

beak, and 6 in. with  $\frac{3}{4}$  in. beak. The latter, Mr. Bell thinks, is the most generally useful. All the joints are of the "take off" variety.

### SCHOOL HYGIENE.

#### COUNTY PALATINE OF DURHAM.

DR. EUSTACE HILL, Medical Officer of Health to the Council of the County Palatine of Durham, has presented for 1904 a report containing 160 pages and a number of tables. Dealing with infant mortality, he points out that 162 out of every 1,000 infants born died during the first year of their life. In non-county boroughs the rate was only 144, but in the rest of the county it averaged 166 in both urban and rural districts. Dr. Eustace Hill, in an appendix, gives a reprint of a presidential address delivered by him to the Northern Branch of the Society of Medical Officers of Health on February 24th, 1905, on the question of infant mortality.

After analysing the birth-rate and death-rate, discussing the causes producing infant mortality and the means calculated to diminish it, Dr. Eustace Hill says:

"The increasing carelessness and deficient sense of responsibility among the younger women of the present day is largely the result of the general influence of our modern school system and of the literature for which schooling has set up a demand. The disinclination of women for domestic service (the proportion of women in domestic service has declined from 14.2 in 1891 to 12.2 in 1901) is attributable to our compulsory education. The laws of health and domestic hygiene are taught in our secondary and other schools to a greater extent than ever before, and the ignorance on the subject is therefore due to indifference rather than to want of opportunity. It is obvious, therefore, that instruction in the subjects should be compulsory in all elementary schools and not be relegated to the optional classes of continuation or secondary schools. Such instruction can, however, only be properly given by teachers who are themselves well grounded in its general principles, and unfortunately only a small proportion of the teachers are so qualified. It is therefore important that every education authority should without delay give facilities for their elementary school teachers obtaining suitable instruction in elementary sanitation and in domestic and school hygiene, so that they may become qualified to impart the necessary information on those subjects to the children attending the elementary schools. Fortunately the importance of such instruction is now recognized by the Board of Education, and only a fortnight ago an important and well-attended conference on school hygiene was held in London, so that there is every hope that in the near future the systematic teaching of hygiene will be a recognized part of the curriculum of our elementary schools.

"To get in touch, however, with the mothers of to-day, and bring to their notice in a practical manner the proper methods of feeding and managing their children, I know of no better means than the appointment of women health visitors. For many years I have advocated the appointment of properly qualified women to visit at the homes of the people, and I am glad to say that similar advice has been given by a large proportion of the medical officers of health in my county. In many of the large towns and in some of the counties such women inspectors have been appointed, and with excellent results.

"In view of the alarming fall in our general birth-rate, it is essential that our high infant mortality-rate should be reduced, and I am convinced that by judicious and systematic teaching of hygiene in the elementary schools, by the employment of women health visitors, and by the judicious weeding out of ignorant and ill-educated midwives, a very large reduction can be effected. The medical profession itself can also do much more good than it has done in the past towards overcoming the ignorance which exists as to infant feeding and management, for I am afraid many medical men bring children into the world without giving any directions for their future welfare."

The following remarks of Dr. Stobo of the Sunderland Rural District are quoted:

"I would suggest the following causes in order of importance:

- "1. Improper feeding of infants.
- "2. Insanitary surroundings.
- "3. Early marriages.

"Year by year I have drawn your Council's attention to the enormous number of parents feeding the very young with all forms of starchy food, or feeding children with milk from

dirty bottles. It is not only necessary to see that the children get a wholesome supply of milk, but there is the further difficulty of teaching the parents how to prepare it, and when to give it.

"At the beginning of 1904 your Council issued pamphlets through the agency of the registrars, giving hints to the mothers as to the feeding and management of children. I believe these pamphlets have been productive of much good, and it is to be hoped that your Council will see its way to continue the practice.

"Many of the insanitary conditions which may cause a lowering of the child's vitality may not be always the result of structural defects, but are frequently due to overcrowding and neglecting to ventilate the home. There are many homes in which the windows are never opened from one year's end to another, and as a result the atmosphere in which the child is reared is in a constantly-vitiated condition.

