

THE PROBLEM OF THE CRIPPLED CHILD

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Before beginning a discussion of the problem of the physically handicapped, it is essential to define the term cripple as it is to be used:

"A cripple is one who, by reason of congenital or acquired defects of development, disease, or trauma, is deficient in the use of his body or limbs", or
"A person whose (muscular) movements are so far restricted by accident or disease as to effect his capacity for self-support."
(1)

Thus it will be seen that the cripple to be discussed is the orthopedic cripple and not the cardiac, the blind or the deaf.

Since time immemorial the cripple has been a problem. His misshapen body has been associated, in the conception of the public, with a defective mind and even an evil spirit. We have started to change a condition that has existed throughout all generations, as far as the cripple is concerned. The Roman Law gave the right to the father to destroy a deformed child providing he had the approval of five neighbors. These deformed children were thrown into the sewers of the Eternal city or left to perish in the woods on the banks of the Tiber. The Hunchback of Notre Dame was left at the Alter of Saint Christopher. Usually children thus abandoned were collected by people who raised them as beggars. Powerful Roman "masters" made slaves of these poor waifs and forced them to exhibit their deformities in conspicuous places in order to arouse the sym-

pathetic emotions of passers-by and thus obtain money. In many cases children were purposely maimed so that they could be used as a source of income either by their masters or families. (2) In the early part of the 16th century, an organization of poor relief was formed outside the church, in connection with hospitals, and in 1601 came the really pioneer Poor Relief Act of Queen Elizabeth. Though the cripples were included with the "infirm" and "sick" in this system of care of the poor, asylum care was the only provision made.

In Rome the trade in slave dwarfs became a profitable and extensive business. In the middle ages the chief occupation of cripples was that of court fool or jester and they were found in the household of every noble man and in the palaces of princes. (3) The cripples, like the insane, were regarded as freaks of witchcraft, and were shunned accordingly. They were discriminated against as if they were to blame for their own tragic disability.

The earliest record of any definite recognition of the problem of the cripples dates back to 590 A.D. when Pope Gregory reformed the Church and Charity administration in Rome, and included the cripples with all the other infirm and destitute, who as a class were to be supported by public funds. (4) Thus pauperism was considered a special privileged state for cripples and their salvation was further from their reach than ever.

With the beginning of the Science of Orthopedics in the 19th century, the outlook for the cripple was put on a different and more

optimistic basis. The first to come to the aid of the cripple were individuals who, purely through sympathy, set out to make his life a happier one. The private philanthropy has grown and from it has out grown such lay organizations as the International Society for Crippled Children, and various State Societies.

The International Society for Crippled Children was founded in 1921, by E. F. (Daddy) Allen. (5) This is not a child caring society, but one which seeks to promote that public intelligence and perfected cooperation with all child caring agencies and which will insure to crippled children everywhere the best medical attention and an education suited to their needs. This Society has assisted in the organization of 37 state and provincial societies, and in the work of 14 European Nations. It has also assisted in the drafting of legislation in the behalf of cripples in many states. It has assisted the Children's Section of the White House Conference on Child Health and Protection and each year has held conventions for the purpose of drawing together all interested agencies and individuals.

There are many reasons why the care of the cripple should be a field of social interest, investigation, and improvement. The enormous economic saving to communities where the cripples are is in itself argument enough for public support. That the cripple is an economic as well as a social problem one has but to realize that in the United States it has been estimated that there are 500,000 cripples under 21 years of age and to these are being added 25,000 each

(6)
year. These cripples are a liability to their community and since the average self-supporting person is worth 10,000 dollars to his country, it behooves that community to turn these liabilities into assets. This can be accomplished by securing the whole hearted cooperation of everyone, including the cripple himself. It involves the cooperation of surgeons, physicians, nurses, educators, laboratory workers, the parents of the cripple, and the cripple himself.

The value of increased morale which would be secured through the transformation of many beggars into self-respecting wage-earners is another argument.

