a third confinement), the delay in the labour did not arise from a rigid os, but from a disproportion between the head and the pelvis, causing the head to be arrested at the pelvic brim. The diameter of the os uteri did not exceed three inches, simply because the head did not press down sufficiently upon it after the waters had escaped. This incomplete dilatation of the os uteri in cases of contracted pelvic brim has long been familiar to accoucheurs, and has not been considered to be an obstacle to the performance of craniotomy, or even to the careful employment of the long forceps. It is far different, however, in the other three cases, which were primiparæ, and in which the insufficient dilatation was the result of rigidity. In these, the forceps would have been formerly considered to be quite inadmissible, mainly, no doubt, for two reasons: first, because the dangers and difficulties attending its use are much greater in the first than in the second stage of labour; and, secondly, because, as Dr. Churchill's statistics show, a protracted first stage is not *per se* dangerous either to the mother or the child. He admits, however, that a protracted first stage may, by inducing fatigue and exhaustion, act unfavourably on the second stage. I had once a well marked instance of this kind. The patient, a primipara aged 30, had been in labour five days before the os uteri became dilated to the size of a crown. The anterior lip of the rigid os uteri then gave way, and a considerable rent took place. The second stage went on well for a time, until the pains almost ceased from sheer exhaustion. I then applied the forceps and delivered her, but the prostration which ensued was so great that the patient nearly lost her life. In this case, all the usual remedies for relaxing the os uteri had been tried, but without effect. I have little doubt that, if the forceps had been applied during the first stage, the result would have been much better. One great object in using the forceps is to anticipate evil rather than to remove it when it exists. Before adopting craniotomy, the accoucheur should be satisfied that urgent symptoms exist which render prompt delivery imperative. With the forceps, however, it is far different. It is so safe an instrument in moderately skilful hands, that it ought to be employed before any symptoms of powerless labour set in. No one in the present day would think of endangering a woman's life by waiting, as Denman recommended, until the pains of labour had ceased and the head had been six hours as low as the perineum. It is quite a sufficient justification for using the forceps that the progress of the labour has been arrested for a time, and that the head has ceased to advance. When the forceps is thus employed in good time, the accoucheur can take time about the operation and imitate nature as closely as possible; but, if he wait for symptoms of powerless labour, he will have to deliver in too great a hurry, and when his efforts are not efficiently seconded by the pains. In the first stage of labour, above all, the delivery should be effected slowly and cautiously. Urgent symptoms have not yet set in, and the accoucheur can, therefore, afford to wait. He should only extract during the pains, and should not mind if the operation occupy three or even four hours, as it did in my last case. He will thus give ample time for the soft parts to dilate and avoid the danger of lacerations.

My experience, then, of the application of the forceps during the first stage of labour is, that the operation, when properly performed, is safe and often very useful, although seldom imperatively demanded; moreover, that it requires a considerable amount of that *tactus eruditus* which can only be acquired by practice, and, therefore, it should not be performed by any man until he has used the forceps at least a dozen times during the second stage of labour; and I am induced, on the whole, to agree with Dr. Playfair's conclusion that, "if the os be not fully dilated, but is sufficiently so to admit of the passage of the forceps, the operation, under urgent circumstances, may be quite justifiable, although it must necessarily be a somewhat anxious one".

COMPOUND COMMINUTED FRACTURE OF THE TIBIA CURED, WITHOUT SUPPURATION, WITHOUT REGULAR ANTISEPTIC TREATMENT.

By J. EATON, M.D., Cleator, Cumberland.

ON reading an article in the BRITISH MEDICAL JOURNAL of March 24th by Surgeon-Major Sinclair, M.D., entitled "Compound Fracture occurring in India: Closure of Wound with Compound Tincture of Benzoin", I am prompted to forward a brief report of the following case.

