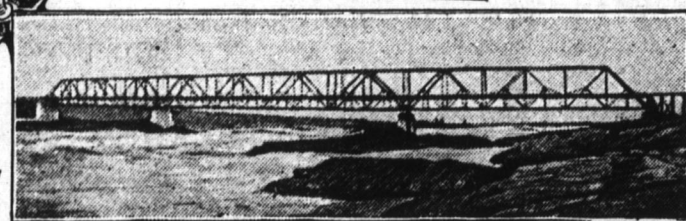


# The Hudson Bay Railroad



Will Canada Finish Her Link Between Wheat Fields and Salt Water?



By JOHN DICKINSON SHERMAN  
HALL Canada materialize its dream of a generation and complete the Hudson Bay railway—a road planned to connect its great western grain fields with salt water at Port Nelson and open a new grain export route to Liverpool?

That is because of ice troubles and shoal water. The most optimistic estimates of terminal costs of construction are: about \$4,500,000 for harbor and channel dredging; nearly \$6,000,000 for storage facilities; about \$7,000,000 for lighthouses and other marine equipment along the channel and in Hudson strait connecting the bay with the ocean; total, including the 100 miles of road, \$22,500,000.

prepared to vote money for the completion of the Hudson Bay railway. The vote was 78 to 20 against. The government treated it virtually as a want of confidence vote, so it was probably not a test vote, as some of the Progressives voted with the Liberals and Conservatives.

That is a question that is stirring all Canada, setting the West against the East and provoking all-night debates in parliament. There is seemingly no doubt at this writing that the road will be completed—in time. But whether it will be completed as a grain export route or as a colonization and general carrier road is apparently an open question.

The longest open season that can be expected is fifteen weeks, beginning about the middle of August; in some years it has been no more than ten weeks. This short season, suggest the engineers, will so place limitations on the capacity of the railway that large elevator capacity will have to be provided at the port. They also suggest that it will so affect the availability of tramp vessels that freight rates must remain largely conjectural.

To the student of American history this Hudson Bay grain export route project is of intense interest. Port Nelson and the Nelson river were the headquarters and trade highway of the Hudson's Bay company—chartered in 1670 by King Charles II of England and the biggest and most efficient monopoly the world has ever seen.

The Hudson Bay railway starts at The Pas, Manitoba, on the Saskatchewan river, at the end of a branch line of the former Canadian Northern railway, and runs to Hudson bay, north-east, almost as the crow flies, along the Nelson river, to Port Nelson, near the mouth of that stream. The length of the line is 425 miles; 325 have been constructed to Kettle Rapids at a cost of \$20,500,000. The estimated cost of the remaining 100 miles is \$5,000,000.

Incidentally, it may be stated that in 1922 Canada's exports of wheat (including flour) were 179,906,000 bushels and the total exports of wheat, oats, barley and rye were 232,908,000 bushels.

With power of life and death and monopoly of trade over all of British North America to the Rockies it successfully barred the way to civilization for 150 years. H. B. C.—translated by its enemies, "Here Before Christ"—was on its flag and the missionary and teacher were anathema. Pro pelle cutem—"skin for skin"—was the motto on its great seal and it took the fur from the Indian and skinned him in the trade, reducing him to slavery. Not even a post factor was allowed to make a garden, lest he give the lie to the "inhospitable wilderness." The "free-trader" in furs was killed off. It ignored the exploring obligations of its charter, set up trading posts and made the Indian come to them. It piled up enormous profits in secret and successfully withstood investigation. Forced to let go its grip after 200 years by the British government, it is now selling its "fertile lands" and running a chain of department stores in thriving cities—and making more money than ever.

Take a look at the map of North America. Note that Port Nelson, on the west shore of Hudson bay, is almost due north of Chicago, and that The Pas is almost due north of Omaha. Now note the distance from The Pas (or Winnipeg) to Montreal, either by all rail or via Lake Superior and Georgian bay. In round figures the saving in mileage by the Hudson Bay road in respect to certain points is as follows: Regina, 1,050 miles; Calgary, 1,150; Saskatoon, 1,175; Prince Albert and Melfort, 1,800. Then figure that Port Nelson and Montreal are practically the same distance by sea from Liverpool—3,000 miles. And finally bear in mind that the Hudson Bay road is a government project. It is a part of the Canadian National railways—a system of 22,000 miles which the World war left on the hands of the Canadian people. It was rushed during the early years of the war, but work was discontinued in 1917.