Perhaps the greatest argument for the care of cripples is the obvious social justice of giving every child an equal chance in life. (7) With this in view Dr. Frejka in his address to the Second World Conference on the Problem of the Cripple held at The Hague, in 1931, said, "The social movement of these latter times grants to every member of human society the right to live and to work. This movement means a new era in the care of cripples, for it endeavors to cause such medical and social care to fall to the share of the cripple that every one of them shall be able to become an independent and self-supporting member of human society".

"The basis of this care is no longer a purely charitable feeling of love for one's fellow creatures, but a feeling of social solidarity, the realization that human society has certain obligations towards every one, and that even its poorest member has the

right to medical treatment of his ailment or his defect, the right to such training as would prepare him for a productive and successful life, and finally also the right to sufficient social help in order not to succumb in the struggle for existence with the other members of human society".

The International Society for Crippled Children at the 10th annual convention declared the following to be the "Crippled Child's Bill of Rights". The following is the program of the Society for the prevention of crippling conditions, the finding of the crippled child, its care, treatment and education, and finally its placement in the life of the world.

THE CRIPPLED CHILD'S BILL OF RIGHTS

1. Every child has the right to be well born; that is to say the right to a sound body, complete in its members, physically whole. In the securing of this right we pledge ourselves to use our influence that proper pre-natal, intra-natal and post-natal care be provided to the end that congenital deformity, insofar as it is humanly and scientifically possible, be prevented.
2. Every child has the right to develop under clean, wholesome, healthful conditions. In declaring this right, this Society undertakes to use its influence to the end that children everywhere, through proper legislation, both local and general, and through proper supervision and protection, may grow to manhood and womanhood free from crippling conditions caused by insufficient nourishment, improper food, or unsanitary environment, and free so far as possible, from danger of accident, wounding, or maiming.
3. Notwithstanding the rights of children to be well born and to be protected throughout childhood, it is recognized that in spite of all human precautions there will be, unfortunately, some crippled children. These we declare to have the right to the earliest possible examination, diagnosis and treatment, recognizing, as we do, the fact that many thousand cases of permanent crippling may be eliminated by early and effective care.

4. Every crippled child has a right, not only to the earliest possible treatment, but to the most effective continuing care, treatment and nursing, including the use of such appliances as are best calculated to assist in remedying or ameliorating its condition.

5. Every crippled child has the right to an education. Without this, all other provisions, unless for the relief of actual suffering, are vain.

6. Every crippled child has the right not only to care, treatment and education, but to such treatment as will fit him or her for self-support, either wholly or partially, as the conditions may dictate. Without such practical application education is likewise purposeless.

7. Every crippled child has the right to vocational placement, for unless the child, boy or girl, after having been given physical care and treatment, and after being educated and trained, is actually placed in a proper position in the life of the World, all that has gone before is of no avail.

8. Every crippled child has the right to considerate treatment, not only from those responsible for its being and for its care, treatment, education, training and placement, but from those with whom it is thrown into daily contact, and every possible influence should be exerted by this and affiliated organizations to secure this right, in order that, so far as possible, the crippled child may be spared the stinging jibe or the bitter taunt, or, worse still, the demoralizing pity of its associates.

9. Every crippled child has the right to spiritual, as well as bodily development, and, without regard to particular religious or denominational belief, is entitled to have nourishment for soul-growth.

10. In brief, not only for its own sake, but for the benefit of Society as a whole, every crippled child has the right to the best body which modern science can help it to secure; the best mind which modern education can provide; the best training which modern vocational guidance can give; the best position in life which his physical condition, perfected as best it may be, will permit, and the best opportunity for spiritual development which its environment affords.

The problem now resolves itself into parts, namely:

1. The prevention of cripples.
2. The care, education, and rehabilitation
of the children already crippled.

There is no more striking evidence of the progress that has been made in public health than the fact that in the 16th century the duration of life was from 18 to 20 years. In 1800 the average individual lived less than 25 years. Within one hundred years the span of life had been increased to from 45 to 48 years, and as recently as 1924 it has been shown that the average duration of life is 56 years.

