

# NEW COLD STORAGE PLANT of the B. WILSON CO. LTD.



A GROWING  
VICTORIA  
INDUSTRY



Housed in its splendid new quarters on Herald street, the firm of B. Wilson Company, Limited, furnishes an example of the progress which has taken place in Victoria within the past few years. Eight years ago this firm commenced business in Victoria in premises on Wharf street. In 1904 the growth of business necessitated a change to larger premises on Store street, and this year still another move was made when the fine new building on Herald street, recently completed and equipped with an up-to-date plant, the whole involving an expenditure of \$100,000, were occupied.

In no other city on the Coast is there as modern a cold storage and ice-manufacturing plant as is now possessed by this city. The growth of the firm is the natural outcome of the growth of the city and Island, and the fact that the company has invested such a large amount in putting itself in a position to handle its ever-increasing business indicates that Victoria business men are fully alive to the growing opportunities for business on this Coast.

## Economy and Efficiency

Every attention has been paid to the economical and efficient operation of the various branches of the company's business. The cold storage rooms have the latest plant for keeping the temperature at the required point. From the cold storage rooms, where poultry, fish and other products can be found frozen stiff in a temperature which suggest a prairie winter, the other rooms where a less severe, but none the less well regulated temperature is required, every facility for carrying on the business has been provided. Twenty tons of ice per twenty-four hours can be manufactured, ice made from distilled water and as absolutely pure as it is possible to make it. The company's two brands of hams and bacon, the B. C. Special and Royal brands, are known throughout the province, and its Challenge brand of eggs, its creamery and dairy butter products and frozen poultry are familiar to the trade.

A trip through the company's new two-story brick building, equipped with every facility for carrying on its business, will give one an idea of what a modern plant of its kind is and what it can do. In all twenty-five employees are engaged in the various departments of the concern.

## High-Grade Product

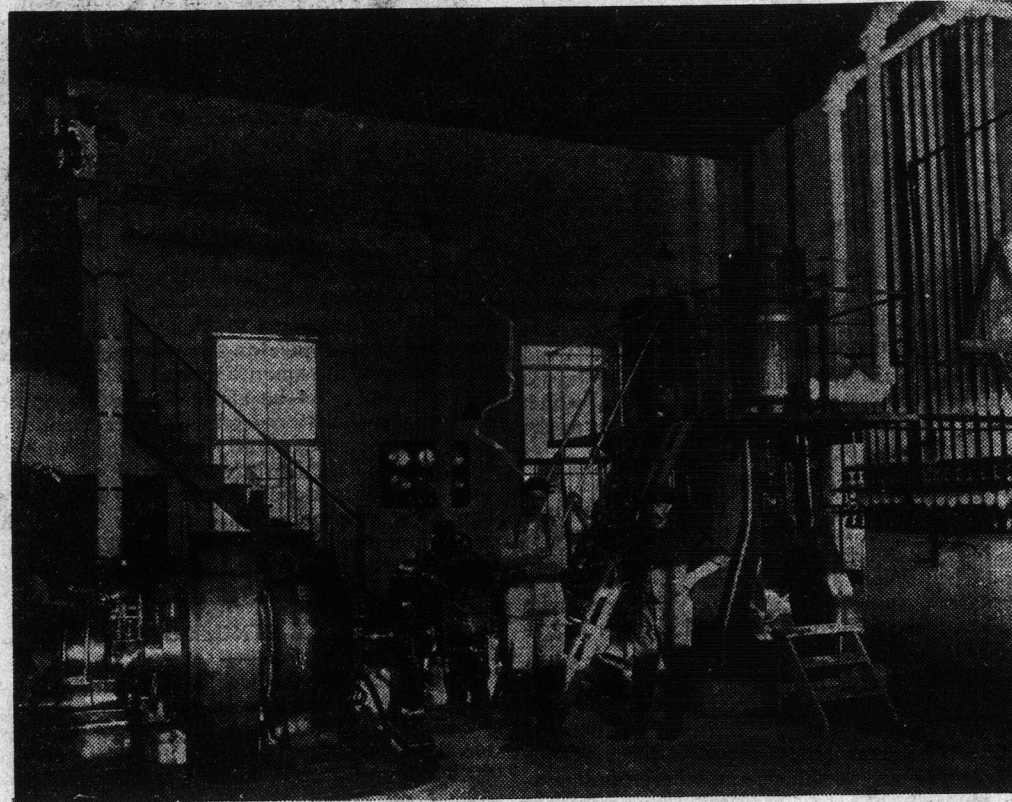
Every attention is given to the purity of the goods sent out by the firm. In the egg-handling department every egg is examined before an electric light before it is sent out; care is taken in the putting up of the butter, large quantities of which are imported from the East; the cold storage rooms are the very acme of cleanliness, and the care with which the firm's products are prepared is indicated by the fact that the sale of its hams and bacon, though in competition with the big packing house products of the other side, are daily increasing. Large shipments of mild-cured salmon are made to the German market, the fish, after being cleaned at the wharf, being stored in cold storage until shipped.

