The beginnings of health education are found in the physical exercises of ancient people. These were performed for various reasons and rose to the greatest perfection among the Grecians, and were entirely forgotten during the centuries of the Dark Ages.

With the re-establishment of interest in worldly things the need of strong healthy bodies was again recognized and interest in sanitation and physical education was revived. Plagues and epidemics were frequent and quarantine, vaccination, inoculation and rules of sanitation were the results of efforts made to control them.

In the United States, health supervision and medical inspection in schools were inaugurated after the value of such work had been demonstrated in European schools. In almost every case they were introduced in an effort to control infections and contagions in the schools.
School nurses were introduced into the schools after social welfare workers had demonstrated the economy and the effectiveness of such work in the schools of New York City.

Following the startling revelations of the physical handicaps of the nation's youth in 1917, an aggressive campaign was begun throughout the entire United States for better health for the children of the nation. The Tuberculosis Association introduced a "Health Crusade" into the schools with the two objectives of forming health habits and teaching healthy living to all children. Thousands of children in all grades enlisted in this "Crusade" and won honors for the performance of the health chores.

In Oregon the Tuberculosis Association, through their efforts to control this disease, helped in the establishment and financing of county health nurses who introduced the "Crusade" into the public schools of the state.

The Parent-Teacher Associations were active also along health lines promoting baby clinics and physical examinations of school children.

These two organizations were instrumental in demonstrating what could be accomplished by the formation of health habits, instruction of parents and by careful
supervision of children's health.

In Marion county the first work was done by interested individuals, working singly or in groups, through the Parent-Teacher Associations. Later more effective work was accomplished by working through the Tuberculosis Association, and efforts were concentrated on securing the services of a county nurse who would be financed by the county.

Because the county commissioners refused the first appeals for a nurse, the Marion County Health Association was formed to create interest in and to raise funds to pay the salary of a county nurse. Through their efforts Marion county schools had the services of one county health nurse in 1924 when the Commonwealth Fund selected this county as the location for their five year Child Health Demonstration.

The Demonstration program included health education and health supervision for every child in every grade in every school in the county.

The Demonstration was directed by Dr. Walter H. Brown who had conducted successfully a similar demonstration financed by the Red Cross in Ohio. He brought into the county a large corp of experienced and especially trained health workers. They introduced and supervised a health program and trained a group of local physicians.
and nurses in the work, so that at the end of the five year period the program could be taken over and carried forward by the local people.

Their efforts and the work which was done in examinations, vaccinations, inoculations, sanitation and health teaching were so successful that Marion county received the highest appraisal given to any county in the United States by the American Public Health Association in 1930.

Since a great deal of preliminary work preceded the Commonwealth Demonstration, the writer of this thesis believes that the recording of these early events and the names of the people that brought them about should be preserved in more tangible form than the memories of people no longer young and scattered newspaper accounts, personal letters and mimeographed and occasional printed reports of parts of the whole movement.
THE DEVELOPMENT OF THE HEALTH PROGRAM IN THE SCHOOLS OF MARION COUNTY, OREGON

by

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THE DEVELOPMENT OF THE HEALTH PROGRAM IN THE SCHOOLS OF MARION COUNTY, OREGON.

CHAPTER I

THE GENERAL PROBLEM OF HEALTH EDUCATION

While there is little questioning of the value of health education today, at least in theory if not in practice, the importance of this field suffered long years of neglect over the centuries of recorded history. There were short periods in which it received large amounts of attention and in which strenuous efforts were made to carry out the best practices of the day, but much of this attention and effort was useless because it was so misguided. Century by century, at the beginning, individuals made isolated discoveries that improved the health of the people. Later whole groups of people became interested in the subject of health and its promotion. The work of the physicians in preventive medicine is an example. Still later, through efforts of philanthropic foundations and governmental agencies, the study of health has become more and more scientific and effective and has come to occupy a larger and larger place in the thoughts of all classes of people. The death rate among
all ages of people is much less now than it used to be, but it is still high. The number of cases of chronic invalidism which should have been preventable is much less than it was, but it too is still high. The number of cases of physical poor health and low ability on the one hand and of heart diseases and general physical exhaustion on the other is still great in spite of the efficient work of many groups of experts in science, education, and publicity. Probably the performance of the workers in dietetics and physiological chemistry, who may be said to have increased the average active life of large numbers of people as much as ten years, is the most outstanding recent achievement, although many other discoveries are almost if not quite as valuable. The work of the newspapers and magazines, of speakers, and of educational and philanthropic groups and organizations in disseminating this information and bring about its application --- not just for a few days at a time, but day after day until it has become a routine part of the lives of many people and of governmental procedure --- is only slightly less valuable than the original discoveries themselves.

One of the outstanding pieces of work in the dissemination of knowledge about health was the county-wide demonstration in Marion County, Oregon, sponsored by the
Commonwealth Fund with offices in New York City and by interested groups of citizens and by local governmental units in Marion County itself. While the work was done in one county, it was intended to be and did become a model for other counties throughout the Northwest and the Nation to show what could be done in health education; the ways in which it could be done; the materials, including costs, needed in its accomplishment; the reasons why it should be done, and the values resulting from such a program. The Marion County Health Demonstration began formally in 1925 and continued under the Commonwealth Fund for five years. It has been copied in whole and in part by many counties throughout the United States. In fact, it is doubtful that there is a county in the nation that has not been affected by this demonstration directly or indirectly. It is probable that its beneficial influences will be felt for decades to come. While the formal part of the demonstration began in 1925, the individual and the united efforts of many individuals and of many groups over a directly related period of from ten to fifteen years were required to lay the foundation for the successful culmination of this Demonstration. Many of these people of Marion County and of Oregon outside of Marion County are now ripe in years and in the full vigor of their mental if not their physical powers. Much
of the information about the preliminary efforts leading up to the Marion County Health Demonstration rests at present in the memories and in the personal scrapbooks of these people. In a very few years these people’s memories will have faded. Many will have been laid away for their final rest. The scrapbooks in many cases will have been lost or destroyed. It is the purpose of this thesis to make available, to anyone interested in the historical aspect of health education, data on the health program of Marion County which are available to only a few people at present and will be accessible to none within a decade or two.

The writer of this thesis was active in public health work in Marion County from its beginning. She knows personally the other people who were active in the program, having worked among them for more than twenty years. Her own information and that of her friends is available to her where it would be accessible to very few other people even at this time. She has gathered her data from recent interviews made to reestablish events and details accurately, completely, and in their proper proportions; from letters written during the two decades 1912-1936; from published reports, mostly mimeographed or typewritten by individuals or by groups; and from newspapers and magazine items from the then current issues.
CHAPTER II

THE HISTORICAL DEVELOPMENT OF HEALTH EDUCATION

The beginning of health education can be traced back through the centuries principally as an outgrowth of physical education carried on largely for military reasons. The writer proposes to mention only a few of the most outstanding events in the development of health education. For those who wish a more elaborate statement of events, a table of the principal events is provided in the appendix of this thesis. Authorities differ on many of the dates but those given are the ones most often approved.

The earliest records are those of the Chinese, who in 2600 B.C., were practicing a series of physical exercises called Cong Fu. The Chinese believed diseases to result from organic inactivity and, to offset this, they established certain bodily movements which were intended to keep the organs functioning and to prolong life and secure the immortality of the soul (27).

Harada in his book entitled "The Faith of Japan" (10) tells of the teachings of Buddhism, and of the practice of Zazen, meaning to sit straight and meditate. Zazen was supposed to help one to attain a calm and serene character and was practiced by "the intellectuals
andmonds or men of leisure". To practice Zazen, one should "sit straight and motionless never inclining to the left hand nor to the right, never bowing forward nor turning backward. The ears should be in the same plane with the shoulders and the nose and navel in the same straight line. The tongue should stick to the upper jaw, while lip meets lip and teeth with teeth. Open the eyes not too wide, yet not too slight, and keep breathing through the nose. After composing mind and body in this way, you may take a long deep breath. Thus sitting motionless you may think of not thinking. Can you think of not thinking? This is thinking of nothing...

...It is the only way to great calm and joy. This is unpolluted practice, and this is enlightenment (10)."

Never was the value of physical education as a foundation for mental education more clearly shown than in the schools of Greece. In all that concerns the development of the body the Greeks still stand as a model for all nations. From them we get the word "gymnastics" which means literally "naked art", the reason being that under certain conditions they took their physical exercises naked. The Iliad and the Odyssey, the masterpieces of Grecian literature, each tell of the prominent place which athletic sports held in Grecian life. Socrates is reported by Xenophon (27) as saying, "No citizen has a
right to be an amateur in the matter of physical training. In all the uses of the body, it is of great importance to be in as high a state of physical efficiency as possible. Why, even in the process of thinking in which the use of the body seems to be reduced to the minimum, it is a matter of common knowledge that grave mistakes may often be traced to bad health."

With the introduction of Christianity, the interest in physical education seems to have disappeared. From the sixth to the twelfth century education was almost wholly in the hands of the ecclesiastics to whom the spiritual life was most important and the world was looked upon as solely a place to prepare for the next world. The physical life was to be suppressed and every means possible was taken to deny the body even its natural comforts. Play was regarded as derived from heathenish practices and as "an instrument of Satan." Parents were warned against allowing children to play, as in the injunction, "play of whatever sort should be forbidden in all evangelical schools and its vanity and folly should be explained to the children with warnings of how it turns the mind from God and eternal life (5)."

Theodosius, one of the early Christian emperors abolished the Olympian games in 394 A. D. because of their pagan
influence, but toward the close of the Dark Ages many
great men throughout Europe dared to express their ideas
about education and to emphasize the value of physical
education. Among these men were Comenius, Locke, Luther,
Montaigne, and Zwingli.

Martin Luther (1483-1546) in his "Letters to the
Mayors and Aldermen of the Cities of Germany" outlined
a course of study and methods to be used in the schools
which he wished to have established in every Lutheran
parish. He wrote, "It was well considered and arranged
by the ancients that the people should practice gymnastics
that they might not fall into reveling, unchastity,
gluttony, intemperance, and gaming. Therefore these two
exercises please me best, namely music and gymnastics...
......the latter produces elasticity of the body and pre-
serves the health (27)."

Johann Amos Comenius was a Bohemian educator and
reformer of the sixteenth century. In his monumental
work, entitled "The Great Didactic", he dealt with both
the method, and the subject-matter of instruction. He
suggested that the day be divided into three parts ---
eight hours for sleep, eight hours for work, and eight
hours for nourishment, recreation and physical develop-
ment. He believed that all sorts of exercises and inno-
cent games are not only to be permitted but "encouraged for giving vigor and health to the body. . . . . . . These not only afford relaxation but are educationally of good effect in many ways (12)."

John Locke, who was a physician, teacher and child psychologist, laid down laws for physical training in his work, entitled "Thoughts Concerning Education" (1690). He gave as the aims of education, vigor of body, virtue in soul, and knowledge or mental acquisitions (13). About one-third of the book is made up of health rules, each explained and supported by arguments. He devoted several paragraphs to the importance of diet and correct eating habits and the various food values. He, also, has much to say about hygiene.

Jean Jaques Rosseau, who was a disciple of Locke, believed that physical and intellectual education are so intimately bound together that it is difficult to decide when an activity ceases to be of physical value and becomes intellectual (23). In his educational romance, "Emile" (1762), he strongly urged the necessity of some sort of physical training. It has been said that "Emile" had greater influence than any other educational treatise ever written. "Parliaments condemned it; the church burned it; philosophers praised it and educators overlooked its exaggerations and adopted its sound prin-
Rosseau's ideas were outlawed in France but received ready acceptance in Germany. Closely following Rosseau's convincing criticism came a marked change in educational practices and philosophy lead by Basedow (1723-1790), Pestalozzi (1746-1827) and Ling (1776-1839).

Basedow was planning an educational reform when he read "Emile" and decided to organize a school along Rosseau's ideas, but including his own ideas, too (27).

Ling realized that, in order to develop the human body, one must know the body, therefore he studied anatomy and physiology. He then worked out a system of physical exercises for his pupils that became so popular that in later years the government of Denmark appointed a commission which worked out the "Handbook of Gymnastics." This book was based on the principles and exercises of Ling's system and became the authorized textbook for school use (27).

The beginnings of health education as it emerged from the physical education phase may be seen in the work "A System for a Complete Medical Police," by Johann Peter Frank (1804) in which he condemned the contemporary education for girls because of its seclusiveness and its lack of physical activity. He objected also to the prevailing styles of dress which restricted bodily movements.
He believed that the youth of the day did not equal in vigor the youth of ancient Greece and he recommended gymnastics along Greek lines. He warned against exercises being made too strenuous or too dangerous. He declared that open-air spaces should be provided first of all for the gymnastic classes of school children. In times of inclement weather a building should be ready for them. He believed that physical education is a national problem and should be encouraged by the state.

Frank devoted himself also to the improvement of public sanitation and several of his works on this subject have served as a basis for further development of legislation in this field --- of which he has been called the founder.

When Frank was lecturing and writing in Germany, Simon Tissot, a French physician, was arousing interest in France in health and health education through his writings. He wrote (in 1797) that the life of the scholar entailed too much mental and too little bodily activity, consequently there was no deep breathing and the lungs always contained foul air. Scholars always paid too little attention to food and drink and secluded themselves too completely from active companions. He believed that "the forcing of children into hard study without regard to their physical welfare and growth was
the grave of their capacity and health (27)."

At the close of the eighteenth century people were again accepting, or were not antagonistic to, the values of health and its relationship to bodily exercise although school health supervision did not begin in Europe until the beginning of the nineteenth century. About this time two great discoveries --- vaccination against smallpox by Jenner in 1796, and the germ theory of the spreading of diseases by Pasteur in 1822 --- were making the world a much safer place for children. Schools were being recognized as possible hotbeds for the spread of infections. A definite sentiment developed toward expecting the public and the individual to assume responsibility in preventing the spread of diseases. Local boards of health entirely controlled and administered the early school health work until in 1874 (37).

School health work was first undertaken in France in 1833 when the supervision of the health of the school children and the sanitation of the grounds and buildings was stated to be the responsibility of the school authorities (37). In 1837 a royal ordinance confirmed this as a law. In 1834 a school physician was appointed for each boys' school in Paris. In 1842 the government decreed that all public schools should be inspected at regular intervals by a physician.
The first school nurse of record was Miss Amy Hughes, superintendent of Queen's nurses in Bloomsbury Square in 1891 (8). England had enacted, in 1870, an enforced school attendance act which brought together so many emaciated and sickly children who would otherwise have remained hidden in the slums that the need for physical care of these children was seen. Volunteer feeding societies came into existence and, in 1903, a commission investigated physical training, medical inspection, and feeding for cases of malnutrition as part of a larger program of health care and health education.