(8)

This tremendous change has been brought about in part by general improvement in the mode of living, but also in large part and more especially since 1900, by researches into the cause and prevention of disease. Seeking the causes of crippling conditions we find that as a result of a survey of 1,600 of the 9,000 crippled children in the State of Wisconsin the following causes are given:-

(9)

Infantile paralysis.....	30.5%
Congenital defects.....	30.0%
Tuberculosis and osteomyelitis.....	7.0%
Accidents.....	8.0%
Spastic paralysis.....	12.0%
Defects due to other diseases -	
Encephalitis	
Muscular dystrophy	
Muscular atrophy	
Rachitis	
Sarcoma	
Scleroderma.....	12.0%
Unknown.....	0.5%

Other figures are as follows:

NEW YORK STATE COMMISSION FOR THE SURVEY

(10)

OF CRIPPLED CHILDREN

Infantile paralysis.....	30.0%
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Bone tuberculosis.....	25.0%
Congenital defects.....	12.0%
Rachitic deformities.....	7.0%
Traumatic deformities.....	5.0%
Osteomyelitis.....	4.0%
Others.....	<u>17.0%</u>
	100%

(11)

SHRINERS HOSPITAL IN SAINT LOUIS

Infantile paralysis.....	45.0%
Tuberculosis.....	6.0%
Osteomyelitis.....	3.0%
Multiple arthritis.....	2.0%
Congenital defects.....	18.0%
Others as spastic paralysis, rachitis, old fractures, etc.....	<u>26.0%</u>
	100.0%

(12)

CANADIAN PUBLIC HEALTH COMMISSION

Infantile paralysis.....	40.0%
Tuberculosis.....	30.0%
Congenital deformities.....	15.0%
Other causes.....	<u>15.0%</u>
	100.0%

In all the surveys infantile paralysis leads in the cause of the crippling. As yet no adequate method of preventing it has been discovered. However, from our knowledge of the virus the following precautions should be taken:

1. Keep away from those sick with any undiagnosed illness. Ill children should be kept at home.
2. There should be no public drinking cups or towels. Children should be cautioned to wash their hands before handling foodstuffs, candy, etc. The interchange of secretions may be minimized in this way.
3. Dust should be kept at a minimum. The virus is resistant to drying.

4. Houses should be kept screened.
5. Children should be cautioned against becoming overtired as it frequently happens that children who have become overtired or had some injury are overtaken by infantile paralysis.
6. Because of the suspicion that raw food may transmit human secretions through handling by various people in transit from farm and market to the home, it is advisable to take precautions. Cooking kills the virus. If milk is not pasteurized and comes from an uncertain source, it can be heated to near the boiling point. 50 degrees centigrade kills the virus.
7. Crowds should be avoided, especially when people congregate from different parts of the region as carriers from infected districts may be found in the congregation. (13).

Because of the difficulty in diagnosis suspicious cases, especially if there are known cases present in the locality, should be watched with care. With the beginning of symptoms referable to the nervous system convalescent serum should be given if it is obtainable. Therefore, to people who are interested in crippled children, it means that their aid in the many activities which are necessary for the collection of convalescent serum will probably be of more value in the prevention of deformities than would ten times as much effort expended upon children already paralyzed. In Wisconsin the State Laboratory of Hygiene has supervised the collection and distribution of the serum; during the recent poliomyelitis epidemic with its 711 cases up to December 1st, contributions of blood from 161 qualified donors has been received.

(14)

As yet the results of this epidemic are not obtainable, but

of the first 262 cases reported, the results were as follow:

- 120 were still paralyzed.
- 17 had died
- 25 were paralyzed and recovered.
- 47 were paralyzed, received convalescent serum and recovered.
- 4 were paralyzed, received no serum but recovered.
- 4 were paralyzed, received Rosenow's serum; one recovered.
- 43 histories were incomplete.

(Figures courtesy of Dr. Guilford, State Epidemiologist).

The real value of the serum in this epidemic will not be obtainable for sometime to come, but there is no doubt that the number of fatalities has been decreased and the amount of invalidism resulting from the disease has been curtailed.

