

# Ice Refrigerators Keeps Air In Perfect Condition

## Dixie Ice & Coal Company Has Made Rapid Strides In Year's Service To County

Increased Production, Large Storage Room And Modern Ice Refrigeration

Purity Now Keynote In Food Preserving

Actual Tests Reveal That Food Odors Do Not Hurt Food; Perfect Preservation

Buying the American Service company of which Troy Pearce was manager for several years, C. L. Cranford and his three sons went into the ice business on May 4th, 1935, changing the name to the Dixie Ice and Coal Company. C. L. Cranford is president of the company with Leon Cranford, oldest son, secretary-treasurer and C. L., Jr., and Lassiter, stockholders. The four men have made many improvements in the ice business. In recent months their storage plant has been increased 400 blocks with an additional storage room for meats, fruits, vegetables and the like for the public.

Last summer the plant operated day and night with an output of 23 tons daily, and the plan is for a similar program this summer, plus the increased output.

Perhaps the most noticeable change is from "Ernest and his ice wagon" to the fleet of four motor delivery trucks, one of which Ernest drives, however. For many years, Ernest and his ice wagon were harbingers of spring, appearing with the first warm days and continuing to make daily trips over the town, children clinging to the wagon, through the whole summer. Now the trucks serve Asheboro and several sections of the county.

Especially interested are the Cranfords in the modern methods of ice refrigeration for their ice, made in the most up-to-date methods.

"For many years the ice industry suffered because of the poor construction and design of the refrigerators in which ice was used," Mr. Cranford said. "It is an admitted fact that in old-fashioned ice refrigerators—and there are many still in use today—it was difficult to maintain a satisfactory low temperature. As the supply of ice decreased, the temperature rose. But in the new air-conditioned ice refrigerators constantly low temperature, below 50 degrees, is kept as long as there is even a thin layer of ice on the bottom of the ice chamber.

"This is one of the factors that have led so many people of Asheboro to favor ice refrigeration, enabling us last year to sell almost double the number of refrigerators we anticipated at the beginning of the year. Other factors, which refrigeration engineers and housewives alike consider equally important, are the way in which modern ice refrigeration protects natural food juices and, at the same time, prevents the mixing of food flavors.

"In any refrigerator in which an ice substitute is used," he continued, "heat is removed from the air in the refrigerator by forcing a gas under pressure to coils located in the food chamber. Inside the coils the gas

## Modern Air-Conditioned Ice Refrigerators For All Types Of Modern Homes

The modern air conditioned ice refrigerators which are now on display at Dixie Ice & Coal Company and Home Ice & Fuel Company are the last word in design, construction and beauty. These new type ice refrigerators are bringing about a revolutionary advance in food preservation through the introduction of three-way refrigeration—a uniform cold temperature, properly moistened air, and a constant circulation of "washed" air.

The construction and insulation of these new refrigerators have been improved so much that they maintain a safe temperature range with re-icing only a few times a month. In winter the re-icing will be even less often.

A new device that provides crystal clear, odorless, hard frozen cubes in three to five minutes, also is part of the scientific, trouble-free refrigeration. These cubes are cut automatically at the rate of 16 at a time. They are cut from the ice in the ice chamber, and are consequently absolutely pure and taste-free.

Your food is always kept perfectly, free from mixed odors and tastes. That's something that only real ice can do—for it carries all the impurities down the drain, away from the food chamber—and is the natural enemy of bacteria. Ice refrigeration with all its advantages, cost less than mechanical refrigeration. You pay only as you use, and spend nothing

President Dixie



C. L. CRANFORD

C. L. Cranford who with his three sons, operates the Dixie Ice and Coal Company on Salisbury street. The four Cranfords have managed this company with marked success for the past year.

expands and in so doing chills the coils. As the coils are chilled, moisture in the air which is sealed up in the refrigerator freezes on the coils. This freezing naturally takes moisture out of the air, leaving it dryer. As the freezing continues, the air becomes more and more dry.

"All perishable foods contain a large amount of so-called natural moisture or juices. When foods are left in contact with dry air, even if the air is cold, the dry air acts as a blotter in absorbing the food juices. There is a decided tendency, therefore, for such foods to lose weight and also food value.

"Manufacturers of ice-substitute refrigerators have endeavored to get around this fault in their refrigerators by supplying covered containers for foods. The United States department of agriculture, however, is my authority for the statement that keeping raw meat in a covered container in a refrigerator promotes bacteria growth equal to a five-degree rise of temperature.

"In the air-conditioned ice refrigerator it is never necessary to use any covered container. The ice supplies adequate moisture to the air to protect natural food juices. Many people who took a 'holiday' from ice refrigeration have come back to the use of ice for this reason.

