cent. strength, though in the later cases formaldehyde of English manufacture was employed. The fluid was vigorously rubbed in with a largish brush or mop for ten minutes, the hair having been shaved round the margin of the patches. The application was repeated every other day on four occasions and then entirely discontinued. In some patients the head was painted every day for four successive days. Of the 40 cases only 5 required repainting from non-eradication of the disease, and in these the fault lay not with the remedy, but in the fact that, owing to the struggles of the child, no proper application could be made. The ages of the children treated ranged from 4 to 12, and the extent of the disease varied from a small strictly localised patch to areas which were practically co-extensive with the whole scalp. Microscopical examination was always made before commencing the treatment, and the actual presence of the trichophyton verified, whilst before pronouncing any case cured microscopical examination was again made. In 38 of the cases the fungus presented the characters of trichophyton microsporon.

Formalin thus applied induces discomfort and irritation of very brief duration rather than actual pain, and does not vesiculate the scalp as it does the skin elsewhere. Only 3 cases showed any suppuration after its use, and in these the process was slight, and did not destroy any of the follicles. It produces, however, a thick crust, just as weaker solutions cause desquamation upon the skin of the arm, and the subsequent application of some emollient is advisable to accelerate the removal of this exudation. Growth of healthy hair commences immediately, and in three or four weeks the denuded patch is covered with hairs $\frac{1}{2}$ in. long.

Before concluding, allusion must be made to a remarkable occasional complication of the treatment. In 6 cases oedema of the face was noted some hours after the painting. In one boy this was so extensive as to completely prevent vision from swelling of the eyelids, and the forehead pitted $\frac{1}{2}$ in. on pressure. The skin, however, was neither hot nor red, and there was no pain or constitutional disturbance. The oedema only occurred when the area treated was very large, and the condition is probably analogous to that produced by a nettle sting on a big scale.

It is interesting in this connection to remember that the active toxic agent in the nettle is formic acid, and that it is thus closely related to the substance now under discussion. The occurrence of this oedema renders it advisable either to deal with limited areas at a time, or to warn the parents of the possible result if the whole scalp is to be attempted at once.

A NOTE ON PICRIC ACID IN THE TREATMENT OF SUPERFICIAL BURNS AND SCALDS.

By D'ARCY POWER, M.B., F.R.C.S. ENG.,
Surgeon to the Victoria Hospital for Children, Chelsea.

THE treatment of superficial burns and scalds has long seemed to be most unsatisfactory, for these injuries are attended with an unnecessary amount of inflammation, whilst the act of renewing the dressings is unduly painful. From time to time I have tried various methods of treatment, and I have come to the conclusion that the picric acid treatment is by far the simplest and the most satisfactory. The method is well known in France, where it has been extensively used by Professor Thiéry, whilst Dr. Filleul and Dr. Papazoglou have done their best to disseminate a knowledge of its value. I do not therefore claim the least merit for myself, but I find that so few practitioners know of it that it is perhaps worth while to draw attention to it in England.

The solution of picric acid is made by dissolving a drachm and a-half of picric acid in 3 ounces of alcohol, which is then diluted with two pints of distilled water, or more accurately: Picric acid, 5 g.; alcohol, 80 g.; dissolve; add 1,000 g. of distilled water. This is a saturated solution of picric acid.

The clothing over the injured part should be gently removed, and the burnt or scalded portion should be cleaned as thoroughly as possible with a piece of absorbent cotton wool soaked in the lotion. Blisters should be pricked, and the serum should be allowed to escape, care being taken not

to destroy the epithelial surfaces. Strips of sterilised gauze are then soaked in the solution of picric acid, and are so applied as to cover the whole of the injured surface. A thin layer of absorbent cotton wool is put over the gauze, and the dressing is kept in place by a light linen bandage. The moist dressing soon dries, and it may be left in place for three or four days. It must then be changed, the gauze being thoroughly well moistened with the picric acid solution, for it adheres very closely to the skin. The second dressing is applied in exactly the same manner as the first, and it may be left on for a week.

The great advantages of this method of treatment are: First, that the picric acid seems to deaden the sense of pain; and, secondly, that it limits the tendency to suppuration, for it coagulates the albuminous exudations, and healing takes place under a scab consisting of epithelial cells hardened by picric acid. A smooth and supple cicatrix remains, which is as much superior to the ordinary scar from a burn as our present surgical scar is superior to that obtained by our predecessors, who allowed their wounds to granulate.

I have used this method for more than a year in hospital practice both amongst out-patients and in-patients, and I have every reason to be thoroughly satisfied with the results I have obtained. It is not an ideal method, for it stains the clothes and discolours the hands of the surgeon, but it is a great improvement upon anything else I know of.

CEREBRAL HÆMORRHAGE DUE TO WHOOPING-COUGH.

By R. G. McKERRON, M.A., M.B.,
Junior Physician, Royal Hospital for Sick Children; Obstetric Physician,
General Dispensary, Aberdeen.

