depraved state of the appetite, and is a frequent symptom of cases of anæmia. According to Cobbold, it is a common symptom of worms of all kinds.

I have at hand an extract from Dr. Livingstone's last *Journals*, Vol. II, p. 83, which I think worth quoting:

"Safura is the name of the disease of clay or earth eating at Zanzibar. It often affects slaves, and the clay is said to have a pleasant odour to the eaters, but it is not confined to slaves, nor do slaves eat in order to kill themselves; it is a diseased appetite, and rich men who have plenty to eat are often subject to it. The feet swell, flesh is lost and the face looks haggard, the patient can scarcely walk for shortness of breath and weakness, and he continues eating till he dies.

Earth eating is one means by which the ankylostoma duodenale is introduced into the system, but unwashed hands in labourers working in contaminated soil is a more frequent cause of infection. Water is probably the principal medium through which the parasite infects man.

Three different modes of action are put forward to explain the pernicious anæmia caused by the action of the ankylostoma upon the system: (1) direct loss of blood, (2) catarrh of the stomach and intestines, causing altered digestion and impeded absorption; and (3) blood poisoning produced by materials originating in the metabolism of the parasite, or in the impaired digestion of the bearer.

I hope from further observation to be able to demonstrate successfully that the pernicious effects of the anæmia of this island, whether occurring in Creoles or coolies, are due to the presence of the ankylostoma duodenale in the intestines.

INHALATION OF FORMALIN IN CATARRH AND OTHER DISEASES OF THE RESPIRATORY TRACT.¹

By J. LARDNER GREEN, M.R.C.S.Eng., L.S.A.,
Salisbury.

THE predisposing cause of ordinary catarrh is most probably a depressed condition of the nervous system; the exciting cause a chill or other constitutional shock paralysing the branches of the first, fifth, and eighth pairs of nerves followed by the introduction of air laden with the ever-present morbid germs. Dr. Davison records a case of a vigorous young girl who breathed air strongly imbued with coal gas; when discovered she was comatose, breathing stertorously, and foaming at the mouth. After partial recovery under the prompt and skilful treatment employed, we are told that there was great danger owing to the exhausted condition of the system; the cells of the respiratory tract were so paralysed that they were incapable of resisting the invasion of the pneumococcus, thus leading to a fatal attack of pleuropneumonia: for the automatic centres lose their inhibitory powers if the higher centres become so disorganised as to be unable to discharge their functions.

According to Fraenkel, a micrococcus is found in the sputum of pneumonic patients, and more recently he believed them to be the cause of pneumonia; they are frequently rod-shaped, being somewhat longer than broad, varying in size and shape, usually found in pairs, sometimes in filaments of three or four elements; when in double pairs they are called micrococcus tetragenes. They stand in some intimate relation to many forms of fevers and inflammations. Their presence in the healthy mucus of the mouth, etc., does not disprove this, for it is necessary that some injury—greater or less—should occur to stir up this ever-present germ to develop the diseases of the respiratory passages. These complaints have several points of resemblance to others acknowledged to arise from microbes; thus catarrh is to some extent contagious. Popular belief confirms this idea, and all admit that catarrh, if often recurrent, is apt to end in laryngeal and pulmonary consumption.

These considerations lead to the conclusion that the most rational treatment is by means of germicidal remedies, the most direct mode being by the careful inhalation of a gas or vapour; the best results have been from the vapour of formalin, one or two drops placed inside a Jeffery's respirator. If the disease be in the acute stage one drop will suffice; if the vapour be too stimulating, the respirator should be temporarily removed from the face to dilute the vapour with air; a feeling of warmth and comfort will follow.

¹ Abstract of a paper read at a meeting of the Southern Branch of the British Medical Association.

I strongly advise a trial of the formalin in the early stages of tuberculous consumption, when usually it will be found under the microscope that the number of both the micrococcus pneumoniae and also of the bacillus tuberculosis, which is constantly to be found in the sputum, will be rapidly lessened. Of course, every subsidiary aid, for example, tonic medicine, careful dieting, every attention to hygienic surroundings, should not be omitted. Formalin is the short name given to a 40 per cent. aqueous solution of formaldehyde gas. For inhalation in acute cases, the formalin should be diluted with water.

A CASE OF ACUTE SEPTICÆMIA TREATED WITH ANTISTREPTOCOCCIC SERUM: DEATH.

BY
A. V. CROSSING, and H. W. WEBBER,
M.R.C.S.Eng., L.R.C.P.Lond., M.D., M.S.Lond.

K. T., aged 15½, a pupil teacher, was first seen on October 31st, 1896. She worked very hard at the school, appeared to have been not too well fed, and lived in an insanitary house. She first felt ill on October 26th, but went to school till October 30th. On October 31st she looked ill, and complained of pain in respiration in the left infrascapular region. The lower lip was swollen, with a small pustule on the left side. This was opened and hot boracic fomentations applied.

