

THE DAILY NEWS  
PRINCE RUPERT - BRITISH COLUMBIA

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SALMON FISHING TREATY

It is satisfactory to know that the opposition of federal Conservatives to the provincial Conservatives and to the Ottawa government in regard to the Fraser River salmon treaty is at an end. It was a foolish and frivolous opposition at the best and wholly unnecessary. To say that the Toimie administration and its permanent fisheries force were unable to advise Ottawa in regard to what was needed was going a little far when none of the opponents to the treaty had any fisheries experience. It looked too much like opposing for the sake of opposition rather than for the good of the country. Now they have seen the error of their ways and there is likely to be action at Ottawa.

SENT COPIES AWAY

A good many readers of the Daily News sent Saturday's issue away to friends in order that they might read the editorial summary on the front page "Evidences of Prosperity." Those who have not done so are advised to take action yet. So many inquiries for copies have been received that we have decided to use it again as a free advertisement for the city of Prince Rupert.

ETERNALLY AT IT

The only way to do business effectively is to be eternally at it. The moment you let up in your efforts, you begin to lose out. So it is with any cause. Spasmodic enthusiasm does not count for much. It is all right for getting away with a good start, but a good start is not enough.

In Prince Rupert we are great starters. We have abundant enthusiasm for a new cause, a new organization, new work, new amusement, but we do not always stay with it. Perhaps that is why we sometimes fail. A little more sustained effort and we should do better.

Baggage Car Mail Service

All Kinds of Mail Carried to Larger Places Along Railway Every Day

The post office announces that the hours of closing for the east-bound mail by the regular mail car Mondays, Wednesdays and Saturdays is now 11.30 but that for the baggage car service leaving here Tuesdays, Thursdays and Fridays the mail will not close until noon.

The baggage car service carries all classes of mail including letters and newspapers to the following points only: Edmonton, Vancouver, Fort Fraser, Burns Lake, Telkwa, Smithers, Hazelton, Terrace, and Prince George.

Fireside Club Holds Meeting

Second Coming Is Subject of Address By Pastor, Rev. Dr. F. W. Dafoe

The regular weekly meeting of the Fireside Club was held in the Baptist Church parlors last night. Miss A. Dawson's group had charge of the meeting and the chair was occupied by Miss Edith Johnstone. Miss Steina Phillipson led the devotional exercises. The address was delivered by Dr. F. W. Dafoe, who strove to impress his hearers with the nearness of the return of Christ, and the imperative need of the individual turning to Christ as the Savior.

Refreshments were served at the close.

A SIMPLE STEP TOWARDS HEALTH

Kellogg's ALL-BRAN is a Daily Essential and Millions Know Its Effectiveness in Relief of Constipation

Perhaps the one simple thing you are not doing to guarantee permanent health is having sufficient roughage in your food. Absence of this roughage is the direct cause of constipation which results in so many other ills—headaches, listlessness, general depression, indigestion and, sometimes, serious disease.

Kellogg's ALL-BRAN is roughage. It is positively guaranteed to relieve both temporary and recurring constipation or the purchase price will be refunded. Two tablespoons daily (in serious cases, with each meal) is the proper amount.

Kellogg's ALL-BRAN also helps you to health in other ways. It is rich in iron, practically all of which goes into the blood, bringing

red, healthy color to the complexion. It helps prevent anemia. Be sure to include it in reducing diets.

Many eat Kellogg's ALL-BRAN with cream or milk added. It is a delicious addition to cereals, fruits and soups. In cooked foods, such as bran muffins, it is just as effective in the relief of constipation. Recommended by doctors. Ask your grocer for Kellogg's ALL-BRAN in the red-and-green package. Served everywhere. Made by Kellogg in London, Ontario.



"Improved in Texture and Taste"

REFRIGERATION IN RELATION TO THE FISHING INDUSTRY

By D. B. Flinn, Director, Fisheries Experimental Station, Prince Rupert

Man's insatiable curiosity has been responsible for the great changes which have taken place in ways of living. The systematization of knowledge which he has gained in his attempts to satisfy this curiosity has made possible all those things which science has given us. Without science we would not have the engineer—without the engineer, we could not have had industrialization—and without industrialization, there would be no dense masses of population. Thus, the very acquisition of knowledge has indirectly created the problems which today we are called upon to solve. The existence of these large and dense masses of population has made necessary elaborate systems for procuring, preserving and distributing of food. In this, refrigeration is destined to play an ever increasing important role, particularly in its relation to the fisheries.

