ONE YEAR'S EXPERIENCE IN THE MEDICAL INSPECTION OF SCHOOLS AND THE SUPERVISION OVER THE ISOLATION AND RELEASE OF INFECTED PERSONS.¹

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AMONG the more recent work taken up by the City Board of Health, is that of making daily medical inspection of the public and parochial schools, detecting cases of contagious disease and giving timely professional advice to the teachers concerning children who may be too ill to remain in school for the time being, and giving official supervision over the isolation and discharge of all cases of diphtheria and scarlet fever which are treated at home. It is my purpose to give in this paper only a brief statement of how this work was started, the method of procedure, the result of the first year's work and the impression which the work has made on the medical profession, the school management and the public, so far as the evidence which has come to me, will warrant. It will be remembered that many doubts and prejudices, both in and out of the school board, had to be overcome before our scheme for school inspection could be carried into effect. Our first set-back was in 1891 from the school board to whom we had courteously applied for formal permission to render this professional aid to the schools. Its first action was against us, but this was subsequently reversed, and we are indebted to Dr. C. M. Green, then a member of the school board, for aid in advocating our cause at that time.

The Board of Health began its official efforts in this direction in December, 1890, and got alternate successes and defeats from the governments which control the finances of the city and the public schools for a period of four years. We finally succeeded under the influence of a severe epidemic of diphtheria, and began work November 1, 1894, with the consent of the mayor and the tacit consent of the school board.

The Board of Health divided the city into fifty districts, giving an average of about four school-houses and fourteen hundred pupils to each district. No difficulty was experienced in finding well-qualified and discreet physicians who would undertake the duties prescribed; and the Board selected and appointed, without interference from any source, one physician for each district, with a salary of two hundred dollars a year, plus the honor and satisfaction of serving in a good cause. His duty is to make a visit to each master's school daily soon after the beginning of the morning session. The master receives from each of the teachers in his district, early reports as to the appearance of symptoms of illness in any pupil in their charge. These reports are given to the visiting physician, who at once examines the reported children and makes a record of his diagnosis and action in books furnished by the Board of Health for this purpose, and kept in the custody of the master. If the visiting physician finds the child too ill to remain in school, he advises the teacher to send the child home for the observation and care of its parents and family physician. If the illness is from a contagious disease, the child is ordered home and the case reported to the Board of Health. If the child, who is thus sent home, returns the next day with continued illness, the same action by physician and teacher will be repeated and sustained by the Health and School Boards. The dis-

position of the sick child while at home and the possibilities of neglect in cases where contagious diseases develop in such children, as well as giving them a warrant for returning to school, has not yet been fully provided for, but is in contemplation, and the truant-officers may need to be brought into this service in making the system complete.

In the examination of the children in school every facility is extended to the doctor, and he, in turn, reaches a satisfactory conclusion with the least possible delay or annoyance to any one. There being frequent need for looking into the children's throats, I looked about to find something for a tongue depressor which could be used once and destroyed, and thus get rid of the danger of communicating any disease from one pupil to another, as well as to avoid unfavorable criticism upon that score. After looking over many clever devices, including the split wooden clothes-pin suggested by Dr. Temple, and which, by the way, forms a surprisingly cheap, available and useful depressor, I at last found in the little piece of wood, which is in common use by florists for labelling plants, the hint to the successful article which I have caused to be manufactured and used by our medical inspectors, a package of which I have here to show you. These little pieces of clean pine are made for us in a saw-mill up in New Hampshire, and they cost the city one-eighteenth of a cent each. They are without objection in use or appearance, and will burn as easily as a match, which is the intended destiny of each after being used once. The thermometer is rarely a necessity in these examinations, and when used is treated with due care.

The medical inspector never undertakes to give professional treatment in any case. They merely point out the need of professional treatment where the need exists. The treatment itself must be received from the family physician or in the hospitals or in the dispensaries. The total number of children examined between November 1, 1894, and October 31, 1895, was 14,666, of whom 9,188 were found to be sick and 5,472 were found not to be sick. The number found sick enough to be sent home was 1,745. Of these, 437 were suffering from contagious or infectious diseases as follows: diphtheria 70, scarlet fever 26, measles 110, whooping cough 28, mumps 43, pediculosis 66, scabies 42, congenital syphilis 8, chicken-pox 34. These children were in their seats spreading contagious diseases amongst other children. The number of children who were saved from these diseases by the timely discovery and isolation of the sick ones is, of course, beyond computation. The other diseases which were discovered and for which the necessity for treatment was pointed out were as follows: abscess 33, adenoids 116, anemia 41, bronchitis 226, catarrh 195, cellulitis 13, chorea 18, colds 93, coughs 26, coryza 70, debility 80, dermatitis 31, diseases of the ear 62, diseases of the eye 592, eczema 200, enlarged tonsils 691, enlarged uvula 11, epilepsy 11, headache 326, indigestion 105, influenza 15, laryngitis 132, malaria 20, nausea 63, Pott's disease 3, pharyngitis 1,196, ringworm 61, sore throat 765, swollen glands 111, tinea 28, tonsillitis 2,269, ulcer 16, wounds 53, vaccination needed 582, miscellaneous 496, total 9,187.