According to the Railway Age, a hitherto unpublished report on the feasibility of completing the Hudson Bay road project by David W. MacLachlan, engineer in charge of dredging operations at Port Nelson, was tabled in the house of commons at Ottawa in June. This report was submitted to the department of railways and canals in September, 1917. MacLachlan estimated the average season of navigation at two months; the rate on grain from Saskatoon to Liverpool via Fort William and Montreal at 20.4 cents a bushel and the rate from Saskatoon to Port Nelson, including handling charges, at 19.9 cents, thus leaving a margin of 0.5 cents for the ocean rate, extra insurance and the interest on the cost of the works. He said the average rate paid tramp steamers from Montreal to Liverpool was 7 cents and that they would inevitably choose the Montreal route unless there was a higher margin at Port Nelson.

Had the H. B. C. explored "Rupert's Land" and opened it to colonization and settlement, the history of the North American continent would have been far different. The English instead of the Russians would have found it—and kept it. For another, the settlement of the Mississippi valley would have been British instead of French—with possibilities and conjectural consequences beyond our imagining.

Why, then, should there be any question about the completion of the new export route project? That there is a question is shown by two facts: The Engineering Institute of Canada is investigating whether or not the project can be made worth while as a measure of national economy. Moreover, the house of commons has refused to make appropriation for its completion. The terminal for transshipment to vessels will have to be built 20 miles up the Nelson river, say the engineers.

W. D. Euler, Liberal member for North Waterloo, asked if there were reports subsequent to that of MacLachlan. Mr. Graham, minister of railways and canals, replied that there were and that they would be submitted when asked for. Loud applause from the Progressives greeted this statement. In July, according to the Railway

Age, there was an all-night debate in the house of commons, provoked by the Progressives. In winding up the debate Minister Graham reminded the house that he himself signed the first contract and turned the first sod. And he said, in part: "As to the project itself, someone will build the Hudson Bay railway—and I am not going to argue the question of navigation and all that sort of thing. I have said time and time again that the construction of the railway as a colonization road will be valuable in that respect, even if the transportation end were left out altogether. But I think every member will agree with me that parliament as now constituted is not

Another Universe  
Harvard observatory reports not only the discovery but also the measurement of the most distant object yet seen by man. It is another universe, but smaller than ours. This faint and nameless collection of worlds is in the constellation of the Archer and is six quintillion miles distant from our globe. It takes a million years for light to travel from there to the earth. The new universe ap-

pears as a pin-head of light in the largest telescopes. It was first discovered by the late Prof. E. E. Barnard but was photographed just recently. Heretofore the most distant stars were supposed to be only 250,000 light years away.  
China Losing Antiques  
Real antiques and curios will be almost unknown in China in a few years, according to collectors and dealers who have returned from the Orient recently. China, they declare, is being rapidly

stripped bare of antiques by tourists and collectors.  
So few real curios are left in the country now, comparatively speaking, that the Chinese are endeavoring to emulate the Japanese in turning out imitations, but so far they have not been able to equal the work of their neighbors. Old-fashioned bronzeware and Inlay porcelain are particularly scarce now, and one well known collector declared that practically the only Japanese prints available are imitations.

### HOW TO KEEP WELL.

Dr. Frederick K. Green,  
Editor of "Health."

(©, 1924, Western Newspaper Union.)

### WIPING OUT MALARIA BY DESTROYING MOSQUITOES

THE mosquito is the only insect which carries malaria. It can not be gotten by "night air," the use of stagnant water, living or sleeping in damp or shady houses, or living with another malaria patient. But mosquitoes are found wherever there are stagnant pools for breeding-places and damp and shady spots for them to live in during the daytime. In early times, it was noticed that malaria often developed in new countries, with the breaking up of the soil, and disappeared after the land was drained and settled. This was because breaking up the soil crushed depressions and hollow places in which water collected. Later on, as the ground was drained, the mosquitoes disappeared, because their breeding-places were destroyed.

