

(April 9th, 1906.)

# The Relation of Physical Training to Modern Civilization.

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Mr. Chairman and Members of the Canadian Club,—I assure you that I appreciate it both as an honor and a privilege to have the opportunity of addressing your club. I have heard of you and your splendid success and the esprit de corps which characterizes your organization, and your rival clubs at Ottawa and Montreal spoke most highly of the members of this organization.

As your chairman has said the subject of my address does seem a somewhat complicated topic. I think you are fortunate in the arrangement of your programmes to prescribe a thirty minute limit. It was a cautious thing to do, for I may perhaps hope that you can survive that time no matter how dry the talk may be. I am reminded of the man in somewhat similar circumstances who was about to be introduced. The chairman leaned over towards him and asked quietly, "shall we allow the members to enjoy themselves a little longer, or shall I introduce you now."

Ambassador Choate used to distinguish between the respective ends of a barber and a sculpter by declaring that the barber curls up and dyes and the sculptor makes faces and busts. Either end would I imagine be preferable to being talked to death. It is told of Admiral Côté that he went to pay a sympathetic call at the bereaved home of a recently deceased friend. He was anxious to say some good things of the man, but didn't know exactly what to say or where to begin. Finally he called the young hopeful to his knee. "Bobby," he asked, "what were the last words of your beloved father?" Bobby was puzzled for a moment and then he looked up and replied, "Please, he did not have any last words. Mother was with him to the end." So I fear today I will have the last word.



It has been said of the modern city that it is a biological furnace, because the changed environment in modern living consumes so much of vitality and power. The city is a new institution, altogether foreign to the fundamental conditions of life, yet a majority of the people live their lives there. And the cities to-day abound in danger practices to which earnest thought should be directed.

First there is the school with its physical inactivity, its desk limit on the child for five hours every day, developing sad results in curvatures of the spine and other diseases.

Also with the city has come the factory. In the factories of Canada half a million are employed, many of the workers standing in one position and using but few of the muscle groups. They become automatic, specialized and really physically deformed.

With the cities, too, comes the great curse of child labor and on this let me give you some Canadian figures. Your census shows that in 1881 there were 19,000 children under 16 years of age employed in Canadian factories; in 1891 there were 26,000, but I was very glad to see and Canada should be greatly congratulated upon the fact that the last census showed only the employment of 12,000 under 16 years old. This is a decrease of half during the last ten years and if the proportion keeps up Canada will have no child labor at the end of the present decade. This is the high moral stand to take. Read "The Cry of the Children" by Spargo and your heart will bleed for them and the physical deterioration and moral degradation that results from this terrible abuse.

There has been a great increase in the sedentary pursuits of our business men in the cities. They are confined to their offices, pressing buttons and answering telephone calls without moving from their desks. It is a most uncomfortable condition and brings about the lack of vitality and the lack of well-being in our business men.

I study your history and I see that you came from hardy races. The blood that was poured into your veins came from the good old stock of the English, the Irish, the Scotch, the Dutch, the German and the Scandinavian. You have inherited great bodies. Your men are the best I have ever seen and I've travelled north, south, east and west over the North American continent. Your forefathers developed in an environment where physical activity predominated and you have gained by this environment. Yet you in the cities are now living in an environment the direct opposite of that of your fathers. It is a serious thing this living in an artificial environment.

It means this, that your chests are larger than you need, that your lungs are bigger, that your hearts are larger and your blood vessels wider than you need for your present occupations. It means that you do not breathe deep enough, you do not exercise enough, you have not that feeling of well-being that your fathers had. You are storing and not throwing off the poisonous matter in the physical system, you are

carrying too long and not exchanging the cells of the body as much as you should. There has been a tremendous increase in mortality statistics of deaths from diabetes and diseases of the kidneys caused by faulty metabolism, that is the lack of muscular exercise and the failure of the body to throw off certain dead tissue.

