Tuberculosis and the School Children

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HE surprising statement that the mortality of the young has increased, and especially during the school age, requires the most serious and thoughtful consideration. This apparently new fact may not be due to an increase of the disease, but to a discovery. The technique of diagnosis has improved, the mind of man is more alert to the whole question, ideas of the pathology of the disease, especially as far as the lympathatic system is concerned, have changed, and consequently disease is detected with much greater precision. All this, true though it may be, does nevertheless not invalidate entirely the position that the danger of contracting tuberculosis increases with the age of the child and constitutes a peculiar and extraordinary menace during the school age. The great majority of children, says Grancher, who come to autopsy in the hospitals show tuberculosis of the bronchial glands not recognized during life. Naegeli of Zurich found that 33 per cent. of children had tuberculosis of the glands, and Comby that 37 per cent. were affected.

Regarding the danger of infection in school from this source accurate statistics are lacking. From Kirchner's tables it is deductible that the proportionate number of deaths generally increases during the school period. At the tenth year he finds that out of 100 boys who die, 9.26 die of tuberculosis and out of 100 girls, 12.02 die of tuberculosis. In order to decide definitely the matter, systematic examinations of children in various grades must be made in the same spirit as is done to determine the increase of myopia in the various higher grades.

In the children's clinic of the tuberculosis dispensary of Cleveland, 504 children, up to the ages of 16 who have been associated with a case of tuberculosis in their homes, have been examined. Thirty-eight or 7.5 per cent. have positive pulmonary tuberculosis. Sixty-four or 11.9 per cent. could easily become so affected under unfavorable conditions. In one school district of 1420 families, 572 families were visited and sixty-seven cases of adult tuberculosis found. In the fifty-seven houses in which these cases were found 151 children were exposed to infection.

It must, however, be admitted that infection would be more probable in the home, were a contagious disease there present, than in the school. The interchange of objects of personal use are constant in the houses of the poor, indeed all the conditions that favor contagion are there.

When the infected children are discovered they should be segregated in rooms by themselves in small classes and these rooms should be frequently cleaned and disinfected. As

soon as the tuberculosis cases are known and the pupils collected in special classes the actual work of protecting such children by positive measures will begin.

What we might call sanitarium schools in the suburbs, as has already been projected in Milan, with especially constructed buildings having wide verandas, would undoubtedly result. Such schools would lead naturally to forest schools, garden schools and all the various devices looking towards teaching in the open air.

The curriculum should be so ordered as to vouchsafe the child his full time of sleep. Cleanliness should be taught and inculcated by the baths installed in the buildings. Regular hours of eating at home should be insisted upon. Persistent coughs, especially following measles and grip as well as the slow convalescence of other acute diseases should be respected.

The fundamental principles of hygiene as applied to tuberculosis should be taught by the regular teachers to the children. A course of instruction should be given to the teachers themselves and to the scholars in the higher grades. Such courses have been given in the higher schools of Berlin and by Von Esmarch in the hygiene institute in Gottingen.

It is, of course, quite superfluous to dwell upon the importance of a working knowledge of the principles of hygiene. The practical matter is how to introduce such instruction into a course of study too crowded and too diversified.

Regarding the buildings and particularly the care of the rooms special reference should be made. School rooms should be disinfected at the end of each term; if not that often, certainly at the end of the year. No one should be asked to occupy a room year after year, five or six hours a day, with-



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