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Mr. W. Frank Hatheway's
SPEECH

In support of the more
complete Education for
the Mechanic and Farmer

Given in the House of Assembly,

Fredericton, N. B.

March 19th, 1912

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10-6-33

THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

PHYSICS 351

LECTURE 1

LECTURE 2

LECTURE 3

LECTURE 4

Mr. W. F. Hatheway moved the following resolution, which was unanimously adopted by the House of Assembly at Fredericton, New Brunswick, March 19th, 1912:—

“ *Whereas* the increase of the material wealth of Canada depends almost entirely on :

1. The skill and science with which the farmer cultivates the land and produces his crops.

2. The careful work and knowledge of the miner and the lumberer in their several avocations.

3. The special skill and efficiency whereby the mechanic and other artisans transfer raw material into finished and useful products.

And whereas the Dominion Manufacturers' Association and all its branches, the different trades and labor congresses since 1900, and also the numerous boards of trade throughout Canada have been continually urging the Dominion Government to investigate the needs of technical and agricultural education in Canada in order to improve the skill and efficiency of the farmer, the mechanic and all other artisans.

And whereas the public school systems of the different provinces do not tend enough towards furnishing the masses of the people with either agricultural or industrial education.

Therefore resolved, that it is the opinion of this legislature

1. *That* the federal government of Canada should appropriate annually for the next ten years, the sum of \$4,000,000 a year to be expended solely upon agricultural and industrial education. ✓

2. *That* such sum of \$4,000,000 a year be paid over by the federal government through the minister of——— to the governments of each province of the Dominion in sums pro rata to the population of each province as shown in the census of 1911.

3. *That* each province of the Dominion pledge itself to expend such sum solely and only for agricultural schools, or farms or colleges, and for technical education of the miner and lumberman, fisherman and mechanic by means of manual training, technical schools, high schools and colleges.

4. *That* each province appoint one of its cabinet who will annually make his report to the minister of——— at Ottawa showing in detail where and how such sums have been expended.

And further resolved that copies of this resolution be sent to the members of the legislature of all the other provinces of this Dominion asking their co-operation and asking them to forward a similar resolution to the Dominion government.

And further resolved that copies of this resolution be sent to all the members of the House of Commons and the Senate of Canada.”

Mr. HATHEWAY'S SPEECH

Mr. Speaker:—

It is a great joy to belong to a nation that has risen to power on those sure foundations of national life—a well-paid people, a well-protected people and a well-educated people. The institutions of a country are not as great as the men who compose that country. Thus, the men of today are greater than the laws of yesterday. However hoary with age, and moss-covered with custom the Educational Institution of this Province may be, I trust it will not be considered irreverent for me to say that our educational system is based on a wrong conception of human duties and aims. This system is not aboriginal, it is not rooted never to be upset. It may have been good in its time, when the Family Compact ruled, and when there were only the three estates, the court, clergy and King. At that period the mechanic, the miner, and the farmer had no great power in making laws and in regulating institutions, and were afraid to say that the main drift of an Educational System should be to aid the farmer and mechanic rather than the professions. That older time of 1800 to 1850 regarded property as the sole care of Government. The statutes of that day forgot the sacredness of personal right, but remembered keenly the sacredness of property. Great estates were owned by a few persons, the Simonds, Gilberts, Whites and others, through whom we have an heirloom in renewal land leases so hindering to progress and development in St. John City and County. Property and professions were the influences ruling our politicians when they laid the basis of our Educational System. Even when the Free School System was adopted in 1871 through the efforts of Hon. Geo. E. King and others, the taint of this deference to property and professions still obtained as seen in the curriculum before 1900. The laws and teachings of that day bear the stamp of this deference, this servility to property and to the professions. To such a degree has this been so that until about 1900 those great doers of human labor, the mechanic and the farmer were practically forgotten as far as education is concerned.

THE NEED OF SKILLED LABOR.

The time is come for this province and other provinces of the Dominion to take steps towards providing agricultural and technical education for our youth. Dr. Robertson in an address in this chamber several years ago pointed out the necessity of increased agricultural and technical education in Canada. In St. John recently, at a meeting of the building trades, the need of more skilled labor was mentioned. Since 1900 every Labor Congress has passed a resolution favoring the Dominion government taking some action along this line. Other bodies have passed similar resolutions, and many newspaper articles have been written on the subject. The result of all this was that finally a Royal Commission was appointed with Dr. Robertson as the head, which visited all the provinces of this Dominion and afterwards the United States and European countries.

The report of this commission will come before the Dominion Government probably after this house has closed, and when it will be too late for us to take action. Now is the time for this legislature to act. There is good reason for believing that the report will favor a general system of Technical education on the lines of the best European systems.