On July 9th, 1875, R. I., aged 30, an iron-ore miner, sustained a compound comminuted fracture of the left tibia by some iron-ore falling on his leg. A piece of the tibia about two inches long was broken from about the middle of the bone; the upper end of the fragment being slightly de-

pressed, and its lower end protruding a quarter of an inch through a small circular opening in the skin. There was no laceration, nor disturbance of the relations of the muscles of the leg. The whole leg was more or less bruised from the knee to the ankle. Above and below the wound, there existed an abrasion of the skin three inches and a half long; and a continuous stream of blood, free of all appearance of air-bubbles, issued freely from the orifice of the wound.

No difficulty was experienced in reducing the fractured fragment; and, from the favourable condition of the soft parts, it was easily retained in position. As the wound was small and blood issued freely, and as almost certainly no air had got among the tissues, I aimed at healing the wound by "scabbing", and therefore covered it with a fold or two of dry lint. The foot and leg were then carefully bandaged to an external hollow wooden splint (Cline's), which had been well padded by a layer of cotton and a layer of tenax; the wound remaining exposed, so that the lint could be easily changed, if necessary, without the splint being disturbed. An internal (Cline's) splint, similarly padded, was then applied and bandaged on, and the leg placed on a pillow.

The case went on favourably till the evening of July 13th, four days after the accident, when the patient became restless and slightly delirious, was thirsty, had a hot skin and a quick pulse. I took off the internal splint, and found the leg hot and tender to the touch around the seat of the fracture. I did not remove the lint, which had become saturated with blood and formed a hard crust over the wound, but poured carbolic oil, of strength one of acid in twenty of oil freely on the lint, and applied more lint soaked in the oil over the part. The splint was reapplied, but not quite so firmly as before. The patient had a mixture containing thirty-minim doses of spiritus chloroformi every four hours; and a towel wet with equal parts of vinegar and water was kept constantly applied over the front of the leg outside the bandages, and frequently changed, so that it might always be cool. The patient's bowels were also attended to, and his diet consisted principally of milk. For three or four days and nights, he did not sleep soundly; but, after this, each successive night seemed quieter than its predecessor. On July 21st, I again removed the internal splint, and also removed the whole of the lint from the surface of the wound. Not one drop of pus had formed; but the surface of the skin from three to four inches in extent was red and tender. I then applied an alum lotion of strength twenty grains to the ounce, and so arranged the bandages that the lint could be changed twice daily by the patient without removing the splint.

August 14th. I removed the splints; found the skin sound, the bone well united and straight, but the leg weak. I reapplied the bandages without splints, and allowed the patient to move more about on his crutches.

The patient returned to his work November 6th, seventeen weeks after the accident.

THE TREATMENT OF INTERMITTENT OR FEN FEVER BY SALICINE.

By W. THOMSON, M.D.,

Consulting-Surgeon to the Peterborough Infirmary; Medical Officer of Health, Peterborough Urban and Rural Sanitary Authorities, etc.

ON making the acquaintance of Dr. MacLagan at Dundee last spring, and discussing the now recognised curative power of salicin in acute rheumatism, I gave it as my opinion that we have in it a remedy equally energetic in staying or cutting short the paroxysm of ague. I determined that, as soon as cases presented themselves, I would give it a fair trial, acting on Dr. MacLagan's suggestions as to its administration in full doses. And I hope that the following cases will prove that the failure of the old-fashioned decoction of willow-bark, both in the hands of the inhabitants in the marshy districts and of the medical men, was from the want of concentration, or the inability to prescribe a sufficiently large dose of the specific drug.

CASE I.—R. B., aged 32, a native of the Isle of Ely, had been twice under my care, first in November 1875, and, secondly, in March last, for severe attacks of ague. He was treated with quinine, and was three weeks under treatment on each occasion. He said that was a shorter time than usual. On October 2nd, I was sent for to see him at 10 A.M. I found him in bed shaking all over, his teeth chattering, with the painful unhappy expression of countenance one invariably finds in these cases; the skin was moist and clammy; temperature 103 deg.; pulse weak and frequent, 110. He had a hot bottle to his feet, and had taken hot port wine without feeling better. I told him I was going to send him a new remedy, and he was to be