The first system of medical inspection in schools as we now understand it was established in Brussels in 1874 (37). Appointed physicians examined each school three times a month. The first work of school dentists and oculists was also done in Brussels.

The German system of health education began first in Weisbaden in 1869. It was worked out so carefully that many cities have modeled their school health programs on this plan (37). It consisted of physical examinations, inspection of school premises and classrooms, individual examinations of selected pupils, and physical examinations of each child before entering school and in the fourth, sixth, and eighth years of the course. Very
complete individual records were kept of each child and a definite follow-up system was used, beginning with notification of parents of defects discovered.

In Paris, in 1911, a plan based on the German scheme was introduced and was carried out by a corps of 210 physicians selected by competitive examination. One thousand children were assigned to each physician who was to make two visits a month to each school. At these times he was to examine carefully the buildings and grounds. Each classroom was visited and children who were found to be subnormal physically were selected for study. These children were noted by the physician; referred to him by the teacher, or were investigated from among those who had been absent from school for some time for unknown causes. Records were kept of each child throughout his school career. Height and weight measurements were taken every six months. In places where the work was less complete, the detection of contagious diseases formed a large part of the work. Parents were notified of defects or diseases in their children and urged to secure treatment (29).
CHAPTER III

THE DEVELOPMENT OF HEALTH EDUCATION IN THE UNITED STATES

In the United States, as in other countries, the beginnings of health education are nearly obscured in the physical education program. Appreciation of the value of physical exercise was given great impetus by Noah Webster who, in "an address to young gentlemen" in 1790, said that it should be "the buzziness of yung persons to assist nature and strengthen the growing frame by athletic exercises. When it is not the lot of a yung person to labor in Agriculture or Mekanic arts, some laborious amusement should daily be pursued az a substitute, and none is preferable to fencing. A fencing skool iz, perhaps, az necessary an institution az a professorship in Mathematics (27)." He recommended running, playing quoits, and dancing as other desirable exercises (27).

Another of our early statesmen, Thomas Jefferson, expressed his belief in the necessity of physical exercises as a part of general education in all of his writings on the subject. The essence of his theory was expressed in, "The sympathy between the mind and body during their rise, progress and decline is too strict and obvious to endanger our being misled (27)."
At a meeting of the Western Literary Institute and College of Professional Teachers in Cincinnati, October, 1837, Dr. William Wood called attention to the fact that exercise during youth produces noticeably desirable effects in later life. He believed that, if a student wished to retain energy of both mind and body, daily exercise was very necessary (27).

Through the physical examinations which often became a part of the physical training program, many bodily defects were revealed. Gradually the schools recognized the fact that more work along health lines was very necessary. It was not until the middle of the nineteenth century, however, that any clear distinction was made in the schools of the United States between physical education and health education. During this century knowledge concerning physiology, anatomy, chemistry, bacteriology, dietetics, and dentistry became more widely spread and better understood. In the isolation of new forms of bacteria new knowledge had been given to the world concerning sanitation and the overcoming of infections. Science had found many of the means of transmission and of the ways of prevention as well as the causes and the cures of many contagious diseases and, as the sciences of the body and the causes of disease be-
came better understood, personal hygiene and care of the environment became recognized as two of the greatest factors in the prevention of illness and the maintenance of healthy bodies.

The need for this knowledge was becoming each year more imperative. The increasing density of the population; the crowding together of people in cities; and the change from open, outdoor life to life in offices, factories, and apartments increased the dangers of communicable diseases and brought about conditions which required more than physical exercises for their successful overcoming.

To meet the dangers resulting from the increasing number of epidemics, city, county, and state health boards were organized and given legal power to enforce rules of sanitation, vaccination, and quarantine. These rules reached out almost unbelievably slowly and only after many years touched the isolated box-like schools. The town and village school buildings which were modeled on the old church plan had not been reached so many years earlier. These town schools had tall narrow windows on opposite sides of the rooms, were heated by stoves placed in the centers of the rooms, and had no proper ventilation. The blackboards were too high for the small children to reach conveniently and there were no curtains or
shades at the windows. No effort was made to fit the seats to the sizes of the children. Though teachers' associations were frequently addressed by physicians on the subject of school hygiene, very little could be done because neither the teachers nor the physicians had anything to do with the building of the schoolhouses. Buildings erected during the last half-century have conformed more nearly to hygienic principles, but this reform was slow in coming and was part of the general health movement in the schools of the entire civilized world. Toward the close of the nineteenth century city and school authorities were aroused to the fact that while physical education was valuable and hygienic surroundings were important health factors, something else was needed. Each fall following the opening of the schools epidemics of contagious diseases swept through the schools and were disastrous for scores of children.

Because of these epidemics and because of the agitations which had begun in 1889 and the aggressive activities of those interested in health, Dr. Samuel Durgin, the health commissioner in Boston, appointed fifty school physicians and established the first regular system of medical inspection in the schools of the
United States in 1894 (33).*

These physicians were employed to visit the schools regularly and to inspect the pupils in the hope that early cases of contagious diseases might be located and isolated, thus preventing the spread of epidemics. They were supposed to inspect the school buildings and grounds also and to make suggestions or recommendations for their improvement. In the next year, 1895, Chicago began medical inspection of its schools in a similar way to the work done in Boston (29).

School nursing, both in Europe and America, began as an outgrowth of the social visiting nurses' work. Following an epidemic in the schools, the department of health of New York City awakened, in 1897, to the imperative need for more active health work among the school children. An attempt was made to meet this need by appointing 150 physicians who were assigned to visit schools for one hour each day for salaries of thirty dollars a month. They were expected to examine the children for contagious diseases and to send out of the classrooms all those who showed any suspicious symptoms. It proved

* Mangold (1920) claims that Philadelphia was the first city to have medical examinations. It is true that tests of vision were made there but the work was soon discontinued because of protests.
to be a very perfunctory service and touched the children only very superficially. Miss Lillian Wald in her book, "The House on Henry Street," tells very interestingly the story of the events following these appointments and of the appointment of the first health nurse (34).

Miss Wald was one of New York's first social workers. Her settlement house was on Henry Street in the poorer section of the city. On this street, not far from the House was the first school established in New York --- School Number One. Number Two was also very near and Number 147 was on the corner about a half-block away. In 1902 the city administration changed and the medical staff working in the schools was reduced. The salaries were increased to one hundred dollars a month and three hours work a day was demanded of the physicians. The health commissioner ordered an examination of all the pupils in the public schools and New York was horrified to learn of the prevalence of trachoma.

Trachoma is an eye disease, common at that time among immigrant groups, and is very infectious. Immigrants with trachoma are no longer admitted. Each case requires individual articles for home and classroom use. It may result in loss of vision.

"Thousands (34) of children were sent out of the
schools because of this infectious eye trouble and in our neighborhood we watched them play with the children for whose protection they had been excluded from the class rooms. Few received treatment . . . . and where medical inspection was most thorough, the class rooms were depleted." Going into the homes of these children, Miss Wald found they were receiving no care or treatment and that the disease was rapidly spreading to every member of the households. The president of the department of education and the health commissioner of the city came to Miss Wald for advice, for the examinations by physicians had proven to be a doubtful blessing. Miss Wald and her assistants offered to show through their own services that few children would lose the valuable school time and that it would be possible to bring under treatment all those who needed it. She exacted a promise from several of the city officials that if this experiment were successful they would use their influence to secure the appointment of a school nurse who would be paid from public funds. Four schools from which there had been the greatest number of exclusions for medical causes were selected and an experienced nurse, Miss Wald, was chosen from the settlement staff to make the demonstration. The examining physicians sent daily to the nurse all the pupils who were found to be in need of attention. "With
the equipment of the settlement bag and in some of the schools with no more than the ledge of a window or a corner of a room for the nurse's office, the present system of thorough medical inspection in the schools and of home visiting was inaugurated.

"One month's trial proved that with the exception of a very small proportion of major contagious and infectious diseases, the addition of a nurse to the staff made it possible to reverse the object of medical inspection from excluding the children from school to keeping them in the class room and under treatment.

"The Board . . . . voted thirty thousand dollars for the employment of twenty-five trained nurses, the first municipalized school nurses in the world, now a feature of medical school supervision in many communities in this country and in Europe. The first nurse (Miss Wald) was placed on the city payroll in October, 1902 . . . . and out of this innovation New York City's Bureau of Child Hygiene has grown (34)."

Miss Wald and her corps of workers in the settlement house developed the idea of housekeeping centers. These were similar to the practice houses for the students of home economics in the colleges. Immigrant girls and mothers near the centers came in to be taught house-
keeping methods, cleanliness, cooking, mending, and the care of little children; and it became a matter of pride if a young bride could say "I learned to keep house at the Center."

The superintendent of schools saw the great value of this work and encouraged the identification of these centers with the schools. Out of the experiments of the housekeeping centers Penney Lunches for public schools were inaugurated. This provided a hot noonday meal for a few cents for the school children.

As a natural result of the efficient school inspections by physicians and nurses, many children were found who had removable physical handicaps. In 1912 New York City established a free clinic for the purpose of the removal or treatment of adenoids and diseased tonsils. However, the parents objected so strongly that this project lasted only a few years.

Philadelphia followed New York's example and in 1898 began medical inspection of its schools. From these larger schools the program gradually spread to the smaller cities and a few years later (1900) 337 cities in the United States had provided medical inspection for their schools and school children. By 1910 there were 1,194 school physicians, 371 school nurses, and
48 school dentists in the schools of the United States (37). During these years of increasing populations, the cities began to assume part of the responsibility for the health of their children and urged the passage of state laws making school inspection obligatory. Connecticut was the first state to assume responsibility for the health of pupils in school and, through laws passed in 1899, required the teachers to test the eyesight of each pupil every three years. Vermont, in 1904, required eye, ear, and throat examinations; and Massachusetts, in 1906, made state medical inspection of schools compulsory (37). By 1911 a total of nineteen states had passed legislation on this subject. Oregon passed such a law in 1925.

As the knowledge of what could be accomplished to keep children well and in school increased, the interest mounted steadily and school health work progressed from mere medical inspection to detect contagious diseases to inclusion of testing of eyes, ears, throats, and teeth; and has more recently expanded to emphasize a constructive program for the development of health in all of the children. These earlier laws were good laws as far as they went; and the interest in the health movement was growing. Parents and educators everywhere were realizing the value of keeping children well. County and city
officials were awakening to the fact that it was cheaper to keep children in school than to pay for the repetitions of grades which could be prevented.

It was with a shock that Americans learned, from the results of the war draft of 1917 and 1918, of the refusal of one out of every four of the young men for military service because of their physical defects. Many of these defects were believed to date from some slightly neglected trouble of early childhood. The Children's Bureau, at Washington, D. C., emphasized the fact that a higher standard of fitness in the rising generation could only be assured by greater attention to the physical needs of the children. The Bureau made plans for what was called the "Children's Year" (1918-1919) during which they planned to save the lives of one hundred thousand babies and to protect all children from the dangers resulting from war-times. President Wilson said, regarding this program:

"I am very glad that the same processes are being set afoot in this country, and I heartily approve the plan of the Children's Bureau and the Woman's Committee of the Council of National Defense for making the...... year......one of united activity on behalf of children, and in that sense a Children's Year. I trust that the
year will not only see the goal reached of saving one hundred thousand lives of infants and young children, but that the work may so successfully develop as to set up certain irreducible minimum standards for the health, education and work of the American Child."

The Child Health Organization of America was organized as a response to this need and had as one of its chief motives the promotion of health through the public schools. Founded in 1916 when the country was aroused to the health needs of its children, it has always been closely associated with the Bureau of Education in Washington, D. C. Because of this association its suggestions and recommendations have met with great confidence and attention. One author gives it "much of the credit for the initiation, promotion, and developments of activities in health education in this country (33)."

It sponsored a four year health demonstration at Mansville, Ohio, in 1921-24. It encouraged and encourages surveys of health work, and its program of helpfulness includes not only public schools but also teachers' training institutions. In 1924 it supervised the awarding of twenty-five thousand dollars in scholarships, contributed for this purpose by the Metropolitan Life Insurance Company. The plan of the scholarships was such that community interest and knowledge in health education
would be developed. One thousand six hundred and forty-four teachers, representing fifty-two cities across the United States, received these awards; and an increase in the interest in health was noticed in every city (1). This association was disbanded December 31, 1935. Their educational services are being continued under the administration of a Committee on Health Problems in the National Education Association. The supervisor is Miss Anne Whitney.

Among the older organizations for the promotion of health are the temperance societies which have perseveringly taught health lessons for more than a half a century. More than fifty years ago the writer belonged to a Band of Hope society. The leader, an energetic Women's Christian Temperance Union worker, taught the little members of the Band their need for drinking milk and water and not tea or coffee or alcoholic beverages. This little group of boys and girls sang health songs, committed to memory health rhymes, and took a pledge to "drink clear, sparkling water, keep faces clean and hands, play out doors in the sunshine as often as we can." Credit should be given to the W. C. T. U. for having increased the amount of instruction in hygiene and physiology. Most of the state laws regarding the teaching of these subjects were enacted as a result of
the initiative of persons who were interested in securing education concerning the harmful effects of alcohol and tobacco. The Oregon School Law established a penalty for teachers who do not teach these subjects. The salary for the last month's teaching can still be withheld if the teacher disregards the teaching of health.

The National Tuberculosis Association also had and has a health program and a health education department. In 1917, it began an active campaign for better health among school children. Emphasis was placed upon the formation of health habits and upon the teaching of more desirable attitudes toward and standards of health. The campaign was called a "Health Crusade" and the children were named "Crusaders". The plan originated in the mind of Mr. Charles De Forest of the executive office of the National Tuberculosis Association. Mr. De Forest had two small sons who made the usual objections that normal boys make to washing their necks and ears and cleaning their finger nails. Their father conceived the idea of calling these duties "chores" and the boys were awarded a certain number of points each day for each performed "chore." When they had acquired a certain number of points they received various titles. The first title the boy might earn was that of "Page." He might, by further diligence, become a Squire or Knight. Then,
the highest badge of honor, won after many weeks of careful attention to personal habits, was that of the title, Knight Banneret.

