

MONEY IN WATER

THE BIGGEST IRRIGATION PROJECT ON THE CONTINENT BEING CARRIED OUT BY CANADIANS.

(Special Correspondence of the Desert News by Frank G. Carpenter)

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CALGARY, Alberta.—By all odds the biggest irrigation project on the North American continent is now under way in this province of Alberta. In 1902 all the irrigated lands of the United States did not amount to 10,000,000 acres. By this scheme Canada will add a million and a half acres of semidesert, and that by private parties without government aid. The work has been undertaken by the Canadian Pacific railroad, which has exchanged a part of its land grant for 3,000,000 acres lying between here and Medicine Hat. Of this, 1,500,000 acres will be put under water, and the balance will be sold to the irrigated land owners for pasture and mixed farming. The tract of irrigated land is almost as great as all the irrigated land of Colorado or California. It is more than twice that of Utah, Idaho or Wyoming and many times that of all other watersheds. This work is now going on. One hundred and ten thousand acres are now ready for the turning on of the water, and double that amount will be added this year. The project will be handled in blocks of 1,000,000 acres each, and it will be continued until the whole tract is redeemed and settled. Altogether, it means supplying homes to something like 30,000 families, and with the towns and other developments which will be built up along the line it ultimately means the addition of about 200,000 people to Canada's population.

IN THE GREAT AMERICAN DESERT.

The lands to be redeemed are a part of what was once known as the Great American Desert. This runs northward through the western part of the United States and on into Canada. There is more water here than in our tributary country, but there are dry seasons, which make the lands unfit for ordinary farming, although winter wheat is now being raised on much of it. For the past fifteen years the Canadian government has had engineers at work taking the levels, measuring the streams and locating reservoirs. From such surveys it has been found that there are 70,000,000 acres of semidesert land which need irrigation occasionally if they are to be used for farming. The government engineers estimate that 3,000,000 acres can easily be reclaimed, and that they will have an unfailing supply of water from the Saskatchewan and its tributaries if the proper works are made.

The land of the Canadian Pacific scheme lies in a solid block on both sides of the railroad between Calgary and Medicine Hat. It is flat or slightly rolling prairie, and is now used for grazing. The strip is 130 miles long, running back for some miles on each side of the track. The water is to come from the Bow river, a beautiful mountain stream. It will be fed by other rivers, which flow northward from the United States through the Belly and Bow into the Saskatchewan and thence on to Hudson's bay.

A BIG IRRIGATION DITCH.

The Bow river flows by Calgary. I drove out today to look at the ditches, already excavated, and to examine the irrigation project as far as it is completed. Taking carriages, we drove for miles over the prairie, riding at times along the embankments of the main canal, which is 60 feet wide at the bottom, 10 feet deep and takes from the Bow something like 20,000 gallons of water every second. At many places the men were working, and the scenes were much like those I saw on the Panama canal. There were hundreds of horses scooping up the prairie, there were long trainloads of excavated material moving on the temporary tracks from one place to another. The soil is harder to work than that of the Culbraz cut. Culbraz is made of a shaly rock, and a single blast may loosen many tons. Here the earth is conglomerate of sticky clay and great boulders which have a consistency something like soft taffy or half-worked putty. It gives little resistance and some parts have to be blasted over and over again. The stuff is of such a nature that the steam shovels cannot work in it unless it is loosened, so that the cost of excavation is great.

I have talked with Mr. J. S. Dennis, the manager of this irrigation project and also with the civil engineer in charge of it. He tells me that they have taken out about 4,000,000 cubic yards, which as I figure it, would be just about enough to fill a line of two-horse wagons, at a ton to the wagon, reaching clear around the world. Altogether, 20,000,000 cubic yards will have to be excavated before the whole area is under water, and the engineers say that the cost of this will be just about \$3,000,000. It is an enormous undertaking, but it will pay in the increased value of the

AFTER OUR FARMERS.