The fisheries of today are faced with two important problems which are, broadly stated, conservation and preservation. This paper will deal in a very brief way with the part that refrigeration is playing in the preservation of fish and will set forth some of the problems encountered in relation to its uses. The ideal preservative would be one which would not cause any change in the preserved product. Most methods of preservation do bring about change. Thus, in treating fish by canning, smoking, salting, drying, pickling and freezing, marked changes are brought about in the preserved materials. Refrigeration brings about the least change of all, though even in this there are irreversible changes which it is the object of our research to reduce to a minimum.

A great deal of research has been undertaken upon the engineering problems of refrigeration and much useful information with regard to the production and maintenance of low temperatures has been gained. On the other hand, very little is known with regard to the biophysical and biochemical properties of materials frozen and stored. As yet hardly anything is known of the simplest physical constants of the materials stored or of the subtle chemical changes which take place and result in the destruction of flavor, texture and those other qualities which are characteristic of the fresh material.

The introduction of quick-freezing methods has done much to improve the quality of frozen fish. These methods are being widely applied and the excellence of the resulting product is doing a great deal to overcome prejudice which existed in the minds of the general public against frozen or cold-stored foods. There is still a great deal to be learned. Our problems are by no means solved, for it is one thing to produce a product which has undergone very little deterioration by the act of freezing and quite another to maintain this product without deterioration in cold storage.

**Crystal Formation** It is well known that when the rate of freezing in a tissue is rapid the number of crystallization centres is very large which results in the production of a large number of very minute ice crystals instead of a smaller number of large ones such as appear in a slowly frozen tissue. When the phenomenon of one ice crystal growing at the expense of another, under conditions of fluctuating temperatures, is considered, it is readily seen that even though the ice crystals within a tissue may be uniformly small in the newly-frozen product, after a period of storage under such varying conditions, these small crystals will be replaced by large ones. This has the effect of disrupting the tissue, spoiling the texture, and making the product very much more like slowly-frozen material.

Variations in temperatures also have the effect of bringing about changes in internal pressure within the frozen material. Under conditions of fluctuating temperature, there is continual expansion and contraction, which may have a bearing upon the migration of oil towards the surface of the fish such as occurs in the stored salmon. Oils at low temperatures are only semi-solids and under conditions of increasing pressure tend to migrate in such a way as to relieve that pressure. This condition of oil oozing is not met with if the temperatures are held at a constant low level. The reason for this is probably two-fold—the lower temperatures bringing about a greater solidarity of the oil and the constancy of temperature preventing variation in internal pressure.

There are many other phenomena connected with deterioration in cold storage which must be investigated from the biochemical point of view. Consideration of these may be

Your Breakfast Shot from Guns so you don't have to cook it Read how this amazing invention gives Puffed Grains the virtual nourishment of hot cooked cereals. WHEN Professor Anderson found the way to shoot wheat and rice grains from guns he solved an important problem. He gave these crisp, delicious, ready-to-eat cereals the virtual nourishment of hot cooked cereals. Every grain of wheat and rice contains 125 million food cells. Every food cell must be broken before the grain can be completely digestible. It takes long hours of cooking to do this. But Professor Anderson found a better way. He seals grains of wheat and rice in bronze guns. He revolves them in fiery ovens. Then fires the guns. This causes 125 million explosions in every grain. It blasts open every tiny food cell. Puffed Wheat and Puffed Rice are thus made completely digestible. Hence practically as nourishing as hot cooked cereals. The grains become 8 times normal size. They have all the buttery crunchiness of fresh toast. They are made to taste like sweet new nut-meats. Never before was rich grain nourishment made so delectably good to eat. You owe it to your family to give them this extra delicious grain food that tastes like nut goodies. Order Puffed Wheat and Puffed Rice from your grocer today. The Quaker Oats Company.

QUAKER PUFFED WHEAT AND PUFFED RICE

**Bacterial Action** During life the living organism has certain mechanisms of defense against the invasion of bacteria. With the advent of death, these mechanisms cease to function and bacterial invasion starts immediately. While it is true that bacterial activity is decreased by lowering temperatures it by no means follows that reducing the temperature to 32 degrees F. will entirely inhibit it. This laboratory has isolated bacteria which are quite active at that temperature notably *Pseudomonas fluorescens* which is thought to be responsible for much of the discoloration of halibut which occurs in the holds of fishing vessels. Investigation is being prosecuted with a view to examining the role of bacteria in cold storage at low temperatures and while as yet nothing very definite can be said in this regard, it seems quite probable that bacteria do play a part in the deterioration of the frozen product.

**Rusting** The "rusting" or yellow discoloration which occurs in oily fish during cold storage is another problem which seriously concerns cold storage companies. Fish such as halibut and salmon and herring which contain appreciable quantities of oil immediately underneath the skin are particularly subject to this which kept in storage for long periods of time. The phenomenon seems to be one which concerns a change in the fats and oils though there is some indication that the nitrogenous constituents of the tissues play an important part in the oxidative changes which occur. These discoloring reactions seem to be dependent upon a certain chemical state existing within the tissues themselves. It is quite possible that conditions of alkalinity or acidity of the body tissues may have a profound effect.