The entire plant from cellar to garret is devised with the object of ease in handling the products and convenience in shipping. Railway connection from the plant to the E. & N. has been made, the cars being brought right into the building. The mechanical equipment of the plant has been given first thought, and the firm is satisfied that it has the most up-to-date plant of any city on the Coast, with the possible exception of Los Angeles.

## Mechanical Equipment

After the design and arrangement of the building was made complete to specially afford all modern conveniences required by the company's business, then came the special work of equipping the building with the refrigerating system and power to serve all auxiliary parts, all of which makes a complete plant, with a perfect control, in the hands of a single attendant.

In the selecting of the site on which the



Engine Room

## System a Model One

The refrigerating system throughout is without exception the most complete and thoroughly modern one on the Pacific Coast at this time. There are larger ones, but none more complete in their application of the varied conditions to be met.

The system is so arranged that (although a wide range of conditions and temperatures are met) the whole can be done from a single machine with perfect ease. Three separate and distinct forms of application are combined in one system and may be handled simultaneously from the same machine, or can be operated in two separate and distinct plants, viz., ice-making, freezing and refrigerating. The advantages secured in this combined feature are very important from the standpoint of operating economically, and has proven an extraordinary valuable feature in making the temperature of each department easy to control.

## Ice-Making Plant

This part of the plant is of the can system, using a 200-lb. mould placed in the freezing tank in the regular and usual way. This department of the plant complete, as well as several others, was built in local shops by plans furnished by the company's engineers. The ammonia piping is of the continuous welded coil style, each coil being seven pipes high and containing 312 lineal feet without a joint.

The tank is operated on the lately developed system known as the "flooded sys-

## Frozen Fish in Cold Storage Temperature Zero

refrigerated corridor has an opening also direct to car without passing through refrigerated space, so that goods may be transferred either under the protection of refrigeration, or without it, as the nature of the goods being handled may require.

tem," which very greatly decreases the time necessary for freezing. The time ordinarily required for freezing a block of ice of equal size in other plants is forty-eight hours, while the same work is done in this one in twenty-seven hours. In addition to the reducing of the freezing time considerable economy is gained in the capacity of the machine by using this system.

The manner in which the piping is placed in the ice-making tank is a little out of the usual and regular way, in that the headers or manifolds to which all coils are connected, are specially large and of heavy steel piping, with ends and all branch connections welded in, thus eliminating joints and making the whole work of a very solid and permanent character. The coils have but one liquid supply connection to the system, which is so connected as to give perfect distribution of work to all coils, and is controlled by a single supply valve, located in the machine room.

No piping or headers are exposed, all being submerged within the tank, thus utilizing the complete working surface of all pipe in connection with the freezing. The suction, or return tank to the machine, is a single pipe leading directly from the accumulator through a distilled water pre-cooling tank, thence through the refrigerated space of chill rooms on its way to the machine.