I understand that the Canadians expect to populate this country with Americans. The railroad has given over the first 10,000 acres now ready for settlement to an American syndicate, which has already made big money in selling tracts of spring wheat lands to immigrants from Minnesota, Dakota, Iowa, Illinois and other states. These American agents have colonization offices at Calgary, and they are formulating schemes by which they expect to convert the irrigated sections of the United States to induce our good farmers to come here and buy these lands as fast as they are opened up. Said one of the syndicate to me the other day:

"We will work those parts of the Union just as a book-publishing house works its territory. Our selling agents will go from farm to farm like the canvasser does selling books, and will induce such as have money to buy this land on instalments. If they are interested, we will flood them with literature, and will probably bring them to Canada at reduced rates of transportation, to show them what we have to sell."

In the meantime the lands are offered at several times the price asked for the spring wheat lands farther north and east; but the Canadians claim that they are cheap on account of the water, which insures steady crops year after year, regardless of seasons.

INTRODUCED BY "MORMONS."

The practical possibility of an irrigated Canada was suggested by the "Mormons." There are about 10,000 of them now living on irrigated lands near Lethbridge, between here and the United States boundary. They have established towns, have built up a beet sugar factory with a capital of \$1,000,000, have one flour mill, which is now turning out a carload of flour daily, and they are, altogether, one of the most thriving peoples of the new Canada.

These "Mormons" produced more than 1,000,000 bushels of wheat last year, and they are now shipping flour direct to Japan and China. They come from the irrigated states of Utah and Idaho. They farm on tracts of about 80 acres each, and I am told that they raise two or three times as much on such farms as can be raised in the non-irrigated sections.

During my stay in Canada I have visited this "Mormon" country. It is reached by the line of the Alberta Railway and Irrigation company, which is used largely to carry coal from Lethbridge down to Montana. The lands are almost dead flat, and are cut up by canals fed by the St. Mary's river.

Seventy-five thousand acres are already under cultivation and the railway and irrigation company above referred to has already raised about 1,000,000 acres yet to be reclaimed. The company received a concession for a part of these lands for opening up the coal mines and building the railroad, and looked upon them as fitted only for grazing until the "Mormons" came in and proposed to irrigate them. As it is, the irrigation works are only five years old, and they have the town of Raymond, which has a population of 2,000, situated in the heart of them and smaller settlements along the line of the railroad.

I talked with Peter N. Naismith, the manager of the company, and C. A. Magrath, the land commissioner, about its character and possibilities. They tell me the lands are excellent and that they are being rapidly settled. Mr. Magrath, while not a "Mormon" himself, has represented these people in the territorial legislature, and has known them from the time they came to Canada. He says they make excellent citizens and are conforming to the Canadian laws in every respect. I asked him how they acted in regard to plural marriages. He replied:

NO POLYGAMY IN CANADA.

"The Canadian 'Mormons' are monogamists. We have some citizens who were polygamists in Utah, but they brought out one family each to this country. Shortly after their arrival they sent delegates to Ottawa to ask if they might bring their plural wives provided no further plural marriages were made. Sir John Macdonald, who was then premier, replied in the negative, saying that, while he was glad to have the 'Mormons' come to Canada, they could not live there unless they obeyed the law. As a result, the extra wives remained where they were."

"I do not believe there is any polygamy in Canada," continued Mr. Magrath. "The monogamous police keep a close tab on the 'Mormons,' and if there were plural marriages we should surely know. Now and then some person in eastern Canada denounces

How Fifteen Hundred Thousand Acres of Desert Will be Redeemed—A Look at the Ditches and Talk With the Engineers—The Mormons of Canada and Their Beet Sugar Works—St. Mary's Lakes—Shall Montana or Alberta Use Their Waters—A Live International Question.



ST. MARY'S LAKE IN MONTANA.

Photographed specially for the Saturday News—Shall it furnish water for Canadians or Americans.

the existence of 'Mormonism' in Utah and in the United States, but it is not so here. As for me, I can get a certificate from my church that I am a staunch Episcopalian, but I find the 'Mormons' good enough for me to raise two or three times as much on such farms as can be raised in the non-irrigated sections.

A "MORMON" SUGAR MILL.

I visited the "Mormon" sugar mill. It is situated just outside Raymond in the midst of beet fields, covering hundreds of acres. It is now making 100,000 pounds of sugar daily, and is paying dividends of 8 per cent. The company has altogether about 200,000 acres, upon some of which beets are raised. Other parts are devoted to cattle ranches, and 15,000 head of stock are now feeding upon them. The factory has the best of modern machinery. The beets are carried by water from the shed where they are unloaded, being washed on the way. They are next lifted to the top of the factory in buckets running on an endless chain, and fall from there into cutters filled with knives, which slice them up so that they look like little pieces of celery.

