 30th, the tongue was dry and red. She was ordered to have a drachm of Warburg's tincture every third hour, with arrowroot in the intervals. On the 31st, the tongue was clean. She had had a good night, and had milk in the right breast. She was ordered to go on with Warburg's tincture as before. On November, cinchonism having set in, she was ordered to have a mixture of chlorate of potash, with nitro-muriatic acid. On November 5th, one drachm of Warburg's was ordered to be taken every third hour. In the evening the milk was abundant, the bowels were open, and perspiration was setting in. On November 6th, she was ordered to have iodide of potassium, with tincture of cinchona every third hour. On the morning of the 7th, perspiration was profuse, and in the evening she was directed to have half an ounce of brandy every fourth hour. On the 8th, she had a tepid bath in the morning, and again in the evening, and the mixture of iodide of potassium was repeated. On the 11th, the bowels not being open, a powder of rhubarb, with grey powder was given, and the bath was ordered to be repeated night and morning. On November 12th she was ordered to have raw eggs, milk, and brandy every second hour. On the 13th, she was ordered to have one drachm of Warburg's tincture every third hour, and a cold bath instead of a tepid one, night and morning. On the 15th, in the evening, a mixture containing ten grains of salicylate of soda was prescribed, to be taken every fourth hour. On the 23rd, the catamenia having appeared, the cold bath was discontinued. On the 26th the catamenia had ceased; and she was ordered to have thirty drops of tincture of muriate of iron (Ph. Edin.) every third hour, and a dose of rhubarb and grey powder. From December 2nd there were no bad symptoms; and, on December 6th Mrs. M. was able to sit up and have her clothes on. The accompanying table shows the daily records of temperature and pulse:—

	Temp.	Pulse.		Temp.	Pulse.
October 28.....	102	—	November 14 (M.)...	99.3	100
" 29.....	102	—	" " (E.)...	102.4	110
" 30.....	103.2	140	" 15 (M.)...	101.2	100
" 31 (M.)...	101.9	120	" " (E.)...	103	125
" (E.)...	101.2	116	" 16 (M.)...	100.6	113
November 1 (M.)...	101	124	" " (E.)...	100.8	103
" (E.)...	102	124	" 17 (M.)...	100	103
" 2 (M.)...	102	120	" " (E.)...	102	104
" (E.)...	101.4	112	" 18 (M.)...	102.2	103
" 3.....	101	98	" " (E.)...	104	130
" 4.....	101	103	" 19 (M.)...	102.4	114
" 5 (M.)...	103.6	102	" " (E.)...	101.6	103
" (E.)...	103.8	120	" 20 (M.)...	101.2	110
" 6 (M.)...	104	120	" " (E.)...	100.2	106
" (E.)...	101	112	" 21 (M.)...	102.4	115
" 7 (M.)...	104	120	" " (E.)...	103	117
" (E.)...	103.4	120	" 22 (M.)...	103	130
" 8 (M.)...	104.2	120	" " (E.)...	102.8	120
" (E.)...	102	110	" 23.....	100	84
" 9 (M.)...	103.8	110	" 24.....	101.2	100
" (E.)...	102.2	100	" 25.....	100	90
" 10 (M.)...	101.9	100	" 26.....	103.2	110
" (E.)...	101.2	105	" 27.....	101.4	100
" 11 (M.)...	102.4	100	" 28.....	100.6	106
" (E.)...	104.2	110	" 29.....	100.1	100
" 12 (M.)...	101.4	105	" 30.....	98.4	110
" (E.)...	104.4	130	December 1.....	99	106
" 13 (M.)...	103.2	120	" 2.....	99	104
" (E.)...	102.8	108			

The above case, to my mind, shows that cold immersion is an invaluable agent in lowering high temperature; that Warburg's tincture is also powerful for good in puerperal septicæmia; and that in the old Edinburgh tincture of the muriate of iron we possess by far our most potent agent. In this case I had become hopeless. The fast rise of temperature after the prolonged and exhaustive struggle found my poor