The plan proved so successful with Mr. De Forest's children that he enlarged it and introduced it into the public schools as a part of the public health campaign of the Tuberculosis Association. It was eagerly accepted by teachers and pupils, for the spirit of rivalry and play made it fascinating. At the close of three years 600,000 school children were enrolled as "Health Crusaders", and requests were coming to the office from several foreign countries for information and literature concerning the movement.

The younger children performed health chores for the titles, entered poster contests, and wrote stories about food, play, and cleanliness. The older children wrote competitive essays on personal hygiene and entered contests in play and song writing. A pageant was usually given at the close of the school year. In these pageants the children were dressed in costumes befitting their attained ranks.

This health program was accepted and endorsed by twenty-six state educational authorities. In April, 1921, over 7,000,000 children in the United States were playing the health game of Crusaders (25).
With the arousing of interest in the health of the children, American public health workers realized the fact that while there was a large amount of available knowledge on ways of keeping children well, parents were not making use of this knowledge for the protection of the healths of their children. Health leaders conceived the idea of selecting a community in which the broader applications of accepted health principles could be made and in which a well-rounded and thoroughly united health program could be carried out. With the establishment of such a program in mind, the American Red Cross gave $200,000 for a local child health demonstration, and the National Child Health Council was asked to select the community and to supervise the work through a committee known as the Demonstration Committee. This committee laid down certain characteristics which the community should have in order to be selected or considered eligible for this demonstration.

Among these characteristics were that the town or city should be between 20,000 and 30,000 population, and should be located in a county where population should be between 50,000 and 60,000. The age distribution of the population should be average. There should be no strikingly predominant racial stock. It should possess a variety of industries of the community. It should be in
an agricultural territory. It should be in a birth-registration-state and the mortality of infants and children should not be strikingly abnormal. With a copy of these requirements, invitations were sent to communities throughout the United States to make application for a four year demonstration. After many personal visits by the committee in charge and after detailed surveys and studies of advantages and disadvantages, Mansfield and Richland County, Ohio, were selected. Their survey had revealed the great need for health service. Mansfield was a city of 28,000 population. It had no supervision of well children, either by private physicians or public agencies. Enforcing state quarantine, abating nuisances, and supervising dairy and food supplies were the only health activities carried out to any extent and these were not very well organized.

Another reason that Mansfield was selected was that there was a very earnest pledge given the Council that the work of the demonstration would become a permanent part of the social and educational program of the community at the close of the four years.

The demonstration, under the direction of Dr. Walter H. Brown, began its work in Mansfield in October, 1921. The story of its organization and accomplishments is
told in "Child Health Demonstration" published by the American Child Health Association (2). The work of the demonstration was carried out under five departments or services. The medical service, under a demonstration pediatrician, developed the education and preventive work for babies and preschool children, instituted regular school health examinations, and interested local physicians in establishing higher health standards. The nursing service worked to co-ordinate all local, private, and public nursing efforts in the organization of a general community nursing program. The school health education service introduced health education methods to teachers and school authorities and promoted a "practical, working, effective health education program for all Richland County schools." A research department was established to record, statistically, the activities and results of the demonstration. The nutrition service organized home economics and nutrition work in the schools and worked in close co-operation with the health education division. Before the close of the demonstration, superintendents, principals, teachers, and children were all co-operating fully in a well-rounded school health education program. In the general school program, health had taken its place with other subjects to be taught. Definite periods
were assigned for direct health instruction and the teachers were working out and using health projects and devices effectively and correlating health with other subjects in the curriculum. Under the direction of the nutrition service, home economics departments were established in the Mansfield schools and in five village schools which had not had such departments previously.

All of the home economics work in the county gave special emphasis to nutrition and to the relation of food to growth and health. Hot school lunches were promoted in two of the city schools where they were especially needed and in sixty of the one hundred and eleven rural schools in the county. All children in the city and rural schools who were ten per cent or more under weight received special attention from the nutrition director, the teachers and the nurses. In one school the underweight children were provided with cots where they could rest at noon and school lunches were served free to those who could not pay for them. In the summers a fresh air camp was conducted for poorly nourished and underweight children and for those who had tubercular contacts.

In the spring of 1924 the demonstration launched a campaign for 100% examination and for high standards of health and school work in all school rooms. A wall
graph containing the name of each child in the room was posted in these school rooms. A gold star was placed after the name of each child who brought from his parents a written consent for the examination. After the examination a blue star was pasted beside the gold one in case the child was shown to be without physical defect. One day the director had trouble in trying to explain what the blue star award really meant. He finally stated that the blue star award meant the same type of honor and achievement that was meant by the blue ribbon premiums that were won by thoroughbred stock at county fairs. Out of this experience a blue ribbon idea quickly took form and in the summer each child who had been awarded a blue star as a result of favorable school health examination findings received by mail from the demonstration a blue ribbon badge bearing the legend "First Premium for Health 1924."

The standard for a blue ribbon award developed gradually as a result of the problems and questions coming from health examinations. The standards finally formulated for 1925 were:
"STANDARD REQUIREMENTS FOR A BLUE RIBBON

A child will be considered eligible for a Blue Ribbon if --- after a physical examination by a physician and in the opinion of his teachers --- he is rated as (1) mentally normal, (2) physically free of defects, (3) reasonably cooperative in the practice of health habits and (4) satisfactory in his behavior and attitude in the school environment.

I. Is Mentally Normal.

A. If he has the mental capacity to attain a general average grade of "C" or its equivalent in school work.

II. Is Physically Normal.

A. If he is of standard weight.

1. Not more than 10 per cent under or 20 per cent above the average weight for his height.

B. If he is free from remediable defects or chronic disease.

1. Hearing normal and no chronic discharge from ears.

2. Vision 20/30 or better in both eyes --- with or without glasses --- and eyes free from any chronic infection or abnormal
3. Nasal breathing unobstructed and nose free from any chronic discharge or exudate.
4. Tonsils rated as normal or removed.
5. All teeth (both permanent and temporary) free from cavities --- or all cavities filled --- and all badly decayed teeth extracted.
6. No enlargement of the thyroid gland and no marked chronic enlargement of the glands of the neck.
7. The skin and scalp clean and free from any chronic disease or abnormal condition. No evidence of anemia.
8. No orthopedic deformity --- such as club foot, marked bow legs, or any other marked physical deformity.
10. No evidence of chronic organic disease involving the heart, lungs or other organs or the nervous system --- such as tuberculosis, heart disease, nephritis, chorea, habit spasms, etc.
III. Is Reasonably Cooperative in the Practice of Certain Health Habits.

A. Is physically clean.

1. Face, neck, ears, hands and finger nails cleaned daily.
2. Teeth brushed daily.
3. One complete bath once a week.
4. Clothes clean and neat.
5. Clean handkerchief daily.
6. Good personal habits of cleanliness such as clean desk, floor and surroundings.

B. Obtains sufficient sleep.

1. Child must sleep at least nine hours every night with open windows.

C. Eats well selected foods.

1. Drinks at least one pint of milk a day.
2. Eats some vegetable daily --- such as carrots, beets, peas, beans, onions, tomatoes, etc.
3. Eats some greens regularly --- such as cabbage, spinach, lettuce, celery.
4. Eats some fruit daily.
5. Eats some cereal daily.

Note: Other foods may be added. Those
mentioned in the outline above are the "protective" foods and are essential to good health.

D. Obtains plenty of fresh air and exercise.
   1. Spends some time daily in outdoor play or exercise. Every school intermission should be used for that purpose.

E. Clothing.
   1. All extra garments --- such as heavy coats and sweaters, rubbers, overshoes and boots removed while in class room provided the room temperature is 65 degrees or over.

IV. Is Satisfactory in his Behavior and Attitude in the School Environment and is Amenable to Ordinary School Discipline.

Note: (x) on the physical record card indicates a defect of a minor character which requires observation but not treatment and does not disqualify for a Blue Ribbon.

A thyroid marked (x) will disqualify a child for a Blue Ribbon unless he uses iodine salt regularly at home or takes iodine in some other form as recommended by a physician."
At the time (2) of the 1924-1925 examinations the plan for the Blue Ribbon Registration Day on May the 2nd, 1925 was fully explained, and the blue ribbon candidates were invited to call at the demonstration headquarters any Saturday, after they had received their examination, to be inspected by the nurse, in order to see whether glasses had been fitted, teeth were filled or pulled, objectionable tonsils removed or other defects noted in the examination had been corrected. They were told to bring at the same time a note from their teacher certifying as to the grade of their school work, their behavior in school and their health habit practice.

Aside from the Blue Ribbon project other methods were used to stimulate children's interest in health. The Rotary Club of Mansfield presented seven silver trophy cups to be awarded to the schools showing the best health work during the year. Ten points on the score card used for the trophy cup award were obtained by schools having a First Aid kit equipped and ready for use. At the County Teachers' Institute in 1924 there was a health education exhibit made up entirely of children's typical class exercises showing health correlations along all lines of geography, history,
writing, numbers, English, and such handwork as paper cutting and paper tearing. Health parades and pageants had their place. Between 1500 and 2,000 children took part in the first pageant, "Happy, The Pied Piper of Health Land", which was preceded by a parade. In both city and county schools the children helped in making sanitary surveys and in clean-up days or weeks. In the rural schools, especially, clean-up days were common and all rural teachers were greatly interested in the water analyses for the schools.

The dynamometer or "muscle tester" as it was called was considered the greatest single means used to arouse the children's interest in their health. Their muscle scores were remembered by children for months, and the health education director was always greeted with joy and with anxious inquiries as to whether she had brought the "muscle tester". A muscle contest was held in 1923-24 between the townships and it was not only watched with keenest interest but was followed by a distinct increase in the amount of milk drunk and by a decrease in the number of underweight children.

Neighborhood grocers reported great difficulty in keeping their milk and green vegetables in stock. The training of the teachers in the techniques of health
education was part of the demonstration program. This was done through county and city institutes, teachers' meetings, normal training classes, and two months' extension courses in health education from the Ashland College.

While a large sum of money was spent in organizing and developing the program of Health Work during the four years of this Demonstration, the health program as taken over by Mansfield and Richland County contained nothing which similar counties could not undertake successfully.

While this was the first attempt made to try out the effect of joint planning and unified effort in directing health work with children it was considered a success, and it was the inspiration for the similar work done by the Committee administering the Commonwealth Fund. This Fund of $1,000,000 or more was a bequest from Mrs. Stephen V. Harkness, of New York City, in 1917, and was to be used for the "welfare of mankind".

Because the interest in children predominated at that time in the minds of public workers, it was first decided to use the fund to do something for delinquent boys and girls. After attempting some work along this line, they decided that, to be most effective the
work should be done before the children became delinquent, and guidance clinics were established in the hope of ameliorating this problem of delinquency in Cleveland, Ohio; Dallas, Texas; and in Los Angeles, California. To these clinics were brought children whose behavior puzzled the parents. While they were, comparatively, very successful, they did not get at the fundamental causes of delinquency.

On the other hand, the health work in Mansfield attracted the attention of the Commonwealth Committee, and it was decided to use the remainder of the Fund to establish four health demonstrations in the United States. These were to be located in widely scattered communities, were to last five years, and were to be object lessons in child health service. Each was to be financed by the Fund and by local public and private agencies. The Fund was to withdraw its support gradually and the community was to assume the support of as much of the health program instituted by the Demonstration as it was deemed advisable.

The requirements necessary to make a city or community eligible for one of the demonstrations were similar to those used by the American Child Health Council. The selection was usually based on the same
characteristics as those used for the Mansfield Demonstration. Each demonstration had five major divisions of work — medical, dental, nursing, school health education, and statistical. While these departments each had a specialized task, they were dependent on each other in their common task of "selling health" or informing the public so that the public might accept better standards of child health and support a broader health program.

After careful consideration of all factors and after personal visits were made to each community, the following places were selected as locations for the demonstrations: Fargo, North Dakota; Athens, Georgia; Rutherford County, Tennessee; and Marion County, Oregon.

In each case at the close of the five year program the county and other local authorities were to assume as much of the health program as their finances could carry. In each case interest and enthusiasm was raised to the highest pitch and then gradually lowered until a firm and enduring foundation was laid for health work in all of its phases.
CHAPTER IV

THE EARLY HISTORY OF THE HEALTH MOVEMENT IN OREGON

The first organized health work with little children in Oregon of which the author has been able to find any record was done by the Oregon Congress of Mothers and the Parent-Teacher Association. This group was organized in 1905 in Portland and had as its chief aim the helping of mothers and children. The constructive work along educational, industrial and social welfare lines which they accomplished grew out of the everyday problems of the mothers and children with whom the group came into contact. Their work created widespread interest throughout the state and, in 1912, the president, Mrs. Clara H. Waldo, for whom Waldo Hall at the Oregon State Agricultural College was named, was asked to prepare a child welfare and eugenics exhibit for the Oregon State Fair at Salem. Mrs. W. W. Williams and Mr. O. M. Plummer were appointed to supervise the exhibit and they arranged a booth in charge of a trained nurse who gave demonstrations in lessons on child care and feeding. With the co-operation of Salem physicians and nurses, several hundred children were weighed and measured for height during the Fair,
and the mothers were given advice concerning the importance of proper food, the use of milk, sufficient rest, and plenty of sunshine and fresh air. Score cards approved by the Iowa Public Health Committee of the American Medical Association, the Health Committee of the Iowa State Federation of Women's Clubs, and the Department of Agriculture Extension of Iowa State College were used in connection with this work at the 1912 State Fair. The information and instruction on these score cards is interesting as an indication of the educational work in progress for better child health.

Some of the suggestions for improving health conditions were given under the following heads: pure, clean milk; regular habits in eating and sleeping; flies carry diseases; dogs and cats carry dirt; keep careful records of each of your children at different ages. The deep interest shown by the mothers and their desire for help in rearing their children inspired the State Fair group to establish a Bureau of Education for Parents, the only one of its kind in the United States at that time, 1912. The exhibit and the practical value of the demonstrations at the Fair created great enthusiasm and promoted the organization
of Parent-Teacher groups throughout the state. Through such groups the school teachers were able to reach the parents of the less privileged children in endeavoring to solve many problems of school and home. Many discipline problems were found to have their sources in physical problems and, through the Parent-Teacher organizations, these children were examined physically and the necessary aid given to those who were not financially able to help themselves. With the supplying of glasses, the removal of diseased tonsils, advice on proper nourishment, and the recognition or correction of other physical defects the disciplinary problems of the schoolroom very frequently disappeared. It is interesting to note here that in 1915 the State Board of Health had begun medical inspection of the rural schools, but the work soon ceased because of lack of funds.

