

On the sixth day he was admitted into hospital. The urine contained albumin and hyaline and granular casts. During the next four days there were cyanosis and delirium and the temperature ranged up to 104° F. On the ninth day the patient began to improve and on the tenth he became rational and the temperature fell to 101.5°. But on the fourteenth signs of fluid in the right pleura appeared and the temperature began to rise. On the seventeenth day paracentesis was performed and yielded 300 cubic centimetres of turbid greenish-yellow fluid which contained the pneumococcus in pure culture. Two days later a diastolic murmur was heard at the cardiac apex. Up to that time the heart sounds had been clear. The pulse became more rapid and on the following day was 114 and collapsing, with a marked thrill. A double murmur was heard at the cardiac base. With the first evidence of endocarditis appeared symptoms of meningitis—headache and congestion of the left conjunctiva. On the following day the patient was semi-comatose and the neck was rigid. On the next day Kernig's sign was present. Lumbar puncture yielded three ounces of purulent fluid containing an abundance of pneumococci. Death took place on this day. Bouillon inoculated with the patient's blood on the day before death yielded a characteristic growth of pneumococci. The necropsy showed resolving pneumonia, empyema, exuberant vegetative and ulcerative endocarditis, and intense meningitis. There was some greyish mottling of the cardiac muscle. On one of the cusps of the aortic valve was a large soft, rounded vegetation, half an inch in diameter, with a rough surface and small perforation through its centre. Near this was a perforation through the cusp. The under surface of the adjacent cusp was a little roughened. The heart weighed 13½ ounces. The left lung showed considerable œdema. The right pleura, both visceral and parietal, over the entire posterior surface of the lung was covered with a layer of shaggy fibrin. The lung was œdematous and congested in the upper lobe and dark-red, mottled, and rather granular in the lower lobe. The left kidney contained a white infarct. The brain was covered with abundant exudation. There were numerous petechial hæmorrhages in the walls of the fourth and lateral ventricles and a few drops of pus in the latter. Blood taken from the left ventricle of the heart yielded a growth of pneumococci.

THE ALLEGED POLLUTION OF FIGS.

A STATEMENT appeared in a letter in the *Times* a few months ago to the effect that sea water obviously polluted with sewage was used in the packing of figs at Smyrna. According to the results of some bacteriological inquiries made at the instance of the public health committee of the Paddington borough council this would appear to be a fiction in regard to at any rate a number of samples of figs which were purchased in the open market and which were chosen as being "representative of different grades of trade." The report of the Lister Institute of Preventive Medicine states that "no bacillus coli or any similar organisms were found in as much as ten grammes of figs. There is, therefore, no evidence of the least contamination with sewage." Apart from the charge of pollution brought against the fig packers in Smyrna, it is certainly remarkable that figs should show such a clean bill of health as regards bacteriological flora, for, as is well known, most foodstuffs are certainly not sterile and often contain swarms of bacteria though the bulk of them may be innocent. Assuming that the figs examined in this particular inquiry had been at some time or other exposed to the kind of contamination indicated it would appear to follow that figs exert a germicidal action on their own bacterial contents. It may be that the juice or the concentrated sugar serves as an antiseptic. But is not the assumption

somewhat hard to accept? This remarkable result, at any rate, points to a possibility of the fig enjoying an immunity from bacteria and hence as being unlikely to harbour disease entities within its substance. If this be true, what a pity that the same cannot be said of the oyster. The word "fig" or "figs" is often used in a contemptuous sense, as in the expression, "I wouldn't give a fig for this or that." This form of expression dates from classical times but in the light of bacteriological inquiry this belittling of the value of the fig is apparently undeserved. We should feel more certain on this point, however, if for the purposes of this bacteriological inquiry figs had been examined which it was positively known had been in contact with sewage-polluted water.

THE QUESTION OF AN OPEN-AIR SANATORIUM FOR BLACKBURN.

A SPECIAL meeting of the health subcommittee of Blackburn was held on April 19th when it was decided "that the question of the provision of a sanatorium for consumptive patients be deferred until more satisfactory information regarding the success of these institutions could be obtained by the medical officer of health." That official, Dr. Alfred Greenwood, has now presented his report, which is divided into four sections—namely, Preliminary Remarks, Action taken by other County Boroughs, Statistics and Opinions relating to Open-air Sanatoriums, and, finally, Conclusions. Information was received from 28 county boroughs and in the third section of the report statistics from sanatoriums both in this country and abroad are given. The opinions both for and against the treatment of various medical men are then set out. Dr. Greenwood's conclusion is that he cannot advise his health authority to erect a sanatorium for Blackburn but he advocates the voluntary notification of pulmonary tuberculosis and the continuance of strict attention to sanitation in houses, factories, and workshops.

THE LIMITATIONS OF CHLORIDE OF ZINC AS A DEODORANT, ANTISEPTIC, AND GERMICIDE.

CHLORIDE of zinc has enjoyed a reputation as a deodorant and disinfectant for over 50 years. The literature covering the experimental work that has been done with this compound for the purpose of ascertaining its antiseptic and germicidal properties is meagre and the results published by different investigators are neither satisfactory nor unanimous. The subject has recently been investigated by Mr. T. B. McClintic, a surgeon in the Hygienic Laboratory of the United States.¹ The investigation proves that the antiseptic and disinfectant properties of zinc chloride for which so much has been claimed have been over-rated. The rôle of zinc chloride is that of a deodorant; for the sanitarian this is the only property of any value that it possesses, though there are objections to its use even in this connexion. When zinc chloride is added to sewage in dilutions as high as 1 in 10,000 a diminution of offensive odours is appreciable but this effect is transitory. The deodorising effect becomes more marked and more permanent until the proportions of 1 in 500 to 1 in 200 are reached but the exact proportions vary with the kind and condition of the material to be acted upon. The antiseptic power of zinc chloride is feeble. A 1 in 40 preparation in nutrient bouillon is required to inhibit the growth of moulds for 14 days, while, under the same conditions, a strength of 1 in 125 is required to inhibit bacterial development for the same period. When added to ordinary sewage zinc chloride will inhibit bacterial

¹ Bulletin No. 22, Hygienic Laboratory, U.S. Public Health and Marine Hospital Service, Washington. Pp 24.