

ADDRESS

BY

MR. JAMES J. HILL

AT THE

DEDICATION OF  
STEPHENS HALL

CROOKSTON, MINN.

SEPTEMBER 17, 1908

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I need hardly say to you how much pleasure it gives me to see the evidences of progress that I see here today. Fifteen or sixteen years ago, when I was younger and possibly had more hope, I felt that an agricultural farm under state direction would do a great deal of good up here. These four hundred and fifty acres upon which your college is now about to be opened, lying close to Crookston, I had reserved for another purpose. It might become valuable, but I felt that it would be of greater value as the starting point of an agricultural farm in the Red River valley. Now the years have rolled by and many changes have occurred. I have beard today of the necessity for all these improvements. I have heard how much education will do, and I want to say to the advocates of education that yon have arrived at a time in the life of this country when you cannot postpone it. Do what you will, yon cannot postpone it. A great change

has come within the past five or ten years, silently, like "a thief in the night,"

Ever since the settlement of this entire country from the Atlantic to the Pacific, there has been an enormous area of public domain upon which any man who desired to have a home could move and obtain a free homestead for his family. I do not know where in the entire United States there is a single township now without a settler on the land, if its quality is such as to enable a man by cultivating the soil to bring up his family as he would like to. We have large areas of sides of mountains. We have large areas of desert land. But Uncle Sam is not rich enough, or has not land enough I should say, to give each of us a farm any more. Now what is to become of us? Let us take stock and see where we stand.

Our population has increased in this country at a ratio that, if continued, will give us over 200,000,000 people by 1950. It may be 1953 or it may be 1917, but in or about the middle of the century we will have 200,000,000 people to feed. We are raising today in the United States about 650,000,000 bushels of wheat per annum. The crop of last year was 634,000,000 bushels. Good prices obtained, and anxiety to get gold to this country induced a rather free movement in export wheat that amounted to 140,000,000 bushels. The consequence was that after the middle of January wheat was as high in Minneapolis as it was in New York. For what reason?

Because the people who bought the flour must have bread at some price. It is a task to maintain 200,000,000 people with our six and a half bushels per capita for bread and seed. Professor Parker, of the State Agricultural College, gives it at from six and three-fourths to a little more than seven bushels. Six and a half is a moderate and conservative figure. With 200,000,000 people consuming six and a half bushels, it requires 1,300,000,000 bushels to feed them. That is twice as much as you are raising today; and if you have no new land to turn to, where will you get bread to feed those people?

I am not afraid that agricultural colleges will not spring up over the land, I am not afraid that the people will not cry out for them. They will cry out, because there is no other teacher like necessity, and there is no monitor like an empty stomach. It is said that everything will take care of itself: it always has and it always will. But a good Providence takes best care of those who take care of themselves.

Our agricultural product last year amounted to \$7,400,000,000. Of all that we export, of all our hundreds of millions in commerce with the rest of the world, the land furnishes about seven out of every ten dollars. We send abroad our bread-stuffs, our animal and food products and our cotton in immense quantities. A few kinds of cotton are grown better elsewhere than in the United

States, and for these we are the customers of the foreigner; but in general our cotton is better for manufacture than any other, and its cultivation is more profitable here. Our mechanical industries, our industrial place in the world, are founded largely on one metal—iron. At the time of the second census, 1800, the people of the United States used about seven pounds of; iron per capita. Now they are using about 680 pounds.

It will not do for us to go back and say we can judge the future by the past, because conditions are not alike. We cannot any more measure up our future industrial situation by referring to the past than we can our agricultural situation. In the past we had an enormous public domain; so that when a man wanted new land with all its fertility, land that had not been robbed by bad treatment, he simply sold his old place and moved to a new one. But that condition has come to an end. When you are called upon to raise two bushels of wheat for every one you are raising now, and that to feed your own people, without exporting a bushel, you are up against a condition that calls for action. It calls for action on the part of the state, of the nation, of everybody. Hunger will not be satisfied with empty words. When we have to provide for 200,000,000 people, how are we going to keep them?