"The third interesting fact about the new ice refrigeration is that in an air-conditioned refrigerator food flavors do not mix. The reason why flavors do mix is air tight, cold-storage type refrigerators is simple once it is suggested. As everyone knows, foods have odors—some pleasant, some not so pleasant—onions, for instance! If bananas and butter are kept shut up together in a cold storage type of refrigerator, both being left open to the air, the butter will acquire a banana flavor. But

## History Of Ice Dates Back To Early Dark Age Monarchs

In this day of making ice in wholesale quantities by refrigeration, it is hard to realize that many of the business men and women who were brought up in rural sections and in small towns recall how their fathers sent out men to cut blocks of ice on rivers when a prolonged cold spell permitted the solid freezing of ice, which was then hauled into ice houses and kept until summertime. The ice houses were constructed in similar fashion to the sweet potato pits of today, only saw dust in enormous quantities preserved the solitary of the ice.

The study of ice refrigeration history is a story of man's struggle to make use of nature's most precious gifts. Ice men before our day have spent an entire life in making possible the benefits and blessings of modern ice refrigeration.

At the very beginning of history Persian kings sent slaves to the mountain tops to gather snow and ice with which to cool their wines.

Chinese history tells us that the Chinese were accustomed to use ice and snow as a food preserver as early as the 13th century.

The Latin races, such as the Italians, Spaniards, the French, etc., used ice and snow generally during the 17th century. We even have rec-

ords of goat milk being kept for many days by the use of snow and ice and an ice box. The chief use for ice during that century, however, was in cooling wines and other fermented drinks which these people were accustomed to drinking.

Ice delivery started by accident. Fish peddlers carried fish through the streets and used ice to keep the fish fresh. So many people were anxious to buy chunks of ice from them that one enterprising fish monger conceived the idea of working up a regular ice route. From the very beginning his business was profitable.

This was the practice in 1802 and since that time ice delivery has grown every year until today ice servicemen form one of the largest direct sales groups in the country.

In the year 1805 a shipload of nat-

Secretary-Treasurer



LEON CRANFORD

Leon Cranford, who for the past year has served as secretary-treasurer of the Dixie Ice and Coal Company. The plant has undergone many modern changes during this period of business.

ural ice was sent from Boston, Mass., to an island in the West Indies where an epidemic of yellow fever was killing people by the hundreds. This ice, which had been cut from the frozen lakes and rivers, was used to help reduce fever and proved a blessing to the fever sufferers. From that date of the first shipload, the sale of ice cut from frozen rivers and lakes became a growing business and shipping ice from the northern ports into southern cities grew to be a business of national proportion.

In 1834 Jacob Perkins, an Englishman, is reported to have built the first machine which would actually make ice.

The first ice making machine built in the United States which was large enough to produce ice for sale, was finished in Cleveland, O., in 1835, by Prof. A. C. Twining. This machine would produce about 1,800 pounds of ice every 24 hours.

The first patent for an ice making machine ever granted in the United States was issued to Dr. John Gorrie, of Apalachicola, Fla., in August 1858. His statute stands in the hall of fame in Washington, D. C., for his contribution to the health of mankind.

The manufacture of ice grew very slowly, due to the fact that the first ice machines were very expensive to operate and were always breaking down. It was less expensive and more sure to cut ice from the frozen lakes and rivers in the north and ship it to other sections of the country than to make it with machines. But in 1890 the country experienced a very mild winter. Lakes and rivers did not freeze over and there was not enough natural ice to supply the regular business which had been built up.

The history of the United States is filled with incidents of daring men fighting battles against odds, that other races would not attempt, and during the ice shortage of 1890 plans were made by engineers all over the country to erect ice plants that would make ice shortage impossible. From 1890 the business grew rapidly until today ice manufacturing is the ninth largest industry in the United States.

## Home Ice & Fuel Company Has Made Many Changes In Five Years Of Ice Making

Heads Home Ice



HERMAN CRANFORD

Herman Cranford, head of the Home Ice and Fuel company. Mr. Cranford bought this ice plant five years ago and, during that time, has greatly increased the capacity of the plant.

### Ten Important Rules For Keeping Foods With Refrigeration

1. Ice should never be wrapped. This prevents the air from directly contacting the ice, and this contact is necessary for complete air purification. Wrapping the ice also causes a slightly higher temperature in the refrigerator.
2. Never keep food in the ice chamber. This slows up air circulation, and the food will not be kept as cold since the coldest place in the refrigerator is the compartment directly under the ice where the cold, heavy air first falls. The least cold spot in the refrigerator is the air immediately above the ice.
3. Never crowd the shelves. Never cover refrigerator shelves with paper. These things slow up the circulation of cold air, which is so vital in good refrigeration.
4. Place the refrigerator in a cool spot where air can circulate around the outside of it. This helps prevent dampness and preserves the finish.
5. Keep the refrigerator well iced, never let the ice get low, the ice chamber in some refrigerators should never be much less than half filled. This means quicker cooling and more certain purification of the constantly circulating air.
6. Place all foods correctly.
7. Keep the drain pipe clean by dumping a teaspoonful of ordinary cooking soda on the ice pan once each week. The melting will run the soda down the drain slowly and will prevent the impurities, which have been washed from the air, from collecting and forming "slime." Once or twice each month remove the drain and clean out the trap, or flush with strong soda solution.
8. Wash the refrigerator out once each week. Use one quart of cold water in which from one to two tablespoonfuls of ordinary cooking soda have been dissolved.
9. Keep the doors closed tightly and do not open them any oftener than is necessary.
10. Do not put hot foods, or those that do not need refrigeration in the refrigerator. Allow hot foods to cool to room temperature before putting them in any type of refrigerator.

