

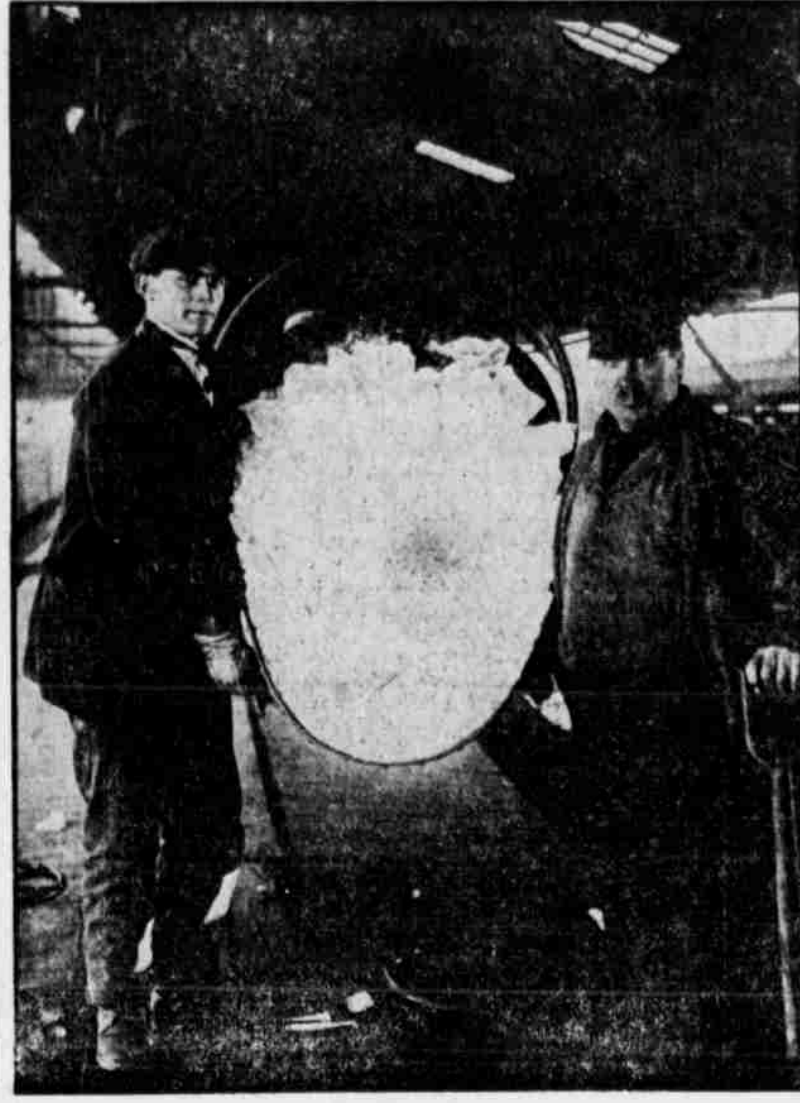
Part the Refrigerator Car Plays in Supplying the World With Meat



INSPECTING BEEF FOR SHIPMENT.



BEEF LUGGER LOADED FOR THE CAR.



READY TO DUMP ICE INTO REFRIGERATOR.



TAMPING ICE INTO BOX.

ABOUT 50,000 refrigerator car loads of packing house products are shipped out of South Omaha annually, or 150 cars per day. The products shipped in refrigerator cars are largely dressed beef, dressed sheep and a few dressed hogs. Very few hog carcasses are shipped in refrigeration. These are mostly sent out cured in the form of bacon, ham, side meat and other various cured, canned or pickled products into which the hog is turned at the packing house. Refrigeration in the packing houses applies almost wholly to dressed beef and mutton.

The killing capacity of a packing house depends on its cold storage capacity. All beef must go through the cold storage or refrigeration process before it becomes a marketable commodity. And here again the killing capacity must be governed by the refrigerator car supply of the packing house, for dressed beef is bulky stuff and it must be kept on the move to market or the storage capacity soon becomes blocked.