People tell us that our manufactories will furnish a great resource. We have more iron in Minnesota than there is in any other state in the Union

—in fact about three times as much. Figures that are unquestioned tell us that we will take out the last ton in forty years. Now every different line of manufacture furnishes customers for your bread; and you need never fear that we will ever have cheap wheat again. The day of cheap wheat has gone. And so let me say to my farmer friends, "Don't sell your land unless you are sure that you can get a better farm than the one you sold for at least a fair price." I was seventy years old yesterday, and I don't know that I ought to expect to live any longer, but I am going to live as long as I see anybody else living. And a great number of those who see me today will live to see lands here in the Red River valley worth \$100 to \$150 an acre. They will be worth that because they will bring returns on it. But the only way to make land worth that, the way to make it worth even more, is to know how to use it.

The average wheat production in the state of Minnesota is about thirteen bushels. The average in Denmark is thirty-eight, in England thirty-two, in Holland thirty-four. Our soil gave an average for the whole United States during ten years beginning in 1896 of thirteen and a half bushels to the acre. Austria-Hungary produced over seventeen bushels, France nineteen and eight tenths, Germany twenty-seven and six tenths and the United Kingdom thirty-two and two tenths. Between 1785 and 1790, long before any of us were born,

Great Britain found that her people in great numbers were leaving the land for the colonies and the new Republic. At home the land was owned largely by a comparatively few rich holders of great estates, and the problem they had to solve was how to keep the people on the land. Their wheat yield had been reduced to a little less than fourteen bushels per acre.

They appointed a Royal Commission, I think the number was fifteen, to consider what steps the government could take to keep the people on the land. The Commission gave premiums for the best yields of the several crops. They went among the farmers and asked them to cultivate whatever crop was best adapted to each particular soil, and to the other conditions under which it must be grown; and guaranteed a better return, more money value, for their crops than they had been getting. Sir Humphrey Davy, an eminent scientist, delivered a number of lectures, most interesting even in our time, on the intelligent use of the soil. But with all that this Commission could do, it was 1840, or fifty years after they started, before they raised the yield per acre from fourteen to twenty-five bushels. Now it is up to thirty-two and two tenths, while ours has been steadily declining.

Almost within sight of where we are I have seen the heaviest crop of wheat I ever saw; and I knew the heaviest crop of wheat ever raised in Polk county. It was in the spring of 1880 when

Captain De Mers was seeding some land that had been broken. I had some engineers at work at the time, running lines, and I asked him to harrow the land, which had not been harrowed, twice before seeding and four times after. I remember that Frank De Mers looked at me as if I was setting him a big task; and I told him that if he wasn't satisfied with the result I would pay him for it. I sent an engineer, old Captain Payte, when harvesting was ready, and he ran out the lines for the ten acres that he had marked off for this wheat cultivation. The result was that he got forty-seven bushels and ten pounds per acre. The rest of the field yielded twenty-nine or thirty bushels. It paid to cultivate the land, as it always does. Somebody says, "Oh, if I could only raise a crop of potatoes that way." Well, in raising a crop of potatoes you have got to cultivate the land; you cannot raise it with a seed drill or with a disk harrow. You have got to get down and do some work and stir up the soil to get a good crop.

Now these things are going to come in this country, or else a great many people will have to take wings and go to other places. There is going to be a different condition in the United States, or you people will have to leave it and go to some foreign country; perhaps some place in South America where you will have to learn to talk Spanish, and maybe you will have to walk Spanish before you get through. But really it is no joking matter.



We cannot feed our future population with our present methods. We must improve; and it is up to everybody to make the best use of the opportunities we have. I am not afraid as to the result. I know that necessity will compel you. You have got to do it, whether you will or not. You have got to get right up and learn to cultivate your land.

The time for pleading is gone. I tried that. I commenced bringing up cattle and hogs through this country twenty-five years ago, endeavoring to get the people to do something that would preserve the fertility of the soil. And what happened? They said that I was trying to cast a cloud, a dark blot upon the fair name of the state of Minnesota; that it was the home of Number One hard wheat; that it was a wheat state and I had no business to advocate the raising of stock. Well, I am not advocating the raising of cattle at my expense now. But I think a lot of the gentlemen who were very active in denouncing it are a little in the position of the boy. He was a handsome boy, with fine features, but he was careless. His father had told him to avoid the business end of a mule if he did not want to get into trouble, but the boy forgot. The mule kicked him right in the face and he had a badly disfigured countenance. After it was dressed, the first question he asked his father was if his face was badly disfigured, and the old gentleman told him, "Son, you will never be quite so handsome, but you will know more." Now when my

mind goes back to some of the political conventions where they had nothing to do but denounce me for giving them cattle and hogs, I think that they are not so handsome, hut they know more than they did.