The sliced beets are now dropped into round tanks, where they are so treated by fusion that all the juice in them containing the sugar comes out. This is carried into great basins, consisting of miles of pipe, running backward and forward one over the other, surrounded by steam. The juice passes through pipe after pipe and boiler after boiler until it has traveled several miles of pipe. As a result, the juice is thick and sticky. It becomes thicker and thicker as it goes on, and at the end of its journey it is a syrup, which, after being purified, is known as molasses or sugar molasses.

The sugar molasses is reduced to sugar in great basins, which are whirled around at a thousand revolutions to the minute. The basins have walls of fine brass screens, against which the sugar molasses is thrown. The dark particles of the liquid pass through the screen, leaving the white sugar crystals behind. As the whirling goes on the liquid, brown at first, grows lighter and lighter, and soon turns from a chocolate to the whitest of snow. The walls of brass, coated with it, look like the whitest of porcelain china; but if you touch them with your hand it comes back coated with sugar as fine as any on an American

breakfast table. When the machine stops all that is necessary is to take out these white grains, run them through a drier, and put them in bags ready for sale. The factory produces enough sugar every year to give one pound to every man, woman and child in Canada and leave much to spare.

SHALL CANADA USE OUR WATER.

In connection with these irrigated lands of southern Alberta a rather serious international question has arisen. The St. Mary's river, which supplies the water for the territory settled by the "Mormons" and others, rises in St. Mary's lakes, which are situated in northwestern Montana, about 12 miles from the international boundary. These lakes are 20 miles long and one mile wide. They lie high up in the Rocky mountains, and are fed by the heavy snowfalls and glaciers. They give St. Mary's river plenty of water, furnishing an abundant supply for the 130 miles of canals which the Canadians have built and have under way, and by which they expect to reclaim something like 630,000 acres. As it is now, the water flows through the St. Mary's into the Saskatchewan and goes off into Hudson's bay.

Within a short distance of St. Mary's lakes and not more than 27 miles from St. Mary's river, flows the north fork of the Milk river, which runs northward into Canada, and then, turning south, flows for hundreds of miles through the United States into the Missouri and on into the Gulf of Mexico. By making a canal inside our boundary from the St. Mary's to the north fork of the Milk river the waters of these lakes could be thrown into the Milk river and be finally used to irrigate lands in northern and eastern Montana, and especially the lands which lie above the Fort Belknap Indian reservation.

WOULD REDEEM AMERICAN DESERTS.

Such a canal would give enough water to redeem thousands of acres of good American soil, and the citizens of Montana claim that it ought to be so used. They say that the waters fall in the mountains of the United States, and they ought to water the United States. The Canadians naturally object. They say that the water having fallen in our country is no reason that we should keep it; for it may have evaporated from Canada, and that they have a common right to it since it has been flowing through its present course for thousands of years. I understand that the two governments are now in consultation regarding the use of these

lakes, and that an amicable arrangement may be expected.

There is no question but that Uncle Sam wants his share of the St. Mary's lakes. In the reclamation projects, approved by the secretary of the interior, as per the bulletin published last September, \$1,000,000 has been set aside for reclaiming 200,000 acres along the Milk river, and there are several schemes outlined by our geological survey, all of which include the use of these lakes. One is to make a 50-foot dam one-half mile long at the lakes, and then cut a canal from there into Cut Bank creek, a tributary of the Marias river, and by another dam and a second canal to throw the water into the Milk river. This would give water enough for the reclamation of 200,000 acres of land in the upper Milk River valley, near the Great Northern railroad.

In addition to this there are other schemes which would lead to the redemption of thousands of acres more, the water coming chiefly from St. Mary's lakes. In the meantime the Canadians say that the Milk river runs for 100 miles or more through Canada, before it goes back into the United States, and that if the Americans disturb their irrigation works here, the waters of the river might be materially diminished by being spread over Canadian lands.

FRANK G. CARPENTER.