The female mosquito lays her eggs, from 40 to 200 at a time, in stagnant pools; on the margins of ponds and fresh-water lakes; in roadside ditches and ruts; even in tin cans and broken bottles. The eggs hatch in two or three days and the young females soon begin to lay eggs, so that if breeding-places are present, they increase in enormous quantities. However much of a nuisance they may be, mosquitoes are harmless until they have bitten a malarial patient, so that the disease can be prevented either by destroying the breeding-places of mosquitoes or by protecting all malarial patients from mosquitoes by the use of mosquito nets and screens.

If both of these methods could be followed with complete success, malaria would entirely disappear, just as yellow fever is now rapidly disappearing from the earth. The breeding of mosquitoes can be prevented by draining all stagnant pools of water and destroying all possible breeding-places. If these swamps or pools cannot be drained, crude oil is put into the water. This forms a coating on the top of the water and when the mosquito larvae come up to breathe, they are unable to penetrate this film and die from suffocation. Mosquito control was first developed on a large scale by General Gorgas in the Canal Zone. In 1906, when Gorgas went to Panama, there were nearly 22,000 cases of malaria among the 26,000 employees working on the canal. Today there is practically no malaria in the Canal Zone. Wiping out malaria in Panama cost the government \$3.50 a year per person, less than 1 cent a day—about the cost of a stick of gum.

State boards of health have worked out methods for malaria control, especially in our Southern states, so that any community can be free from malaria at a very slight expense. If you have malaria in your family or your community, it's your own fault. Get busy and stop it.

### IF YOU HAVE TUBERCULOSIS, STAY HOME

ONE of the common beliefs about tuberculosis is that climate is of great importance in its treatment. As soon as a person discovers that he has tuberculosis, his friends and relatives at once begin to plan to send him to California, Colorado, Arizona, Florida, the White mountains, or the Adirondacks. This is not surprising when we remember that for many years doctors held the same opinion. A hundred years ago, when a young man went into a "decline," it was customary for the attending physician to order a long sea voyage. Sometimes the man came home well. Sometimes he never came back. When the cause of tuberculosis was first recognized, about forty years ago, it was common for doctors to send their consumptive patients to California or Colorado. Later on, New Mexico and Arizona became popular resorts for consumptives. Many of these unfortunates have little money, most of which is spent to take them to the place where they vainly hope to regain their health. Homesick, ill, unable to get the care and the comforts they need, they die far away from their loved ones, or return, exhausted, to die in a few weeks or months.

We know now that tuberculosis is not a disease of any one locality or climate. As it occurs anywhere, so it can be cured anywhere. A mild climate is not necessary. Cold air is better for consumptives than warm air. One's chances of getting well at home are better than anywhere else. Just as we have learned that no medicine will cure tuberculosis, so we have also learned that no climate will cure it.

There are four things which every consumptive must have if he wishes to have a chance to recover. These are rest, fresh air, good care and nourishing food. These he can get in any locality and in any climate. He can probably get them better at home than anywhere else. If you have tuberculosis, don't spend your money on railroad fare. Save it for good food and care. Sleep outdoors wherever you are and rest until nature has overcome the effects of the disease.

### Drainage Great Help to Gumbos

Should Be Plowed in Fall When in Good Condition and Easy to Work.

Soils designated by the term "gumbo" include those that are more or less gummy and sticky, and they are often poorly drained. Because they contain a high percentage of clay, they do not drain easily. If an attempt is made to work such a soil before it is in proper condition, the results are disastrous. W. A. Albrecht of Missouri has made a careful study of gumbo soils and the most satisfactory methods of management. He recommends drainage as the first thing to consider. This is best done by a combination of tile and open ditches. The tile may be omitted, however, if the expense appears too great, for it is necessary to lay the lines close together. The open ditch is made in the natural water course and the field then plowed into permanent lands 16 to 20 rows wide so the dead furrow will drain into the open ditch.