In Portland at this time medical inspection was supposed to be given to 35,000 children with one school nurse and four physicians who gave only half-day service. The first report of the Child Welfare Commission of Oregon says that with such a small force only routine inspection could be carried out and the real physical defects could not be discovered (19).
While Parent-Teacher Associations were working through the teachers and parents to the children, the Children's Bureau at Washington, D.C. was making plans toward saving the lives of 100,000 children within the nation during the year 1919. Oregon's quota of this number was 566. Perhaps no other project ever found such whole-hearted co-operation and sincere approval throughout the entire state as did this work for the children. Churches, women's clubs, fraternal organizations, insurance companies, philanthropic organizations --- all had their child welfare committees and were interested and willing to help. The great need was for someone to point the way.

It is small wonder then that when the State Tuberculosis Association, through its public health nurses, introduced the "Health Crusade" into the public schools of Oregon it was taken up with great enthusiasm. The Junior Red Cross organizations, established in the Oregon schools in 1918, joined in the work of the Crusade. In February, 1919, Mr. J. W. Studebaker, of the Junior Red Cross said in his letter sent to division directors, "We have a splendid opportunity for service . . . . . . through giving the school children health instruction and helping them form good health habits (25)."
Before the end of the year 1919 the work of the "Crusade" had been introduced into all but six counties in Oregon and 55,770 school children were endeavoring to live up to the "Crusade" health rules. The office of the Tuberculosis Association in Portland furnished supplies for the "Crusade" and encouraged the teachers in the work. Comments gleaned from letters sent into the Portland office revealed the many methods used by the teachers and some of the results obtained.

"We are planning a campaign against flies in connection with the Crusade. Have you any literature on this subject?"

"I have never before had my attention called so forcibly to the alarming number of undernourished children in my school."

"There is one improvement in the children. They try to keep their hands and faces cleaner than at first."

"I believe that through the Crusade we will be able to keep in school a little boy who has never been physically able to attend regularly."

From Hood River County --- "According to the weight chart, only 25% of the children came up to normal weight."

"We are making scrap-books illustrating each of
the health chores."

"We are starting a health race with another school."

From a Benton County school came these notations:

"One little boy gave up drinking coffee. Others took up the habit of brushing their teeth regularly for the first time. We keep a pail of boiling water on the stove and the pupils sterilize their own drinking cups."

And from one Multnomah County School --- "One thing has been revealed by the Crusade --- the lack of proper facilities for washing the hands." In Grants Pass every child in three grade schools was weighed and measured for height, and in one school of eight rooms fifty percent of the children were found to be undernourished.

Plans were made for the daily serving of milk in the schoolrooms. Since there were some objections to selecting individual underweight children, it was decided to serve milk to the pupils in one room in each school and to keep a close check on those who were underweight. A dairy supplied the milk in half-pint bottles. Straws were used for its drinking. Tickets for one month's use were given each child. At the close of the school year, 1920-1921, in Oregon, there were 9,680 children who were doing their seventy-two health chores each week and who received the pin and the title
of highest honor, that of Knight Banneret (25).

Establishing health habits, however, was not the only work done by the "Crusade" movement. The publicity given to health work for children brought about campaigns for better general sanitation, and clean-up days in rural schools were frequent. On these days the children in the school worked together to clean the school yards and to make them more attractive. Campaigns against flies and mosquitoes were inaugurated and, by means of posters, films, stories, and plays, the children learned the importance of school hygiene as well as personal hygiene. The first publishing in January, 1921, of vital statistics from the record of the State Board of Health aroused the attention of the older generation and acted as a spur to greater efforts to bring better health to Oregon children. This report gave not only the record of the births and deaths but also the number of cases of and the number of deaths resulting from communicable diseases. People were astonished to find that in two years there had been eighty-five deaths from typhoid, ninety-four from diphtheria, and thirty-one from measles. Pneumonia claimed 1,252 children, and other infectious diseases 120. With such a report before them, parents and school
authorities were aroused to the necessity of some control of contagious and infectious diseases. The epidemics of communicable diseases as they swept through the schools were proving too disastrous, and in many of the larger towns of the state school nurses were being employed. While school health inspection in Oregon did not become a law until 1924, school nurses and local physicians held clinics to examine children who needed special attention as early as 1918. Miss Helen Kelly, the school nurse at Baker, reported that during her first year's work, 1920-1921, there the number of "repeaters" reached 179, and that 141 of these had serious physical defects. At a cost of $75.00 per pupil, the amount required to keep these 179 "repeaters" in school reached the considerable sum of $18,000. "This sum would supply adequate home nursing service, nutrition classes, and open-air rooms with which to correct these defects", said Miss Kelly (25).

She pointed out, too, the loss to the state in the cases of children who left school because they were unable to keep up with the average child. "They either become idlers or join the ranks of the unschooled, or become delinquents, dependents, and sometimes criminals." Miss Kelly's splendid work finally
resulted in the establishment of nutrition classes and an open air class in Baker. In 1922 a new course in physiology entitled "Health and Hygiene" was introduced into the Oregon schools. It was prepared at the request of Mr. J. A. Churchill, state superintendent of public instruction, by Mrs. Sadie Orr Dunbar with the help of several educators who had been doing special research work in health at the University of Oregon. The course proved so satisfactory that it was adopted as part of the curriculum of the schools of the state. Ten sets of health posters prepared by the National Child Welfare Association, weight charts, suggestions for project work, and a handbook entitled "Health Training in Schools", were also available to teachers who were interested in the work. More specific interests were taken up by special groups, as well.

The Council of Jewish Women in Portland inaugurated a sight conservation campaign in April, 1924. Cooperating with them, either in service or financially were: the School Division of the City Health Bureau, the Oregon Graduate Nurses Association, the Oregon Tuberculosis Association, the Portland Federation of Women's Clubs, the Parent-Teacher Associations, and the Portland Chapter of the American Red Cross.
Nineteen principals of Portland grade schools requested special eye-protection work for the children in their schools. The members of the Ophthalmological Association of Portland were most generous in giving of their time and skill free of charge. The children who were unable to pay for their special examinations were taken into the doctors' offices and were given every advantage offered by special facilities there.

In October of that year, the Council of Jewish Women reported that 1,223 children had received examinations. Of this number, only 101 had gone to private physicians.

A fund provided by the Jewish Council of Women, the Portland Federation of Women's Clubs, and the Parent-Teacher Associations of Portland furnished glasses for those children who could not otherwise have obtained them. Many children were found who had adenoids and badly diseased tonsils that required removal before accurate knowledge of their vision could be obtained. One little girl was found whose retinal field was almost completely destroyed by scarlet fever. Many others were found whose defective vision was due to measles or other childhood diseases (25).

By the close of the year 1924 nearly all organizations in Oregon were fully awakened to the importance
of health education and were uniting their efforts to secure the passage of the Health Inspection Law. This law was finally passed in 1925 and provided for "the examination (by the teacher) of all children attending the elementary schools of the state of Oregon for determining defects of vision, hearing, breathing, dentition, or other external objective physical defects which will prevent or interfere with the normal education of the child (21)."

State Superintendent J. A. Churchill secured the services of Miss Mary Connelly to help in the introduction of the new law. He recommended to county school superintendents that Miss Connelly be invited to Teachers' Institutes to give demonstrations of the ways in which the teachers could conduct the health examination. In some counties the physicians volunteered to assist the teachers in making the health inspections. With the responsibility for health examinations resting upon the teachers came the realization that more training and health teaching were needed by the teachers and in the schools generally. With this in mind, the health department of the Oregon Tuberculosis Association was asked to prepare an exhibit of devices and helps for health teaching to be shown at the meeting of the Oregon State
Teachers Association in December, 1926. This exhibit consisted of posters of all kinds and on all phases of health work. Besides the large handmade posters, there were smaller ones for little children to color and large commercial ones for classroom use.

Attractive health films were shown and plays were given and read showing the many ways of teaching health in the schoolrooms. Books and helpful pamphlets and booklets that could be used in classroom work as well as definite outlines for health teaching in the first six grades of school were on display. This exhibit was visited by nearly every grade teacher attending the institute, and the office of the Tuberculosis Association later received letters not only from Oregon teachers but from teachers in Washington and Idaho in regard to the material exhibited. During the summer session of 1926 at the Ashland Normal School, Mrs. Mary Connelly-Harrington directed a course in "Health and Hygiene" and assisted the president and faculty in organizing a course of study for that subject. In the Oregon Normal School at Monmouth Miss Mary Falldine conducted a health inspection of the pupils in the practice schools and filed a report of health conditions of pupils and of the sanitation and hygiene of the school buildings.
In this way she instructed the student-teachers how to do the work which was required of them by law. In 1923 Oregon had passed a dental inspection law which required that every district school board in cities of 25,000 or more school population should have the authority to cause dental inspection to be made at least once each year of each pupil attending the school (21).

In 1925 the Oregon State Dental Association began a four year program of dental education throughout the state. All licensed dentists paid $3.50 into an educational fund which was administered by the State Board of Dental Examiners. The first year's work was carried on in Marion County and was so successful that requests were received for an extension of the work. School surveys and corrective clinics were held in many counties, the services of local dentists showing the splendid spirit of co-operation in this education work. Oregon laws of 1919 gave to the State Board of Health authority to promulgate rules and regulations excluding teachers, pupils, and janitors with communicable diseases from the public school buildings. A more recent rule (1927) of the Oregon State Board of Health required teachers to furnish health certificates. "At the opening of each annual term teachers and janitors must furnish a
health certificate from a registered physician . . .

. . certifying that such teacher or janitor is not af-
fected with tuberculosis or any other communicable dis-
eases (24)."

In 1931 two full tuition scholarships of $500 each
were offered to women of Oregon who wished training in
the field of health education at the Massachusetts
Institute of Technology. The awards were based upon the
nature and quality of previous academic work of the ap-
plicant, the ability which she had already shown in
health education or in the field of public health work,
her need of scholarship aid and the probable value of
her future contributions to health education.

During these years, 1912 to 1931, most of the health
education work in Oregon had been done by the State
Tuberculosis Association in Portland, by the county
health nurses, and the Parent-Teacher Associations of
the state. The work of the county health nurses was
introduced into the counties through the efforts of the
Tuberculosis Association. They usually placed a nurse
in a county for the purpose of giving a three months
demonstration to show county officials what could be
accomplished in various fields of health work and what
amounts of money could be saved through their efforts.
These nurses worked with the teachers in the field, visited all the schools in their counties, weighed and measured the children, and gave special talks on nutrition to all those more than ten per cent underweight. If the town schools in the county had no school nurse, she reweighed the children there as often as possible.

A report in regard to the sanitation of the school buildings of the various districts was sent to the clerk of the district and to the county school superintendent. The water was inspected and a water analysis made. Following the physical inspection parents were notified of the health of their children and asked that the children be taken to their family physicians for diagnosis and care if these were needed. In many cases home calls were necessary in connection with this work. Clinics for preschool children and for those just entering school were usually held each year. If there were no social worker in the county, the health nurse was usually called upon to make investigations when cases are reported as either needy or as abused and neglected. In many cases, she still is.

The first county in Oregon to employ a county health nurse was Jackson County in 1918. The nurse was Miss Rosetta McGrail. In 1930 there were 28 public health
nurses doing county-wide work under appointment by the county courts and paid for largely from tax funds. There were school nurses employed by school boards in twelve cities in the state: Albany, Ashland, Astoria, Bend, The Dalles, Cottage Grove, Marshfield, McMinnville, Medford, North Bend, Powers, and Salem; and through their work more than 8,000 healthy children marched in parades in the various counties of the state on May Day, 1929. These children had won a place on the health honor roll. Each had an average scholastic grade of not less than eighty for the year. Each had behaved satisfactorily; each had practiced health habits; and each was free from all physical defects that could be remedied. Many of the people who, in 1913, were uniting their efforts to try to save 566 babies for Oregon during that year, watched 2,200 honor roll children march through the streets of Salem, Oregon.

In 1925, a five year child health demonstration was begun in Marion County and the attention of the whole state was directed to the health activities of that county.
CHAPTER V

THE DEVELOPMENT OF THE HEALTH PROGRAM IN MARION COUNTY

Through the interesting talks given, the charts exhibited, and the clinical work done by the ParentTeacher Association at the Oregon State Fair in 1912, many Salem teachers and mothers were brought to a realization of the value of child health work and the worth of such an organization as the Parent-Teacher Association. They saw, too, the value of the results which might be obtained if such groups as the Parent-Teacher Associations could be formed in Salem. Before the close of the next school year, Parent-Teacher Associations were organized in several Salem schools. Although no directly constructive health work was accomplished, playground equipment was bought and paid for by some of the groups, school yards were cleaned, flowers and shrubbery planted and the teachers and parents arrived at a much better understanding of their common problems.

This first health work done in Marion County schools was in the Salem City Schools. Superintendent O. M. Elliot came from Twin Falls, Idaho to take charge of the Salem schools in 1915. In Idaho, he had been accustomed to having the services of a school nurse. In
a talk given to the Salem Woman's Club, he spoke of the value of such services and of the great need for a school nurse among Salem's 2,400 school children. Among the prominent members of the club was Mrs. R. S. Wallace who had come to Salem from Chicago and who knew of the values of health inspection in schools and of the work of the nurses in the schools of that city. She became interested in the idea of a health nurse for the Salem schools and, with the help of Mrs. F. A. Elliott, president of the Salem Woman's Club, she persuaded the group to agree to pay half of the salary, sixty dollars a month, for a school nurse if the board would pay the other half --- "for a period of three months just to see what could be done."

One of the trained nurses in Salem, Miss Grace L. Taylor, was very much interested in school nursing and had read much concerning the work and its results. With the assurance of Superintendent Elliot of the need of nursing service and with the financial help of the Woman's Club, the school board elected, in February 1916, Miss Taylor as school nurse for the Salem Schools for a period of three months. Miss Taylor had had no special training in school work but she knew personally the nurse in the Portland schools at that time. Miss
Taylor went to Portland and for two days watched the nurse there as she inspected and worked with the children. On her return to Salem, Miss Taylor talked with the school physician, Dr. J. N. Smith, and, when assured of his co-operation, she began an inspection of Salem's school children.

