

AIR IN CANADIAN HOUSES TOO DRY IN WINTER TIME

Bulletin Issued by Dominion Fuel Board Gives Many Valuable Hints for Health and Economy in Heating Homes

The air in Canadian homes during a large portion of the artificial heating season is, with few exceptions, drier than that of the driest desert. This is a fact which Canadians either do not know or do not appreciate, says the Dominion Fuel Board.

House heating is more than the simple process of maintaining the indoor temperature at that point where one does not feel cold. The designers of present day heating apparatus have done excellent work considered from that standpoint; but, as a rule, they have neglected to take into account the natural law which governs the relation between air temperature and air moisture. The result is that, generally speaking, Canadian indoor air during the winter is excessively dry.

This excessive air dryness is injurious to health, affecting more particularly the respiratory organs and the skin. It is destructive to woodwork and furniture, and to clothing and furnishing fabrics. It also necessitates the maintenance of higher temperatures for comfort than with air containing adequate moisture.

Many people believe that excessively dry air conditions are to be found only in houses heated by certain types of heating equipment; also that such undesirable conditions may be remedied by opening the windows and admitting large quantities of cold outdoor air.

"Humidity in House Heating," a bulletin recently published by the Dominion Fuel Board in co-operation with the Natural Resources Intelligence Service of the Department of the Interior, points out that cold air saturated with moisture becomes dry on heating—not because moisture has been removed, but because of its greatly increased moisture capacity at the higher temperature. The air in houses during the winter cannot be otherwise than dry, unless provision is made in the heating equipment, or by other means, to sat-

isfy adequately this increased moisture capacity. Moreover the admission of large quantities of outdoor air increases to a corresponding extent the moisture which must be supplied for this purpose.

"Humidity in House Heating" discusses briefly in non-technical language the essential features of air dryness in house heating—cause, effect, and remedy. It explains what is meant by the expression "relative humidity," and points out that, for health and comfort, indoor relative humidities of from 40 to 50 per cent. should be maintained throughout the winter. It shows how a hygrometer is used to measure relative humidities, and points out that the effective control of humidifying equipment depends upon results as measured by means of this instrument.

In addition to indicating, in a general way, various types of humidifiers which may be used, either in conjunction with the heating equipment or independently, to supply the moisture for healthful humidification, this bulletin stresses that fact that the evaporation of a few quarts of water per day in the average Canadian house during the winter months gives practically no relief from air dryness. The evaporation of from three or four to twelve or more gallons per day may be necessary, depending upon weather conditions and ventilation.

The purpose in issuing "Humidity in House Heating" is not only to further the cause of good health but to promote the more efficient employment of the fuel used for house heating; since the fuel used to maintain the high temperatures of 72 degrees to 75 degrees for comfort under air conditions may be used to greater advantage in evaporating the water for healthful humidification of air at the more moderate comfort temperatures so required.

Copies of "Humidity in House Heating" may be obtained free on request from the Director, Natural Resources Intelligence Service, Department of the Interior Ottawa or from The Dominion Fuel Board also of Ottawa.

Atchison (Kansas) Globe:—As is well-known, the worst singer in Atchison is Dr. Will Smith. One day in church he didn't sing and everybody thought the organ had been repaired.



FRENCH ACE STARTS INDO-CHINA FLIGHT

Joseph Lebriz, the famous French flyer, who, with Rossi, left Le Bourget for Benghazi on the first lap of their proposed flight to Saigon-Indo-China.

GENERAL MEETING TO-NIGHT ALL-BRITAIN SOCIAL CLUB

The All-Britain Social Club will hold (Thursday), Jan. 9th, at 7.30 p.m., in the Hollinger Recreation Hall. All members are specially urged to attend this meeting.

The meeting will be followed by a whisky drive. For this there will be good prizes, and refreshments will be served during the evening.

The New Liskeard Speaker last week says:—"During the past forty years Messrs Peckover and Calvert, both of Dymond, have only missed four times having their Christmas dinner together. Both are from Yorkshire, and Mr. Peckover having come to Canada and Temiskaming four years before Mr. Calvert did, accounts for the four missing years. They are brothers-in-law and both well-to-do farmers and had their Christmas dinners together when quite young."

WONDERFUL DEVELOPMENT OF THE ROUYN DISTRICT

Operating Profits of Noranda Smelter Retires Loan of Three Millions by Hollinger Consolidated, as Well as Paying Expenses and Building Reserve

Eight years ago the Rouyn district was unbroken bush, its only asset, apparently, the pulpwood on it. An occasional prospector, surveyor, or timber cruiser traversed its lakes in summer, and the Indian trapper cruised it in winter. To-day the thriving towns of Rouyn and Noranda form the nucleus of an industrial area in which the scattered producing mines, near-producers, and prospects. Two roadways serve the district and excellent motor roads intersect it.