I thought that I would not entirely give it up. So a couple of years ago I thought that I would give cash prizes, to see if that would not help them. I stipulated that a man, in order to be entitled to compete, should have twenty head of live stock for breeding purposes; he could have cows or sheep or hogs or horses; he could have them all of one kind or of all kinds. I did not know who were competing. The first intimation I had of that was when the list of those to whom prizes should go was handed in. Out of about 600 that entered, I think it was ninety-three, in three of the agricultural states of the Northwest, that could qualify. They hadn't twenty head of live stock for breeding purposes. That was the rock they split on; and I just want to ask the professors here what kind of farmers they had, trying to preserve the fertility of the soil, if they could not muster twenty head of live stock for breeding purposes. I quit; and if ever I am caught in that trap again, I hope you will notify me. There are some good farmers in Minnesota. There are a few here in the valley. There is a young fellow over near Erskine, a graduate of the State University, who got a prize, and I was glad he did. There is another in the south-

ern part of the state who could take prizes as many times as I might offer them. But I want to do him justice; he came to me and said, "You had better, after I take one prize rule me out." It is better for you to help yourselves. This is your institution. It is not anybody else's, and it will be just as you make it. If you send your boys and girls there, it will be a success; and if you neglect it, it will be to your shame. I speak plainly because the time will come within the life of the younger people within the sound of my voice when all these things will settle themselves. If you do not cultivate the soil, somebody else will move you off it, pay your price, farm it and make it worth \$150 per acre. And it is worth it. Every acre in the Red River valley, properly cultivated, is worth \$150 and will pay a big return on that sum. Your only trouble is that you do not make what you might, and what is done elsewhere, from your laud.

I have here some figures. They were made at the State Agricultural College, right down near Minneapolis. The prices I take from the Yearbook of the United States Department of Agriculture. The cost of cultivating an acre of land is fixed by the Experiment Station at \$7.89. At 63.8 cents per bushel, which was the average price over a period of ten years, a yield of twenty bushels per acre would give \$12.76, or a net profit of \$4.87. A yield of sixteen bushels per acre at the same fig-

ures would bring in \$10.21, or a net profit of \$2.32. Twelve bushels per acre would be worth \$7.66, or a net loss of twenty-three cents. Ten bushels per acre, which has been a not uncommon yield in the Red River valley in recent years, gives \$6.38, or a positive loss of \$1.51 per acre. Now suppose you raise twenty-four bushels to the acre. That is within the reach of any good farmer who cultivates his land as he ought to. Put the price at seventy-five cents a bushel. I hope that, as a fact, the day of seventy-five cent wheat has gone and the time of dollar wheat has come. I know it will average that for the next twenty years, and afterward it may reach a much higher price. Twenty-four bushels at seventy-five cents will give you \$18. Allow \$5.50 an acre for seed, cultivation and threshing, and \$2.50 an acre for rent. Whether you own the land or rent it, it is worth \$2.50 an acre for the use of it, and ought to be worth a great deal more. This makes the total cost of production \$8 per acre; and the profit from a yield of twenty-four bushels, \$10 per acre. Take twelve bushels per acre, which is not uncommon. They have been known to get as low as that even in Polk county. At seventy-five cents a bushel, that will bring \$9 per acre. Your expenses and rent are the same, \$8 an acre, but your profit on this yield is \$1 per acre as against \$10 on the other. In other words, there is as much profit from one acre, raising twenty-four bushels, as from ten acres, yielding twelve

bushels per acre. Think of the difference in cultivation, in machinery, in peace of mind. The man who has eighty acres of land and tills it well need not worry about how many tramps he will have to harbor in his house in order to get his grain taken care of. He knows he can take care of it. A good farm of eighty acres, well tilled, is better than 320 acres half cropped.