"The education of the people in the feeding and management of children seems to be the great remedy for this evil, but how this has to be accomplished is still a matter of opinion. I believe, however, that the efforts which are being put forth for the accomplishment of this object will be ultimately successful, and the nation must be greatly the gainer, as there is no reason why 50 per cent. of this enormous waste of life should not be saved."

#### ZYMOTIC DISEASES.

##### *Diphtheria.*

Under the heading "Diphtheria and Membranous Croup," Dr. Eustace Hill says:

"There is absolutely no doubt that its dissemination is greatly assisted by the aggregation of children in our elementary schools. It frequently happens that an inquiry at a school where cases have occurred among the scholars reveals the fact that sore throat has also been prevalent, and it is probable that such cases of sore throat are not infrequently mild cases of diphtheria and should be treated as such, or at any rate rigidly excluded from school.

"It is well known that the diphtheria organism will live in the throat for several weeks after complete convalescence from the disease. I have no doubt that children who have apparently recovered from diphtheria are frequently allowed to return to school before they are free from infection, and it is very desirable not only that all children who have suffered from diphtheria should be kept from school for at least one month after convalescence, but also that in all districts where diphtheria is at all prevalent there should be a periodical medical inspection of the throats of all school children.

"In several districts antitoxin is supplied free of charge by local authorities for the treatment of diphtheria patients. The value of this remedy is extremely great, and its supply under proper restrictions by all sanitary authorities for the treatment of patients who cannot afford to pay for it is very desirable."

Dr. Hunton, Medical Officer of Health for Sedgefield Rural District, points out that cases of simple sore throat, especially among school children, should not be ignored, as they are frequently mild cases of diphtheria, and may by infection cause a severe attack of that disease in other patients. Dr. Hunton considers the teaching of hygiene in schools important.

The following remarks of Dr. Stobo on the co-operation of the school managers deserve to be quoted: "I have to thank the managers of the various schools for the assistance rendered to your health office by refusing to admit to school within six weeks from the onset of the attack children who had suffered from diphtheria, by demanding a certificate that infected premises had been disinfected, and by excluding from the school children suffering from suspicious symptoms. It is with no small degree of pleasure that I see such evidence of a more harmonious co-operation between the education and health authorities. Whatever defects there may be in the last Education Act, the fact that both health and education are so closely connected in the administration of the Borough and County Councils can only be productive of good so far as both the health and education of the children are concerned. If the Government demands that a child should be educated, the Government should see that the child should run no preventable risks in contracting infectious disease at school."

##### *Measles.*

With regard to measles, the medical officer of health is of opinion that school closure has very little effect in stamping out the disease. He writes:

School closure to be effective in the case of measles must be carried out soon after the first case has occurred among the scholars. Owing to the marked infectivity of measles before the eruption occurs and the disease can be diagnosed, the child about to be attacked and attending school would probably infect a varying number of children in the school with whom he had been in contact. If the school is closed for a fortnight within a week from the first case or group of cases occurring, all the children infected by the initial cases will contract the disease while the school is closed, as the incubation period of measles is only about fourteen days. The school can be reopened at the end of the fortnight with the certainty that all children infected from the first cases would be excluded from school, and many outbreaks may in this way be very much limited or entirely stamped out, especially if care be taken by the attendance officers and teachers that no children from infected houses attend the school.

School closure carried out in such a manner is, from a public-health standpoint, the only satisfactory method. In crowded town districts it may not always be effectual, owing to the opportunities the children have of mixing together outside the school; but in rural areas, or in districts where the children attend school from several villages, this method of school closure will have good results, and moreover it may often happen that only a particular class of the school need be closed.

If, however, the closing of a school on account of measles is delayed until the average attendance is materially diminished, the disease will probably by that time have infected all the susceptible children, and school closure will, from the point of view of preventing the spread of infection, be useless.

In the following table the deaths and death-rate from measles for the last five years are given:

	Administrative County.				
	1900.	1901.	1902.	1903.	1904.
Deaths from measles ... ..	167	409	319	254	447
Death-rate from measles per 1,000 population ... ..	0.20	0.48	0.37	0.32	0.55

#### *Scarlet Fever.*

Dr. Andrew Smith, Medical Officer of Health for Whickham, recommends the periodical examination of school children by a competent medical practitioner for the purpose of detecting unrecognized cases of scarlet fever.