One attack of infantile paralysis results in immunity, but as yet we have no way of immunizing against the disease. The reason that the number of cases in any one locality is small is probably due to the immunity set up in the so-called "abortive cases". In these cases the patient has the disease but paralysis fails to develop. "If the laboratory could give us an efficient practical method of immunization against this disease it would do more to relieve the cripple situation than all the ingenious operative procedures developed by the orthopedic surgeons for the repair of damaged limbs." (15)

After paralysis sets in the object should be first to restore the function of the paralyzed muscles and second the prevention of deformity. The first is best promoted early by rest of the mus-

cle in a position of complete relaxation. Atrophy can be prevented and the circulation increased by massage and muscle training - neither should be employed until the tenderness of the muscle has disappeared. In physiotherapy one should avoid fatigue and the work should be carried out under the supervision of a skilled physiotherapist, otherwise much harm might be done. The whole procedure should be carried out with the view in mind that "we are not working with what is gone but with what is left. A destroyed cell is useless but it may take months to tell whether a muscle is really lifeless. If there is even a flicker of power there is a chance that more will return." (16) The use of under water exercise is good in that it prevents fatigue and also acts as a mental stimulus." (17)

The deformities are due to the unequal muscle pull and each deformity goes through three stages, first a constant malposition, second adaptive changes in the soft parts, and third, permanent bony changes. The part should be kept in the position of physiological rest, and braces and other apparatus may be needed to prevent the deformity.

TUBERCULOSIS

Tuberculosis is one of the preventable diseases yet it is the second most important cause of crippling. Tuberculosis of the bones and joints maim and disfigure hundreds of children annually. Many sufferers from tuberculosis would never have become ill if their

health had been properly protected.

The drinking of milk from tuberculous cows is one of the important causes of tuberculosis of the bones and joints and it is estimated that probably forty five per cent of the population of the United States is served with a milk supply that is not under sanitary control, while much of the rest is far from being safely protected. By permitting children to drink milk which is not properly pasteurized, boiled or certified, society adds to the dangers which surround them and makes it harder for them to grow up free from crippling and illness.

Every community should safeguard its milk supply by first sanitary supervision and inspection of dairies, second requirements for pasteurizing the milk supply, and third elimination of all tuberculous cattle as shown by tuberculin tests made at least once every year.

A person who has been exposed to tuberculosis should be periodically examined. At the first sign or suggestion of the disease he should go to a sanatorium or be placed on adequate treatment.

Once tuberculosis has set in a bone or joint, the object should be to prevent a deformity. A comfortable position may be one of deformity which results by contracture of the soft parts and with joint destruction by fibrous or bony ankylosis. Ankylosis should be anticipated and the limb immobilized with the joint fixed in the best possible position for future function. "While ankylosis is a

handicap, ankylosis in deformity is a calamity". (18)

RICKETS

Rickets, another preventable condition, is again one of the major causes of crippling, causing such conditions as coxa vara, bow legs, knock knees, and various chest deformities. This condition follows lack of proper food and environment, including sunlight.

Since rickets is preventable its prevention should be our aim. Babies that are nursed are much less likely to develop rickets and, if they do, it is usually of a mild type. Babies should, therefore, be nursed if possible. Cod liver oil and ultra violet rays will prevent and cure rickets, and if the parents cannot afford these the city or county should see that they are provided.

Deformities can be prevented by keeping the babies off their feet and in this way diminish the pressure on the bones. Deformities can also be prevented by proper orthopedic treatment. If deformities have developed, they can almost always be overcome by proper orthopedic treatment or operation. (19)

CONGENITAL DEFORMITIES.

Congenital deformities and birth injuries, if taken care of at once, the resultant crippling condition can usually be avoided. Neglected congenital deformities are a reproach to the State in a large measure. If laws required the reporting of congenital deformities

at birth, or as soon as recognized, and efficient follow-up through state health boards and social agencies, these conditions would be but a minor factor.

Another cause of crippling conditions are those due to accidents - many of which could have been prevented. These have been placed in four different classes - 1. Auto. 2. Home. 3. Industrial and 4. Accidents occurring in public places but not involving automobiles. (20) It has been estimated that for every child of school age who is killed, 150 are injured. In 1929, 18,000 children were killed, and if 150 are injured to every one killed then 2,700,000 were injured. Of course, not all these were so severe as to cause crippling, but as such they are potential cases. Many accidents can be avoided if people will but follow some simple code as the pedestrian's code of the Wisconsin State Board of Health. (21)

A PEDESTRIAN'S CODE

1. I will remember that this is the motor age.
2. Before stepping off the sidewalk I will take in all elements of the situation involving my walk over the intersection.
3. I will be guided by the traffic light regulations just as the car driver is.
4. I will do my street crossing at intersections only.
5. I will keep a sharp eye in all directions while crossing.
6. I will urge all children to keep off the motor lanes.
7. On highways I will walk on the left edge of the road and will not interfere with auto traffic.