The greatest advance, according to Dr. H. C. Cooke of the Geological Survey, Dominion, Department of Mines, is visible at Noranda itself, where the great Horne smelter rears its imposing bulk. Built in record time and blown in during the closing days of 1927, it produced in its first year of operation thirty-three million pounds of copper, worth nearly five millions of dollars, together with precious metals to a value of more than a million dollars. Gradual improvements in practice, without increase of equipment, raised the daily tonnage from 500 tons at the outset to 1,000 tons by the close of 1928. In 1929 this was again increased to 1,300 tons, so that the 1929 production should largely exceed that of 1928. Additions to the smelter were completed in November, 1929, which enable at least 2,000 tons of ore to be treated daily, and with these improvements it is estimated that the production in 1930 will exceed 100 million pounds of copper.

In these two years of operation profits have been sufficient to pay not only operating expenses but also the very heavy costs of development; to retire a loan of three million dollars advanced by Hollinger Consolidated Gold Mines for the construction of the smelter; and to build up a cash reserve of approximately seven million dollars. As a result the company has announced that in 1930 it will pay a dividend of three dollars a share, the first quarterly installment to be paid in January.

The mine itself is in excellent condition. Operations have been carried to a depth of 1,200 feet by two shafts, known as Nos. 3 and 4. The sinking of shaft No. 4 became necessary when No. 3 entered a huge body of very rich ore at a depth of nearly 800 feet. On the lower levels work is still mainly confined to exploration. The ground between the various drifts and crosscuts is methodically searched by a series of drill holes spaced at comparatively short intervals, so as to determine the outlines and the copper content of known ore-bodies and to ensure that no unknown body escapes observation. The ore for the smelter has been largely drawn from the uppermost levels. It is expected that in the near future the shafts will be sunk to a depth of 1,500 feet to explore ore-bodies detected by diamond drilling below the present lowest level. The ore reserves already blocked out are estimated at eight million tons, of which one-half is high-grade that can be directly smelted, and the remainder, of lower grade, requires to be concentrated before smelting. The boundary between the high and lower grade ores is placed at about 41% copper content.

Up to the present the Horne smelter has been operating almost wholly on high-grade ores. For the ores of lower grade a concentrator was erected and has been in operation since October, 1928. It was a small unit, equipped to handle 200 tons a day only, and intended mainly for determining, by experiment, the best methods of treatment. These problems appear to have been satisfactorily solved, as the capacity of the plant is now being increased to 1,000 tons, with a further increase already forecast.

The other producing mine of the district, the Waite-Ackerman-Montgomery, lies about eight miles northwest of the Horne. The principal ore-body, which outcrops at the surface, is a large mass of copper-zinc ore, made up of a central core of copper-rich ore, surrounded by a shell in which zinc is the principal constituent. Production commenced in the latter half of 1928, and during the first months of operation the ore was sent to the Horne concentrator for elimination of the zinc. During 1929 it was found possible to mine direct-smelting ore with comparatively low zinc content, and about 4,000 tons have been shipped monthly to the smelter. Profits on the mining operations during 1929 have been estimated to run from one-half to three-quarters of a million dollars.

The orebody is a large and nearly flat-lying lens which reaches from the surface to a depth of about 160 feet. Diamond drilling has recently established the existence of three other bodies of similar shape, lying beneath the first known mass at depths of 500 to 700 feet. These bodies carry no zinc. The shaft, now 325 feet deep, is being deepened to 700 feet to tap the lower bodies.

The Amulet mine, two miles south of the Waite-Ackerman-Montgomery will commence production next spring. Ore was found on this property in 1924 but the body, though of fair size, was not large enough to warrant construction of a mill. The history of the succeeding years is one of patient, skillful search for new orebodies. Several were found in 1927, and still another in 1929. They are rather irregular, flat-lying lenses, like those at the Waite-Ackerman-Montgomery. The general

BELIEVES MILK TO BE VERY NECESSARY FOR HEALTH

No Other Food Can Take the Place of Milk for Children. Some Recipes for the Use of Milk in Pleasing and Helpful Ways.

The question as to whether milk is really necessary as a food is discussed, as follows by Barbara B. Brooks, the noted cutinary expert:—

Every once in a while some one raises the question as to whether milk is really necessary to health. Although there are people who object to having rats quoted as evidence for or against a food used for human beings, rats are nevertheless the best criteria available.

