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

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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
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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