8. I will not step out suddenly from behind a car, or other object that obstructs the driver's view, into the path of traffic.
9. Instead of running across an intersection I will wait until it is safe to walk across.
10. I will remember that cars moving backward even a few feet are the cause of frequent accidents to the pedestrian.

The old saying "an ounce of prevention is worth a pound of cure" certainly holds true as far as the crippled child is concerned. There is one word that must precede prevention and that word is education. We are not putting into use the knowledge that we already have concerning the causes of crippling conditions. The public must be educated to the fact that many of the crippling conditions need not cause cripples if proper care and attention is given. It should be the duty of every physician, teacher, nurse, social worker, or any one who comes in contact with the public to inform and educate the people along these lines. School children should be taught what is known of prevention as not only are they the ones who are most often crippled but they are the citizens of tomorrow who will carry on the program.

The problem of prevention is a complex one and belongs to the field of medicine, but there are social and administrative aspects to it, which should command the interest of every public spirited citizen.

Before the crippled child can be cared for he must be found. Their needs are the same everywhere, but the situation must be met

differently in every locality. In a recent survey of Wisconsin, it
(22)
was estimated that the cripples were to be found as follows:

Rural.....	32%
Towns of less than 1,000.....	8%
Towns of 1,000 to 10,000.....	13%
Cities 10,000 to 25,000.....	4%
Cities over 25,000.....	43%

The above figures do not include the crippled children of low mentality because their chances for either physical or mental improvement is rather hopeless. From these figures it is seen that the cripples are fairly evenly distributed throughout the country.

As conditions which cause crippling occur chiefly in early life and the optimum period for treatment is during the pre-school age, the fact remains that in fully 75 per cent of cases the matter of treatment is delayed until the case develops as a burden to the individual and a hampering influence upon the family or some social group. Here lies the extreme importance of popular education on the subject. Social wisdom is not characterizing our attitude toward this problem and it is only in recent years and in widely separated communities that an exact census has indicated the seriousness and extent of the
(23)
problem.

The Wisconsin survey showed that 80 per cent became crippled before reaching seven years of age, 17 per cent were between 7 and 14 years, while 3 per cent were between 14 and 21 years of age.

The ages of the crippled were as follows:

- 11% were under 7 years of age
- 39% were between 7 and 14 years.
- 50% were between 14 and 21 years.

The small proportion of those who were under seven years of age at the time of the survey indicates that there must have been many more cases in that age group who were not located in the survey. Through school records, one has a fairly good check on crippled children of that age, but those of pre-school age can be located by voluntary reports only. In a recent survey made in Kansas it was shown that 40.87 per cent of the cases were reported by doctors, 37.24% by nurses, 16.24% by teachers and 5.65% by others. The reporting of a cripple should be the duty of the parents but as many do not know what can be done they do not take the time nor the interest to do so. Nurses, city, county or state, should report such cases as they come in contact with. State laws regarding the reporting of congenital deformities will do much to obliterate these as crippling conditions later in life.

In many states surveys are being conducted in which a personal interview is held with the parents of the child, the history obtained, the possibilities of corrective treatment explained, and the parents advised to take the child to an orthopedic specialist or to a clinic. It is this type of work that is being done by the various state cripple societies and the International Society. The societies hold clinics which are conducted by orthopedic specialists

and at these clinics the parents receive advice. Of the first 479 children examined in Wisconsin, 35% had been previously examined. These children were from four counties in which orthopedic clinics had been held before. The probability is that this figure would be somewhat smaller if the entire state were taken into consideration. Even such a figure shows that only the surface of the problem has been scratched and will disrupt the belief that many people have who say that everything is being done for the cripple.