The following paragraphs are taken from a nutrition publication:—"The question, 'Do children have to drink milk or can other food take its place?' is answered in a new leaflet entitled, 'Must I Drink Milk?' The answer to this question so often raised by parents and children is apparent when young, growing animals fed without

chape is exemplified by the latest discovery which, as outlined by drilling appears to be nearly 400 feet long, with a maximum width of 260 feet and an average thickness of from 30 to 40 feet; although at one point the drill passed through 107 feet of cre. All the orebodies are mixtures of copper and zinc sulphides in which the zinc predominates. A mill is now under construction and a railway spur is being built to the property.

The Aldermac mine, about ten miles west of the Horne, has been engaged during the past year with a programme of exploration and experiment. This mine, in which operations have been carried to a depth of 1125 feet, has extremely large bodies of sulphides averaging somewhat less than two per cent. of copper. In places the copper content is greater, and exploration has been directed partly toward determining the extent of the enriched parts and partly toward the discovery of new bodies which, it is hoped, may be of higher tenor. In addition, experimental work has been in progress for about three years to devise, if possible, some cheap method of utilizing the iron pyrites that constitutes this bulk of the orebodies. The experiments, it is stated, have been very encouraging, and sulphurous acid can be manufactured by the new method at a saving of 30 per cent. or more. Paper manufacturers and other large users of sulphur have been following these experiments with much interest. If finally successful they will add materially to the value of many sulphide deposits in northern Canada.

milk are contrasted with those having milk. One glance at the two rats pictured in the leaflet decides the question. The one rat, generally miserable in appearance, undersized, and with rough, unkempt coat is a decided contrast to the large, bright-eyed healthy-looking twin brother rat. The only difference in the diets of the two rats was that one had milk, and the other did not. The bones of the milk-fed and non-milk-fed rats are shown as further evidence. The bones of the rat which had plenty of lime are solid, shiny white and well formed. The bones of the rat deprived of calcium are crumbly, dark colored and thin."

Following are some ways of bringing milk into the daily menu:—1. Milk with Cereals; 2. Milk in Custards; 3. Milk in Creamed Dishes; 4. Milk in Soups.

Caramel Custard
4 cups scalded milk; 4 eggs; 1 teaspoon salt; 1 teaspoon vanilla; 1 cup sugar.
Put sugar in omelet pan, stir constantly over flame until melted to a syrup of light brown colour. Add milk gradually, being careful that milk does not bubble up and go over on account of high temperature of sugar. As soon as sugar is melted in milk, add mixture gradually to eggs slightly beaten; add salt and flavouring, then strain into buttered mould, or cups. Set cups in pan of hot water and bake in a moderate oven (370° F.).

Corn Chowder
2 slices boiled salt pork, 1 onion, 3 cups diced boiled potatoes, salt and pepper, 2 cups boiling water, 1 cup cooked corn, fresh or canned, 4 cups hot milk.
Cut the pork into small pieces and fry it out. In this cook the sliced onion. Strain the fat into another receptacle, and put the potatoes into the strained fat. Add boiling water, corn which has been cooked till tender, and hot. Season with salt and white pepper, bring to the boiling point, and serve with a cracker on each soup plate.

NEW VEIN AT SYLVANITE

According to information received from Kirkland Lake, what is believed to be a new vein has been encountered at the Sylvanite mine in the new shaft at a depth of 1,250 feet. The strike is said to show commercial ore over mineable widths.

Little Dorothy Baker, aged 11 years, while coasting down a hill in her home town of New Liskeard on Christmas Day, had the misfortune to break her leg. The accident occurred when the youngster endeavoured to get out of the way of an approaching car. She turned her sleigh too quickly and in the resulting "spill" the child's leg was broken.

PRODUCT OF WOOD PULP HAS NOTABLE PROPERTIES

New Substance, "Durium" May Revolutionize Making of Phonograph Records and Other Articles of Very Common Use.

Despatches this week from New York says that a new demand on the pulpwood resources of the world is expected through the commercial use of a new substance, "Durium," discovery of which was announced to a group of Canadian and United States newspapermen by Dr. Hal. T. Beans, Professor of Chemistry of Columbia University.

The new substance is a synthetic resin transformed by heat from a liquid to an insoluble, infusible, flexible solid. The new substance was developed in the search for an unbreakable phonograph record. A thin film of Durium will not crack or chip under hammering, yet is almost as flexible as paper. It will withstand the temperatures of molten lead or type metal without change, and at excessively high temperatures oxidizes without melting.