Drainage helps to loosen the soil, and after a few years improves its nature considerably. Corn should be plowed level so heavy rains can run off rapidly. The open-ditch method is the one generally used on land recently brought under cultivation. The second important consideration in the successful management of gumbo is a suitable cropping system, says Albrecht. A popular rotation for gumbo is corn, wheat, timothy and clover. The corn is cut as early as possible, the land disked and sowed to wheat and timothy. Late in the winter, when the ground is "honeycombed," clover seed is put on. The wheat may be omitted and timothy sown directly on the stalks, which may be worked down after the ground is frozen. Alsike may do better than red clover. Oats are not recommended. Corn is favored. Because gumbo is considered fertile there is a general tendency to plant it to corn. As a rule, however, it is better suited to grass and small grains. Should wheat lodge badly, it will be necessary to use corn, but ordinarily wheat is preferable because it can be sown in the fall when the ground is in good condition. Furthermore, the fine rooting system of wheat improves the soil structure.

The third point to bear in mind with gumbo is cultivation. Plow in the fall when the soil is in good condition and works easily. If possible, allow at least two rains on it before planting. Use a surface cultivator, for it will stay up out of the sticky soil and form a dust mulch that prevents the ground from cracking. Avoid large shovel cultivators and never work gumbo when it is wet. A little haste at such a time results in a hard-baked soil.

### Invite Suggestions for Live Stock Improvement

Suggestions for new information needed on live stock improvement are invited by the United States Department of Agriculture in a recent summary of results of the "Better Stock—Better Stock" campaign. During the progress of the campaign thus far the department has obtained information on the cause and prevention of runty stock, the utility value of pure breeds, the utilization of seed by good and inferior stock, and the meat yields of different classes of food animals. Plans are now under way to get additional facts and dependable estimates on a number of other practical questions. It is on this proposed work that suggestions are especially invited. Such information, it is believed, will greatly advance the work of live stock improvement. Communications should be addressed to the bureau of animal industry, United States Department of Agriculture, Washington, D. C.

### Alfalfa Is Valuable

Alfalfa is valuable for dairy cows and growing stock on account of its high protein content and its richness in mineral matter. For wintering brood sows it is also desirable. A mature brood sow that receives one pound of corn per day per 100 pounds live weight and all the alfalfa she will eat out of a rack will produce a strong litter of pigs. A gilt should receive a little more corn—at least one and one-quarter pounds per day per 100 pounds live weight.

### Cleaning Dairy Utensils

A good method of cleaning out the dairy pails and cans at frequent intervals, to kill all bacteria and increase the price of cream, is to use a little lye in the water. The amount is two tablespoonsful of lye to a gallon of water. The lye unites with the grease and butterfat forming a soft soap which dissolves readily. This eliminates sourness and makes the pails come clean and bright with little rubbing.

### Frogs and Toads

Frogs and toads are entitled to our protection on account of the good they do in destroying vast numbers of insects and worms. The toads do this in the garden and the frogs in marshy places, where the air, on account of flies and other insects, would be almost unfit to breathe without the services they render. The department of agriculture estimates the value of a frog toad to be \$20 a year.

### Central Depot for Return Truck Loads

Of Great Benefit to Both Farmers and Truckers.

(Prepared by the United States Department of Agriculture.)  
Investigations by the bureau of public roads of the United States Department of Agriculture indicate that a central depot or warehouse where trucks delivering farm products to cities may secure return loads is of great benefit to both farmers and truckers. A large number of trucks enter each of our cities daily bringing milk, garden and other farm products. Most of them return empty, so that half of the mileage traveled is without profit. Many have attempted to secure return loads by giving cheap rates and going to various points about the city to collect shipments. In some cases this has proved worth while, but in others it has been abandoned, as the profits did not justify the time and expense. In the city of Baltimore a number of motortruck operators are maintaining jointly a central freight depot, which, according to all of the truck operators who make use of it, is a great success. Any freight or merchandise to be delivered to farmers in the surrounding territory may be delivered at this station through the delivery system of concerns from which purchases are made. A truck from the country after delivering the incoming load calls for the freight consigned to points along its route. This plan does away with the hit-and-miss system of collecting merchandise all over the city from many different business and manufacturing concerns. One operator who has kept a record of his expenses and profits has found that his truck earned in one year a net profit of \$2,362, of which fully 65 per cent was due to return load earnings.