At the orthopedic clinics held in Wisconsin the following recommendations were made:

Operations.....	40%
Appliances.....	15%
Muscle training.....	20%
No treatment.....	13.5%
Other diagnosis or treatment.....	10.5%

The recommendations were carried out in 45 per cent of the cases, partially carried out in 25 per cent of the cases, and not followed in 30 per cent of the cases. The reasons given for not carrying out the recommendations were as follows:

1. Could not afford operation
2. Could not afford treatment
3. Could not afford brace.
4. Failed to wear brace after it was purchased because brace was too heavy or did not fit.
5. Parents did not think recommendations for brace important so it was not purchased.
6. Parents did not give muscle training because they did not realize the importance of the recommendations.
7. Parents did not give consent to operation.
8. Parents delayed having operation performed, thinking child might improve.

9. Recommendations made at previous clinic not explained to parents. (25)
10. Patient did not give consent to operation.

The reasons show where education on the matter of final outcome would have been of great value. In those cases where treatment could not be afforded a chance is offered the community to show how much they value their citizens. The cost of hospital care for the cripple is great and many cannot afford it. The period of acute illness is not long but efficient after-care is necessary or the surgery will be of no avail and it is this after-care that takes time. The cost is cheaper in large hospitals devoted to crippled children only than it is in general hospitals. According to Sir Robert Jones of Liverpool, England, and Dr. Robert Osgood, there should be one orthopedic bed for every 2500 inhabitants. On this estimate there should be 1200 beds in Wisconsin devoted to orthopedic cases, and 48,000 in the United States, estimating the population at one hundred twenty million. No matter what provision the state may make for the medical care of crippled children whose parents cannot afford the treatment, there will still exist a serious need of hospital facilities for the crippled children whose parents can afford to pay part or all the expenses of such treatment.

The development of the survey work, the holding of clinics, the medical care and the educational work for crippled children will progress only as larger and better hospital facilities are provided. It is useless and many times detrimental to interview parents and to interest them in having corrective treatment for their crippled child

and then to inform them they must wait a year or more before such work can be performed. To arouse interest and then to delay action almost always results in failure to carry out the program. Lack of hospital facilities is a barrier to the progress of all phases of the medical and educational work with these disabled children.

Parents and guardians must do all in their power to care for the physically handicapped children for whom they are responsible, yet the state recognizes that there are hundreds of children whose parents are not indigent but who nevertheless cannot bear the expense of long drawn out orthopedic treatment. The untreated cripple child is a liability, the treated crippled child an asset. It is the duty of the state to convert the liability into an asset. Untreated cases especially those in the country are unable to attend school and often unable to do any type of physical work - as a result he is uneducated incapable of self-support, and must in most cases become a subject of charity, either public or private. About 50 per cent of the cripples can be practically restored to normal by orthopedic treatment, 25% can be so improved as to be completely or partially self-supporting.

(26)

The programs carried out by the various states in their plans of rehabilitation are roughly as follows:

1. The appropriation of money to be expended for braces, hospitalization and transportation where necessary. The appropriation may be augmented by local contributions. The amount varies from a few thousand dollars to many thousands and is administered through the department of health or through a field worker.

2. The commission plan, in which there is a state commission appointed to look after the crippled children. The commission sees that clinics are held and that proper treatment is secured. The commission pays necessary expenses.
3. The zone system. The state is divided into zones. Orthopedic surgeons who live in these zones, or who will visit them at stated intervals, are appointed to hold clinics and treat the children. Provisions are also made for transportation and hospital expenses.
4. State Hospitals. These states maintain one or more hospitals to which the children may be sent. In some states there is provision for transportation and for braces, etc. As a rule, there are no state clinics. Some of the states in other classifications also have state hospitals for crippled children, but in these the hospital is only a part of the general scheme for rehabilitation.
5. The Ohio Plan. The school authorities and other organizations are required to report all crippled children to the judge of the juvenile court of the district in which they live and also to the state department of health. The cripples must be examined by the health authorities to determine the amount of disability and the probable results of the treatment. It is the duty of the juvenile judge to see that they receive treatment through the division of charities. The division of charities pays for treatment through a special fund and collects from the home county of the child. If the parents refuse to have the child treated the judge of the juvenile court may commit the child as a ward of the division of charities of the State Department of Public Welfare, and the child remains as a ward of the State until the treatment has been completed. There is a staff competent orthopedic surgeons and a number of authorized hospitals throughout the state so that the child does not have to be sent far from home for treatment. There are also special provisions for the education of the crippled child. (27)

In 1927 twenty six states had some form of state care for their crippled children; at the present time all states have programs for their cripples. This care is as follows:

1. 28 States have a decentralized system of using all existing facilities.
2. 10 states have authority for making surveys.
3. 13 states have special education.
4. 22 states have annual enumeration of cripples by school census.