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Mrs. B. W. Evans, Charwater, Kan., writes: "My husband lay sick for three months. The doctors said he had quick consumption. We procured a bottle of Ely's Cream Balm and it cured him. That was six years ago and since then we have always kept a bottle in the house. We cannot do without it. For coughs and colds it has no equal." See \$2.00. Sold by Z. C. M. L. Drug Dept., 112 and 114 South Main Street.

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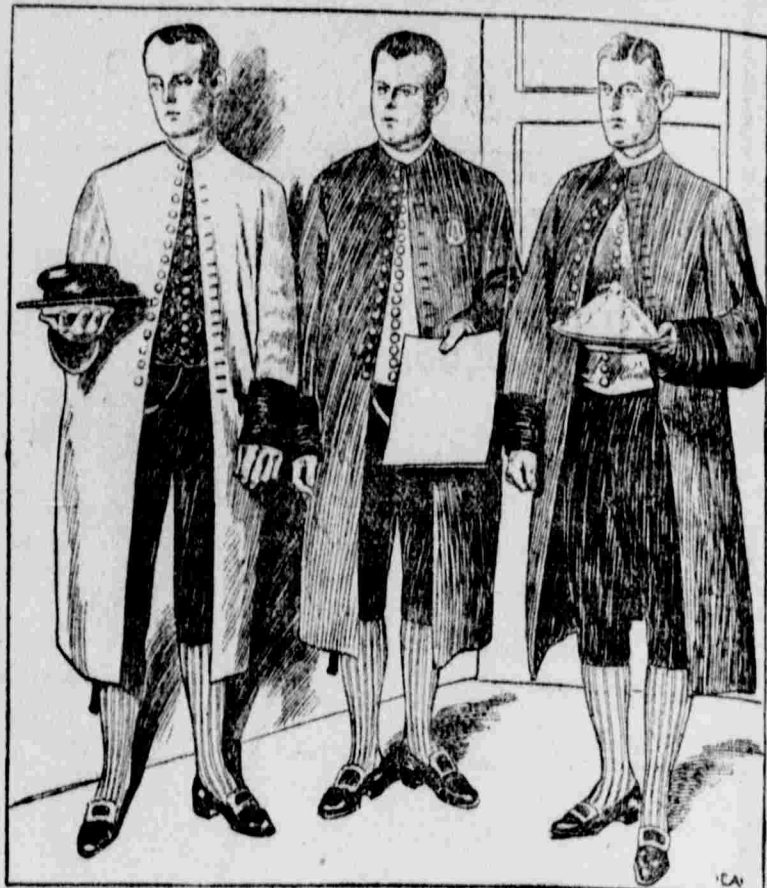
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PEERS WITH PAST HAVE TO PAY HIGH.

(Continued from page 17.)

and less than \$10,000 per annum represent a sad combination with which to start housekeeping, necessitating a continuous struggle to keep up appearances. It is no "catch of the season" that the Gibson girl has caught. Far from it. I should not be at all surprised if Lady de Clifford should soon return to the footlights again. There she would find her title a substantial financial asset.

A TOUCH OF CHIVALRY.

High principles—a touch of chivalry, a dash of philanthropy and love of the human race in general are the motives, said to be the reasons for the foundation of a new matrimonial bureau in London to help people find suitable life partners. Mr. Stead, who has not for a long time created a sensation, has been for years hatching this scheme, and has at last succeeded in interesting his friends in it. He believes such an institution is badly needed and that if managed in the proper way and with the proper influences should have excellent results. So far the matter is only in the embryo stage, though it is now definitely arranged to one will be admitted without reference and introductions, and there will be a special eye kept on fortune hunters, for there is no actual reason why they should be excluded, the founders wisely believing in the theory "Don't marry for money, but go where money is." As the bureau is for all classes who come under the heading ladies and gentlemen in the received sense of the word, it will probably have considerable clientele. At all events, that portion of the public—a larger one than is usually believed to exist—who now give their patronage to institutions which are notorious in the gentle art of swindling and humbug, will find in the new bureau not only principle but apparently the prospect desired. Mr. Stead's naive idea is sure to excite the interest which is always attached to anything he does. The king, who like Queen Victoria, is keenly sympathetic with matchmaking, and the kaiser have both given encouraging words to Mr. Stead in his latest venture.

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