Very few of our business men really know the joy of living. They are slaves to business, they whip their bodies into line, working at all hours and under all conditions. The greater number are living on their surplus vitality. It is business, first and last. It breaks in on their family life; it breaks in on their recreation. They know not the joy that comes from having a good body and good health. Each man should have his recreation; the young man his athletics and his football, the older man his golf or something not so vigorous. So we can retain the spring of step, the alertness in the eye and the vigor of body.

I have been studying again your census, for I want to speak with authority from your own figures. Your population has increased to five and a quarter millions. Of this three and a quarter millions are in the rural districts and two millions are housed in the cities. This is a source for congratulation. But from 1891 to 1901 your population increased 550,000. Only 50,000 of this 550,000 increase, however, is in the rural districts. The cities gained 500,000. They are growing ten times as fast as the rural districts. You must provide for this change of environment. Bradstreet credits you with 200,000 increase by immigration last year. Of these I understand 130,000 are from the United States. I refer to this because it is a very desirable class of immigration of a higher grade in mentality. I read in your papers of the fast-forming cities in your western country and your metropolises like Toronto. In the United States in 90 years they have built up 400 cities, but 110 years ago the city population was only four per cent. of the whole. To-day it is nearly 60 per cent. In Massachusetts only 9 per cent. of the population live in the country and in New York state only 27 per cent. In reference to this I would say provide now for the physical recreation of the children yet to be born. Don't wait like we did in New York till the playgrounds cost fortunes. Cast your eye about you now. Every city and every municipality should be provided with its public playgrounds. It means not only the physical regeneration but the moral exaltation of a higher standard of boys and girls and young men.

In Scotland they appointed a very learned commission to study the whole subject and report upon it. It was found that the Scottish farmer average 5 feet 10 inches in height, while the residents of the cities averaged 5 feet 6½ inches. The farmers were four inches taller. The criminal averaged 5 feet 5½ inches, and the imbecile, the illiterate and the idiotic averaged 5 feet 4 8-10 in. Surely this shows the relation not only in physique but in mentality. The farmer weighed 173 pounds, the city man 145 pounds, and the imbecile 123 pounds.

Once I gave this illustration when a man who was quite short sat right in front of me. He took exception to it, and of course it would be unfair to apply it to the individual. Some of us are short and some tall, but this was an estimated and reckoned average and is significant. Of course there are other forms of measurement, such as size of the chest and length of the trunk. Yet it shows that where the environment is poor and the people do not indulge in physical work or exercise there is degeneration.

There is another fact, upon which I am burning up in zeal, which you are not facing as you should. It is the treatment of your great school population. The boys and girls should be constantly enjoying active exercise. Schools have been called the society for sitting still, and the young folks are seated for hours at their desks. Along with this has come much that is bad. If we are going to have healthy children we must pay attention to their physical needs, we must secure a system of physical education in the public schools.

To Canada belongs the honor of first promoting physical training in the colleges. Follow it up in the public schools. Keep thinking about it. I had a conference with Sir Frederick Borden of your military bureau in Ottawa the day before yesterday and he, I understand, is planning some system of physical training for the military schools.

A child depends upon its play for much of its development. I remember a child who came from Palestine to our great west. This was the only child I ever knew who didn't play. One day I took him to a gymnasium. I asked him what he played. He looked wonderingly at the gymnasium exercise going on and stopped still, saying pathetically, "Sir, do you know we never play in our country." I understood it then. There he was, a boy of sixteen and no higher than that, with narrow chest and stooped shoulders and yellow, wizened face. He had no knowledge of the joy of play. That was the kind of environment in which he had developed. I urge you, gentlemen, to provide opportunities for the children to play.

I made still another study of your census reports. I wanted to take care to be correct and I saw from your mortality tables for the year that there had died from tuberculosis 9,709. The dread white plague was your greatest instrument of death. Next came pneumonia with 8,000 deaths on its record and typhoid fever had 1,900. And there was a great increase in deaths from diseases of the nerves, the digestion, the chest and the circulation. Yet these are all preventable diseases, due largely to modern conditions of living. Let me illustrate. Your greatest enemy is the great white plague. In the city of New York we organized a society for the prevention of tuberculosis and by a system of education reduced the death rate in a single year by 40 per cent. In ten years there had been a decrease in the death rate of the country at large of 59 8-10 per cent. So you see it is possible by a scientific

and intelligent campaign to rid ourselves of this terrible scourge. Pneumonia now carries off more of our people, though with yours tuberculosis still leads.