The first examinations revealed many cases of scabies, impetigo, diseased tonsils, and defective vision. Her first talks to the children were on cleanliness, for which she found an imperative need. She was shocked at the condition of the children's teeth. Few children brushed their teeth and the need for dental work was apparent in two-thirds of the children. Miss Taylor had been reading of a new dental clinic in a city in Michigan where the school board furnished the room, the dental equipment and other material needed, and the city dentists contributed their time once a week. Realizing the need for just such work in Salem, Miss Taylor went to Superintendent Elliot to see whether or not such an arrangement could be made for the Salem schools. He was very doubtful about the feasibility of such work in Salem schools at that time, as Miss Taylor had been elected for only three months. He was, moreover, afraid that she would neglect the other
work for this, and the 'dental work was not of enough importance to warrant the financial outlay nor the time.' Determinedly, Miss Taylor went to see the dentists of the city. She was surprised to learn that the members of the Dental Society had been discussing plans for a dental clinic and, when Miss Taylor called on Dr. H. H. Olinger, president of the Dental Society, he welcomed the opportunity to co-operate with her in this work for the children. He immediately talked with the other dentists of the city and each one gladly agreed to do all he could to help in the work.

Encouraged by the interest and proffered aid of the dentists, Miss Taylor again went to the School Superintendent. When he learned of the attitude of the dental society, he seemed more favorable to the plan though he still thought that 'the cost of the necessary equipment would be prohibitive.' About this time one of the Salem dentists, Dr. William Skiff, died and his entire dental equipment was offered for sale at a very low price. Miss Taylor investigated this and carried the information to the School Board, but they still thought they could not afford it. Remembering the previous interest of the Women's Club, Miss Taylor went to them and told of the need for a free dental
clinic and of the attitude of the School Board. A committee was appointed by the Women's Club to take the matter up with the School Board and to offer, again, financial assistance. This offer was accepted and the Board then purchased the minimum dental equipment necessary and installed it in one of the basement rooms in the Garfield School. The dentists signed up for the dental inspection of every school child in the city, rotating in the work, which was done on Saturday mornings, at this school. After the inspection had been made, notices were sent to the parents regarding any work which needed to be done. For a few weeks the dentists were swamped with work. About two hundred dollars worth of free work was done for the children before school closed for that year. With the financial help of the Women's Club several operations were performed, one being an operation for cleft palate. These free dental clinics continued until in 1925 when the work was merged with that of the health demonstration.

Beginning in 1916 and especially following Miss Taylor's examinations, Salem physicians performed many operations free for those who were unable to pay for them, and many diseased tonsils and adenoids were removed. A boy in one school was greatly retarded in his
school work because of ptosis of the eyelids. One of
the eye specialists in Salem, Dr. Frank E. Brown,
operated on this child's eyelids without fee. This
operation at that time was a rare and difficult under-
taking. The next year the boy made a marked improve-
ment in his school work. Dr. Brown also removed a
ranula from a girl's neck. A Parent-Teachers Associa-
tion and a Mother's Club had been organized in South
Salem and they furnished glasses for many children whose
eye-sight had been found defective. Miss Taylor was
appalled at the lack of sanitation in some of the schools.
The toilets in one of the schools did not have suffi-
cient drainage and the odor permeated the whole build-
ing. The basements were dark and the janitor service
was poor. In one school the room in which the children
ate their lunches had no tables and was not properly
cleaned. The rats became so bad that they became a
great nuisance. Miss Taylor reported these conditions
and made recommendations to the school board, but for
some time, nothing was done about it. One of the
teachers, Mrs. La Moine Clark, finally told Mrs. Doyle
Snyder, a member of the Mother's Club, of the unsani-
tary condition of the building. Mrs. Snyder made these
conditions known to the other patrons of the school and
they took the matter up with the principal of the school, demanding that something be done immediately. He went to the school superintendent and in a short time the conditions were remedied.

Taking her own pair of scales with her from school to school, Miss Taylor measured for height and weight each child and taught the teachers to do this work. Many of the teachers disapproved of the weighing saying 'it would do no good anyway.' Miss Taylor replied that 'if a child hollered for candy he got it, and if the teacher could create a desire for vegetables the children would holler for vegetables and get them.' A diphtheria epidemic started in the Englewood school. There were three severe cases with one resulting death, and every child in the school had been exposed. With the school physician, Miss Taylor took cultures from every child who had been in direct contact with these cases. The School Board furnished a trained nurse who visited in this building daily for two weeks. She observed the children, took the temperatures of any who looked ill, and sent home those who showed any symptoms of diphtheria. When a child was sent home a note was carried to the parents advising them to put the child to bed and to call a physician immediately. This work
curtailed what would, in all probability, have been a much more serious epidemic.

The Salem teachers had had no training in any phase of health work. Miss Taylor gradually developed a course in health education. She secured posters and health charts for the school rooms and carefully collected interesting articles concerning the health of children from magazines and journals. These she gave to the teachers, and after some months many of them were cooperating with her in her work. As in the case of any new work, greatly exaggerated stories were circulated about what "that nurse" would do when she came to visit the school. In one room, the little children were very much frightened and many of them cried and got under their desks when she appeared at the school-room door. Two weeks was spent visiting in the homes and talking to the children before they trusted her. Before the three months had expired, Miss Taylor had done such good work that the School Board re-elected her for the next year and she is still working with the school children in 1936.

During the years 1914-1916 the Parent-Teacher Associations were active in most of the Salem schools. They interested themselves in many phases of school
work. One of the splendid contributions made by the men of the neighborhoods was the building of playground equipment, cleaning the lawns around the buildings, and setting out trees and shrubbery. Baseball fields were laid out, slides, horizontal bars, giant strides, and sand boxes were made and placed in the school yards. These all contributed not only to the discipline of the pupils and, hence, to the quality of the work done in the school room, but also to the health of the children. The manual training departments of the junior high schools also helped in making the playground equipment for some of the schools.

The years, 1917-1918, were characterized for many people by the efforts made to obey the food conservation rules. In the autumn of 1918 the Red Cross of Marion County was asked to make a survey of Salem to see how people were getting along in conserving food. Many pitiful conditions were revealed to the workers as they made a house-to-house canvas.

Many women left their little ones at seven o'clock in the morning to work in the factories all day; children were found half-clad and decidedly undernourished, shifting for themselves as best they could; mothers with little babies in their arms looked hungry and careworn. These things aroused the sympathy of the field
workers. The principal of one of the schools in a poorer section of the city, Mrs. La Moine Clark, was interviewed as to the condition of the children attending school. She told of several children bringing their lunch pails to school but never opening them. One day she decided to see if there was any food in the pails. One pail contained two hard soda biscuits spread with bacon grease, another had three cold pancakes without anything on them, while a third had two cold potatoes boiled with the skins on. These were not isolated or spectacular cases, and in other schools similar conditions were found.

In the Sunday School of the First Methodist Church in Salem was a group of women who had worked together for several years. It was known as the Mother's Class. When the story of these dinner pails was told to these mothers and the living conditions in the homes of these children were described, their sympathies were aroused and they decided to see whether or not they could help in some way. One of the group had read of hot soup being served in city schools and this idea appealed to these women. After some investigations and discussions with the principal of the school whose pupils seemed in greatest need and the school nurse, things were found
to be even worse than at first supposed. The mothers of
many of these children were working women and were
unable to be at home at lunch time to prepare hot dishes
for their boys and girls, and in many cases left for
work in the morning before the little children were
out of bed. In some instances poverty prevailed to such
an extent that it was impossible to do better. In some
few instances, carelessness was responsible for the
deporable physical condition of the children. As a
preparation for serving soup would take some time and
milk could be obtained more quickly, the children of
the primary grades were supplied with milk immediately,
each child being served a half pint during the morning
school hours.

A Parent-Teacher Association was organized and they
agreed to co-operate in the serving of the soup. The
School Board furnished the soup dishes and the cooking
equipment. The Mother's Class furnished the funds for
the purchase of meat, milk, and vegetables for the soup.
A woman of the neighborhood was engaged to come in each
day and make the soup. Many vegetables were contrib-
uted free from the groceries and nearby gardens, and
milk and meat were supplied at wholesale prices by a
Salem dairy and two butcher shops.

On March 29, 1920, hot soup was served to the chil-
dren who were obliged to carry their lunches. They paid five cents a bowl for it, provided they were able to do so, otherwise the soup was free of charge. Favorable results were noted very soon after the serving of the soup was instituted, both in the appearance and in the conduct of the children. The change was especially noticeable in the first and third grades. Boys and girls who had undertaken their studies in only a desultory way previously began to show a genuine interest in their work. One boy who had been almost incorrigible was so altered in his behavior that the women interested were moved to investigate and found that the little fellow had been coming to school without breakfast. He was so hungry he could neither sit still nor behave himself (23).

A meeting of the Parent-Teacher Association of this school was held and a committee of the principal, the school nurse, and others which had been appointed to investigate conditions made their report. They recommended that scales be placed in the school and that schoolroom weight charts and individual card reports and other material issued by the Child Health Organization of America be adopted. These things were shown and explained to the parents, winning their approval
and cooperation. Reprints of magazine articles on child health were secured and given to the mothers whose children had been found to be strikingly subnormal physically.

A survey of the children in the district who had had no milk to drink had been made and it was found that out of 311 children investigated, 122 received no milk at home either.

The eugenics exhibit which had been featured at the Oregon State Fair between 1912 and 1914 had been discontinued but was resumed in the fall of 1919 through the general interest in child health. Mrs. F. J. Meindl, of Portland, was sent by the Congress of Mothers to make the arrangements for the Fair work and to secure the co-operation of Salem women in assisting at the children's clinic to be held there. These Salem women, Mrs. R. B. Goodin, Mrs. E. C. Patton, Mrs. E. F. Carlton, Mrs. Gail Church, and Mrs. E. E. Fisher attended the Fair each day and assisted Mrs. A. F. Flegel and Mrs. A. Bayley of Portland in conducting the tests. Another phase of the work done at the Fair was unusual. Mrs. W. H. Byrd gave the Binet-Simon Intelligence Test to each child brought to the clinic. These Salem women were greatly impressed by the work done for
the children, by the number of children who were turned away on account of lack of time to examine them, and by the eagerness of the mothers to learn more concerning the health of their children. They were impressed also with the fact that most of the mothers who brought their children for free examinations were not financially able to take them to private physicians.

These Salem women had had wide experience in various lines of social welfare and club work and realized that if such clinics as that held for a few days annually at the State Fair could be held regularly they would prove to be of inestimable value to the children of Marion County. Several strong Parent-Teacher Associations were active in Salem at this time, and representative women from these organizations met at the close of the Fair and discussed the idea of providing local headquarters and establishing and supervising similar eugenics work in Salem. The idea grew in their minds and they interested others until, on October 23, 1919, a group of women from all parts of the city met in the Y. W. C. A. rooms and formed the Marion County Children's Bureau to work under the leadership of the State Parent-Teachers Association to hold clinics for children. Their aim was to give health education to parents and
to do everything they could to bring better health to the children of the County.

The president selected by this group was Mrs. John A. Carson. Mrs. Carson was widely known through the untiring service which she had given to the Red Cross and to the War Mothers Organization. Mrs. E. E. Fisher, who founded Parent-Teacher work in Salem, was named vice-president. The secretary, Mrs. F. Von Eschen, was principal of one of the junior high schools, and Mrs. N. A. Abbott, president of the Mothers Club of the Highland School, was elected treasurer. The Commercial Club, through its secretary, Mr. T. E. McCrosky, gave the use of its auditorium and of other rooms for headquarters for the activities of the group. The services of physicians, dentists, and nurses were enlisted and the members of this Marion County Children's Bureau were in a position to assure the parents that the children would have the services of the best specialists in the city. The first clinic was held on October 29, 1919. The Salem newspapers, the Oregon Statesman and the Capitol Journal, had given much publicity to the event and the auditorium of the Commercial Club was overflowing with mothers and children soon after the doors were opened.

Mrs. A. F. Flegel, president of the Oregon Congress
of Mothers, and Mrs. A. Bayley, secretary of the Parents Educational Bureau of the State Parent-Teacher Association, came from Portland and contributed their skilled aid to that of the many Salem women present, but it was impossible to examine in one afternoon all of the seventy-five children who had been registered.

The children were weighed and measured for height; a dentist, Dr. B. F. Pound, examined their teeth and gums; a specialist examined their eyes, ears, nose, and throat (the pantry of the Commercial Club served as the office for this physician); physicians examined them physically and gave kindly advice when asked.

The group was unusually fortunate in having the services of Mrs. W. H. Byrd who gave intelligence tests. Mrs. Byrd had specialized in this work for many years and was known widely for her work in this field. Nurses from the Salem General Hospital and the Deaconess Hospital gave assistance to the physicians during the examinations. The score cards devised by the Parent-Teacher Associations and Congress of Mothers were filled out and given to each parent.

At the close of the first day's clinic, everyone who had helped was surprised at the number of needy cases and at the number of undernourished children, and
it was agreed that the work should be continued. There-
after a clinic was held each month. The teachers of the
city sent lists of children who needed examinations, and
special calls were made or notes were written to the
parents telling them of the opportunities offered free
at the clinic. In this way, many children who were re-
tarded in their school work were found. Many of them
needed diseased tonsils or adenoids removed or more
serious physical correction which would require hospi-
tal care. While the physicians would gladly do the work
free, hospital services were expensive. The Deaconess
Hospital gave invaluable aid to the Bureau by donating
the services of a nurse, the use of an operating room,
anesthetics, and a room in the hospital to the parents
who were unable to secure such services for their chil-
dren needing surgical care. In the spring of 1920 one
of the Salem daily newspapers, "The Statesman", devoted
a four page section of their Sunday paper to the work
of the Marion County Children's Bureau. This supplement
contained articles written especially as contributions
to the children's health work featured in this issue.

"Good Health Lessons Taught by Dentists," was
written by Dr. B. F. Pound, a Salem dentist; Dr.
C. U. Moore of Portland, an eminent child specialist,
contributed an article on the importance of proper feeding. An article written by the Secretary of the Chamber of Commerce, Mr. T. E. McCrosky, told what the men of the city thought of the importance of the work. Pictures of many of the babies who had received high scores and photographs of the officers of the Bureau helped to make up the contents of this special child health supplement. Advertisements concerning children's supplies, children's furniture, suitable toys, and proper food, shoes, and clothing had been solicited by the women and they received a cordial response from the merchants. At the request of the women, the store windows were decorated with articles associated with the lives of children.