Loading a Refrigerator Car. After undergoing the necessary cooling process, the half carcasses are packed in refrigerator cars, which have been previously supplied with ice, so that the inside temperature is not above the freezing point. Ordinarily thirty carcasses of beef, approximately 600 pounds in weight each, are packed to the car, but more is loaded if emergency requires. From one and a half to two tons of ice are placed in the car at the initial stage. The refrigerator cars are built much after the same fashion of the domestic and market house refrigerators, so as to retain an even temperature inside the cars. This evenness of temperature is very essential to avoid the sweating process, as the rise of a few degrees in temperature at any stage of the shipment is likely to seriously damage the frozen meat.

especially where the shipment is to be made through or to a warm climate. All refrigerator cars must be re-loaded at least once in twenty-four hours, and often if the condition of the outside temperature requires. All meats are inspected both before and after refrigeration by the government inspectors both for domestic consumption and export. Meats for foreign export are re-refrigerated at the ocean ports for storage in the cooling rooms of the steamships, meat shipments being made only on steam propelled vessels. These meats are always re-inspected at their foreign destinations.

Enormous Quantities of Ice Used. All railroads of the United States that transport refrigerator cars have long stations at convenient distances, so that the loaded cars can be re-loaded as often as once in each twenty-four hours. This re-loading must be done by the railroad companies. As a consequence enormous quantities of ice are used daily. The quantity per car during the trip depends on the length of the journey and will run from five to ten tons. The later built cars are so constructed as to effect a very material saving in the ice, and it is believed that for these the maximum of eight tons of ice will be sufficient for a 1,000-mile haul. The cars must be re-loaded in transit without being opened, and the filling is usually done from the tops of the cars, at the ice windows in either end, or small leaping doors at the side. While vast quantities of artificial ice are used for refrigeration, the natural ice is preferred because of its tougher texture and better lasting qualities.

Local Supply of Ice. Most of the ice used in the initial refrigeration at the South Omaha packing houses is obtained in and about Omaha. The packing houses usually cut their own ice and annually store hundreds of thousands of tons. About Cut-Off and Seymour lakes stand huge icehouses owned by these companies, and even as far away from the packing plants as Ashland a great ice storage magazine is maintained.

In some of the smaller towns of the state the packing companies refrigerate dressed poultry. The fowls are killed, plucked and frozen at these smaller stations and shipped first to the big packing centers where they are placed in cold storage to be later distributed to whatever market demands them. The different products are shipped in different cars. Beef and poultry are not ordinarily shipped in the same refrigerator car, for obvious reasons, and the same rule will apply in pork and mutton.

Comparatively Modern Practice. It was not until about the year 1875 that ice began to be used on a large scale for the preservation of fresh meats in shipment. Though there have been numerous dry air refrigerators invented and brought into practical use, still refrigeration by ice holds its own and it will likely be a long while before ice will be discarded for this purpose. The dry air refrigeration process seems to be the most popular for ocean shipments. In these dry air refrigerators atmospheric air is compressed to one-third or one-fourth of its normal bulk. The air so condensed becomes hot, and is cooled by injecting air into the air compressor, after which it is still further reduced in temperature and freed from moisture by passing it through a range of pipes in the cold air of the chamber that is being refrigerated. Being thus conveyed to the expanding cylinder, the work or energy it contains by virtue of its compression is expended in moving a piston which forms part of the machinery. From the piston the air now cooled as much as 50 to 100 degrees, or even 200 degrees, according to the degree of compression to which it has been subjected, is distributed through the cold chamber by suitable pipes. Other processes of dry refrigeration have been successfully applied in which the temperature of the air is lowered by passing through pipes cooled externally, instead of by injecting water into the tubes containing it.

Winnipeg the Metropolis of the Northwest Canadian Wheat District



PORTAGE AVENUE IN WINNIPEG.

and other parts of the west came here to deal in grain and the cheap lands. They opened business establishments of various kinds, and today some of the best of the city blood has come from across the border. There are now eight of our thriving machine and farm implement establishments represented here. There are half a dozen land companies backed by big American capital, and there are Americans who have sold their millions of acres of Canadian lands. Others are going into business, and others are here ready to take hold of the best things that come up. The chief building firm is American. It takes contracts running high into the millions, and is concerned in the new railways. The biggest land companies were started with United States capital, and some of the railroad land grants are handled by them. In the meantime there has been a large influx of population from Eastern Canada, together with some from Great Britain. The most of the life blood of the city, however, is American and Canadian, and the two flow along together in one harmonious stream. Both seem to have implicit faith in the future of the city, and, indeed, the indications are that their faith is well founded.