It is an old story. As far back as we know anything about civilization, the cultivation of the soil has been the first and most important industry, and it always will be. Herodotus, who lived so far back that many of us do not even know his name, tells us the story of the human race in the valley of the Euphrates. He tells us that with poor cultivation the tillers of the soil there got a yield of fifty fold; with fair cultivation, one hundred fold; and with good cultivation, two hundred fold. That was the garden of the world in its day. Its great cities, Babylon and Nineveh, where are they? Piles of desert sand mark where they stood. In place of the millions that overran the world there are a few wandering Arabs feeding a few starved goats. The Promised Land—the land of Canaan itself—to which the children of Israel were brought up from Egypt, what is it now? A land overflowing with milk and honey? Today it has neither milk nor honey. It is a barren waste of desert, peopled by a few wandering robbers. That is all. Now let us go back and see what was

done in Egypt. The Almighty looked after the fertility of the soil there by overflowing the valley of the Nile every year. From the earliest records that history gives. Egypt has been a land of remarkable yields; and today the land thus fertilized by overflow is yielding remarkable crops.

Having, as I have said, tried for twenty-five years to get the people of this Northwest to realize the importance of taking care of their land, I can now stand back and say: "You will have to take care of your land all right, or somebody else will take care of it for you." Perhaps some one will come along and pay you what you think it is worth, or maybe more. Don't sell because you might be able to go up to the Canadian country and see how that has settled up. You cannot get good land there any more for less than five to eight dollars an acre. Only a few years ago we sold lands owned by the company here to net \$2.50 an acre. We were afraid to offer them at \$2.50 so we put the price at five dollars an acre and rebated \$2.50 for cultivation. Today the same land that sold for \$2.50 an acre is worth from \$20 to \$25 an acre; that is, it would sell for from \$20 to \$25, but it is worth six times that to anybody who takes care of it and farms it the way it ought to be farmed. In Japan, 48,000,000 people live on 19,000 square miles; but they plant rice as you plant cabbage—one plant at a time, by hand. They get a yield of from 150 to 200 bushels of rice or its equivalent to the acre;

but they have to labor to get it, and you will have to do the same before many years. It is intelligent farming that counts. It is such cultivation as brought the yield in Great Britain up from fourteen bushels per acre to thirty-two in 120 years. It is such cultivation as has produced thirty-eight bushels in Denmark, thirty-four in Holland and twenty-seven and three-fourths in Germany. Over the greater part of Germany, including the whole of Prussia, the land is sand. It is not to be compared for fertility with our wheat fields, but by close, intelligent cultivation they have increased their yield every year while we show a marked depreciation.

What have we to maintain our cities, our schools, our colleges, our churches, our professions in the state of Minnesota? What foundation have they? Our timber is practically all gone. If they should keep on at the rate of cut of the present year, we would not have a standing stick in fifteen years. Our mineral wealth is not owned in Minnesota; but, in any event, the mineral will all be gone in forty or fifty years. Everything of value comes out of the earth or out of the sea, and the sea furnishes only about three or four per cent. The earth's resources are the farms first, then the forests and then the mines. Our mines are rich, but some one else owns them. Our forests are gone. We are dependent on the farms; and the farms must support these cities, or the cities will not be

supported. There is nothing else to which you can look for support. The farmer occupies a very responsible position. If he makes it worthy, it is a position of which he may be proud; because he is the master of all others if he chooses to use his power. If he does not make it worthy, he is the servant of everybody. I have tried for a good many years to have him help himself, but I think now that he would be more inclined to help himself if I let him alone.