The supplement caught the attention of the Oregon Tuberculosis Association in Portland and Mrs. Sadie Orr Dunbar communicated with the leaders of the Bureau and explained the value of the services of a county health nurse. The women had long felt the need of more "follow-up" work for the children and realized that it was impossible for the Salem school nurse to do it all. After some discussion the Salem group agreed to unite their efforts in the endeavor to have a health nurse in the county. The Tuberculosis Association donated the
services of Miss Lillian Godsey for a three months' demonstration in the county, believing that her work would prove so valuable that the county commissioners would grant funds to retain her services when the three months had expired. She began her work in October, 1920. She visited the schools in the different rural communities, but without a car it was almost impossible to reach the more distant rural school districts. Consequently few of the country schools were visited.

However, she gave health talks to the children in the town schools and aroused the interest of the parents. With the help of the teachers, she held health inspections and enlisted the children in the "Health Crusade." As the clinics in Salem were attended by children from all over the county, Miss Godsey, where she could, followed up the cases needing further attention, talked with the parents, and influenced the Parent-Teacher groups to assist financially with work which otherwise could not have been done. At the end of the three months it was deemed inadvisable to bring the matter before the county court for the county judge and county commissioners did not approve of the work. Through the courtesy of the Oregon Tuberculosis Association, Miss Godsey's services were continued for four
more months or until in May, 1920. Prior to the court hearing in May, meetings were held in every community in the county and petitions to the county court asking for a county health nurse were circulated and signed. Nearly every organized group in the county endorsed the work of the nurse and petitioned the court to appropriate an adequate budget for such services. Although the delegation was the largest and most representative that ever appeared before a court in Oregon to ask for a county nurse, and although there was not a single dissenting vote, the appeal was refused with the words, "When I was a boy, I went to school and nobody ever heard of children havin' their tonsils out and havin' to wear glasses, and we got along all right, and I guess Marion County kids can, too. Anyway, the county can't afford it." The old judge rose and left the room and the hearing was over. This meeting was held on May 5, 1921.

Miss Godsey was withdrawn from the county and the clinics were discontinued for the time being because they were considered a waste of effort and time without anyone to do "follow-up" work. However, during the late fall and winter, letters were frequently received by the Bureau, calls came from neighboring towns and
school districts, and from the Salem teachers asking, "When are you going to hold another clinic." Local physicians aided the Parent-Teacher Associations in small towns, and clinics were held whenever the need seemed imperative. When the work was to be done in a country school, Dr. Stella Ford Warner from the State Board of Health came from Portland and conducted the examinations. Dr. F. E. Brown and Dr. R. L. Wood, two of the Salem specialists in eye, ear, nose, and throat diseases, cheerfully contributed an afternoon or a whole day's work as the need demanded, aiding Dr. Warner in these clinics. Interesting things came to light during these examinations. In one school three children from one family were found sewed into their winter underclothes nor could the clothes be opened that the chest might be examined because they were "not to be taken off till warm weather". In another school the teacher said she could not get the children cured of the itch. Going into a few of the homes to talk to the parents concerning this, it was learned that "everybody in town has that disease. It's caused by the climate or the water, we don't know which." When the trouble was explained and the treatment described to the parents, they were glad to
co-operate and in a little more than two weeks the teacher reported all of the pupils in the school free from the disease. In another school, a boy about ten years old seemed to be losing his hearing. The specialist asked the mother to remain until the other children had gone home as he wished to re-examine the child more thoroughly. When this examination was made a small grain of corn was found securely wedged into the orifice of the ear, deeply embedded in wax. The physician carefully removed this, washed the child's ear to allay the irritation, and great was the parent's amazement when she found her boy could hear as well as ever.

While holding clinics where most needed and when conditions demanded it, the members of the Marion County Health Bureau were fully aware that the work did not bring the results or accomplish as much as it should, owing to the lack of a school nurse to follow-up the cases. In May, 1922, Mrs. Sadie Orr Dunbar and others from her office came to Salem. A meeting of health workers was held to discuss ways and means of securing a county nurse. Only one way seemed open to the women and this they decided to take. The Bureau changed its name to the Marion County Health Association. Mrs. John A. Carson was again chosen president. Other
officers selected from among the prominent women in the various towns of the county were: first vice president, Mrs. Jos. J. Keber, Mt. Angel; second vice president, Mrs. J. G. Fountain, Jefferson; secretary, Miss Eliza-
beth Putnam, Salem; and treasurer, Mrs. Geo. Griffeth, Salem. As a part of the money derived from the sale of Christmas seals could be used to pay for health work in the county, the group decided to put on an active campaign, hoping to sell enough seals that they might be able to pay the salary of a nurse. With the help of the newspapers and the community leaders throughout the county a program of education in regard to the value of a health nurse and the economies which could be effected through her work was carried out. Much publicity was also given to the fact that Marion County's share of the proceeds of the seal sale could be applied on the salary of the health nurse.

The proceeds of the sale in 1922 amounted to $1,339. Of this, the county group received $401. While it was not enough to employ a health nurse, several things desired were accomplished. Scales were placed in the Silverton, Woodburn, and Stayton schools, and health charts were bought for the teaching of health in the lower grades. These charts and posters were sent from
school to school throughout the county. Twenty copies of "Health Training in Schools" by Theresa Dansdill were placed in rural school libraries as a help to the teachers in health teaching. This book was prepared by Miss Dansdill at the request of the Tuberculosis Association and was to be used as a handbook for teaching health habits to children from the first to the eighth grades inclusive. It contained stories, poems, songs, games and many suggestions for playing health games, making posters, planning debates, and other ways to make health teaching interesting and effective. The next year, 1923, the seal sale amounted to more than $3,000 and the association was assured that they could retain the services of Mrs. Lyda King who had been loaned to the county for some months past by the Tuberculosis Association. A car was purchased for her for $485 and health work for the school children was assured for a year at least. Every school in the county was having health examinations at least once a year and several of the communities were doing excellent work co-operating with the school superintendent in health teaching.

Mr. George Winters, who was superintendent of schools at Mill City in 1918, found splendid support and co-operation in his school health program in that
community. Dr. W. W. Allen of Mill City was chairman of the school board and Mr. Winters frequently discussed with him the school problems. They agreed in the belief that poor school work was due in most cases to malnutrition, loss of sleep, or to some physical defect which might be remedied. Mr. Winters and his teachers weighed and measured each of the 200 children in the ten grades of the school. He gave talks on personal hygiene and on the need of plenty of good food, fresh air, and sleep for children if they were to develop into strong men and women. At Mr. Winters' request Dr. Henry Morris, an optometrist, came to Mill City and tested the eyes of each child in school and arrangements were made whereby those who needed glasses were able to procure them at the least possible cost. Dr. Allen and Dr. Silvus examined the children physically.

A card system was developed and a report of each child's health went to its parents each month. During the summer, hospital care was donated and Dr. Allen removed tonsils and adenoids and did other surgical work free of charge for those who were unable to pay. Before school began in the fall, all those entering school for the first time were given physical examinations and defects were remedied as much as possible.
To create interest, the idea of a lung tester was worked out. This tester consisted of two milk bottles and some rubber tubing. One bottle was filled with water and the children attempted to empty this in one breath by blowing in one tube and forcing the water out through the other tube into the second bottle. Each pupil in the school was anxious to use this apparatus and see the results of the blowing. The water blown out was measured and lung capacity was thus roughly calculated. Only one boy was ever able to empty the bottle in one blow. A marked improvement in school work was seen as the children gained in health. Sanitary conditions in the school buildings and on the premises were carefully looked after.

When the Director of Health Education of the Common-wealth Demonstration, Miss Anne Simpson, first visited Mill City schools, she was amazed at the excellent work which had been done in health supervision and health education.

Another exceptionally splendid piece of health work was done in the public schools of Silverton. In 1923 Mr. Robert Goetz came from Marshfield to Silverton as superintendent of schools. While he was in Marshfield a smallpox scare aroused the people there to the lack
of health supervision in the schools. The school district put a school nurse in the schools and the children were weighed and measured, and health inspection became a part of the regular routine of the schools. When Superintendent Goetz began his work in Silverton, he had the hearty co-operation of not only his principals and teachers but also the physicians and dentists of the city and of the child welfare and parent-teacher organizations.

A free health clinic was held in Silverton, supervised by committees from the local groups and under the direction of Mrs. John A. Carson from the Health Bureau of Salem. Silverton physicians and dentists examined 475 school children. In one classroom were found eight cases of chickenpox and many pupils afflicted with scabies and impetigo. The teeth of those examined were found, in the large majority of cases, to need attention; and the specialist examining the eyes found many children with defective vision. Adenoids and diseased tonsils were also numerous. The children of the third and eighth grades were enlisted in the "Health Crusade" under the teachers of those grades.

In October, 1924 about twenty-five per cent of the
children were found to be underweight and it was thought wise to furnish milk to all children who were eight per cent or more underweight. The milk was given out by the teachers at ten o'clock each morning. Those needing it most received milk twice a day. All who could afford to pay for the milk were asked to do so as it was furnished at the small cost of sixty cents a month. This work was carried on by Miss Catherine Woodard, chairman of the welfare committee of the Silverton Parent-Teacher Association. The milk and the straws were paid for from money donated by local organizations and individuals. The Coolidge Street Bridge Club ceased giving prizes and put the money that had gone for prizes into the milk fund. They contributed forty dollars in one year in this way.

At one time when money was needed, Miss Woodard said, "I'll get it. Dad's poker club can give us their winnings." "Dad's poker club" did and the emergency passed. Over a thousand dollars were spent for milk in one year in Silverton. Mrs. C. D. Simms, president of the Parent-Teacher group, was active in helping weigh and measure the children every week. A cot was put in one of the rest rooms and children who seemed to need it were sent in to lie down quietly at stated
times during the day. The gains in weight and scholarship were so very satisfactory that everyone felt that the work was more than a success.

The year following, 1925, the work in Silverton was continued. Donations were again asked and the public responded even better than it had the year before. This year graham crackers were served with the milk. In one school all but one of the fifty-five pupils taking the milk gained from one to nine percent. In another school all of the forty-five taking milk made a gain of one-half to three pounds in weight. Drs. Keene and Kleinsore inoculated one-half of the children for diphtheria and vaccinated three-fourths of this number for smallpox. Deaths had become very rare in the school. Personal hygiene was taught in correlation with the pupils' work and play. At the noon hour a teacher stood at the door of the room where the lunches were eaten and saw to it that every child washed its hands before eating.

In Woodburn, Superintendent F. E. Fagan inaugurated a vigorous health program in the schools. The first health work done in the Woodburn schools was in 1920 when Miss Lillian Godsey introduced the "Health Crusade". Since that time the Women's Clubs and the Parent-Teacher groups have never let the interest die.
Clinics were held there frequently, sponsored by Mrs. E. E. Fisher of the Health Bureau of Salem and conducted by the Woodburn physicians and dentists assisted by the women of the Women's Club. When Superintendent Fagan and his corps of teachers had the work in the local grades well organized, he began to emphasize health education in the high school. Pupils from twenty outside districts were enrolled in the Woodburn schools and one of his first steps in the health program had been to institute hot lunches for those who did not return to their homes at the lunch hour. Class schedules were so arranged that each pupil had two forty-five minute periods each week for physical education work. The work in these periods varied with the physical needs of the pupils. About one-fourth of the time was spent in personal hygiene talks, another fourth in the usual physical education exercises, and the remaining time in organized and supervised games.

Throughout Marion County there were bits of health activity. Salem schools had their health nurse and a part-time physician. The city of Salem had a part-time health officer and full-time sanitary inspector. The county court had a part-time health officer, and also a part-time physician. Silverton, Mill City, and Wood-
burn were well launched on school health programs. The Marion County Health Association through the sale of the Christmas seals supported a health nurse. The intermittent and almost entirely voluntary activities in the various towns were sponsored by different public-spirited groups, some of which tired of their burdens after a while. Infant clinics were held occasionally at distant points through the county under the cooperative effort of the Health Association, the State Board of Health, and the local physicians and dentists. Thus, while the County as a whole was perhaps unaware of any public health effort, there were small groups throughout the county who held a vision of what could be done and had the hope that some day Marion County would become health-wise.

In April, 1924, word was received by the presidents of various organizations in Salem that some community in the West was to be selected by the Commonwealth Fund of New York City as the location for a five-year health demonstration. The city or county selected might be in Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Washington, Utah, or Wyoming. Any city or county in any of these states whose population was between 20,000 and 75,000
would be eligible. In Oregon seven counties were eligible. Because their population numbers met the conditions and because of the evident need for the proposed health work thirty cities and counties from these eleven states made application to the Demonstration Committee of the Commonwealth Fund for the demonstration. The Committee in its decision considered not only the need of child health work in the county but also the conditions and resources of the community, the nearness to education centers and the interest already shown by the people of the county in the promotion of health work. Marion County had a population of 55,000, Salem 25,000. Ninety per cent of the people of the county were American-born. It had a wide variety of crops, many growing industries, and the state educational institutions were located near the county. The health leaders of the community were determined to secure the demonstration if it were at all possible. The Secretary of the Commercial Club, Mr. Charles Wilson, compiled vast amounts of data concerning vital statistics, communicable disease epidemics, hospitals, schools, occupations, industries, resources, and the amount and type of health work already existing in the County. The health work in Marion County
had reached a crisis. The funds from the seal sale were almost exhausted and health leaders were faced with the fact that they could no longer retain the services of the health nurse. The Oregon Tuberculosis Association again came to the assistance of the County and loaned it enough money for the nurse's salary until election time in November. It was hoped that the County at that election would vote funds for a continuation of the nursing service.