We established a health farm in Denver in connection with our Y.M.C.A. work and the superintendent made a very striking statement concerning the patients sent there. He said that of the forty young men under treatment for tuberculosis, not one should have ever come there. It was no case of hereditary, it was downright carelessness in living. After thirteen years of work among the young men I have reached the conclusion that the great majority are absolutely careless and pernicious in their mode of living. We must bring about some method of educating them to the laws of hygiene and sanitation and health. We should have courses of training in our public schools.

May I say one thing as a physician. I belong to an association with a tremendous name, the Society of Sanitary and Moral Prophylaxis. This society is fighting impurity. There is so much of loathsome disease in every place that it has become our greatest menace. It is an awful disease, dangerous to society and to health. It is the real cause of much of the so-called race suicide. In women's diseases we find that 80 per cent. are caused by that poisonous germ of which they have been the innocent victims. This is the cause of so much sterility, of the race suicide alarm.

I seek not to be fanatical upon the subject, but I believe our health officers should be called upon to place upon the disease the same stern mandate they apply to measles and scarlet fever. The disease should be publicly announced and the people quarantined. It must be stopped some time—and soon.

Physical training is not only related to physical power, it is closely related to the intellect and the morals. Half of the brain is a contradiction of muscles. The motor centres of the brain are great storage batteries. You may have the ability, if you have taken proper precautions to call upon this storage, this reserve force, in time of need. It is not striking that the country fellows so often come to town and carry off the prizes. Even in the lower animals the scale of intelligence is graduated on the number of possible muscular contractions. The elephant, which has its trunk in addition to its feet and tail, possesses special intelligence; the monkey that can use its hands and feet, and the parrot with its beak in addition to its feet or claws.

Take this thought and then I will close. Half of the body's weight is made up of muscle. I don't mean big muscles, but developed ones. I would not want Sandow's huge muscles. I wouldn't know what to do with them if I had them. I would have to eat more to sustain them, though that would be an easy matter if I were invited here often.

What we should seek to develop is that consciousness of power which is worth a lot. I have felt fit in training for the football team, so well, so sound that I felt I could "chaw" the whole team up myself. That feeling is worth while. That feeling of strength, of consciousness of power will make the lawyer a better lawyer, the preacher a better preacher and the business man a sounder business man. It makes men do things.

In closing I must again congratulate you on your splendid organization and the broad spirit which enables you to listen to arguments on all sides of questions. May I hope you will use your efforts to bring about a physical and vital advancement which will make possible bodily health, strength and power.

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(January 22nd, 1906.)

## Paper and Slides on Civic Improvement.

By J. P. HYNES.

Toronto as it is to-day is known to us all, beautifully situated on the lake shore, the Humber, Toronto and Ashbridges Bays form its water front, from which it gradually rises to the high land on the north, where the Rosedale ravines join the Don Valley on the east and Black Brook ravines join the Humber Valley on the west, practically forming a girdling of natural scenic beauty around the city.

Toronto is well kept and well treed, has Queen's Park in the centre, High Park in the west, and Riverdale Park in the east. It is growing rapidly in population, wealth and beauty, so that one may feel constrained to ask what is the Guild of Civic Art advocating and why.

Now the Guild of Civic Art does not wish to assume to be the critic of the past for much has been done and done well, which makes us all proud of Toronto, but rather to point the present opportunity to procure a rich heritage for the future, and not the far distant future either.

At present Humber Bay is reached by a road impassible with either dust or mud the whole year around. The railroad whistles, clatters and smokes on one side, while the bay itself on the other makes periodical inroads of destruction on this already decrepit highway.

Toronto Bay has been cut off from the city by all the modern improvements of trade and transportation, and when reached is found to be a civic cesspool, the island on the other side of the bay has never had its possibilities touched and the same may be said of Ashbridges Bay. Looking at the city itself we soon see that one must travel two