The Dominion Manufacturers' Association has favored a scheme within the federal government. Their expert in a report expressed the opinion that the military college at Kingston and the experimental farms throughout the Dominion were, to a certain extent, forms of technical and agricultural education. Under the British North America Act, I do not think the Dominion could expend money directly on an educational system, as the Act provides that the provinces shall manage their own educational systems, but the Dominion could expend money on Education in the manner asked by this resolution before the House.

A CHANGE IN SYSTEM NEEDED.

I ask for a change in this educational system which is not in favor of the farmer and mechanic, but rather for the professional classes. The spirit of twenty-five years ago is still in this legislature. There is still too much deference to property and not enough to the person, but the time is coming when this House will have to think of the person first and property second. **There is a new Colossus coming and it is the labor man. He wants better education for the farmers and for laborers.** Many of the great minds of England including Dr. Lankester, Dr. Peters, and Sir Lyon Playfair are among those who have favored a new educational basis. Great Britain and the United States have awakened to the fact that they must change their system and catch up to Germany and other European countries. The question for Canada to decide is whether we will allow the United States to go forward while we stay behind. Germany early recognized that the workers must have the best possible chances for education and today leads the world in technical education. That one complete system since 1870 lifted this puny nation of Frederick the Great's time, into this Colossus of Wm. the Second's time now the envy of Great Britain and the fear of Europe. Denmark thought this out in 1880 and by her co-operative system of farming and of education, that little nation of two and a half millions, and only 16,000 square miles of area, a little more than half of New Brunswick, has beaten the world in dairy products and is the second richest nation per head of population in all Europe.

THE WORKERS AND THE PROFESSIONS.

Great Britain taking lessons by Germany, forgetting to a degree the court, professions, and the courtiers has turned her attention to the real makers of wealth, the farmer, the miner, and the mechanic. I recognize gladly the service done by the legal profession to help provide the basic laws of Government, and to disentangle knotted legal skeins—the services of the physician who so often in the enthusiasm of his profession does his work gratis, and the services of the clergy who try to cure those sick souls who suffer from heredity or mischance. But after all, are not these but the drift of the great throng, of the vast human tide of workers? **These workers in the foundry, factory, in the mines, these men who go down to the sea in ships, these sun-beaten faces who drive the plough and lean on**

the hoe as they look out over the fields to cultivate, and the harvest to win; those who work in steamboats, railroads, factories, shops, mines, lumber woods, on wharves, these mechanics—are not these the men on whom all the rest, the traders, professions, court and king, all live and batten? Germany, Belgium, Denmark, Great Britain and Australia said so and have changed their system of education. Canada must say so and change her system of education. Not long since we turned our heads forward and began a mild system of manual training, thus recognizing in part the policy suggested by my resolution. Again in this province a Chair of Forestry was a partial recognition of the new education. All of these however, are but timid steps in the pathway of national education. New Brunswick today has no Experimental Farm, no Agricultural School or College, no evening technical schools of any kind. **Our youth have to go to Truro or St. Anne to learn agriculture or to Halifax or Boston to learn the mechanic arts.** Hundreds of our young men are paying a large amount to the Pennsylvania Correspondence School, trying to get an education that our boasted free school system does not give.

We must no longer keep our heads turned backward as we stumble on, but we must, while giving reasonable regard to property, remember that persons are more than property, and we must give persons all possible care in education. Until lately our system in this province has been to push the student towards the university and a professional career. The chief superintendent in his remarks at different times has admitted this tendency. The new education hoped for from this resolution will change all this.

Expend Millions on Education but not on a Canadian Navy

The surplus of revenue over expenditure in Canada for the last five years has been each year between twenty and thirty millions of dollars. This country has no need to expend millions in building a navy or the millions of dollars a year that would be needed to maintain that navy. As against that unneeded expense, in place of this unnecessary cost of a navy, I ask the Central Government to expend four millions a year on technical education as outlined in the resolution. If by this expenditure we create an army of skilled workmen and skilled farmers we are doing more good to the empire than by building battle-ships. The Minister of Militia said last month that he hoped to have in a few years a million of young men who could shoot straight. His department is needed but only for internal peace not for external war. Every Canadian should resist this effort to warp education into wrong channels.

The true nation builders in Australia are the mechanic and the farmer. In Denmark also, in New Zealand also, in Belgium and soon likewise in Great Britain and Germany these two great labor forces will rule. The highest national department in Canada today is and ought to be agriculture. That department is higher than the Department of Militia because it makes the earth produce. It does not waste, it adds to wealth. **Education will make these farmers and mechanics an army of skilled workers who will be of far more value in Empire building than any navy we could build.** A million of youth who can run the furrow straight, and gather in the ripe grain of September, who know scientific

cally and practically what soils require certain fertilizers, who understand dairying and fruit raising and stock raising, who are skillful at machines, in railroads and in mines, all these are better men than if they knew how to shoot straight.