THE case of facial paralysis occurring in a patient with whooping-cough, which was recorded by Dr. Craig in the BRITISH MEDICAL JOURNAL of June 13th, recalls to my mind a somewhat similar instance which came under my observation some time ago.

I. L., aged 5 $\frac{1}{2}$, was first seen on March 29th, 1893. For over three weeks she had been suffering from an attack of whooping-cough of moderate severity. For nearly two weeks she had been troubled with occasional attacks of headache and earache, at times very severe. These attacks were attributed to injuries of the face and head sustained in falling downstairs a few days before.

On the afternoon of March 28th she came in complaining of headache and severe sickness. When put to bed, she vomited once. During the night she became worse, and was said to be stupid, and at times unconscious. Next morning I found her apathetic and partially comatose; irritable when interfered with. There was right hemiplegia, paralysis of the arm being absolute, of the leg incomplete. The head was turned slightly towards the right. The pupils were normal and equal, reacting slowly to light. The pulse was regular, 96; the temperature 98.2°. The heart sounds were normal. There were no indications in personal or family history of a tuberculous disposition or of syphilis.

I expressed the opinion that the condition was the result of a hæmorrhage due to the strain imposed on the cerebral vessels by the paroxysms of coughing.

On March 30th the coma had increased, but she could still be roused. The pulse was 114, the temperature 101°. Two or three times during the night she had emitted a cephalic cry. During the evening and night there were repeated right unilateral convulsions, said to begin in the thumb and then to pass on to the arm and leg. Each attack lasted 3 to 5 minutes.

On the morning of March 31st coma was complete; the head was turned more to the right, the face looking over the right shoulder. It was not rigid, but always reassumed the oblique position. The pupils were normal, but reacted very slowly. The temperature was normal; pulse 98, unequal and retarded. During the night the convulsions continued to recur, and when seen on April 1st, with Dr. Riddell, the general condition was unchanged. The child had a convulsion. The movements began in the right thumb, were confined to it for a few seconds, and then passed rapidly in suc-

cession to the hand, arm, leg, face, eyelid, lasting about three minutes. The pupils were markedly dilated during the convulsion. After the fit it was found that the right leg responded feebly to strong stimulation; the mouth was pulled to the left, while the face still looked to the right.

The ophthalmoscope revealed nothing abnormal, but the examination was unsatisfactory, owing to the movements of the eyes. Convulsions of the same character continued during the night. Coma was somewhat less marked. The pulse was 94, still retarded. The temperature was normal. On April 3rd the coma was less, and the child understood questions. There was slight increase of power in the leg; convulsions still occurred occasionally, but were much less severe. The tongue on protrusion was directed towards the right.

On April 4th the child was bright and intelligent. There was marked improvement in leg, and slight return of movement in arm. The pulse was 84; the tongue on protrusion still pointed to right. No further convulsions had occurred.

On April 5th leg was stronger, while movements of the arm were more free.

From this date the child rapidly progressed, and on April 11th was allowed up. She could then walk steadily, with only a slight drag of the right leg. The right arm and hand could be used, but were still distinctly paretic. All symptoms of facial paralysis had disappeared. The tongue was protruded straight, but there developed slight stomatitis, with one or two small ulcers on the right side and under surface of the tongue.

By the end of three months there was no perceptible difference in the two legs, while the right arm had almost completely regained its power. The child, however, declined where possible to use the right hand, preferring the left.

Of the interesting features of this case, none seem more noteworthy than the rapidity with which the paralytic symptoms passed off, in strong contrast to the slower convalescence in adult hemiplegia. It is very interesting, too, to note that from the occurrence of the hæmorrhage the characteristic paroxysmal cough entirely disappeared.

to pass by reason of the toughness of the tissues penetrated and the troublesome cough present. The muscles were then sutured. Here again there was deficiency of material above to fix the sutures because the hyoid had been so closely shaved. Then the skin was sutured, two small drain tubes being left in the wound. The head was fixed to the chest in the usual manner with bandages and strapping.

During the next twelve hours the patient's cough was very troublesome and he expectorated half a pint of frothy mucus. We could not prevent him sitting and bending forward and moving in other ways to facilitate expectoration. Thus proper rest for the injured parts was not obtained.

The wound healed by first intention. Forty-four hours after admission the patient swallowed with ease a glass of water, and later the same day a pint of milk with brandy and egg. He was fed similarly every eight hours from this time. For five days there was inability to protrude the tongue properly. On the tenth day the patient had fish diet, on the eleventh was allowed up, on the thirteenth went out of doors, and on the twenty-first was discharged.

A month later he was readmitted for a wound in the sixth left intercostal space, self-inflicted, and exposing the pericardium and lung. It was sutured by Mr. Phillips, the assistant house-surgeon, and united by first intention. At this time his power of swallowing solid food was noticed to be not quite perfect. There was a little difficulty at the beginning of the act. The difficulty was increased when the man was conscious of being under observation. He said himself there was some difficulty in swallowing biscuits. When he was first discharged after the suture of his throat wound, the epiglottis was perhaps tilted backwards, somewhat in that part of it which could be reached with the finger from the mouth. He was very tolerant of digital examination of the parts, as though sensation was deficient. A large œsophageal tube was passed without any difficulty.