After deducting all expenses, W. B. Shelton of Yanceyville, Caswell county, made a net profit of \$47.50 on a lot of 200 Barred Rock chicks fattened and sold as broilers.

Herman Cranford Bought Plant Five Years Ago, Enlarging From Time To Time

Now Increased Output Has Wrought Changes

Modern Ice Refrigeration Has Undergone Many Changes For Better In Ice-Making

Five years ago in April, Herman Cranford, well known manufacturer of Asheboro, set up a business of ice making calling his business the Home Ice and Fuel company. At that time, one plant served Asheboro and the surrounding territory in an adequate fashion—even with the slower methods of manufacture in practice at that time.

Since that time an addition to the plant has been made which increases the daily output 17½ tons daily. Now, the methods of mechanical refrigeration of ice in large quantities, have so varied, even in these few years, that it has become an art.

Since the first method of mechanical refrigeration to come into use on ocean steamers, by the use of cold air, a revolution in the production as well as in the cost of ice, has been wrought. Many, many years ago this method of compression using carbon dioxide or ammonia came into use. According to ice mechanics, the ammonia compression machine the first successful of which was brought out by Prof. C. P. G. Little, a professor in a university at Munich, Germany. This first machine was put up in the United States in 1880 and was a 25 ton machine.

The process appears quite simple when operated by an expert, but the method is really quite complicated for the layman. The cycle of operations that characterizes all compression machines has three chief points. First, the refrigerating agent is subject to pressure, so that when it passes into the second, or condensing, stage and the temperature is reduced, it becomes liquid. In this second stage, the reduction of temperature is brought about by water which carries away the heat produced by the compression plus the latent heat set free by the liquefaction of the refrigerating agent. The third, and last, stage is where the liquefied gas is admitted to a series of coils of pipe and suddenly relieved from pressure. It then flashes into a gas which becomes latent; the amount being equal to what it has just given up to cooling water in the condenser. Thus, ice made today. Only a few years ago, it was chopped from rivers and was a luxury. Today, by methods of modern refrigeration, most rural districts are served by ice trucks until the luxury of a chunk of ice melts into habit and daily necessity in warm weather.

Mr. Cranford is ever on the alert for changes in method that mean little to the average consumer save he realizes that ice no longer tastes like a vat of ammonia has been dumped in it, and that it does not melt so rapidly and many other things that modern scientific methods have wrought in the manufacture of ice.

**ALL-STARS TEAM DONS NEW SUITS**  
Asheboro All-Stars, the newly formed town baseball team, donned new suits of grey and blue for the initial games Saturday. These suits were donated by the following merchants: "M" System, "White Spot", Farlow's Funeral Home, Coca-Cola Bottling Company, Model Laundry, Bruton's Dry Cleaners, Cut-Rate Furniture Company, Patty Rutle Beauty Parlor, Red Pig Barbecue Grimes and Hollingsworth, Asheboro Hardware Company, Asheboro Fixture Company and Amos Furniture Company.

The suits are grey with blue letters and are worn with blue and white socks.

## New Ice Refrigeration A Great Improvement Over Old Methods

New Device That Produces Crystal Clear, Odorless Cubes In Remarkably Short Time By Trouble-Free Types Of Ice Refrigeration

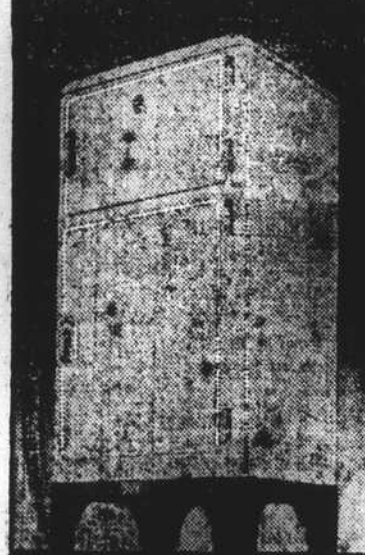
Every user of commercial refrigeration knows the importance of proper and efficient equipment. The entire problem is closely connected with the success of store or restaurant and the economical operation of hospital, florist shop and institution.

Up until the recent introduction of the modern air conditioned ice refrigerator the discouraging problem of dehydration, shrinkage, spoilage from mingling with food flavors often was a factor in loss of patronage or in profits or both. Cold alone is only one of the things required for proper preservation of foods in as nearly as possible their own natural condition.

Foods to be appetizing must retain their own natural juices and flavors. To make this possible requires conditioned air refrigeration, where the three necessities exist:

1. Uniform cold temperature to retard bacterial growth.
2. Proper moisture to prevent drying out and shrinkage.
3. Rapid circulation of air over a cooling surface with water present to absorb gases and flavors given off by foods. These flavor laden gases must then be carried away.

The new air conditioned ice refrigerator does all of these things, giving better air conditioned refrigeration, with impressive savings over old methods.



## Annual Ice Refrigeration Section

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