

DIPHTHERIA AND DEFECTIVE DRAINAGE.

SIR,—A boy, aged 12, son of a medical man, was attacked in August, 1888, with severe diphtheria necessitating tracheotomy, and afterwards dying from pneumonia. Other members of the family were attacked, but recovered. The father had no diphtheria cases at the time, and there was no history of throat illness at the school he was attending. About a year previous the drains of the house had been thoroughly put in order, and Mr. Wynter Blyth, who kindly examined them after the boy's death, pronounced them all right, and found nothing in the house to cause the disease.

A possible (?) cause, however, existed in the stable, separated from the house by a garden, where a horse was ill with "malignant sore throat," and where the patient had been in the habit of going in and out to fetch straw, etc., for his pet rabbits. The horse, which was under the care of Mr. Broad, F.R.C.V.S., was shot and examined after death by that gentleman, who writes as to what was found as follows: "There was much destructive inflammation found around the glottis and pharynx, and the parts adjacent were found intensely inflamed and quite black in places, but I do not think there was anything like diphtheria exudation."

Against the theory that the horse's illness was the cause of the boy's illness is the fact that the coachman had a family of young children, who all kept perfectly well during the horse's illness; and another horse in the stable was not attacked. Of course, the coachman was cautioned, and was probably extra careful; and it did not come out till after the boy's death that he had been going in and out of the stable. I am, etc.,

Finchley Road, N.W., Dec. 21st, 1893.

H. WILBE.

SIR,—The discussion in which my honoured teacher, Dr. Wilks (*Nihil non tetigit quod non ornavit*) has taken an important part is of great interest, especially to rural medical officers of health. May I make a suggestion? When we have a disease to deal with which is thought to be connected with some drainage defect, we first diagnose the disease—or cheat ourselves into thinking we have done so—and then we search for a definite insanitary condition. If we find one, we are quite satisfied. Now, I would beg observers to search for drainage defects in diseases which are not supposed to be filth-produced maladies, and I venture to say their experience will be what mine is, that insanitary conditions are by no means uncommon, and exist side by side with any variety of disease. It is, therefore, not a justly scientific conclusion to say that this or that nuisance is the cause, or the conveyance of the cause, of this or that case of diphtheria, because the defect and the illness are found side by side.—I am, etc.,

GEORGE H. DE'ATH,

Medical Officer of Health for Buckingham, etc.

Buckingham, Jan. 7th.

[We have received a number of other communications on this subject, for which we regret to be unable to find room *in extenso* :

Dr. John J. Eyre, writing from Rome, touches on the points raised by Dr. De'Ath, namely, the frequency with which sanitary defects may be met with in houses without any accompanying diphtheria, and points out that scarlet fever might with equal justice be attributed on similar grounds to sewer gas. He thinks that sewer gas has no direct relation to diphtheria, but that (1) the sewer may become specifically contaminated, and (2) that the presence of sewer gas, by lowering the general health and producing a catarrh of the throat, may render the inmates of the house vulnerable to the diphtheria organism should they come in contact with it.

Dr. F. P. Atkinson (Surbiton) also points out that since a sewage smell means a leaky sewer, diphtheria may be produced if the sewer becomes specifically contaminated.

Dr. C. M. Jessop (Redhill) dwells on the depressing effect on the general health of insanitary surroundings, which render the organism (which when in good health is able to resist infection) prone to contract it. In such a sense sewer gas may be reckoned a cause of diphtheria.

Dr. P. W. Marriott (Mentone) sends some interesting cases in which exposure to bad smells from waterclosets or other offensive collections was followed by diphtheria. He also refers to the marked predisposition to diphtheria (and

enteric fever) which exists in some families. The escape of some, and the suffering of others, may sometimes be traced to this cause.

Dr. J. Bunting (Torquay) refers to the general injurious effects of sewer gas and other insanitary conditions, which render the individual susceptible to the attacks of disease germs. He illustrates his remarks by reference to the myoderma vini which is always to be found on the grape under whatever circumstances it be grown, unless it be covered. Pathogenic microbes may be equally ubiquitous.

Dr. G. Walter Steeves (Parkfield Road, Liverpool) states that in three instances he has had to deal with scarlatina following diphtheria in the same patients in the same house. There had been no exposure to scarlet fever, but the drainage of the houses was most defective. He thinks it probable that diphtheria and one form of scarlatina may have their origin from similar insanitary conditions. The doctrine of the "All-sufficiency of Infection" does not stand the test of public health experience.]

ST. JOHN AMBULANCE ASSOCIATION.

SIR,—Permit me to say a few words regarding the remark of Surgeon-Major Freer, expressed in the *BRITISH MEDICAL JOURNAL* of December 30th, 1893, that ambulance has been given up as a *dilettante* entertainment by the wealthier classes. With this I quite agree, and should expect a decrease of work in consequence. It is especially the case with ladies. Ambulance is now scarcely ever mentioned as far as I can observe; and the problem is how can we keep up the useful work of the Association among them.

My suggestion is that the rule of the Association which compels all female students to obtain the ambulance certificate before entering on the nursing course should be rescinded, and that it be optional for ladies to begin with the ambulance or nursing course as they prefer; to enter for the nursing course without having obtained the ambulance certificate. Ladies always take more or less unwillingly to ambulance, but very readily and attentively to nursing. Ambulance work does not directly concern ladies. Nursing, on the other hand, is a part of the life of every woman; her opportunities abundant, and the measure of her usefulness very great. It ought to be a part of the education of all women. To understand nursing does not require a knowledge of ambulance, and I do not find that ambulance knowledge makes a better nurse. At the same time it is my opinion that this alteration would extend the knowledge of ambulance among ladies, as many after the nursing course would go in for ambulance to increase their knowledge. Whereas, as matters now stand, many are deprived of both who would willingly take the nursing course, from the dislike of the preliminary unnecessary drudgery of ambulance.

In Liverpool one nursing class to which I lectured was the only one that could be got together for two years. On two other occasions I had the requisite number to form a class, but could not as they had not ambulance certificates. In fact I gave the course of lectures independently of the Association, and I know of another instance in which the same was done. This alteration I feel sure would popularise the Association among the women of the country, and greatly extend its benevolent work in the care of suffering humanity.—I am, etc.,

JOHN BUCHANAN, M.D.,

Examiner and Lecturer, St. John Ambulance Association.

Bow Road, E., Jan. 4th.

THE ST. JOHN AMBULANCE ASSOCIATION AND ITS UNPAID DOCTORS.

SIR,—In the *BRITISH MEDICAL JOURNAL* of December 30th I see a letter on the above subject. Feeling that I must in some way be responsible for the extraordinary digression from the original question which has shown itself in the last few letters, may I recall your readers' attention to the letter signed "Justice," which appeared in your issue of September 30th last.

The second and third paragraphs of this letter contain the whole question. In the second the writer says: "By a decision of the Central Committee the Association now require four gratuitous complete courses of lectures to qualify their medical officers to become honorary life members of the Association instead of two such courses, as was the rule until