November 1st. Temperature 103°, pulse 140, respirations 40. The chin and lower part of the face on the right side were swollen, red, and tender. Fine inspiratory crepitation could be heard over the ninth and tenth ribs in the left mid-axillary line. Calomel (gr. iv) was given and quinine sulphate (gr. ii) every four hours.

November 2nd. The inflamed area on the face had extended somewhat downwards. Crepitations could be heard over the same spot as before. In the evening the temperature was 103°, the pulse 140, and the respirations 46.

November 3rd. The swelling was more prominent over the face, and felt elastic. The temperature was 100.4°, pulse 120, and respirations 34. In the evening, under A.C.E. mixture, an incision was made in the middle line below the chin 2 inches in length, and another over the border of the lower jaw. The incised tissues were very tense and brawny, but no pus was found. Quinine, digitalis, and brandy were ordered to be taken at frequent intervals, and the hot boracic fomentations continued. Several pustules on the lower lip were opened, and pure carbolic acid rubbed into their cavities. The condition of the lip at this time very much resembled that of a carbuncle.

On November 4th there was slight general improvement: the temperature 101° to 103°, the pulse 120 to 130, and the respirations 30 to 40; no crepitations were now audible, and nourishment was well taken.

On November 5th the temperature in the morning and evening was 101.4° and the pulse 120. At 9.30 P.M., 5 c.cm. of antistreptococcic serum prepared at the Pasteur Institute were injected subcutaneously to the left of the umbilicus.

On November 6th there were swelling, redness, and tenderness in the right temple, extending over the eyelid, and causing inability to open the eye; the temperature was 102°. At 9.30 A.M., 5 c.cm. of serum were injected. At 9 P.M. the temperature was 103.8° and pulse 120. Under chloroform an incision down to bone was made into the swelling outside the right orbit; 10 c.cm. of antistreptococcic serum (Burroughs, Wellcome, and Co.) were injected.

November 7th, at 4 A.M., rather severe hæmorrhage came on from the incision over the lower jaw. It was stopped by compression with dry wool and a pint of saline solution injected into the rectum. This was repeated two hours later, the result on the pulse and general condition being good on each occasion. In the evening the temperature was 103° and pulse 150. The patient was evidently becoming much worse, though she took milk freely, and brandy in two-drachm doses every two hours.

On November 8th diarrhœa came on frequently, and the

patient was delirious, pulse very rapid and feeble, and temperature ranging from 102° to 104° .

On November 9th, at 5 A.M., she died.

REMARKS.—This was a very severe case; the patient went steadily downhill from the first, and never showed an encouraging symptom. The serum was probably not used early enough and in too small doses; still, the amount which was injected (20 c.cm.) in twenty-four hours produced no effect on the constitutional symptoms though the local condition improved.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

EMBOLISM OF THE PULMONARY ARTERY MORE THAN TWO MONTHS AFTER DELIVERY: DEATH.

MRS. P., aged 35, was delivered by me of a male child on October 23rd, 1896. It was her third confinement. For many years she had suffered from a very extensive varicose condition of the left internal saphenous vein, from the foot up to Scarpa's triangle.

Four days after her confinement she complained of pain in the upper, inner, and back part of the left thigh. On examination I found a localised phlebitis, and a thrombus formed in the largely dilated external pudic. She remained in bed till November 26th, and then, feeling fairly well, she got up, without my permission. I did not see her again until December 23rd. I then found her in a low, weak condition, and the external pudic still blocked with the thrombus. I still advised complete rest on her back as much as possible.

On January 6th I received an urgent message that she was dying. On arrival I found that she had felt much better the last few days, and had arranged that she should be "churched" on that morning, and her nurse was in the house ready to accompany her. About 10 A.M. she lifted her little boy, aged 3 years, out of his cot, and carried him downstairs, but on reaching the bottom she felt a sudden pain in the breast, and a choking sensation, with a fear of impending death. I found her on her bed, whither she had been carried by her husband and nurse. Her condition was most alarming. She complained of great pain under the sternum and through to the back. Her respirations were short, gasping, 40 to the minute. Her face was pallid, except the lips, which were blue. The heart was beating in a hurried, tumultuous manner. The pulse was small and irregular. Air was entering all over the lungs. No *bruit* and no *râles* to be heard. Her mind was quite clear, and she said she felt she was dying. I at once administered brandy, ordered hot bottles, perfect quiet and rest, and sent her an ether and ammonia mixture. On my way up to see her again about 4 P.M. I met her husband, on his way to tell me that she was dead. It appeared that she had rallied a good deal, and they thought she was going to get better. She was left alone for a few minutes, when suddenly the nurse, who was downstairs at the time, heard a noise overhead, and running up, found that the patient had got out of bed, evidently to urinate, and was then lying on the floor at her last gasp. In a few more moments she was dead.