Agricultural, Commercial and Mechanic Arts Course.

This resolution, Mr. Speaker, proposes to give these workers a good chance to become skilled in their work. New Brunswick has not done well in the past by the mechanic, the farmer, and trader. Up to and including the 8th grade there are two if not three studies which should be left to the 9th grade. These are Latin and Algebra.

Up to and including the 8th grade there should be the general education with no push at all towards the university. At the close of the 8th grade the pupils should have two avenues open to them—one the 9th, 10th, and 11th High School leading to the professions of doctor, clergymen, etc., the other to be the 9th, 10th and 11th through the Technical High School leading to the three avocations of farmer, mechanic and trader. On leaving his 8th grade he could take the Commercial or Mechanic Arts, or Engineering or Agricultural course in the Technical High School preparing the pupil for the Agricultural College or the Mechanic Arts College.

THE TITLE OF DOCTOR.

Suppose a young man at 14 finishing the 8th grade, takes his course at the Technical High School. Then if he wants to be perfect in all the theory and practice so as to teach, he could take his three years in the Agricultural College and win the title of "Doctor of Agriculture," or if he studies the Mechanical Arts he could then go to that College and win his title "Doctor of Mechanic Arts," or of Engineering. Gentlemen of different professions may smile at the idea of a farmer's boy, or a Mechanic's son becoming a Doctor of Agriculture or Mechanic Arts. The Doctor of Agriculture would have to know thoroughly all those laws that are taught in physics and chemistry. The forces of nature through which the Creator manifests His power, these are the high laws and the secret dynamic forces with which the Doctor of Agriculture would have to cope and learn to divert and use for the cultivation of the ground. True he does not deal with the mouldy parchments of the past but he does deal with the awful potent forces of today that are levelling mountains, channeling river beds and spreading abroad fertile plains. Earth and sea, sky and air, electricity, light, and the vital principle of life, these are the studies of this farmer's boy that is to win his title of Doctor. The Doctor of Laws studies what man has done, the agreements of nations, and establishes his case by precedent not forgetting the scales of justice. The Doctor of Medicine studies the laws of disease and its cure, the Doctor of Theology studies the moral laws and tries to fathom and teach what Jesus and the other great prophets have said **but the Doctor of Agriculture, of Enginery, of Mechanic Arts is higher than all these. He studies the forces of nature.** When this ball got its first momentum, we know not. But here it is, whirling, whirling with its heat and cold, expansion contraction, its magnetism and its repellent force, its air, sky, sea, shore, its ether its mines, its gases, its forests, rivers, and last that invisible latent force called life which lies in the ostrich egg and in the tiny seed wheat scattered on the plains of the North West.

I say that the youth who takes his Technical High School Course and then his three years in the Agricultural College, if he obtains reasonable proficiency in these great studies, these nature forces, has as much right to the Doctor title as has the Doctor of Medicine, of Law, or of Theology.

When Emperor Wm. II laid the corner stone of a Prussian Technical College in 1902, he stated "I want you to be Germans not Greeks. Learn the potent forces of nature, how to apply them etc." That college gives the title of Doctor and it stands as high in rank today in Germany as any degree given by the older Universities

Some gentlemen, Mr. Speaker, may think that this sound of the title "Doctor" is too empty to waste time on. It means much to the old farmer if his boy becomes a Doctor of Medicine. I have noted often the curious pride that comes over the rugged brown face when a farmer has told me that his boy is studying for a doctor or a clergyman.

Gentlemen, the creating of a Technical High School and Agricultural College as contemplated by this resolution, will go a long way to solve the problem of Back to the Land. Honor, much honor is due to the worker. Let him have this chance of education, this distinction given to those few who could spare the six years for study and you will give a dignity to agricultural work that will bear rich fruit. From far and near in the U. S. I have letters bearing testimony to the high place of agriculture and to its need for the higher recognition. ✓

Federal Grant to Expend \$40,000,000 in Ten Years on Education.

Gentlemen, by this resolution we ask the Dominion Government to appropriate \$4,000,000 a year for the next five or ten years, to be given to the different provinces pro rata to its population. The amount to this province would be about \$200,000. Some one department of this government is to receive this amount say, \$200,000 and the Provincial Government might add to it \$50,000. The whole \$250,000 must be expended only on Technical Schools and Colleges, Agricultural Schools and Colleges. None of this amount can be expended in any other way. At the end of each year the department must report in detail how it has expended the \$250,000. With that amount the Board of Education in this Province could provide an advanced system of education for the mechanic and the farmer.

