

# MEDICAL INSPECTION OF SCHOOLS

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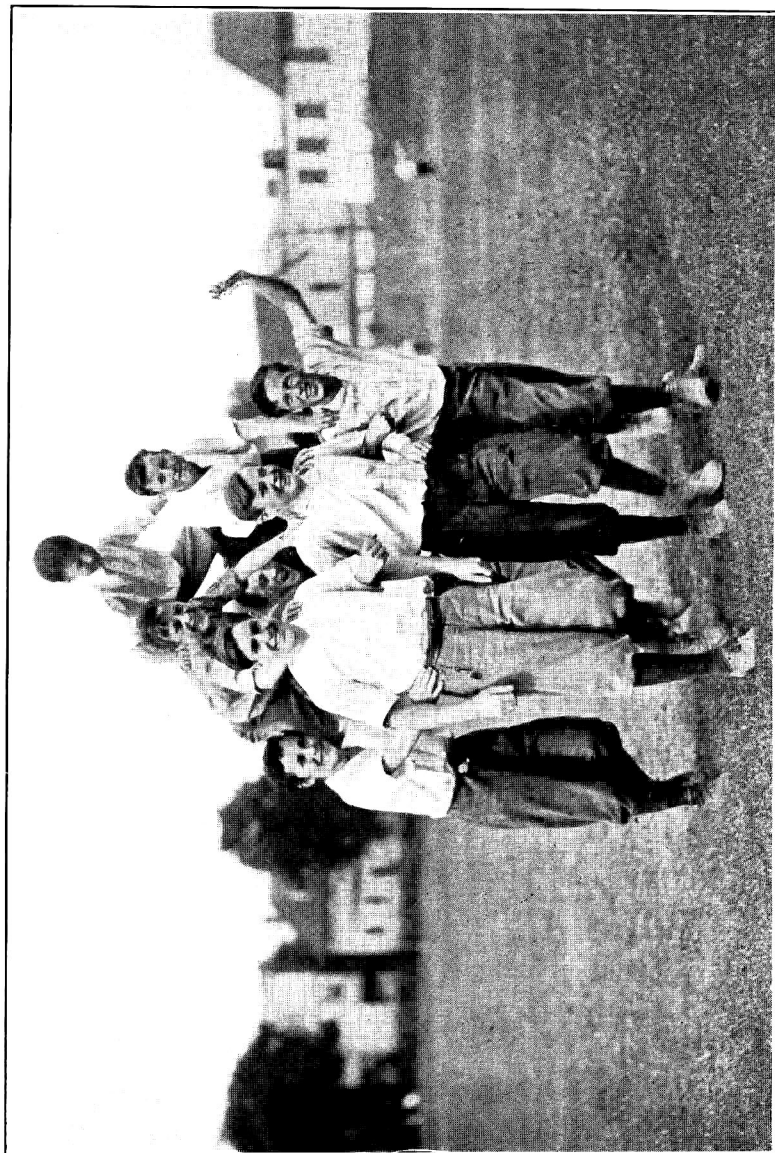
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In the school of the future compulsory education will involve compulsory health.

## PREFACE

THIS volume is a revision of *Medical Inspection of Schools*, published by the Russell Sage Foundation in October, 1908. The first edition was exhausted within three months, and the volume was reprinted in January, 1909, and again in December of the same year. During the three and a half years that have elapsed since the first publication of the volume there has been a three-fold increase in the number of American cities having systems of medical inspection of schools. In rapidity and extent, this development has been unequalled by that of any other educational movement in America.

During these few years physical examinations have become an integral part of all the more important systems of medical inspection. The school nurse, almost unknown four years ago, is now an important adjunct of the systems of scores of cities. Dental inspection, then in its infancy, is now being carried on in nearly 200 cities. At that time three states and the District of Columbia had legal provisions for medical inspection. Now the number has increased to 20.

These conditions have resulted in an increasing demand for a revision of the original text, and this has led to the preparation of the present volume. While covering much of the matter treated in the original book, the text has been entirely re-written, and the description of methods and forms, as well as the quantitative material, brought down to date. Like its predecessor, this book aims

(1) To be of practical use; (2) to be a reliable source of information as to what is now being done and how it is being done; (3) to be frank in its admission of problems and difficulties as yet unsolved; (4) to avoid all dogmatism, saving that involved in the statement of actual experience.

L. H. G.

L. P. A.

New York, January, 1913

## SIGNIFICANT FACTS

“WE endorse legislation providing for the medical inspection of schools, because extended and varied experience has demonstrated that efficient medical inspection betters health conditions among school children, safeguards them from disease, renders them healthier, happier and more vigorous, and aims to insure for each child such physical and mental vitality as will best enable him to take full advantage of the free education offered by the state.”—Extract from Resolutions Adopted by the Conference of State and Provincial Boards of Health, Los Angeles, June 30-July 1, 1911.

Medical inspection is a movement national in scope in England, France, Germany, Norway, Sweden, Austria, Switzerland, Belgium, Japan, Australia and Tasmania. It is found in the more important cities in Denmark, Russia, Bulgaria, Egypt, Canada, Mexico, the Argentine Republic, and Chili. In the United States regularly organized systems are in force in nearly one-half of the cities, while a beginning has been made in nearly three-fourths of them.

Medical inspection of schools had its inception some eighty years ago, and during the past quarter of a century it has assumed the proportions of a world-wide movement. It is found in all the continents and the extent of its development in different countries is in some measure proportionate to their degree of educational enlightenment.