The wood-work, or covering for the tank, is so designed that not more than the space occupied by each individual freezing may be uncovered at any one time, thus exposing to the higher temperature of the room where the tank is located only the small section of the tank's surface occupied by the one can. This is a guard against a very common source

of loss of work in most ice-making tanks, in the average plant.

## Ice Harvesting and Handling

Some very novel and ingenious conveniences have been worked out for the handling of the ice after being harvested. The harvesting is done in the regular way, a traveling crane and hoisting method, with shower thawing dump for releasing ice from the can in which it is frozen. The freezing tank is located on the second, or Herald street, floor level, and directly over the wagon alley, where a loading platform is provided to serve wagon deliveries and carload shipments. An ice storage room is also located on the same floor as the ice-making tank, but at a little lower level. The block of ice leaving the thawing pump passes by gravity to the storage room through an automatic door which registers or counts it as it passes in. In this room is kept the stock which is always on hand for prompt shipment and deliveries. It is refrigerated to a temperature very much below the freezing point and, consequently, ice may be kept indefinitely without the slightest deterioration. The method of removing the ice from this storage room is accomplished in a very simple, novel and practical way. The room being located immediately above the space where wagons and cars enter, make it possible to handle the ice by gravity, which is accomplished in the following manner: A small car, just large enough to hold one block of ice, is passed through an opening in the floor of the ice storage room at a point most convenient over the loading platform below. This car when not in use forms a door for closing the opening through which the ice passes when leaving the storage room, and is



Office and Office Staff.

held in place by counter-balance pneumatic cylinder. When delivered to the car, it immediately drops to within a few inches of platform level below, when it is dropped easily by the piston counter-balance in cylinder and is dropped easily block to either car or wagon, and turns to its original position.



Barrelled

and registers the block of ice. By the inlet and outlet counting complete check is kept upon the amount delivered each day, and is readily appreciated by all ice consumers. The simple arrangement is also proving ice to the tops of refrigerated standing alongside the building, the shipping of refrigerated goods being operated by gravity quiring no power whatever to move the block of ice.

## Water Distilling System

Water to be frozen is first distilled and purified in the most perfect manner before it is introduced into the tank. It is first passed through the tank under high pressure, thence through a fine cylinder, where power is used to drive the machinery, thence through a face condenser, where it is steam into water again, only through another evaporating lighter pressure, then chilled thoroughly before being accepted for freezing. The entire distilling system is operated by gravity, thus eliminating very uneconomical system of handling of distilled water, also the cost of the water after distillation is simple and positive in its

## Results

Very striking and encouraging contrast between the manner in which the matter is now handled and the manner in which it was handled only a few years ago. It is now looked at by the public as a matter of course, but it was taken for granted that more or less must be annually so many offenders must come to the attention of the public. A faint hope might be held that by education or some indicated agency the number of offenders might be diminished. The real belief of those who uttered some words of encouragement was that the matter could be done to suppress or to control as the rainfall or the wind, which is a matter of course. It is interesting to contrast with resignation and depression the those who are now responsible of our penal system. "Up every criminal who is not a potentially a good citizen, of the Preston Commission, which most of their opponents have scouted as much too optimistic, on the whole, seems to be a degree of success which this principle in ways never before with a degree of success which reduce greatly ten or twenty per cent the prison population. Those who have been sceptical as to effective criminal classes would do well to report of 1909 of the Borstal Association can scarcely fail to admit that the agencies for good are at work."

The experiment, which has been successful than its authors anticipated, a small way at Bedford Prison gradually extended. At first to selected offenders in the month between the ages of sixteen and twenty who had been committed for the first time, it was soon discovered that little was done with criminals under the present system. This has been more effect by reason of the fact which came into operation on the 1st of the month. It empowers Court convictions for offences invol-