#### *Diarrhoea.*

And, further on, with regard to diarrhoea:

"I have on many occasions dealt at length with the cause of the epidemic prevalence of diarrhoea during the summer months, and it may be summed up in one word, filth—filth in the house, the food, and the soil. Until we abolish the midden-privy system, insist on the paving with impervious materials of house yards and the soil in proximity to dwelling-houses, and educate our industrial population as to the necessity of domestic cleanliness in the house and with respect to infant's clothing and food, we shall continue to have our infant population decimated by epidemics of preventable diarrhoeal diseases.

"All medical officers of health recognize that the cleanliness of the dwelling is intimately connected with the housing problem. Many houses in this county are so defective and insanitary that they cannot be kept clean and healthy, however willing and painstaking the occupier may be; but it is also unfortunately a fact that a large proportion of our population, however healthy the home structurally, lack the necessary knowledge or willingness to keep it healthy and clean, and this fact must be recognized by all those working to lessen the deplorable mortality of our infant population."

#### *Phthisis and Tuberculosis.*

The deaths from phthisis were 361, and the death-rate from phthisis for 1904 was 1.07 per 1,000 population.

From tuberculous diseases other than phthisis there were 746 deaths, and the total death-rate from tuberculosis, therefore, was 2.00 per 1,000 population.

"The system of voluntary notification of phthisis which is in operation in Jarrow and Hebburn has not altogether been a success, for in the former town there were 34 deaths and

only 16 notifications, while in Hebburn there were 29 deaths and only 24 notifications. In these districts and in several others in the county the disinfection of dwellings on the death or removal of a consumptive patient is effected wherever possible. The acting medical officer of health of Stockton and the medical officer of health of the Auckland rural district recommend the notification of phthisis, while the medical officer of health of Stanhope states that almost every case in his district can be traced to a previous case.

"In the report for the borough of Hartlepool the connexion between ill-ventilated and overcrowded dwellings and phthisis is pointed out.

"The importance of providing healthy and well-ventilated dwellings for the working classes; of educating the people as to the value of fresh air and sunlight; of the appointment of lady health visitors to practically instruct the people in their homes and in the elementary schools in matters of domestic hygiene; and of sanatorium treatment of patients in the early stages of the disease is referred to in several of the district annual reports, and it is generally recognized that while the mortality from tuberculous diseases in this county has very satisfactorily diminished during the last ten or fifteen years, their prevalence and mortality may be much further reduced."

#### *Elementary Schools.*

The medical officer for the county states that "In several of the annual reports reference is made to the value or otherwise of school closure, and as to the importance of co-operation between the education authority and the district sanitary authorities in the prevention of the spread of epidemic disease.

"Now that the administration of the elementary schools is vested in the county council, there should be much less difficulty in securing the co-operation which is so essential between the education authority and the district sanitary authorities, and as a matter of fact during the year the county Education Committee gave their sanction to a proposal that the school attendance officers should be empowered to report all cases of non-notifiable infectious disease among scholars to the medical officer of health of the district in which they occurred.

"The work which has been thrown on the county education authority by the Education Act is enormous, and some time must necessarily elapse before all the required work with respect to the sanitation of school buildings and to school hygiene can be successfully undertaken. Already, however, some good work has been done, and a large number of the elementary schools have been inspected by architects appointed for the purpose, while such questions as the teaching of hygiene and the attendance of children at school under 5 years of age are receiving the careful attention of the Education Committee. Other important questions, such as the medical inspection of scholars, especially those mentally and physically defective, and the disinfection of schools, will also require to be dealt with in the future.

"The training of school teachers in hygiene, and the making of arrangements for the training annually of a certain number of midwives whose services would be subsequently available in the county, also deserve the attention of the Education Committee."

## CONTRACT MEDICAL PRACTICE.

### NOTICE AS TO DISTRICTS IN WHICH DISPUTES EXIST.

*A notice as to places in which disputes exist between members of the medical profession and various organizations for providing contract practice will be found among the advertisements, and medical men who may be thinking of applying for appointments in connexion with clubs or other forms of contract practice are requested to refer to the advertisement on page 75*

## LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.