Clear distinction must be made between medical inspection, solely for the detection of communicable disease, and physical examinations which aim to discover defects, diseases, and physical abnormalities. The former relates primarily to the immediate protection of the community, while the latter looks to securing and maintaining the health and vitality of the individual.

Medical inspection for the detection of contagious diseases may well be a function of the board of health, for it aims at the

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protection of the community. Physical examinations for the detection of non-contagious defects should be conducted by the educational authorities, or at least with their full coöperation, because they are made for educational purposes. The records of physical examinations must be constantly and intimately connected with school records and activities. They do not need to be connected with other work of the board of health.

At the beginning of the year 1912, seven states had mandatory laws providing for medical inspection, 10 had permissive ones, and in two states and the District of Columbia, medical inspection was carried on under regulations promulgated by the state boards of health and having the force of laws.

Professor William Osler, the distinguished English physician, is credited with saying in regard to the work of medical inspection in England, "If we are to have school inspection, let us have good men to do the work and let us pay them well. It will demand a special training and a careful technique."

The school nurse is the most important adjunct of medical inspection. She is the teacher of the parents, the pupils, the teachers, and the family, in applied practical hygiene. She is the most effective possible link between the school and the home.

Dental inspection is rapidly becoming one of the most important branches of medical inspection. First in Germany, next in England, and more recently in the United States, dental inspection has been inaugurated and school dental clinics established. The work is now being carried on in nearly 200 American cities.

In terms of financial expenditure, the cheapest sort of medical inspection consists of examinations conducted by teachers for the discovery of defects of vision and hearing. These involve only the added expense of the simple printed material required. Inspection by physicians for the detection of contagious diseases costs about 10 cents per child per year. Systems including both inspections for contagious diseases and examinations to detect physical defects cost on the average about 25 cents per child per year. Where school nurses are employed, the average per capita

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rate is about 30 cents per child per year, and this may probably be regarded as a minimum cost for adequate and efficient work.

In foreign countries complete physical examinations are usually conducted only two or three times in the course of the child's school career. In this country most cities attempt to conduct such examinations every year and frequently fall far short of accomplishing their aim. A conservative standard efficiently maintained is better than a high ideal that is never reached.

In American cities having relatively efficient systems of medical inspection, the number of defective pupils receiving remedial treatment as a result of the examinations ranges from about 10 per cent to about 50 per cent. In England the work is more efficient and from 20 per cent to 70 per cent of the defective children receive remedial treatment from physicians, oculists, or dentists.

Medical inspection is essential in country districts as well as in large cities, and in rich communities as well as in poor ones. The locality has yet to be discovered in which the medical inspection of school children is unnecessary or undesirable.

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## CHAPTER I

### THE ARGUMENT FOR MEDICAL INSPECTION

**M**EDICAL inspection is an extension of the activities of the school in which the educator and the physician join hands to insure for each child such conditions of health and vitality as will best enable him to take full advantage of the free education offered by the state. Its object is to better health conditions among school children, safeguard them from disease, and render them healthier, happier, and more vigorous. It is founded upon a recognition of the intimate relationship between the physical and mental conditions of the children, and the consequent dependence of education on health conditions.

When Boston initiated medical inspection in America in 1894, by dividing her schools into 50 districts and placing a physician in charge of each district, she did so in the hope that the new measure would curb the waves of contagious disease that repeatedly swept through the ranks of the children, leaving behind a record of suffering and death. The experiment was successful, and when other cities learned how Boston was solving the problem, they too began to employ school physicians and to organize systems of medical inspection.

During the first years the spread of the movement was slow, only one or two cities taking it up each year; then these pioneers were followed by dozens of their sister cities, later by scores, and in the past few years by hundreds.

This sudden recognition of the imperative necessity for safeguarding the physical welfare of school children grew out of the discovery that compulsory education under modern city conditions meant compulsory disease.

With the great changes which have been coming over American life, former conditions have disappeared and undisturbed indifference to the physical welfare of our school children has become impossible. We have changed from an agricultural

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people to a race of dwellers in towns and cities. The school year has changed from a three months' winter term to one of five hours per day for ten months during the year. The number of years of school life has greatly increased. We have passed compulsory education laws. Going to school has become not only the normal but the required occupation of all children for a considerable number of years.

The results of these changed conditions on the health of children have become so marked as insistently to demand attention. The parents, school authorities, and health authorities have been unable to avoid recognizing the fact that in the nature of the case the school has become the most certain center of infection in the community.

The state, to provide for its own protection, has decreed that all children must attend school, and has put in motion the all-powerful but indiscriminating agency of compulsory education, which gathers in the rich and the poor, the bright and the dull, the healthy and the sick. The object was to insure that these children should have sound minds. One of the unforeseen results was to insure that they should have unsound bodies. Medical inspection is the device created to remedy this condition. Its object is prevention and cure.

Wherever established, the good results of medical inspection have been evident. Epidemics have been checked or avoided. Improvements have been noted in the cleanliness and neatness of the children. Teachers and parents have come to know that under the new system it is safe for children to continue in school in times of threatened or actual epidemic.

But medical inspection does not stop here, nor has it limited its activities to the field outlined. Other problems have been insistently forcing themselves on the attention of school men; and they, knowing something of the wonderful advances made in the field of medicine, have turned for aid to the physicians.

With the changes in the length of the school term, and the increase in the number of years of schooling demanded of the child, has come a great advance in the standards of the work required. When the standards were low, the work was not beyond the capacity of even the weaker children; but with close grading, fuller