By Automobile Through Winnipeg. "But let us go down and have a cup of beef tea," said the Winnipegger, "and we shall then take a ride through the city in an automobile."

Beef tea is more common than whisky as a winter drink here. It is served at all the saloons and hotels, and one can have it on tap. Indeed, it takes the place of soda water from December till May.

Having finished our tea, we rode through the main street of the city. This was one of the old Indian trails, which ran north and south, following the course of the Red river, past the Hudson Bay fort which was once stationed here. Portage avenue, which we saw from the roof, cuts it almost at right angles. It is also part of an old Indian trail, which extended from here a thousand miles westward to Edmonton, at that time now reached by three great railroad systems.

Main street has many old buildings. It was the first business part of Winnipeg, being a king's highway, and it still contains the best business properties. Real estate along it has gone up like a shot within the past five years and it is said to now be fully as high as in Minneapolis or Toronto. Store rooms rent from \$1,500 to \$2,500 a year, and you can buy a business front for less money in Montreal than right here.

Notice the banks! Winnipeg is one of the financial centers of Canada. It has thirteen bank buildings, the most of them branches of the great banks of Canada. They do a big business, and they will compare in their appointments with almost any banks of our country. The clearings last week were about \$10,000,000. This is just double what they were in the same week one year ago, and three times as much as they were three years before.

The Residence Section. But we fly along up the street in our automobile. The hand of that veteran



SAMPLE CROWD OF WINNIPEGGERS AT BASE BALL GAME.

Winnipeg, Mr. Fred Heubach, is on the lever, and we are going like mad. He takes us on toward the river, past the Hudson Bay company stores and offices, by Lord Strathcona's big apartment house, and then turns to the right, and we fly past the Manitoba club and on into the principal residence section. The streets are still wide, but they wind this way and that along the Assiniboine river. Boulevards have been laid out on both sides of the stream in such a way that every residence has a back yard running down to the water. There are miles of fine houses in this part of Winnipeg, and other miles have been laid out farther on. Nearly all the houses are new, and the largest and best of them seem to have sprung up, like the palace of Aladdin, in the space of a night. The chief building materials are white brick and a cream colored stone which is found nearby. The city, in fact, is a white city, and under the bright sunshine, which the Winnipeggers say exists here for thirteen months or more every year, it looks as neat as a pin.

Leaving the boulevards, we ride through street after street of brand new cottages, the homes of the well-to-do and poorer classes of the city. We see, strange to say, no signs of "To let" and very few of "For sale." Winnipeg has almost no tenement buildings, and so far I have seen no two-story flats. Indeed, it is almost impossible to rent a dwelling at a reasonable rate, and nearly every family is forced to own its own house.

In North Winnipeg, beyond the overhead bridge, which crosses the railroad track, hundreds of neat one and two-story cot-

tages are now going up, and they are occupied or sold as fast as they are built.

The Wheat Trains. Standing on the bridge going over the railroad, we are in the center of the largest railroad yard of the world belonging to a single trunk line. At least the Winnipeggers say so. There are 110 miles of track, covering acres about us, and at this time they are filled with cars carrying the wheat to the great elevators at Fort William and Port Arthur in order that it may be taken down the lakes as soon as navigation opens. During the season a wheat train goes out of this yard every hour of the day and night, and altogether a half million bushels of wheat leave here for Fort William every twenty-four hours. Five bushels of wheat will make all the flour a man eats two year around, so that, every day, enough wheat goes over these tracks to feed 100,000 men for one year.

I like these Winnipeggers. They are so pushing, strenuous, enthusiastic and happy. They claim their city has the best climate on earth, and they would not exchange the biting winds of the prairie for the lissing zephyrs of New York, Boston or Washington. They prepare for the season. Just now every Winnipegger who can afford it has on a gray overcoat made of con skins. Their eyes bright, they look too sweet to be the wives and daughters of the giants beside them, but we doubt not the fact when they open their mouths and begin to talk about great Winnipeg.