5. 5 States have compulsory education.
6. 6 states have birth registration of cripples.
7. 43 states have federal rehabilitation for cripple adults.
8. 18 States have federal and state rehabilitation for cripple adults.
9. 18 states have federal and state rehabilitation for cripple children.
10. 10 states have centralized plans or programs
11. 5 states centralize in University Hospitals their care and education.
12. 1 state uses private institutions. (28)

THE EDUCATION OF THE CRIPPLED CHILD.

Education as an art has been known, in China at least, for over four thousand years, while education as a science, strictly speaking, has its origin in the last century.

Our earliest dependable information in regard to the antiquity of education, however, comes from the Greeks of the sixth century B.C., beginning when Pythagoras founded the first University at Crotona (530 B.C.). During the fifth and fourth centuries following, their intellectual leaders made a profound search for the sources and nature of knowledge. The ethics of Plato and Aristotle may be said to be the first studies of their kind ever made which were based upon the principles of psychology. During this period, Hippocrates, the father of Medicine and Surgery, made the cripple one of his chief concerns. At this time the general public took no interest in the cripple. Deformity was antagonistic to the Greek idea of

beauty and perfection. Education of defectives as such was unknown in the ancient world.

Rousseau and Pestalozzi, social and educational reformers, were the first to advocate that schooling should be given to the defective and delinquent, as well as to all normal children.

One of the reasons why corrective education advanced and spread so slowly is that it was carried on by its founders and earliest teachers as a trade secret or business monopoly. This type of work for crippled children started with the Kurz foundation in Bavaria in 1832, but was taken over by the state in 1844. Probably the next private school was conceived in 1861 and founded in 1863 by Miss Cornelia and Dr. James Knight of the New York Society for the Relief of the Ruptured and Crippled.

The remainder of the nineteenth century shows a steady progress in educational work for crippled children in both Europe and America. Many of these private schools were later supported publicly, in whole or in part, by the states in which they were located. In the United States this tendency toward support from the public soon led, in the regular public school system, to the organization of "special classes" for the crippled. Corrective education came to be known, therefore, in this country as "special education". School authorities did not reach out for the responsibility of corrective education, but were led to accept the work of the entreaties of social workers, physicians and philanthropists.

The first public school class for crippled children in the United States was arranged for in 1899 and opened by the Board of Education in Chicago in 1900. This work was undertaken largely out of sympathy and for almost wholly humane reasons. It was not in the beginning thought of as an advanced step in the development of scientific pedagogy or as "corrective" or "special education". From these public and private initial efforts, there had developed by 1914 in this country an interest which brought to both types of schools for crippled children 2862 pupils, 988 of whom were in 51 public school classes in Chicago, New York Cleveland and Detroit. In 1924 there were 6225 pupils getting special education in 82 special schools having over 200 classes. Schools for crippled children have now generally introduced real corrective education which in many places is carried on in special buildings with special equipment for elementary pupils. The next step is to provide as well for those physically handicapped children capable of taking courses in technical and higher schools.