The chief difference between Durium and other synthetic resins is the speed with which it hardens, making it possible to utilize stamping operations instead of molding processes which consume much more time and complicate the process of manufacture.

Dr. Beans demonstrated records and talking picture discs made from his new compound. Paper phonograph records weighing, but a fraction of the ordinary record were produced. Then Professor Bean took a hammer and pounded the record until he split the chair he was using for an anvil. The record showed no evidence of its maltreatment when reproduced. Scratching the needle across the surface left marks and damaged the needle but did not affect the quality of reproduction.

Although the material was developed specifically for a light weight, unbreakable phonograph and talking picture disc, this does not limit its possible uses in industry. Professor Beans said:

"When a new product is created in the laboratory," he exclaimed, "it is idle to speculate as to what its uses in industry may be. We know that Durium possesses new combinations of qualities, and that needs exist for such combinations. Science has created the material. Industry will find out how to use it."

Durium is photosensitive and darkens on exposure to light to a deep golden brown.

Among the Canadian newspapermen who witnessed the demonstration was Hon. Frank Carroll, publisher of the Quebec Chronicle-Telegraph.

DOMINION STORES

"Where Quality Counts"
Our New Year's Thought
QUALITY, ECONOMY AND PERSONAL SERVICE
during 1930 that was maintained throughout 1929.

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| DOMINO
Tapioca 2 1-lb. Pkgs. 25c | Selected Highest Grade Creamery
Bayside Brand BUTTER
lb. 47c | DELMONTE OR LIBBY'S
Pineapple 2 1-lb. Tins 29c |
| SWANSDOWN
Cake Flour Pkt. 38c | ROSE BUD
Beets No. 2 Tin 23c | PURE CLOVER
Honey 5-lb. Pail 75c |
| | | VICTORY SWEET MIXED
Pickles Large Bottle 49c |

D.S.L. Tea 49c

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| PLAIN OR PIMENTO
Ingersoll Cheese Small Pkg. 15c | ORANGE
Marmalade 1-lb. Jar 19c |
| HAWES
Lemon Oil Bottle 23c | MAPLE LEAF
Matches 3 Large Boxes 25c |
| A MALT TONIC DRINK
Ovaltine 4 1/2-oz. Tin 50c | |
| D.S.L.
Corn Flakes 3 Pkgs. 25c | |
| HEINZ TOMATO
Ketchup Large Bottle 27c | |
| Bovril 2-oz. Bottle 40c | |
| Cream of Wheat Pkg. 25c | |
| ROWNTREE'S ELECT
Cocoa 1/2's Tin 25c | |
| ASSORTED FLAVORS "LUSHUS"
Jelly Powders 3 for 23c | |

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A splendid opportunity to replenish your shelves. All quality goods at decidedly attractive prices.
CHOICE QUALITY
BAYSIDE OR AYLMER BRANDS
PEAS, CORN TOMATOES
DOMINO BRAND
No. 2 Tin 2 for 29c

- NEW
Evaporated Peaches 1b. 27c
PURE
Strawberry Jam 40-oz. Jar 43c

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| NIPPY, OLD
Cheese 1b. 39c | Products of Our Modern Bakery—Machine Wrapped
BREAD
Full 24-oz. Loaves
"Tasty" 10c
"Creamy White" 10c | DIAMOND
Cleanser Tin 29c |
| Crisco 1-lb. Tin 27c | | AYLMER
Spinach No. 2 Tin 15c |
| CHOICE
Pumpkin No. 2 Tin 10c | | HANDY OR STAR
Ammonia 3 Pkgs. 23c |

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|-----------------------------------|--|
| Leg Roast Pork, per lb. 26c | Head Lettuce, large 21c |
| Pork Spareribs, per lb. 19c | Turnips, 12 lbs. for 25c |
| Pork Hocks, per lb. 15c | King Apples, No. 1, 4 lbs. 29c |
| Pork Chops, trimmed, per lb. 35c | Sweet Juicy Oranges, doz. 51c |
| Rolled Roast of Veal, per lb. 35c | Lemons, dozen 35c |
| Breakfast Bacon, per lb. 32c | Prince Edward Island Potatoes per bag \$2.65 |

JUNIOR N.O.H.A. HOCKEY

Timmins Skating Rink

Monteith vs. Timmins

Turn Out for This Game and Support the Boys!

Fri., Jan. 10

Puck Faced at 8.30 Sharp

Admission
Adults 50c Tax Included Children 25c