I recognize, Mr. Speaker, that this is a large sum to devote for this purpose and I will give some good reasons for my demand

The first great wealth of Canada is its farm products, and especially butter, cheese, bacon and eggs, as these four require more skill and care than do wheat and hay. Let us consider the following figures.

WHAT DENMARK HAS DONE.

Denmark, Australia, and the Netherlands are driving Canada out of the British dairy market. The exports of butter from Denmark has shown wonderful advance. ✓
In 1890 Denmark exported over 97,000,000 lbs. and in 1905 the amount had increased to over 186,000,000 lbs and in 1908 to over 200,000,000 lbs. This advance is due to the co-operation, intensive

farming and the education of farmers who were proud of the position they had attained.

Exports of butter, bacon and eggs from Denmark have shown great increases. From 1881 to 1885 they averaged \$8,000,000 per year, from 1891 to 1900 they averaged forty-two million, and from 1906 to 1909 they averaged \$74,000,000 per year.

Importations of butter to the United Kingdom according to the year book of 1910 show that Canada is dropping off, while other countries are going ahead:

	1905	1908
Denmark.....	\$52,000,000	\$55,000,000
Australia .. .	11,000,000	11,000,000
Netherlands..	4,250,000	6,000,000
Canada.....	5,500,000	240,000

A POOR SHOWING IN NEW BRUNSWICK.

Speaking in this legislature several years ago I had occasion to refer to the record of 1904 which was a disgrace to this province. It showed an expenditure of \$1.89 per head for education in New Brunswick while in Ontario there was an expenditure of \$2.31, \$3.00 in Germany and \$3.25 in New Zealand, New Brunswick's expenditure being below the average for whole Dominion which was about \$2.10 per head.

Butter and bacon require much care and work. How lamentably behind Denmark is Canada.

Much of this gain in Denmark is due to the co-operative system, which has squeezed out the middleman, but much of it is also due to their agricultural schools by which the farmers of Denmark have a marked pride in their occupation. Farmers and mechanics have a majority in their House of Parliament and Government is a farm Labor Government. Very rarely do you meet an illiterate in that country.

Germany by her splendid educational system is causing such a love for the land that her immigration for the last few years has exceeded her emigration. Her agricultural and manufactured products, produced by carefully taught workers under a most complete Technical system are now knocking at every door. **Look over the United States. Most of them have now their Agricultural Schools and Colleges. Technical Schools and Colleges, many of them aided by land grants, and all are aided by Congress to the extent of about \$15,000,000 a year.**

The United States are keenly alive to the need of skilled workers in the shop and on the farm. Their market is our market viz: Europe. If we do not keep pace with them in education, we will go behind them, as Great Britain went behind Germany in 1870 to 1890 and Great Britain only woke to realize it in 1895 and is quickly repairing her error. We in Canada, however, are doing nothing unless this Royal Commission stimulates the government to active effort. There is not one Federal government-aided Agricultural School or College, Technical School or College in the whole of Canada. There are a few experimental farms, but they have no students. The B. N. A. Act does not permit the Dominion Government to apply any money for education, yet it pays out over \$100,000 a year for the Kingston Military

College. It will not controvert the B. N. A. Act if the Dominion Government expend the \$4,000,000 as proposed. The U. S. Congress is considering the wisdom of expending \$8,000,000 more a year on Technical Education. They know its importance and so do we. Mr. Speaker, and Gentlemen, the illiteracy in this country is not pleasant to contemplate.

Illiteracy in New Brunswick and Nova Scotia.

Look at the records and know that in 1904 New Brunswick only paid \$1.89 per head for education against Ontario's \$2.31; also the 1911 census shows us that Ontario with a population of 2,300,000 had only 28,700 who could not write, and New Brunswick and Nova Scotia with a population of 790,000 had 28,800 not able to write.

In some of the German provinces you do not find one illiterate. You find them in New Brunswick and Nova Scotia by the hundred. In New Brunswick it is not at all uncommon to find men and women who cannot write their names.

Our Duty to the Mechanic and Farmer.

Mr. Speaker, we owe a great and serious duty to the mechanic, the miner, the fisherman, the farmer, the lumberman. For nearly 100 years we have turned our back upon him and thought only of the professions, the college and university.

That system must change. In the interests of Canada we must expend freely to give these five classes of workers all the education they can afford to take. For years these farmers, these laborers have worked in their fields, on the roads. Today in New Brunswick they are but little better off than they were 30 years ago. If the Agricultural Committee's report of 1909 be correct, they are going behind, compared with Ontario. In the meantime the towns and cities have prospered.

The future of this province, of this country, depends on successful agriculture and manufacture, and also on good soil and good raw material, together with well skilled workmen. For this last we need the best Technical Education. Without that, we fall behind in the race. With that we shall rapidly forge into the front rank as the great supplier of Europe's needs.