(29)

(30)

In making the study of crippled children in Wisconsin it was found that years have been lost in their education while undergoing hospital care. Because the child has been retarded, he returns to his school quite embarrassed because he must be in a class with younger children. Because of this situation many of these children after a few years become discouraged and cease their attendance at school entirely. Because our hope for the disabled child for self-support depends on the advantage of an education, the loss

of a year's instruction is enormously greater to the cripple child than to one who is able bodied. From a viewpoint of loss and gain it has long been considered that the education and training of normal children is a profitable undertaking for the state. Considering, therefore, how much larger a proportion of the crippled children, unless given the necessary training and medical attention, become dependent or are made the objects of special care, it is evident that the state is simply using ordinary business foresight in erecting suitable hospitals and providing the education that will make these cripples partially or wholly independent or self supporting. (31)

Since the afflictions which cause crippling are most likely to afflict young children, it is imperative that the crippled child of pre-school age be discovered, treated, and later given the education that will make him independent. By reason of the deformities of these unfortunate children, their sensitiveness to their deformities and the general environment in which they have been reared, the problem of education is a peculiarly difficult one. It is not fair to the crippled child to ask him to adopt and carry out a regular school program along with the normal child. In order that these children who cannot be cured may be made self-reliant, it is necessary that special educational facilities be provided. (32)

In many states school districts may establish special classes for crippled children, and Wisconsin is one of these states. In Wisconsin aid will be given only if the necessary facilities are provided - transportation, school rooms where there are no stairs to

climb, lunches, special seats, therapeutic equipment, and qualified teachers for academic work and for supervision of physical care. Before such classes are organized, however, a thorough study should be made of the problem, especially in the smaller cities. Otherwise crippled children who should receive the benefit of the special class would not be included, and some who could just as well attend the regular school might be attending the special class. (33)

Eligibility to the cripple classes should be limited to:

1. Those who need transportation.
2. Those who need supervision of their physical care. (34)

When a cripple child does not come under these two groups he should be transferred back to the regular school. It is very difficult for communities to determine the latter group because there are so few people who know the possibilities of corrective treatment for crippled children. A school district should, therefore, not plan a class without first having a survey done by some one who understands the possibilities.

In the schools the child should be taught to overcome normal obstacles, a thing which will not be done if conveniences are stressed too much. The school should not accept the child's infirmity as such and therefore endeavor to make things as easy for him as possible, but should attempt to approximate ordinary conditions. The class rooms should be as normal as possible, hand rails should be placed in the corridors so they can help themselves, they should be taught to climb stairs and to overcome their difficulties as far

as possible. In doing these things for himself the cripple develops self-reliance, which is of great value, not only to their physical well-being but also in raising their moral to the point where they seem much less conscious of their afflictions. (35)

Another factor which affects the organization of special classes, is the present lack of persons trained to supervise the physical care of cripple children. These people must be trained physiotherapists and must understand the treatment outlined for their patient by the doctor. If such work is not properly done all the good done by surgery will be undone and the child made possibly worse than it was before treatment began.

Occupational therapy plays a large part in the education and rehabilitation of the cripple and has been defined as "any activity, mental or physical, prescribed and guided, for the definite purpose of contributing to or hastening recovery from disease or injury". It has also been defined "as that form of exercise or treatment which will supplement the effort of the surgeon or nurse and help in the adjustment or development of certain members or functions of the mechanical body". (36) Occupational therapy should be carried out under the direction of a trained person and a physician should prescribe the amount of exercise or work the patient should receive. Each case must be handled individually because therapy which would be of value in one case might be useless or even harmful in another. Occupational therapy can best be carried out in a hospital or work shop that is specially equipped, but it can also be

carried out in the home. Not only does this form of therapy help in the recovery from disease or injury but it also teaches the patient that he can become a useful citizen in his community and in the business world. In all this work, it must be remembered that "we are not dealing with mere patients but with boys and girls who must be trained to be American citizens with the right attitudes toward life and themselves. (37)

While much has been done to relieve the cripple, the fact remains that he is still in our midst and our aim should be the eradication of crippledom. This can be accomplished only through research into the causes of crippling conditions, through education, and through the wholehearted cooperation of every one.

We should remember the words of Sir Robert Jones, who said, "IT CAN NEVER BE REALIZED TOO WIDELY THAT DEFORMITY IS AN UNNATURAL AND PREVENTABLE AFFLICTION WHICH TREATMENT MAY ALLEVIATE OR CURE, BUT WHICH FULLER UNDERSTANDING COULD ABOLISH."

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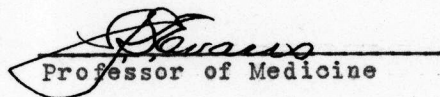
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