

results of the inspections made of the district, it is stated that the Committee were—

"Struck with the bad state of the yards at the backs of the houses; 'gardens' there appeared to be practically none. The yards, excepting as to a small portion close to the house, are unpaved and undrained. They were littered, in a neglected condition generally, and in many instances filthy with deposited matters of an objectionable character, including ordure, human and animal. Any filth once deposited, must either soak into the ground, whence it will return in hot weather laden with germs, or, becoming dried, will pass as dust from the surface into the atmosphere."

The Committee were "of opinion that these yards should be asphalted or paved," and the first of their recommendations, all of which were approved by your Vestry, was to the following effect:—

"That it be referred to the Works and Sanitary Committee to have notices served upon the owners or occupiers of the houses in the several streets . . . requiring them to asphalt or pave, with impervious material, the yards in the rear of such houses which are not in a proper condition."

Effect has been given to this recommendation to a certain extent, many of the yards having been paved, wholly or in part, in a more or less satisfactory manner.

The paving of yards is one of the matters dealt with in your Vestry's bye-laws, made under the provisions of section 16 (1) (d) of the Public Health (London) Act, 1891; the tenth bye-law reading as follows:—

"As to the paving of yards and open spaces in connection with dwelling-houses."

"The owner of any dwelling-house in connection with which there is any yard or open space shall, where it is necessary for the prevention or remedy of insanitary conditions that all or part of such yard or open space shall be paved, forthwith cause the same to be properly paved with a hard, durable, and impervious pavement, evenly and closely laid upon a sufficient bed of good concrete, and so sloped to a properly constructed channel as effectually to carry off all rain or waste water therefrom; and he shall cause such pavement to be kept in proper repair."

It will be observed that the paving of yards is prescribed "for the prevention or remedy of insanitary conditions," a fact which is, sometimes, I fear, more or less, lost sight of. That paving is "necessary" for this purpose is indubitable, and it is on this account that I have been so insistent in pressing the matter, from time to time, upon the attention of the Sanitary Committee. I venture to think that more would be done in this direction, by Sanitary Authorities generally, if due weight were attached to the hygienic importance of cleanliness in the surroundings of dwelling-houses; and I am glad to have the opportunity of enforcing my own feeble utterances on the subject by citation of the views of the Medical Officer to the Local Government Board, who in a recent publication*

* "Soil and Circumstance in their Control of Pathogenic Organisms," by Sir Richard T. Thorne, K.C.B., F.R.S., whose observations, it may be mentioned, are based, largely, upon investigations made for the Medical Department of the Local Government Board by Dr. Sydney Martin.

refers to "the circumstances of the soil and surroundings . . . favourable to the vitality and multiplication of the typhoid bacillus," the efficient agent in the causation of enteric fever. "They are (he states) that the soil should be pervious, that it should be permeated with a sufficiency of decaying—preferably animal—organic matters, that it should possess a certain amount of moisture, and that it should be subject to a certain temperature. And then (he continues) let us consider what means can be adopted to deprive the soil of one or more of these conditions which appear to favour the retention of the vitality and power of the typhoid bacillus, and to prevent that organism from gaining access to the soil in the neighbourhood of human dwellings"; and here my point comes in, the author proceeding to say that, "to this end he would in the first place advocate the paving of open spaces about dwellings where these open spaces are of small area and are liable to become contaminated with excreta. In this way fouling of, as well as penetration by a pathogenic micro-organism into the underlying soil, is practically prevented." He adds that "it is well known, not only that the paving of yards about small cottages and tenement property in towns has in its results been shown to be a public health measure of first importance, but also that the nature of such a measure has depended largely on the use of a form of pavement which really insures impermeability." The reference to this branch of the subject concludes as follows:—

"Where open spaces about dwellings are large, and where organic pollution of surface soil is practically absent, we may rely, as inhibitive of this (typhoid) bacillus, on the influence of sunlight and of alternating weather; but in our towns the conditions have become too artificial, and the open air about dwellings has become too restricted, for us to hope that under the unnatural conditions which have been induced by urban aggregations of dwellings, we have any right to expect the full benefit of Nature's remedies."

ON SCHOOL CLOSURE FOR MEASLES.

BY

HENRY MAY, L.R.C.P., Medical Officer of Health for Aston Manor.