I have recently watched the man taking food in the Bristol County Asylum, where he has been confined for the last twelve months. There is still the same slight difficulty in beginning the act of swallowing. He eats, however, an abundance, and his state of nutrition has improved. Thus, although no stricture exists, there is an imperfection in the mechanism of swallowing. If the older methods of treatment had been followed and no sutures applied in the first instance, it is very improbable, I think, that an equally satisfactory result would have been obtained, and it is certain that those methods would have been much more tedious, painful, and dangerous to the patient.

[I treated the above case during my house-surgeoncy at the Bristol General Hospital, and have to thank Mr. C. F. Pickering, senior surgeon to the hospital, for kindly allowing me to publish it.]

DOCTORS AND DEATH CERTIFICATES.—At an inquest recently held at Skelmersdale, the coroner, Mr. S. Brighouse, took occasion, according to the report in the *Liverpool Post*, to comment unfavourably on the doctor's action in having given a certificate of death. He had only seen the deceased once at 5 o'clock in the morning, when she was evidently dying from heart disease and dropsy, and when he called again a few hours later she was already dead. Owing to rumours that the deceased had been ill-treated by her husband, the body was exhumed about a fortnight later, and an inquest held, when, after most conflicting evidence as to the alleged injuries, a verdict of death from heart disease was returned, extensive disease of the heart having been found on *post-mortem* examination. In reply to the coroner, the doctor said he considered himself quite justified in certifying as to the cause of death; but in his summing up, in which he referred to the doctor's action in most courteous terms, the coroner said that when a doctor was called in to see a patient who was bound to die in a short time, and he had no previous knowledge of the habits or life of such a person, he thought it was a very great stretch to say that this entitled him to give a certificate. We believe that the coroner was legally justified in his remarks, for, unless we are mistaken, it has been decided legally that a single visit to a dying person is not such an attendance in the last illness as would entitle a doctor to give a certificate of the cause of death.

DONATIONS.—The following donations have been made during August by Baroness de Hirsch: To the Jewish Convalescent Home and the North-West London Hospital, each £1,000; to the Poplar Hospital, £700; to the Brompton Hospital for Consumption, £600; to Charing Cross Hospital, Guy's Hospital, the London Hospital, Middlesex Hospital, St. George's Hospital, St. Mary's Hospital, and the Metropolitan Hospital, each £500; to the Metropolitan Convalescent Institution, £400; to the Royal Free Hospital and the Surgical Aid Society, each £300; to the Dental Hospital, the French Hospital, the German Hospital, the Hospital for Sick Children, Great Ormond Street, the North-Eastern Hospital for Children, the Lock Hospital, the Queen Charlotte Lying-in Hospital, the All Saints' Convalescent Home, Eastbourne, and the Victoria Hospital Convalescent Home, each £200.

CASE OF CUT-THROAT TREATED BY IMMEDIATE SUTURING.

By J. LACY FIRTH, M.D., M.S.LOND., F.R.C.S.,
Assistant-Surgeon to the Bristol General Hospital.

The case of cut-throat detailed below illustrates the advantages gained in such cases by immediately suturing the wounds. Mr. Henry Morris has summarised these advantages and shown that:

1. Union by first intention is secured.
2. The rapid union allows natural swallowing to be performed early.
3. The distress of feeding by a tube is avoided.
4. There is absence of painful or distressful swallowing, attended by escape of food from the wound and the excitement of troublesome cough.
5. Cicatricial contraction producing stricture is avoided.
6. Aërial fistulæ are not formed.

CASE.—G. B., a male, aged 61, was admitted to the Bristol General Hospital under Mr. C. F. Pickering on April 25th, 1895, suffering from a self-inflicted wound of the throat. He was morose and looked careworn, and was of flabby texture, with puffy eyelids and sallow complexion. He had been "queer in his mind" for three or four months. For six months he had had a severe cough, with expectoration of nearly a pint of phlegm daily. The weapon he had used was a tapering dinner knife with rounded end. The wound gaped widely. It extended from the left sterno-mastoid nearly to the right one, and had passed into the food passages immediately below the hyoid bone. The wound in the air passage measured about 1½ in. transversely, and was oval in shape. The thyroid cartilage was denuded of muscle. He was reported to have dragged the wound open with his fingers. Voice husky, but intelligible easily when the wound was covered. The wound was cleansed. It was impracticable to suture the wound in the food passage without penetrating the mucous membrane, because the thyro-hyoid membrane and the epiglottis had been severed immediately below the hyoid bone, and there was no tissue below that bone to unite to the upper edge of the lower flap of tissue. The cut edge of the upper segment of the epiglottis was flush with the lower border of hyoid bone, and was also very closely fixed to it. Five sutures were used of catgut. They were passed over the hyoid bone and through the epiglottis into the pharynx and out again through the flap of tissue below, consisting of epiglottis and thyro-hyoid membrane. When they were tied the opening was effectually closed. The sutures were difficult