When the Commonwealth Health Demonstration Committee met in New York to make its decision concerning the selection of a demonstration location, three western communities --- Boulder, Colorado; San Diego, California; and Salem, Oregon were considered. Everything seemed to favor Oregon, but the final decision was postponed until the results of the local election could be ascertained. If the county was interested enough to vote for the health nurse, Marion County would receive the demonstration. Anxiously the health workers in Salem waited as the returns came in and their hopes rose and fell as the indications were for or against the retention of the nurse. During the evening and the following day five telegrams were received by Mr. Wilson from New York asking for the election returns. His
replies were noncommittal as the returns varied, but finally a terse command came from New York, "Wire election returns immediately." Great was the sorrow among the Salem workers when the reply, "County nurse measure failed to carry", had to be sent to the waiting group in New York. However, the voting was so close and the dissenting votes seemed to be entirely from one section of the county and from one particular group of people that this information was also sent to New York, hoping to influence the decision. In a few hours another telegram came from New York bringing the word "Marion County selected for demonstration" and the hopes of the health workers seemed to be fulfilled.

Marion County was to furnish headquarters for the demonstration work. This included office rooms and equipment, heat, light, water, and janitor service; and they were to co-operate in every possible way in the promotion of the health program. The citizens of the County pledged the establishment of a full-time county health unit and proposed to increase the county appropriations for health work each year until, at the end of the five years, they would assume the responsibility, financial and administrative, of as much of the demonstration program as it was possible for them
to carry. Securing the consent of the county commissioners to this agreement appeared to be a rock upon which the Marion County Demonstration was doomed to be wrecked. However, the members of the medical and dental professions; the superintendent and the principals and the teachers of the schools; leaders of the Commercial Clubs, the Rotary Clubs and the Kiwani Clubs; the Women's Clubs; the Parent-Teacher Associations; and the Health Organizations throughout the entire county pledged their support and used their personal influence with the commissioners and the agreement was finally signed.

Dr. Walter H. Brown arrived in Salem on January 17, 1925, and the work of the Demonstration formally began. Dr. Brown had directed successfully the work of the Mansfield, Ohio, Demonstration under the Red Cross and the American Child Health Association and had just turned this work over to the local people there according to the pre-arranged plan. Statisticians from the New York offices made an extensive study of the resources available to promote the health program. Dr. Brown took every opportunity to explain that the Demonstration wished to work with and not supersede the work of any of the health agencies already in the field. The
Demonstration was first housed in a building at 580 State Street but soon the School Board offered the use of a dwelling near the High School. This had been used as a practice house by the high school home economics department and it was remodeled into offices and clinic rooms for the work of the Demonstration.

At this time school medical inspection had been provided for the school children of Salem through the arrangements of the nurse and the part-time services of local physicians. Officially, a county health officer served the rural districts on a part-time basis and another physician was a part-time health officer in Salem. The Demonstration program was intended to augment the activities of these officers by providing educational, medical, and nursing service. In the autumn of 1925 an epidemic of smallpox made the people realize how disorganized was the official health work of the county. A centralization of the responsibility for planning and carrying out an effective health program was brought about through the appointment of the director of the Demonstration as county health officer. He was given full authority over the county and the city at a salary of one dollar a year.

The work of the Demonstration was carried on by a
staff of nurses and doctors, all specially trained in their particular lines of work. Dr. Stella Ford Warner was the director of medical service. Miss Elnora E. Thomson was the director of the nursing service and Miss Anne Simpson was director of health education. There were also a statistician, a librarian, and eight nurses besides the clerical staff. During the first year's work the only health center was in Salem but, as the number of school children to be examined increased, it was impossible to provide for them all at Salem. Temporary health centers were then set up in the various communities. Sometimes a church served this purpose but more frequently they were held in school-houses or near-by halls. During the first year, 5,000 school children were examined in thirty-nine different communities of the County. In most instances, the parents were present and reports of the examinations were sent to the family physicians. Attached to each of these reports was a sheet of paper which asked the physician to return to the Demonstration office a statement about whether or not the case reported had been to him for further examination and treatment and of any corrections that were made and treatments instituted. When this sheet was returned, it gave the nurse of
that district an opportunity to call upon the families and urge co-operation. If financial aid was necessary, it was usually provided by the local councils. Another report of findings of each examination was left with the classroom teacher concerned. This report was on a form which was easily attached to the school register so that each teacher had before her a definite picture of the scholastic progress and health condition of the child. A report was also made to each set of parents to assist them to gain a picture of a normal child plus a statement of the examiner's findings of their particular child. An unusually large number of children were found in the County with enlarged thyroids and it was an interesting fact that most of these cases were located in the northern and western parts of the County. Rickets in pre-school children were also exceedingly frequent and, since this disease leaves such deforming results as the children grow older, special studies of this situation were made. One of the first tasks accomplished by the Demonstration was the division of the county into districts with the assignment of a nurse to each district. The first year there were five districts, but the following year this number was increased to twelve and, later, to fifteen. The nurse
in each district worked with the chairman of a local council. At the request of the county superintendent of schools, Mrs. Mary L. Fulkerson, samples were collected from the wells or springs which supplied water for the different schools in each district. These samples were sent to the state laboratory and the reports were returned to the county school superintendent, to the chairman of the local school board, and to the nurse. Many samples came back marked "C" or unsafe and school boards attempted to remedy these conditions.

In 1928, samples were again sent out from one hundred and six schools and only twenty-five were returned as "C", but in 1930, 506 samples were sent and 176 were of "C" grade. The director of health education during the first year of the Demonstration spent much of her time getting acquainted with the school children and the teachers and making them acquainted with the health program which could be carried out in their schools. At the annual teachers' institute the entire Demonstration staff took part in the meetings and gave the teachers an idea of the services the Demonstration had to offer them.

Each teacher was given a definite outline for health education based on the state course of study and written
in simple terms. Classroom height and weight charts with instructions for weighing and measuring the children were also given to each classroom. Arrangements were made with the county superintendent for placing health material in all of the school libraries. Aside from the schools which were emphasizing the "Health Crusade", there were very few, if any, schools that had any kind of health program other than the fifth or sixth grade classes.

The director, Miss Simpson, found that her most difficult task was to make the teachers understand that they themselves had any part in the program. On entering a school room she frequently heard this remark, "Children, the health nurse has come to inspect us. Lay aside your books and get ready to be looked over."

In many of the schools she was told that she really was not needed as there were no sick children in the room. The nurse and physician had a very definite place in the teacher's understanding, but the director of health education was an entirely new element in school work. However, the work gradually progressed and the teachers caught the enthusiasm of the leaders and finally entered wholeheartedly into the school health program.
Scales were purchased by the rural school boards and the children were weighed by the teachers three times during the school year and records were carefully kept. The County School Superintendent, with the help of the director of health education, worked out a plan in 1926 for a health honor roll, similar to the Blue Ribbon Contest in Ohio.

The standard requirements for a place on the honor roll were:

A. Attainment of a general scholarship average of "B".

B. Satisfactory behavior and attitude in the school environment.

C. Reasonably co-operative in the practice of health habits.

D. Freedom from physical defects which can be remedied.

In 1927-1928 other requisites were added:

E. Visual defects corrected.

F. Vaccination and toxin anti-toxin.

G. Dental card showing examination of teeth during the year.

H. Mouth breathing corrected.
During the first year 3,597 children registered for the health honor roll and sixty-two per cent of the number qualified and marched in a parade at the end of the school year. The Demonstration offered a special award of a flag or banner to the school having the highest percentage of pupils having medical examinations in the first and fifth grades. 2,170 Salem school children marched in the parade in June, 1929.

During the campaign against diphtheria in 1926-1929, 6,019 school children received the toxin-antitoxin inoculation. In 1926 the number of diphtheria cases reported was twenty-three, with no deaths. This shows the results of the educational and preventive campaign as four years previously there had been 266 cases reported and seventeen deaths (15). During these years 2,108 children were vaccinated against smallpox. These numbers could have been greatly increased if all of the teachers in the county had co-operated with the health workers. However, a real interest among the teachers in the physical condition of the children was revealed by the medical and dental examinations. A group of forty-five teachers who voluntarily attended a course in health education taught by the elementary supervisor, Miss Carlotta Crowley, made graphs of the defects found in all
the schools and worked eagerly to reduce them. Many teachers called constantly on the nurses, and the teacher and nurse together would work out the best way to approach parents who had let the children go without the special care that they needed.

One of the objectives of the Demonstration was to train local workers so that gradually the entire work could be turned over to them and at the close of the five years it would be left in the hands of Marion County people.

The Director of Health Education resigned in 1928 and the program of health education was arranged so that it could be carried on by the officials within the school system. Miss Crowley who was elementary school supervisor was appointed to direct the health program in the Salem schools. She had done much good work in interesting and encouraging the Salem teachers in health work and everyone had great confidence in her ability to carry on the work which had been begun by Miss Simpson.

The other members of the staff of the Demonstration changed several times during the five year program. The director, Walter H. Brown, M. D. who initiated the program, resigned in 1927 and Dr. William De Kleine was made director. During the last year, 1928-1929, Dr.
Estella Ford Warner was the director and closed the Demonstration program in the county.

In 1926-27 Dr. Walter Brown acted as health officer for Marion County. In 1927 Dr. Vernon A. Douglas took over the duties of health officer and is still --- 1936 --- at the head of the Department of Health of Marion County.

In 1928, when Dr. Warner took over the duties of director of the Demonstration, Dr. Edward Lee Russell assumed the duties of directing the medical service, and, in 1930, he became the deputy health officer for the county. When Miss Thomson resigned in 1929, Miss Fern Goulding who had been her assistant became director of nursing service. Miss Goulding served one year and then, in 1929, Miss Agness Campbell took over the work and served till the close of the Demonstration.

At the close of the five year demonstration the deputy health officer, Dr. V. A. Douglas, was made county health officer with the idea that he was to remain as the head of a permanent county health unit. The unit staff in 1930 consisted of a health officer and a deputy health officer, a school dentist, eight nurses, a milk and food inspector, a county sanitary inspector, and two office clerks.
The results of the concentrated efforts to bring better health to Marion County is shown by two appraisals made in 1930.

The United States Chamber of Commerce conducted an annual national health conservation contest among cities having 20,000 to 50,000 population. The contest was based upon health conservation activities of the community as a whole. Salem was fortunate enough to win second place among the thirty-one contesting cities (16).

A field representative of the American Public Health Association had visited Marion County yearly since 1924 and made an unbiased appraisal of the public health work in the county. The trend was steadily upward.

Out of a possible 1000 points the score in 1924 was 200. In 1930 it reached 852 points, one of the highest scores ever given. The report of the Marion County Department of health for 1930 gives the following scores (16):

<table>
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<tr>
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<tr>
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<td>50</td>
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<tr>
<td>Tuberculosis control</td>
<td>73</td>
<td>100</td>
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<tr>
<td>Prenatal service</td>
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<td>Maximum Score</td>
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<td>---------------------------------</td>
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</tr>
<tr>
<td>Infant service</td>
<td>70</td>
<td>75</td>
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</tr>
<tr>
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<td>50</td>
</tr>
<tr>
<td></td>
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</tr>
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The work of health education in Marion County, like nearly everything in the United States, has suffered from the effects of the financial stringency or depression from 1930 to the present time. The period has been one of stress and strain. The true estimates of this recent work are not yet available because they have not yet been sifted by the hands of Time. Another and younger writer will have to carry the record forward from 1930 but at a much later date than 1936.
The beginnings of health education were obscured in the great interest in gymnastics or physical education. This movement reached its early height in Greece. The Romans borrowed as much of the Greek gymnastics as fitted in with their program of military excellence and military sanitation. With the coming of Christianity, the interest in physical welfare decreased almost to the vanishing point. With the movement of people to the cities in the late Middle Ages, epidemics that killed thousands of people within a few weeks became commonplace and led to the development of rules of quarantine and of municipal sanitation. The influence of the Renaissance spread to increased interest in good health and to the recognition that the physical welfare of people went hand-in-hand with the mental and religious. In the nineteenth century people awoke to the importance of health and sanitary inspection and control in the schools. Like so many others of the steps forward in health measures, it was brought about by recurrent epidemics, but it did lead to the appointment of school physicians and school nurses. Throughout the ages, there were brilliant individuals who made keen observations and deductions and contributed at one stroke more valuable knowledge than
thousands of mediocre workers had been able to give in their lifetimes of work.

The development of health education in the United States, both in and out of schools, came slowly and had to overcome a great deal of inertia and antagonism as an infringement upon personal liberty. The advances were often made only after epidemics had frightened people out of their pioneer attitudes on this subject. The health practices, as they were adopted, were borrowed from England and Germany until very recently. The national inventory that was made in 1917 aroused the United States to greater activity in health work than it had ever before known.

In Oregon the advances in health education have been urged upon a reluctant people by philanthropic individuals and organizations interested especially in the control of infectious and contagious diseases. The Oregon Tuberculosis Association, in its work against this dread disease, did more than all of the other groups and individuals together for many years. The early employment of school nurses was almost entirely due to their efforts. Individual physicians and unpaid social welfare workers contributed generously of their time and money in many cases to the advancement of Oregon health.
In 1925 the Commonwealth Fund inaugurated a five-year health demonstration that took into consideration every phase of child life. This was one of four such demonstrations that have been held in the United States. One was held in Austria. These drew the attention of people from all over the world and visitors from England, Germany, Austria, India, Australia, China and Japan came to Oregon to observe the work of this demonstration. Its influence has spread to every county in the state and to most of the states in the nation. In 1930, Marion County, in which the Demonstration was held, received one of the highest appraisals ever given by the American Public Health Association.

Since a great deal of preliminary work of some historical interest preceded the Commonwealth Demonstration, the writer of this thesis believes that the recording of these early events and the names of the people that brought them about should be preserved in more tangible form than the memories of people no longer young and scattered newspaper accounts, personal letters and mimeographed and occasional printed reports of parts of the whole movement.


APPENDIX

IMPORTANT EVENTS IN THE HISTORY OF SCHOOL HYGIENE

AUSTRALIA

1904 In New Zealand a plan for medical inspection was approved by medical and educational authorities, but no government funds were apportioned for it.

1906 Tasmania and New Zealand began medical inspections, aimed chiefly at the prevention of contagious disease. In Tasmania, Dr. J. S. C. Elkington and Dr. P. H. Clarke, directed the school inspections and anthropometric measurements.

1907 Sydney, under Dr. R. E. Roth; and Newcastle, under Dr. May Harris, began medical inspection of state schools. This was the first work in New South Wales.

1911 In Queensland, the first dental officer was appointed to the staff of the school medical officer.

AUSTRIA

1873 Effective legislation for the first time covered

Much of this material was taken from Wood and Rowell (37).
inspection in elementary schools. School physicians were employed regularly.