THIS is a suburban population of 80,000 inhabitants, with 15,000 children in public elementary schools, of whom about 14,000 attend the board schools. Surrounded by three other urban districts, one of which is the city of Birmingham, Aston Manor partakes of all their epidemic outbreaks of infectious disease, and joins in their diffusion. It also shares with them in taking measures for their prevention, though I could wish, as regards measles, that some united plan of action could be adopted.

It has been my experience, and it has probably been that of many other medical officers of health in populous places, that when an outbreak of measles occurs the proper course to take is less

plain, and the practical difficulties greater, than in the case of any other infectious disease.

It is true the medical officer of health has a carefully-prepared Memorandum from the Medical Officer to the Local Government Board to guide him as to the closing of public elementary schools on account of infectious disease, and has been furnished with a copy of Dr. Theodore Thomson's Report on the Control of Measles in England and Wales, but I venture to say that their effect is rather to increase his hesitation than to confirm him in taking any definite line of action.

In country districts the measures to be taken are tolerably plain, and the results obtained are more evidently favourable than in populous areas. In the latter, beyond securing the exclusion of infectious children from school attendance, the medical officer of health might, with equal dissatisfaction, take almost any course, between the happy one of letting the matter severely alone and the onerous one of trying to bring all available resources of information, disinfection, isolation, and school closure to bear upon it. In giving the following short account of my experience in regard to the latter, I hope it may prove instructive, although the result has by no means been successful, and yet, for 16 years of the 25 that I have been medical officer of health, I had a seat upon the School Board of the District.

There was not only an exceptionally severe outbreak of measles here in 1897, but for the last 12 years or so there has been a marked average increase in its prevalence, so far as a much greater mortality is evidence, which is not explained by a change of type nor by a corresponding general increase; still less by any increase in the proportion of susceptible persons in the population. Children aged from two to five years appear more prone to measles attack than other persons, and owing to the fall in the local birth-rate the proportion of children under five years of age in this population fell from 157 to 127 per 1,000 in the decade 1881-91.

The following figures show the remarkable increase in the mortality from measles in Aston Manor, while it has at the same time been stationary in England and Wales:—

ASTON MANOR.			
Year.			Mean annual death-rate per 1,000 from Measles.
1873—85	...	...	22
1886—95	...	...	53
1897	...	...	89

ENGLAND AND WALES.			
Year.			Mean annual death-rate per 1,000 from Measles.
1861—70	...	...	44
1871—80	...	...	38
1881—90	...	...	44*
1891—96	...	...	43
1897	...	...	40

* 59 in urban, 33 in county districts.

In my opinion the altered condition which has operated most strongly in causing this increase, if not the sole cause, is to be found in the institution and development of large infant schools, accommodating 400 to 500 children each, and the consequent congregation of infants together under circumstances most favourable to the diffusion of the disease. Free education has also helped by increasing the number of children under five who attend these schools.

The exclusion of children known to be suffering from measles is properly attended to, and particulars of them supplied to the medical officer by the officers of the School Board. In the absence of notification of measles, this serves to indicate the existence of an outbreak before the death register tells its tale.

Of late years these fresh outbreaks of increasing severity have brought me face to face with the difficult practical question how far the educational arrangements of the district should be interfered with by a temporary closing of one or more infant departments, and last year with the further question whether the exclusion of children below a certain age could not be adopted in lieu of closing.

The Memorandum of the Local Government Board (July, 1897), points out that closing a school is a measure that ought seldom to be enforced, but seems to assume that Article 88 of the Code is the only one with which the medical officer is concerned, and does not, in my opinion, give sufficient heed to Article 83.

It is not wise on the part of an annually-appointed medical officer to provoke a *casus belli* between two co-ordinate and independent bodies by recommending a school to be required to be closed by his authority, and as his authority usually meets only once a month, and the occasions are generally urgent, he must induce two members to join him, who must risk their action being subsequently disapproved. In fact the practical difficulties of requiring school closure under Act 88 are so many, that schools would be closed still less often than they are in epidemics of measles, but that, fortunately, Act 83 provides a simpler means of enabling a school authority to close them voluntarily without loss of grant.

Owing to the prevalence of measles at Christmas, 1889, I recommended this Sanitary Authority to require the closure of an infants' department of the School Board for two weeks in continuation of the usual holiday. My recommendation was adopted by the Committee, and an official notice sent to that effect, but (under pressure from the School Board) the action of the Committee was not approved on report, and the school was not closed.

During the subsequent eight years I have adopted on similar occasions the plan of sending a recommendation to the School Board as to the advisability of closing a school, and, with one exception, it has been adopted, and the schools closed on my

medical certificate without loss of grant and without friction, I subsequently reporting my action to my Authority.