This case illustrates the great length of time which may elapse between the thrombus following on a confinement and a fatal separation of the embolus. It is just possible that had she not got out of bed her life might have been spared, as she appeared to have got over the first imminent danger, and with further time the obstruction in the pulmonary artery might have become absorbed.

Sherborne.

T. RUELL ATKINSON, M.R.C.S.

TREPHINING FOR FRACTURE IN A YOUNG CHILD.

On November 26th, 1896, a little girl, 2 years and 5 months old, fell down two or three stairs, and it was thought had broken her left arm. I was called to her, and found the left arm and leg affected with convulsive twitchings; on the upper part of the right side of the head was a deep indentation. She had two convulsive fits.

She was at once sent into the Evesham Cottage Hospital,

and put under an anæsthetic; on removing the scalp over the indentation, a fracture about an inch long, with a good deal of depression, was seen. Part of the depressed bone was trephined, and the rest raised with the elevator; the next day she was quite sensible and bright, and since then she has made an uninterrupted recovery; her temperature never rose above normal.

Evesham.

H. E. HAYNES.

EXTENSIVE HERPES INVOLVING MUCOUS MEMBRANE.

In February, 1896, F. F., male, aged 35, a platelayer, married, presented himself for examination, complaining of intense neuralgia of the right side of his face, and of a "breaking out" on his face and in his mouth, due, he supposed, to exposure to cold. To diagnose herpes was comparatively easy; the large area affected, however, certainly seemed worthy of note. Briefly, the right trigeminal nerve was implicated, and a well-marked herpetic rash in various stages of development was noted in the following situations:

Right half of forehead, with a slight overlap to left side (supraorbital and frontal).
Right temple well up into the hairy scalp (auriculo-temporal).
Lateral angle of right eye and back to ear (subcutaneous malar).
Right lower eyelid, cheek below the eye and right upper lip (infra-orbital).

Mucous membrane of right cheek (buccinator).

Right anterior two-thirds of tongue and right tonsil (lingual).

The right eye was also badly bloodshot, but I failed to find any vesicles on the cornea or conjunctiva. The case progressed favourably, the only difficulty being the mouth lesions, which had to be dressed with nitrate of silver before they would heal.

Crews.

ALFRED E. VAUGHAN, L.R.C.P.E., L.R.C.S.E.

CARDIAC TONICS IN ACUTE BRONCHITIS AND BRONCHO-PNEUMONIA, ESPECIALLY IN CHILDREN.

THE cause of danger in most, if not in all, cases of bronchitis and broncho-pneumonia, especially in children, is heart failure. The right ventricle continues to receive its wonted supply of venous blood, which it endeavours to force on through the already obstructed pulmonary capillaries. This obvious disadvantage has shortly added to it another—namely, overdistension, and so the right heart works on, stimulated it may be by aliment and drugs, until frequently it fails altogether, unless it be helped by suitable drugs.

The chief clinical phenomena accompanying this condition are blueness of the skin and mucous membranes, an extremely rapid pulse, quickened respiration, and great strengthening of the second cardiac (pulmonary) sound at the base. It is at this period that I think we do well if we look more to the condition of the heart than to that of the lungs. The most useful drugs are undoubtedly digitalis and nux vomica, but it becomes necessary in a few cases to resort also to strophanthus and convallaria majalis. These may, I believe, be given, in suitable doses, to the youngest children.

In conclusion, I would say a word in praise of spongiopiline as against the time-honoured linseed poultice, the frequent application of which, by exhausting the patient, often does more harm than good.

Portsmouth.

J. G. BLACKMAN, M.D. BRUX., M.R.C.S.

CHRONIC (SEPTIC) DISCHARGE TREATED BY ANTI-STREPTOCOCCUS SERUM.

On August 18th, 1896, I saw Mr. G., aged 54, who had received a small abrasion in the cleft between the thumb and index finger of the right hand while gardening. Septic absorption was evinced by red lymphatic lines running up the arm, with enlargement and tenderness in Cruikshank's gland above the bend of the elbow. The temperature was 102° , and there had been repeated rigors. These symptoms, however, yielded rapidly to local and general treatment, but on September 1st he had a strong rigor (temperature 103°) with vomiting. I found enlarged and tender glands in the axilla, which rapidly broke down, and on September 5th I opened an axillary abscess containing about 10 ounces of thick laudable pus. This abscess, in spite of free drainage, rapidly extended under and through the sheath of the pectoralis major muscle, necessitating two counter-openings—one in the mammary