To find these diseases at home in the family of the pupil, whether contagious in character or unpleasant to the sight, is looked upon with comparative indifference by the public, but when they are found in the public schools or in any other place where the public

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or private rights of other parties are concerned, then the laws which deny one the right to use his own or the public place to the injury of his neighbor, must be invoked. We have now 71,495 pupils and about 1,500 teachers in our public schools and 11,808 in the parochial schools of Boston. It is fair to say that under the stimulus of this daily medical attention, every teacher will become more and more expert and desirous to detect any existing illness amongst the children under his or her charge. Every parent can feel that his child is less exposed to disease in school and less likely to be ill without immediate and proper attention from teacher and physician than at any previous time. I am satisfied that it would be hard to find a field for medical inspection and supervision which presents equal facilities for detecting diseases amongst congregated bodies or which offers more encouraging results.

In looking over the list of diseases which we have found amongst the children attending our schools, one is forced to notice several ills which may not only be induced but aggravated and perpetuated by the present faulty means of seating children, a subject which has recently engaged the attention of this Society with very hopeful results. But that which strikes one more forcibly is the excessive prevalence of diseases in the throat, lungs and air-passages. We find, of the 9,188 children found to be sick, no less than 5,689 had acute or chronic diseases thus located, and of these 5,053 were located in the throat. I would not overlook the many faulty conditions of the homes of the school-children or the many other outside influences which contribute to the causes of these ills; but we are painfully aware of the fact that in many of our school-houses there are such grave deficiencies in ventilation, heating and cleanliness, with the attendant excessive heat or cold and sudden alternations from one to the other, that we are warranted in concluding that a proportion at least of this illness is chargeable to school attendance. The very large number of cases of tonsillitis, pharyngitis, laryngitis and sore throat found, gives rise to a strong suspicion, especially in view of our recent work in culture diagnosis, that if cultures had been made in all these cases many of them would have been found to be accompanied by diphtheria bacilli. We hope to have, hereafter, such arrangements as will be convenient to make more cultures at the schools before sending the children home.

Incidental to this school inspection the same corps of medical men is also serving as agents of the Board of Health in the control of contagious diseases which are treated at home. The Board of Health sends to each of the school inspectors, every morning, a full list of the cases of diphtheria and scarlet fever which have been reported during the previous twenty-four hours. Each medical officer selects the cases reported in his district, visits them to see if they are properly isolated at home, leaves a card for the attending physician, politely informing him of the official visit and reports his approval or disapproval of the isolation at once to the Board of Health for its action. If the patient is properly isolated, the officer places a card on the door of the room to indicate the official designation of such room for the isolation of the patient. If the case is not properly isolated and such isolation cannot be commanded at home, he reports such facts to the Board of Health, and such patient is at once ordered to the hospital. He makes another visit to the patient

in the question of discharge from isolation, and again reports his conclusions to the Board of Health. If it is a case of diphtheria a negative report from the laboratory to the Board of Health is necessary; and if it is a case of scarlet fever, desquamation must have ceased and the fact certified by the school inspector before such patient can lawfully be released from isolation. This school inspector and agent of the Board of Health is indirectly held responsible for the proper isolation of the patient at home, for causing the patient's removal to the hospital when necessary, and for the patient's release from isolation; in other words, the Board of Health is thus provided with trustworthy information upon which it can act for the best protection of the schools and the public against the spread of contagious diseases.

THE CLIMATIC TREATMENT OF PHTHISIS IN COLORADO.

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THE writer scarcely expects to say anything on this subject which will be new to those of the profession whose special interest in the climatic therapeutics of phthisis has led them to keep up with all the advances made in this line. On the contrary, his object is to communicate to general practitioners some truths which may be of value to them and their patients if they but have a correct understanding of their application. Probably a majority of medical men of to-day, while perhaps familiar with the statements constantly emanating from the autopsy-rooms of large hospitals, that healed tuberculous lesions of the lungs are of every-day occurrence, nevertheless instinctively form in their own minds a most unfavorable prognosis when they discover the physical signs of this dreaded disease in the lungs of a patient. The old picture passes in review before their eyes—alternating periods of hope and despondency on the part of the patient's family, according as the symptoms are now better, now worse, but practically always with the same sequel. The fact that healed tuberculous lesions of the lungs are so often found post-mortem is of much importance in enabling us to form a correct conception of the strength of the morbid tendency to be antagonized, and how often nature unaided by drugs or change of climate, succeeds in limiting tuberculization and converting already diseased tissue into hard, atrophied, innocuous masses. The degree of efficiency of this effort on the part of nature is often truly remarkable, and not sufficiently recognized by the profession. The true object of treatment should be to secure time, or, in other words, chronicity of the morbid process. Everything contributing to this result is valuable by prolonging those critical, early periods of the disease when nature's efforts are most apt to be efficient.

We believe that in almost every case of pulmonary tuberculosis a zone of time exists—if such an expression may be permitted—when the supplementary action of a radically improved climatic environment will result in a cure. Certain very rapid cases occasionally seen are exceptions. Here, either in consequence of an unusual degree of virulence or the great numbers of the invading bacilli, or by virtue of a special condition of the tissues constituting a good culture medium, as the bacteriologists would call it, tuberculization pro-