1895 Special law in Vienna.

1909 In Berndorff the first dental clinic in Austria was provided in elementary schools by M. Arthur Krupp.

1911 In Hutteldorf, the first student dental clinic was started. The Austrian Society for the Promotion of School Dental Hygiene was formed, with headquarters at Vienna.

1923 School physicians required to inspect school buildings twice a year, to advise school principals on school hygiene, and to hold office hours and consultations with parents and teachers. Class instruction in hygiene was given. School physicians were not allowed to treat pupils.

CANADA

1902 Montreal Women's Club began a campaign for school medical service.

1904 Montreal began health work.

1906 Montreal appointed fifty school physicians.

1907 Halifax and Vancouver appointed school physicians.

1908 Two trained nurses of the Victorian Order of Nurses were engaged by the Montreal School Board.
1909 Ontario and Manitoba passed permissive acts. Winnipeg began work at once.

1910 British Columbia adopted medical service.

1911 Dental inspector appointed on the Medical Inspection staff of the Toronto Board of Education. A public clinic was opened.

1913 Legislation in Ontario, Alberta, and Manitoba, and some work done in all of the provinces.

1917 Toronto transferred control of school medical, dental, and nursing service to Board of Health.

1919 Provincial Division of School Medical Inspection established in Ontario under Board of Education. In 1924, this was transferred to Board of Health.

1922-1925 British Columbia --- compulsory medical inspection by schools except in rural districts where work was under provincial Department of Health. The follow-up was carried on by nurses.

Alberta --- school medical inspection under local direction.

Calgary and Edmonton had excellent programs --- rural work by nurses.

Saskatchewan used a system similar to Alberta's except that she emphasized education and sanitary supervision. Definite qualifications were required
for positions in school hygiene.
Manitoba --- similar to Alberta, for large cities. Community nurse used. Winnipeg had splendid program. New Brunswick, under the Department of Public Health had school medical officers, but little follow-up work.
In Nova Scotia --- Halifax had a good program. Public health nurses were used for rural work. In Prince Edward Island occurred the beginning of the Canadian Red Cross.
In Ontario a thorough and up-to-date medical inspection program, including the use of a nurse as an inspector was begun. The examiner was to be a physician.

DENMARK

1881 Hertel of Copenhagen began studies of the health of school children.
1882 Researches into the health of thirty thousand school children were instituted.
1896 Copenhagen began regular medical work in schools.
1905 The Tuberculosis Act resulted in excellent and uniform service for all state managed schools.
1909 School nursing, chiefly to combat pediculosis,
was begun.

1910 Danish Society for the Care of Children's Teeth established.

1912 Dental clinics in five towns.

1924 Medical inspectors and nurses were in all municipal schools. School nurses make home visits. A school physician can insist that child be sent to public clinic if home treatment is inadequate.

FRANCE

1833 School authorities made legally responsible for sanitary conditions of school premises and for supervising the health of the children. In 1783 such a plan had been brought before the National Convention but was not carried into effect because of the revolution.

1834 A school doctor provided for each boys' school in Paris.

1837 A royal ordinance confirmed the law of 1833.

1842 Governmental decrees directed that all public schools should be inspected regularly by a physician. Dr. Edouard Seguin contributed a
remarkable study of the education of idiots.
1843 School inspection extended to girls' schools.
1879 Modern medical inspection organized in Paris.
1886 Education Act established the legal position of medical inspectors. Medical and sanitary inspection made obligatory for all schools.
1892 Communal physicians required by law to inspect all children in provincial schools.
1896 Complete reorganization of system of medical inspection in Paris. Local school doctor visited schools in each district every fortnight -- careful examination monthly.
1908 Up to 1908 an existing law prohibited a dentist from going within the precincts of a school. After a circular from the Minister of Public Instruction, 1908, dental service was organized in normal schools and boarding schools.
1911 Beginning of Paris plan.
1913 The Paris plan was a well-developed system.
1924 The Minister of Public Instruction urged greater attention to open air schools, school lunch rooms and similar activities.
1866 Hermann Cohn studied the eyesight of ten thousand children in Breslau.
1867 Vision tests given in Dresden schools.
1869 Virchow was the originator of the modern movement for the hygiene and medical inspection of school children. His interest was a result of Cohn's study.
1883 Kelynack states that Frankfort-on-the-Main appointed a school doctor. Ware confirms this.
1888 Kelynack states that Breslau appointed a school physician. Strassburg dental clinic opened by Professor Dr. Jessen. Planned for poor children --- not necessarily school children.
1889 Frankfort-on-the-Main inaugurated the first genuine system of medical inspection.
1895 Cohn of Breslau examined the eyesight of ten thousand school children.
1896 Wiesbaden plan begun and school doctors appointed. The child was the center of interest and his well-being the end of reform.
1898 The Prussian Ministry urged the adoption of the Wiesbaden plan throughout the kingdom.
1902 In Strassburg, Jessen established the first school clinic — a dental clinic.

1905 One hundred cities had five hundred and ninety-eight school doctors.

1908 Four hundred cities had fifteen hundred school doctors. There was a wide variation in thoroughness of service all over the Empire. The Minister of Culture was in control.

1913 Only two cities had school nurses —- Charlottenburg and Stuttgart.

1925 Most government measures dealt with school premises only. In Prussia, school doctors were provided in larger towns for permanent medical supervision of school children. Such provision was rare in smaller cities.

GREAT BRITAIN

1848 In Wales a government report drew attention to school lighting and ventilation. In Abersychan a medical officer controlled school attendance.

1872 In Scotland, the Education Act established regulations for the site, construction, air-space and floor-space of schools.
1887 First school nurse appointed in England.
1890 Scotland passed the "Blind and Deaf Act".
1891 Dr. W. R. Smith was appointed first school physician in London.
1893 Dr. James Kerr was appointed in Bradford to examine absentees from school who failed to present a doctor's certificate.
1894 Gardiner states that the first school nursing was started in London by Miss Amy Hughes, then Superintendent of Queen's Nurses in Bloomsbury Square. Dock and Stewart date this as 1891. In 1898 a School Nurses' Society was established in London.
1900 The London School Management Committee, during an epidemic of ringworm, employed the first school nurse in the modern sense of the term. The system of medical inspection, however, was not adequate. Gardiner dates this as 1900; Gulick and Ayres as 1901.
1902 In Scotland a commission was appointed to study the physical training programmes. Six hundred children in Edinburgh and six hundred children in Aberdeen were examined. The report in 1903 urged medical inspection.

1903 A commission in England and Wales began to investigate physical training, medical inspection, and feeding for cases of malnutrition.

1904 Under Miss Honnor Morten the London County Council established a staff of public health nurses.

1906 Local educational authorities allowed to take steps to provide school children with meals.

1907 Education Act made medical inspection universal and compulsory in England, Wales and Scotland in 1908. The act required compulsory medical inspection, and made educational authorities responsible for this inspection. It was interpreted by the Central Board of Education as an attempt to conserve health — both physical and mental. Pioneer school clinics in Brighton, Cambridge, and Woolwich, 1908. Plan issued by Board of Education.

1908 In Scotland school boards were expected to institute medical inspection, and could be compelled to do so.

1909 About three hundred and seven districts had complied
with the Education Act of 1907.

1910 Journal of School Hygiene published.

1913 The Education Act provided for a physical examination of the children on entering school, and three times subsequently.

1923 Highly organized program covering all branches of school health supervision. Three examinations of each child during school career. Full-time and part-time medical officers and school nurses.

1925 Each child was examined on admission to school and at the ages of eight and twelve years. Local authorities were to arrange for follow-up, detection and prevention of uncleanliness, and treatment of minor ailments, defects of eyes and teeth, enlarged tonsils and adenoids. Medical inspection was provided for nursery schools, elementary, and secondary schools.

1926 Plan for insurance against absence from school for illness or accident was proposed.
1896 The Department of Medical Inspection and Child Hygiene was organized under the Director of Elementary Instruction.

1911 School canteens were opened.

1913 This work was organized fully in Chihuahua, and partly in Guanajuato and San Luis Potosi.

1915 Dr. Rafael Carillo modified Mexican school hygiene service after a trip of inspection and observation of the plans used in United States. The society of school doctors ceased to exist.

1917 Dr. Carillo's work was handicapped by motives of economy. In 1919-1920 this service was reduced still further.

1922 Two services of school hygiene --- Public Education Department and Public Health Department --- sought control of school hygiene. In January, 1922, first Child Mexican Congress was held.
1865 School commission brought school hygiene before the general public.
1885 School physicians in a few localities.
1889 Permissive regulations allowed the towns to have school physicians if the expense could be met.
1891 Medical inspection of schools obligatory.
1896 The Education Act required medical inspection in all public secondary schools. Hogarth puts date at 1898.
1898 A further law was passed instructing school physicians to attend to the fuller requirements of school hygiene, and to furnish an annual report.
1900 The Tuberculosis Act resulted in special attention to debilitated children. Each child had to be examined three times a year and a report made on prescribed form.
1911 Three cities had clinics.
RUSSIA

1871 Provision made for medical inspection — largely in the secondary and higher schools.

1879 Sklifosovskiy examined children's teeth.

1888 School physician in Moscow.

1895 Six school physicians in Moscow supervised seventy-two elementary schools. The Russian Ministry of Education was advised by a medical department at headquarters.

1896 Committee of Russian dentists in council with the Minister of the Interior advised compulsory examination of teeth.

1924 April 15-19, 1924 in Moscow, first of all the Soviet Republics, Congress on Physical Education. Standards were worked out according to age, sex, and occupation. Plans for training instructors and physicians. Physicians' study encouraged by scholarships and short courses.
1863 Physicians examined pupils for exemption from gymnasium work.

1868 The term, school physician, first used in its modern sense. Medical officers placed on the staff of each large secondary school.

1873 An examination of general health was held at the beginning of each term and a health committee was appointed for each school.

1884 A Royal Swedish Commission appointed to investigate health conditions in schools. Professor Axel Key made studies of the health of school children.

1895 Primary schools included in medical inspection.

1896 A committee of Swedish Dentists' Society examined eighteen thousand school children.

1898 Thirteen cantons carried out school health recommendations. Some provided for systematic health inspection and general school hygiene.

1899 Stockholm --- medical inspection introduced.

1905 The government appointed and paid for at least one medical officer for each secondary school.

Stockholm dental clinics established.

1906 In Stockholm appropriations were made for research
on schoolroom heating, ventilation, fatigue, and penmanship as related to posture.

SWITZERLAND

1898 Thirteen cantons carried out recommendation that each child have medical examination on admission to school.
1904 Medical inspection in Zurich, also in St. Gall.
1907 Medical inspection in Lucerne.
1908 Medical inspection in Geneva.
1913 Medical examination of school children recommended but not enforced. Thirteen cantons have it. Some cities have school doctors.
1923 Full-time physicians in Zurich, Berne, Basle, Geneva, St. Gall, Lucerne (communal doctor), and Lausanne. Part-time doctors in large communes. In most Swiss schools medical inspection is obligatory for new pupils only. Nurses assist doctors and visit homes. "Generalized" public health nurses in small districts.
1875. Bowditch in Boston studied the height and weight of twenty-five thousand school children.

1894. A regular system of medical inspection established in Boston as a result of a series of epidemics among school children. This statement is disputed by Mangold, who says the first medical examinations were in Philadelphia — tests of vision by physicians — and abandoned because of protests.

1895. Chicago began school medical inspection.

1897. New York City appointed one hundred and thirty-four school physicians.

1898. Philadelphia began medical inspection.

1899. Connecticut passed the first state law requiring teachers to test eyesight every three years.

1902. Miss Wald, of the Henry Street Settlement, New York, visited England and studied their methods of school nursing. The Settlement then placed a nurse experimentally in four schools in New York. As a result of their success, the city promptly appointed twenty-five school nurses.

1903. New Jersey passed a permissive law.

1904. Vermont required ear, eye, and throat examinations.

1905. New York City inaugurated system of examination
of each school child for physical defects. Medical inspectors were used.

1906 Massachusetts made state medical inspection in public schools compulsory.

1907 Ninety cities had medical inspection. American Association of School Hygiene organized.

1910 Three hundred and thirty-seven cities had medical inspection. One thousand one hundred and ninety-four school doctors, three hundred and seventy-one nurses, and forty-eight school dentists were employed in the nation.

1911 Nineteen states provided for school medical inspection. First Health League founded in New York schools. Four hundred and forty-three out of one thousand and forty-six school systems examined had medical inspection.

1913 International Congress of School Hygiene at Buffalo. The first health center founded in New York City.

1925 Twenty-three states and the District of Columbia have mandatory laws for medical inspection; other states have modified mandatory or permissive laws. In still other states the law is not specific or there is no law regarding medical inspection.
ARGENTINA

1926 Argentina plans to have 75 school health visitors, one for each 3,000 pupils. Dental and medical clinics exist. There are also courses for teachers of backward children. The "visitors" are teachers who are graduates of a two-year course. These "visitors" give health lectures as part of their duties.

BELGIUM

1874 Brussels is credited with establishing the first medical inspection system in the full modern sense of the term. School physicians were appointed and schools were inspected three times a month. The first work of school dentists and oculists was done here.

1877 Complete dental service established by M. Maurice Bon.

1921 A royal decree of March 25, 1921, outlined the scope of medical inspection. A ministerial circular of
May 9, 1921, showed a model health card to be used for every elementary school pupil.

**BULGARIA**

1904 Medical inspection organized.

**CHILE**

1888 Chile began medical inspection. In Argentina the medical supervision of primary schools was entrusted to a School Medical Board of sixteen members. Work began in the secondary schools later under a special section of the National Board of Health. Scientific studies were made of disease control. Investigations into the physical condition of over eleven thousand children were made by the government.

**EGYPT**

1882 The first school physician appointed in Cairo. The system has continued ever since.
FINLAND

1859 Regulations for construction and ventilation of school buildings.

HUNGARY

1885 The Act of 1885 established the office of school physician.
1887 A number of physicians with specific duties were appointed for secondary schools.

ITALY

1902 Beginning of public interest in the teeth of pupils in public elementary schools.

JAPAN

1898 Compulsory and universal medical examination begun. Only small towns and country districts were exempt. Annual records of height, weight, chest circumference, and physical defects were kept.
ROUMANIA

1899 Adequate legislation provided for annual inspection of pupils, supervision of school buildings, and all that concerned the health of children generally.

SPAIN

1912 Two cities had dental inspection.