It is known that low temperatures such as zero or slightly above, will greatly reduce the possibility of the occurrence of "rusting." It is found difficult to use such temperatures in ordinary practise for long periods of time because of the excessive shrinkage which they produce. This is, no doubt, due largely to inadequate insulation; for it is evident that the poorer the insulation, the lower must be the temperature of the coils to produce a given condition. This results in a greater differential between the stored product and the coils and it follows that shrinkage will increase in proportion to this temperature difference. Such low temperatures could be maintained without serious shrinkage and with avoidance of a good deal of these undesirable chemical changes by the introduction of the jacketed cold storage room as developed by Doctor A. G. Huntsman at Halifax and discussed earlier in the paper.

There are very good reasons for believing that in the future most of our fish will be processed by modern methods of refrigeration and distributed in the frozen condition. Recent experiments carried on by the Biological Board of Canada have shown that fish fillets placed in the cooking utensils in the frozen condition are superior to those

that are thawed before cooking. The advantage of such a procedure in the elimination of spoilage of thawed fish in the hands of the retailer will be apparent, for, if the public were to buy and keep fish in a frozen state until the time of cooking, the spoilage which that most perishable product—unfrozen fish—is subject to during this period, would be avoided. Fortunately, such a procedure is steadily being made more possible by the development of small, low temperature refrigerators for use in shops and homes.

Thus, as one views the progress which has been made by refrigeration engineers in the construction of apparatus, together with the determined efforts of the biochemists and biophysicists to define the best freezing treatments and optimum storage conditions, one cannot but feel, as was stated earlier in this paper, that refrigeration is certain to play an ever-increasingly important role in the fishing industry and to eventually revolutionize existing methods of procedure.

Shower For Miss Alberta Hill Is Pretty Affair

A dainty miscellaneous shower was given last evening by Miss B. Campbell and Miss J. Stalker at the home of the latter, 515 Tatlow Street, in honor of Miss Alberta Hill, whose marriage takes place early next month. The rooms were decorated in mauve, pink and white and the tea table was centred with a miniature bride with pink and white carnations and rose tapers in silver sconces. Many gifts were presented by Miss M. Stalker in a daintily decorated wagon. Music was enjoyed and refreshments served. Those present include: Mrs. Geo. Hill, Mrs. E. Kinny, Mrs. T. Sprout, Mrs. J. Campbell, Mrs. W. Cummings, Mrs. V. Menzies, Mrs. Joe Cook, Mrs. J. H. Meagher, Mrs. Prendergrast, Miss Chris McKenzie, Miss Alida Johnson, Miss E. Ross, Misses Annie and Netta McLeod, Miss Mae Davis, Misses Nellie and Mollie Lawrence, Miss Frances Cummings, Miss Edna Parker.

Horace McN. Fraser, engineer for the United-Eastern Mining Co., one of the original companies operating in the Taku River field, will be here on the Princess Louise tomorrow morning enroute from Vancouver to Juneau. Mr. Fraser's father was for years gold commissioner at Atlin and he was brought up in that district.

MUCH WORK AT JASPER

Tourist Resort Enlarged to Meet Increase of Visitors

WINNIPEG, May 20.—In the international exchange of holiday seekers who now annually cross the Canadian-American border, an enormous flood of tourist travel to the Canadian Rockies is predicted for this season by R. Creelman, passenger traffic manager for the Canadian National Railways, who left yesterday to complete arrangements for many tours and special parties to Jasper National Park.

"Year by year," Mr. Creelman said, "increasing thousands are turning to this playground which has necessitated the enlarging of Jasper Park Lodge each season and today the accommodation for 650 guests is an increase of 100 over 1929 capacity. New buildings ready for the official opening tomorrow will include: Two ten-room cabins, one 16-room cabin, one eight-room cabin, one two-suite cabin, a sleeping building for golfers with 23 bedrooms, each cabin being equipped with baths for each room and with sitting rooms, two additional staff cabins, with 16 rooms each, a new building for the nurses, who stay at the Lodge to give service to guests. The dining rooms, laundry, powerhouse, private service room and the garage are enlarged and improved, new buses and cars were acquired, the curio shop is enlarged, the ticket office moved and a new specialty shop opened up. Enclosed verandahs are placed in some of the cabins. The program of landscaping is being continued."

The Alpine Club of Canada will meet this year at Jasper. Their headquarters camp at Maligne Lake will be in operation for their use from July 28 to August 16.

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