very particular in following the directions and noting his feelings after each dose. I sent him twelve powders, with thirty grains of salicine in each one, to be taken every two hours. I saw him again at 6 P.M., six hours after the first dose. His temperature was 99 deg.; pulse 80. He said he had taken only four powders; he felt so much better after the first. The chilliness began to abate; three hours afterwards, all unpleasant feelings had vanished, and he thought he need not go on with the medicine. He was ordered to leave off the salicine, unless he felt worse. On October 3rd, at 10 A.M., I found him up by the fire, looking weak and tired, but saying he felt well. I told him to be careful, as next day he might have a relapse. On October 4th, at 10 A.M., I found him as on my last visit; he, however, told me that, at six in the morning, he had "the same old feels" come on, and, had it not been for the powders, of which he took two, he was sure he would have had it again. He was ordered to take a powder night and morning, and come and see me on the 6th, which he did, looking much better. He went from home for a week, and, when he came back, he said he had not had such a short autumnal touch for five years, and asked me for some of the medicine to keep.

CASE II.—Jane G., aged 40, was seen on October 10th in bed. Her skin was wet with perspiration, and she was very shaky. She could with difficulty sit up. She had been ill every other day for a week. She was ordered to take thirty grains of salicine every two hours until I saw her again, which I did on the morning of the 12th, when she gave me the following account. "After the second powder, the perspiration stopped, and, after the fourth, the chilliness had gone and the stiffness in the limbs was much relieved." Next day, she was comparatively well. The next morning, she was surprised to find herself equally so. She was ordered to stop the medicine, and only take it again if she had any premonitory symptoms. Four days afterwards, she was quite well.

CASE III.—The following case I consider very satisfactory. W. A., aged 74, had been subject to ague at times for years. He had now been six months under treatment. Quinine had been administered in full doses, until he vowed he would take no more, as he believed he felt worse after it. Nitro-muriatic acid agreed better. The paroxysms of ague occurred every three or four days, generally three times a day. As the next would be his bad day, I ordered him to begin the salicine to-night (thirty grains every two hours, if awake). I saw him at 4 P.M. next day. He had had only one fit, and that the powder seemed to stop short. He felt and looked much better. He was ordered to take thirty grains every four hours until after his next bad day; if not well then, to continue the medicine until seen again. I visited him on December 9th. He said he had a slight feeling of chill the fourth day after beginning the salicine, but yesterday (the 8th) he felt as well as to-day, and that was better than he had done for six months. In fact, he said his limbs were not so stiff as usual, and he walked much better.

As the last two cases occurred in the fen, five miles distant, I could not see them sufficiently often to note with the thermometer the antipyretic effect, or to record the cases in regular hospital form. However, I think my first case shows salicine to have an almost magical effect in restoring the equilibrium of the circulation, making normal the temperature, and checking this troublesome disease, as my last case shows it to be superior to quinine even in cases of genuine ague of old-standing in an aged patient.

My excuse for bringing the above cases before the profession is, that I feel perfectly confident that we have in salicine a most valuable remedy, especially in all malarious fevers, and that I am in hopes these remarks may encourage my professional brethren resident in those districts where both willow-bark and fever abound to give it a fair trial, and record the results of their experience.

MARYLEBONE.—In the four weeks ending February 24th, Dr. Whitmore reports that there were 379 births and 217 deaths, which would give an annual death-rate of 22.12 per 1,000 population. There were only four deaths from small-pox, one of which occurred in a young lady aged 22, who was the daughter of an M.D. and unvaccinated, which Dr. Whitmore justly considers to have been "somewhat unaccountable". The four deaths from small-pox were in addition to those that had taken place amongst the thirty-eight cases sent to the hospital, of which Dr. Whitmore has received no returns. Two of the deaths occurred in unvaccinated children who were allowed to remain at home, although the mother (a widow) and her four children occupied only one room. Dr. Whitmore says that, if more promptitude had been used in removing these and other cases, much sickness would have been prevented; but does not seem conscious that it was the duty of the sanitary authority to have taken these children away, as they were without proper lodging and accommodation.

THERAPEUTIC MEMORANDA.