There is great need of better cultivation to raise the per capita of six and a half bushels for 200,000,000 people. Let us agree that by better cultivation and through the work of institutions like this you can raise the yield per acre so as to obtain a total crop of 900,000,000 bushels. That would be nearly a fifty per cent increase. To get a fifty per cent increase in Great Britain required more than thirty years. Now with 900,000,000 bushels furnished at home and 400,000,000 bushels to buy, what do you think you would have to pay for it? Where would you get it? Where in the whole world is there a surplus of 400,000,000 bushels? We furnished the great surplus in the past. Canada is now rapidly coming along by the side of us, and so is Argentina. But by the way people are moving to the Canadian Northwest, it will not be long before they need 300,000,000 bushels for their own use. They may be able to sell 150,000,000 or even 200,000,000, and they are close to our mar-



kets, but all they could give will not furnish us the 400,000,000 bushels we must have. Then what will we have to pay for it? I think it is not a rash statement that if we had to step into the markets of the world and buy 400,000,000 bushels, we should have to pay \$1.50 per bushel, and we might have to pay more. And where should we get the money to buy it with? From the proceeds of what we send out, our exports? Exports of what? Seventy per cent of our exports now come from the farm. A few years more and our iron will be gone; or, if it is not all gone, it will cost so much more than the iron of other countries that people would not buy it from us. It is only a few months ago that China iron, pig iron made in China and by Chinamen, sold in Brooklyn, New York. We cannot pay for this needed food through our manufactures. If we paid cash, it would have to be gold: and we haven't gold enough to pay \$600,000,000 a year, or \$500,000,000 or \$400,000,000 for any length of time.

I am not entirely discouraged about the future of the United States. Necessity is a great teacher: and I have the greatest confidence that when the people realize the necessity, it will point toward a way, and from the experience they have had in the past they will learn to find it. Maybe some one says, "I do not want to take all this trouble." But before he is done with the question he will take the trouble, or somebody else will do it for him. Now I have occupied a good deal of your time and

you have been sitting out there in the sun, and I will not keep you longer. I want to tell you again how glad I am to be here, and I want to say to the farmers of the Red River valley, "If you are out of step with your land, just get over it." Your land is all right if you will only take care of it. A man who sells 160 acres in the Red River valley for less than \$100 an acre makes a mistake. I mean if he is a farmer; if he is a speculator, I don't care how soon he sells it.

There is, however, something more I want to say to you. The bill of Congressman Davis is in your interest, and every man who represents you ought to do everything for it in his power. If the bill in the first instance is not quite right, or does not just fit—for they don't always turn out exactly the way you want them to—you can cut and try again. But get it started. If I had my way, do you know what I would do? I should build a couple of warships a year less. Cue would do. And I should take that \$5,000,000 a year and start at least 1,000 agricultural colleges in the United States at \$5,000 a year each, in the shape of model farms. There would be a man to farm each eighty acres; and a general superintendent, a thoroughly trained agriculturist, to manage three or four counties and go around from one to another. Every crop that could be or ought to be raised might be experimented with right here on this farm. I think that some of the men who have a partiality

for wild mustard—it is strange that so many of the farmers seem to like it—would find a way to get rid of it. They would be taught to get better seed. I would bring the model farm right here, into the county, so that you could see it: and if there was any one in doubt, lie could come down and find out what lie ought to have done and what he could do.

That is the way they raised the standard in England. We have made a start. The president made it the other day. In place of fifteen men, in a little country like England, he appointed three men for the United States. One was a publisher, one a teacher, and I don't know what the other one was. Before they can make any intelligent report, we will all be dead. The country is too big. There is too much to do, I don't know that the report would be very helpful anyway, on account of the absolute want of time. I should say that if a commission of fifteen men had five years to do it in, their information might be of some value; but without the necessary time it is mere guesswork. It is like some of the government geological surveyors who undertook to tell me how much iron ore there is in Montana. I asked them how much commercial ore, and they said "all commercial." I said, "Where would you smelt it?" They answered that they would build furnaces at some central point and bring 500,000 tons or more of the ore there. Five hundred thousand tons would run

a furnace two years, and the furnace would cost \$600,000. And when I asked them how they would get the ore from its location to the furnace, they said, "the railroads would carry it." Well, somebody would have to build the railroad; but I don't know who. They seemed to believe that there were a great many gudgeons to be caught in the railroad business, but I assure you that that is mostly cured. There will not be anything like the extending of railroads that there has been in your life and mine.

This work has to be done. No matter whether a commission makes a report or not, the necessity of hunger, the desire to live, the battle for existence will call for it. Relying on that, I repeat to you that your land will be worth from \$100 to \$150 per acre; and a man who has 160 acres of "Red River valley land will be as independent as a prince.