### Preparation of Seedbed Has Important Bearing

The preparation of the seedbed has an important bearing on the control of the Hessian fly, as well as on the yield of wheat. Since infestation in the fall wheat comes mainly from two sources—stubble of previous crops and volunteer wheat—it is imperative that these sources be eliminated. This can be done (where wheat is not used as a nurse crop for clover) by plowing the land soon after harvest to a depth of about six inches. Care should be taken to turn the stubble under at least three inches of soil. The combined rolling coupler and jointer has been found very efficient in the covering of stubble, weeds, volunteer wheat and trash. If it is not possible to plow soon after harvest, the land should be thoroughly disked at that time. Disking not only conserves the moisture and makes plowing easier, but also starts the growth of volunteer wheat, and this is conducive to the early emergence of the fly. The land should be plowed to a depth of about six inches and worked down into a good seedbed. The soil should be kept mellow and free from vegetation until wheat-seeding time.

### Selecting Seed Corn

In selecting corn for seed pick ears from stalks which yield well in competition with others, are free from disease, and hang at a height convenient for husking, says the United States Department of Agriculture. Drooping ears which shed rain readily usually will give the best seed, while in the South it is necessary to choose ears that are well protected from insects by a long, tight husk covering. Care in selecting and handling seed will be more than repaid in increased corn yields.

### Farm Hints

- Early-plowed land brings more wheat.
- Rotate the crops in your garden as a preventive of diseases and insects.
- Here is a farm program worth inspecting: Pigs, cows, hens, corn and alfalfa.
- More legumes mean more prosperity for farmers, business men and communities.
- Spray with nicotine sulphate or dust with nicotine dust all plants infested with plant lice.
- What shall it profit a gardener to raise vegetables and then let bugs and worms eat them up?
- By lowering his initial cost of production in whatever way, the farmer usually adds to his profits.
- Fire in the buildings destroys present wealth; fire in the woods is worse—it destroys present and future wealth.
- Don't let the gardens grow up in grass where diseases can be harbored. Clean up and burn all dead and decaying plants.
- Limestone does not become active immediately so fields that are to be put in alfalfa next year should be limed this year, otherwise the acidity of the soil may damage the alfalfa before it has a chance to make a start.

### AFTER BABY WAS BORN

Back Weak and Painful  
Mrs. Miller Benefited by Taking Lydia E. Pinkham's Vegetable Compound

Rotan, Texas.—"I am writing to let you know how I have been benefited by taking your medicine. After my second baby was born my back was weak and hurt me continually, so I thought I'd try Lydia E. Pinkham's Vegetable Compound as I had read so much about where it had helped so many women. I had been bothered with my back for over a year, and it would hurt me until I could not do my work, which is keeping house for three and cooking and washing dishes. I tell all my friends if they have any kind of female troubles to give Lydia E. Pinkham's Vegetable Compound a trial. You may use this testimonial if it will help any one."—Mrs. C. R. MILLER, R. F. D. No. 1, Box 76, Rotan, Texas.  
In a recent country-wide canvass of purchasers of Lydia E. Pinkham's Vegetable Compound over 121,000 replies were received, and 98 out of every 100 reported they were benefited by its use. For sale by druggists everywhere.

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60c and \$1.20 the bottle at your druggist's. If he can't supply you, send his name and the price in stamps and we will send you a bottle direct.

HANCOCK LIQUID SULPHUR COMPANY  
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### Too Far Away

Betty, who was three and a half, was very much interested in the remodeling of the house across the way. She had heard folks talking about the "new roof" which was being put on. "What kind of a roof is it?" asked Betty. "Asbestos," replied grandmother. "I can't ask Bestos. He's too far away," said Betty in all sincerity.

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