Winnipeg is at the gateway of the New Canada. The tens of thousands of immigrants who are now arriving come through here, and one sees on the streets natives from every region of Christendom. There are Germans, Austrians, Greeks, Swedes and Norwegians, many of them dressed in the costumes of the land from which they came. Now and then one sees an Englishman, and it is hard to throw a stone with-

out striking an American. At the same time, the most of the population is made up of Anglo-Saxon Canadians, and altogether looks not unlike those to be seen in St. Paul or Chicago.

On one side of the Red river, reached by a bridge, is the town of St. Boniface, where there are several thousand French, Canadians, and there are also Russians, Italians and Syrians.

The Icelanders of Winnipeg. Some distance from here, on the shore of Lake Winnipeg, there is a colony of Icelanders, many of whom have moved into the city. Some of them are lawyers, others are teachers and not a few have intermarried with the Canadians.

These Icelanders were among the first of the western Canadian immigrants. They were brought here years ago when it was thought that none but those accustomed to the cold of the Arctic zone could withstand the weather. The Dominion government sent commissioners to Iceland, and they brought back a colony of fifteen or twenty thousand souls and shipped them out to Lake Winnipeg. The Icelanders settled on its banks, and for a time made most of their living by fishing, much of their catch being through holes in the ice in the winter. They are now well scattered over the country. Many of the girls have gone into service and not a few are writers at the hotels. Indeed, my favorite hash slinger at the Empire, where I am stopping in Winnipeg, is a pretty Icelandic lad with cheeks of flame, hair of fire and eyes of heavenly blue. These people are orderly. They take to education and religion, the largest Icelandic church in the world being in Winnipeg.

There are also many Russians here, and a Russian church. The Catholic population is large, and the French Canadians all belong to that denomination. There is a Trappist monastery outside the city and a Russian monastery. Almost every denomination of Protestants has its meeting house; the Jews have a synagogue, the Salvation army is waging its warfare against dissipation and sin and the Young Men's Christian association has its own building and is doing excellent work. Indeed, the whole city worships the Lord under one religious banner. It is a God-fearing, order-loving, Sabbath-observing and church-going municipality. It is so good that there are no Sunday newspapers. The street cars are not allowed to run on the Sabbath, and the only public places open are the hotels and churches.

FRANK G. CARPENTER.

(Copyright, 1908, by Frank G. Carpenter.) WINNIPEG, Manitoba, Jan. 4.—(Special Correspondence of The Bee.)—Stand with me on the top of the Union bank building, Winnipeg's new skyscraper, and take a look at the city. You had best pull your fur cap down over your ears and button your coonskin coat tightly about you, for the wind is blowing a gale. The air is nipping, but the sky is bright and there is no much smell of the port of breathing champagne. Have you ever felt so much alive before?

We are in the wild and furry northwest, in its biggest town, and on top of its highest building. Were it not so cold the Winnipegger, who stands beside us as guide, would ask us if it were not like heaven. We are sure of one thing, the atmosphere by no means savors of the other place down below. Take a look over the city! It stretches out on all sides for miles. The new shingle roofs shine brightly under the winter sun, and we can almost smell the point of the suburban additions. Winnipeg is a grower. Even now, in the winter, the sound of the hammer is heard all day long, and buildings are still going up by the hundreds. The town prides itself on its newness, and, indeed, much of it is just built. Over there at the north are miles of new houses. At the south buildings are growing up on the plains, and right below us, in the heart of the city, the business blocks have risen from the ground since last summer. Winnipeg has erected \$11,000,000 worth of buildings this year. It built about \$2,000,000 the year before and \$3,000,000 worth in 1903. All through the past five years it has been jumping, and it is now leaping ahead like an Australian kangaroo. In 1900 the new buildings numbered 658 and in 1904 there were erected more than 2,000.