FAILURE OF SALICIN AND SUCCESS OF COLD PACKING IN A CASE OF RHEUMATIC HYPERTYREXIA.

I HAVE read with much interest Mr. Daruty's communication on the Failure of Salicin and Success of Cold Packing in a Case of Rheumatic Hypertyrexia, in the JOURNAL of April 14th. In my paper, from which Mr. Daruty quotes a paragraph, I did not suggest the use of salicin (of which I have no experience personally), but only of salicylate of soda or salicylic acid. I am aware that salicin often produces similar results, but I believe that its action is not so strong as that of the acid, and that disappointment from its use is consequently more frequent. Salicylate of soda, it is true, was at first tried by Mr. Daruty, but scarcely in adequate doses. Fifteen grains every four hours may prove sufficient in some instances, but patients vary considerably in their susceptibility to the drug, and I have found larger doses advantageous in most cases. I have been accustomed to give half a drachm every two hours (*i. e.*, four times as much), and consider this a moderate dose; forty grains, or even more, every hour, for several doses, having been often given with good results.

The same number of the JOURNAL contains an account of a case of rheumatic hypertyrexia treated by salicylic acid, by Dr. Russell. In this case the acid was given in scruple-doses and with sufficient frequency, but death resulted. I must confess that I doubt whether this case should be considered one of hypertyrexia at all. The temperature when Dr. Russell first saw the patient was 105 deg., and this point was not exceeded in the subsequent course of the illness. I think hypertyrexia can hardly be said to exist without a temperature of 107 deg., or at least more than 106 deg. In Dr. Russell's case, the temperature was rapidly brought down from 105 deg. to 100.5 deg., but symptoms of collapse came on, with extremely rapid pulse and laboured breathing; these bad symptoms were successfully combated by brandy and warm applications, but the temperature again rose to 105 deg., and, notwithstanding two more doses of the acid and subsequent fall of temperature, the patient died. There was, I presume, no *post mortem* examination; but it would have been most interesting to know the precise state of the heart and lungs in this case. Bronchitis is said to have existed, but it would have been more satisfactory to have definitely excluded pneumonia; and, although no heart-affection was noted during life, may there not have been some pericarditis with exceptionally rapid effusion? At any rate, I think a temperature of 105 deg. could not of itself have proved so rapidly fatal. The mode of death, again, is not stated by Dr. Russell, nor is the amount of food and alcohol given noted. The above, I think, are points on which readers of the JOURNAL would be glad of further information.

The great importance of alcohol in all cases of excessive fever, especially when accompanied or succeeded by signs of collapse, is well known. I had a case under my care in St. George's Hospital some time ago in which this was well illustrated. A young woman with acute rheumatism, after progressing favourably under alkalies for some time (I was not then acquainted with salicylate of soda), got pericarditis, pleurisy, and in all probability pneumonia; she was too ill to be completely examined. Her temperature went up to 106 deg., and on one occasion reached 107 deg.; we may therefore say that there was hypertyrexia. The only treatment adopted was milk, beef-tea, brandy, and egg and brandy mixture given at very frequent intervals (every half-hour). She was certainly in extreme danger, with dry tongue, sordes on the lips and teeth, short shallow breathing, extremely rapid fluttering pulse, picking at the bed-clothes, etc. My prognosis was that death was imminent; and yet she gradually got better, and ultimately made a good recovery. It appears, therefore, that hypertyrexia may be recovered from under food and stimulants only, without having recourse to quinine, salicine, etc., or the cold bath; and that it may prove fatal (as in a case recently published by Dr. Sturges) notwithstanding the assiduous and timely administration of any or all of these remedies.

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TREATMENT OF PSORIASIS BY GOA POWDER.

WHILE chrysophanic acid and Goa powder are under trial in some skin-diseases, I think it incumbent on every one who has had the opportunity of trying them to publish their experience. I have had as yet only one opportunity of giving the Goa powder a fair trial; but the result in this case has been so marvellous, that I do not hesitate to send it for publication. My patient is a retired merchant, sixty-three years of age, and of ample means. Just nine years ago, he presented him-