During the first three months of 1897 this district enjoyed almost complete absence from reported cases or deaths from measles, but at the end of March a number of fresh cases were reported in connection with two infant departments, which subsequently developed into a severe epidemic, so that 525 school cases were reported in the following four months, and 70 deaths occurred before the end of the year. On the Medical Officer's recommendation and certificate, the two departments were closed voluntarily by the School Board for a fortnight in extension of the Easter holiday week, but the policy of so doing was publicly and very adversely criticised by that Board, as the following report of the discussion (taken from the *Birmingham Daily Post*) will show, and when a recommendation to close a third department was made, no action was taken upon it.

ASTON SCHOOL BOARD. APRIL 3RD, 1897.

The Chairman of the Attendance Committee, in presenting his report, stated that the Alma Street and Lozells Street Infants' Departments were now closed in consequence of an outbreak of measles. With regard to those periodical closings of the infants' departments, he thought it was a point that would have to be considered by that Board whether they should continue to make those experiments. As a manager of schools he had come to the conclusion that it was useless. All children had to have measles and he thought it was better to take it and get it over. (Laughter.) The schools were closed because a few had measles, and after the holiday when the schools were reopened, other children would have the measles. They had all got to have measles. He had had them, and he did not think he was any the worse for them now. (Renewed laughter.) He had put the matter somewhat roughly, but the point the Committee and the Board would have to take into consideration was whether it was wise or necessary to close the infants' schools on account of measles. If so, the children were turned into the streets to learn gutter manners. It would be better to have the physical evil of measles than the moral evil of bad manners. Mr. — (Chairman of the Health Committee of the Aston Manor District Council), in seconding, said he did not think in the matter of measles it was necessary to close the schools, it was different with small pox or scarlet fever. The Chairman of the Board said the line wanted to be drawn somewhere. Mr. — said it was not a well-founded assumption all children had to have measles, but he supported the protest against closing.

I have been in conference with representatives of the School Board as to a mutual arrangement to exclude children below a certain age, either five or six years in lieu of closing a school. Although the School Board declines to accept six as the age, I am in hopes that on the occurrence of another outbreak, the baby rooms at least will be closed, and that as the conditions which favour the spread of measles are better realised, the School Board will become educated up to accepting school closure.

I need scarcely attempt to refute the arguments used against closure, as it is so well recognised that children do not necessarily have measles, that the majority of children in country places escape,

and that by protecting infants from an attack during an epidemic they will have reached an age before another epidemic comes, at which they will be less likely to be attacked, and still less likely to die if attacked.

MEAT INSPECTION AND BUTCHERS' "JURIES."

BY

MEREDITH YOUNG, M.D., D.P.H., M.O.H. Crewe M.B.

FROM time to time this question comes up for consideration by Local Sanitary Authorities, and as it is one of those numerous questions which are neglected by text-books, yet seriously affecting public health administration, I have been at some trouble to make full inquiries as to its practical working.

The system referred to is this:—

A Butchers' Association is formed for mutual protection in matters affecting the trade, e.g., compensation for loss of cattle by accident, insurance of cattle, defence of cases against the Sanitary Authority, etc.

Such Butchers' Associations when formed, frequently ask the Sanitary Authority to select certain of their members, and constitute them a Butchers' "Jury." This "Jury," the Association ask, shall be granted the privilege of viewing any meat seized by the sanitary officials, and of giving an opinion thereon.

The Association do not ask that the Sanitary Authority shall give up any of its rights or privileges, but simply asks that they shall be allowed to look on and see that fair play is done. This seems at first sight an extremely simple matter, and one which could have absolutely no serious results. The butchers protest that they do not in any way wish to interfere with the action of the Medical Officer of Health, or his Inspectors; on the contrary, they will now act as "jackals" to him, and will point out where bad meat is being sold, etc. But there is decidedly another side to the question.

Recently I was approached by a deputation from a Butchers' Association in this town, asking me to advise my Health Committee to adopt the system. Before doing so, I made inquiries from twenty-two other towns, and I may tabulate their replies, as follows:—

	For it.	Against it.
(a) Having had experience of the system	2	10
(b) Not having had experience of the system, but speaking on general grounds	None.	3
(c) No information or neutral	7	
	22	

These replies were accompanied by letters giving reasons for the opinions stated, and I propose to give a resumé of them.