A Business Street Four Years Old. Turn about and look up Portage avenue. That street was practically unbuilt four years ago. It has now millions of dollars' worth of new business blocks, some of which would be a credit to any of our cities of twice the size. Look at that department store. It is the largest in the west. It is as big as Wanamaker's establishment in New York, and it now has six stories. It was built only last year, but the demands of the trade are such that three stories more will be added next spring. Turn about and look down Main street. "Don't you think it is getting a little

There at the end is the new Canadian Pacific depot and railway offices fast approaching completion. Those buildings alone will cost as much as \$2,000,000, and further up the street are to be the great terminals of the Grand Trunk and the Canadian Northern, which will cost \$3,000,000 more.

"Yes, sir," says the Winnipegger at my side, "that shows you how we are growing. About five years ago we began to build for all time and eternity. Before that we had not realized that Winnipeg was bound to be the greatest city of the north and our houses were put up for the time. Most of them were without cellars and they had flimsy foundations. Since then we have raised them and made excavations, and we are now building as substantially as any town on the continent. Five years ago we had about 50,000 people. Now we have 100,000, and we are just on the edge of our beginning. The city will grow more next year than ever before, and within ten years, and probably sooner, we shall equal Minneapolis and St. Paul combined."

Winnipeg's Trade. "Look at those wholesale buildings," he continues. "Did you ever see anything like it? Most of them started as two and three-story structures, and the business has grown so that they have had to be pushed up to six. This is one of the great markets of western North America, and the biggest market north of your western boundary. If you had a pair of long-distance glasses, which would enable you to look from the Atlantic to the Pacific, you could see that there is nothing in the west that can approach Winnipeg, and your eye would travel eastward as far as Toronto before any city of this class could be seen. If you could look up and down the great west with an X-ray attachment which would enable you to pierce through the snow down into the soil, you would know that you are at the eastern end of the greatest wheat country on earth. Away out there are 20,000,000 acres of land which will grow bread with little more than scratching the ground. We have cultivated as yet but a few garden patches here and there over it, and our crop has been about 10,000,000 bushels. When it is all under cultivation it will yield eight to a billion. We shall then feed John Bull. Yea, we shall even fill Uncle Sam's stomach and the crop will all go through Winnipeg."

"Well, perhaps so," was the reply, "but when I begin talking about Winnipeg I grow so warm that I could stand stark naked on the north pole and not feel uncomfortable."

On the Red River. Winnipeg lies on a plain at the eastern edge of the wheat belt. The country about it is dead flat. The Red River of the North winds its way through the city, and here flows in and joins the Assiniboine. The houses of the city are spread out like those of St. Petersburg, and, like Washington, it has magnificent distances. The main streets are 132 feet wide, and they stretch on and on into the country. Every residence has a yard about it, and nearly all have gardens and trees. Even the dwellings of the laborers stand alone. They have windows on all sides, and in most cases the windows are double, to withstand the cold. The business blocks, as in all new cities, are raised. The sky line goes up and down like the teeth of a battered saw, now and then a building rising high over the others. The sky-scrapers are just beginning to come. The Union bank, from which I make this description, is the first, but there will be others next year, and in the place of the saw, you will see an American metropolis.

A large part of the new city has, I am told, been built by Americans. The town was stagnant until Yankee capital and Yankees turfed their faces this way. It then began to boom. Men from Minnesota

Mrs. Agnes Neygood of Astoria, Long Island, used to be an acrobat. Before her marriage she was one of the trapeze performers in a circus. She gave up her career five years ago because she fell in love with a horseherd employed by the show. When he asked her to be his wife he insisted she must leave the trapeze forever and consented. They were married and lived happily. Mrs. Neygood, who had been Miss Marshall, the champion aerial triple somersault performer, was hanging out clothes the other day from her flat after a hard morning's wash. The clothes line connected with a high pole in the rear yard. Mrs. Neygood, leaning far out to make

the rope taut with her precious wash, had a good hold on the rope. The pulley broke, and the former trapeze artist was dragged out of the window. As she swung outward she remembered her old-time tricks, and turned so as to twist the rope about her right arm. She swung the great arc of a pendulum, and got a second's footing on the window ledge opposite. The window was closed, and she did not have time to get a hold before she was swinging back again, but not within reaching distance of her own window, five stories above the ground. Realizing that each swing would be less than the last, she steered herself with all her old-time skills to the supporting pole.

Experience of an Acrobat Proves Useful in an Emergency