Natural ice—a business "down the drain"

By GORDON B. SEAVEY

WESTFORD — Cold weather, a boon to the fuel dealers and winter sports enthusiasts, was a blessing to another breed of people a century ago, but one that did not pay off until the coming of summer with its hot weather.

When Jack Frost breathed heavily to freeze the ponds and rivers in the Northeast, it was time to cut ice.

Young people today are missing the excitement of watching, or participating in the harvest of natural ice was it done in grandpa's time.

Mother Nature was the one who blew the whistle for the event. It was when the water of our ponds, lakes and streams, not much matter what size really, had frozen at least a foot thick. Working against time, this is when frantic action took place. Ice was needed to preserve foodstuffs in hot weather . . . and Nature was the only one who produced the coolant.

Dairy farms were prevalent in those days and in warm weather milk had to be cooled quickly to protect it. Pasteurization was unheard of and there was no mechanical refrigeration as we know it.

AND THE MILK had to be kept cold until it reached the consumer, perhaps three days later, while still sweet. Then the housewife would slash it sway in her natural oak birch tureen or chest, hoping it would be consumed before turning sour.

Farmers depended greatly on an adequate supply of ice. Many of them had their own ice houses, most the size of a single car garage, near the dairy barn, which they filled themselves each season from the nearest pond. Any body of water over ten acres was fair game to all comers.

The Cunnells and the Shugroes in the north part of Westford cut ice on Long-Sought-for-Pond; "Bosey", Bloid, the Wrights and the Browns harvested ice on Forge Pond. these are only a few.

Commercial ice harvesting was on a much larger scale.

The Boston Ice Company had large houses, used to store the ice, on Crystal Lake in North Chelmsford as well as several in upper New Hampshire, to protect themselves against a mild winter and lack of a good freeze. These companies catered mainly to the Boston market to suit the meat packing houses, and for serving ships and refrigerator cars, as well as for home deliveries.

Small companies served local homes and businesses in limited areas. They did their deliveries by horse and wagon right from the ice house. Wallace W. Johnson cut ice for many years on Burge's Pond, which was spring-fed. Everyone considered this the best!

A SMALLISH MAN, it was guessing how he could sling cakes of ice some weighing perhaps 200 pounds, from his ice house, to a canvas-covered horse-drawn wagon, and into an ice chest. Hand hold scalongs held the cake on his back, protected by a heavy rubber blanket folded at the bottom to catch the drippings. It was hard work for little money. His daughter, Freda Brown, recalls spending time at the end of each day wrapping just dimes pumped from the little canvas bag he used as a purse.

Anywhere there was a small body of water, it was a good spot for an ice house and there were many scattered around the countryside. These were simply called "ice house" ponds. There's one adjoining Mill Pond in Littleton; another is alongside Route 2-A in Boxborough. Beaver Pond in Lincoln and Sandy Pond in Ayer were also used for commercial ventures, almost any old timer will recall where ice was harvested in his vicinity.

ONE OF THE larger establishments was at Forge Pond, on six acres of flat land now used as a town swimming area and beach. This was an ideal location as the 912-acre pond offered an ample source of supply. A spur track from the railroad made shipping to distant places an easy matter when the time came to release the stored ice.

Ice harvesting was a simple operation but it took lots of muscle added by horsepower. Farmers in the area were eager to rent their animals and hire themselves out, for this was exciting work. Early in the season in the winter was fairly quiet and the extra money was greatly needed. Teenage boys found that they could pick up a few dollars, too. Harvesting had to be done quickly with an eye to the weather and on the thermometer.

Thomas S. Hittinger of Belmont, who had been cutting ice on Fresh Pond at the Cambridge-Belmont line for a number of years, purchased the site at Forge in 1854. He was shipping ice to Caribbean ports by sailing vessels (ullan glad for the ballast) through Boston. Only 25 miles away from the port, with good rail facilities, he built a second plant.

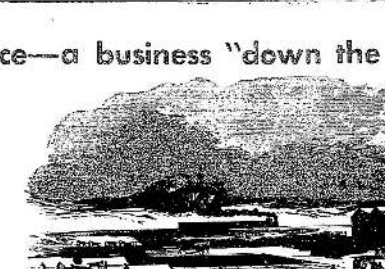
The new building, of roughsawed pine timbers and boards, covered perhaps more than an acre, and was 30 feet high with double walls. Sawdust, of which there was plenty available from nearby saw mills, filled the airspace between the walls. This produced the necessary insulation to hold the ice from melting.

SMALL DOORS at floor level on the pond side of the rectangular building allowed the newly harvested ice to enter and be stacked, one layer on top of another. Gravel was the only floor and there were no windows. Doors were placed on the opposite end of the building so when summer came, the cakes could be pushed out into freight cars waiting on the siding. Broken cakes were discarded in a pile so many a villager had free ice for the asking.

Notwithstanding the simplicity of design, the building cost Hittinger $15,000, a tremendous sum in those days. For comparison of prices, the coal needed to fire a steam boiler could be shipped from Boston for 60 cents a ton.

The boiler, the only mechanical power used in the entire process, was used to pulse a heavy ice chain, with crossbars spaced every six feet, to jerk the heavy ice cakes from the water.

Another $3,000 went for tools and other equipment. Even today, a fisherman or scuba diver might find an old ice pike or chisel which some harvester accidentally let slip through his hands into the icy water.



WOODCUT OF ICE HARVESTING IN LONG--AGO DAYS

WHEN THE water had frozen to the desired thickness, four at 12-14 inches, great cells were cut in the ocean who were patiently waiting ashore. Things had to be organized quickly for Nature is fickle and storms or mild weather could damage a harvest.

First an area, perhaps a dozen acres, would be marked off. If the ice had a snow covering of any depth, this would be scraped off by horse-drawn scoops. A driver would guide a plow-like tool, a steel blade about four feet two inches deep the full distance of the field. He would then return parallel to the original groove two feet away, with a marker to guide him, cutting a new furrow.

When the field was so grooved a new set of furrows, four feet apart, would cross all the others (like marking a pan of fudge), producing rectangles 4 x 4 feet. Men with hand saws, pumping up and down, would cut a narrow section through the entire thickness to open a channel through the middle of the field.

This would meet with a similar channel leading out from the ice house and be somewhat portion of the powered chain. It was through this latter channel that cakes of ice would glide to the chain.

IN THE meantime in the field men had been sawing the area into large sections, to make great ice floes. Each furrow at the edge of the floe had to be caulked with straw so that water wouldn't enter into, freeze and seal the grooves.

These furrows, when stuck with a sharp pointed iron bar, would split the floe open, breaking it into neat, smaller sections. This is called "barring off."

Long strips of two-foot ice, all properly grooved at four foot intervals, would be poled into the channel toward shore, floating the waiting chain, they would be barred off again into the proper length, four feet. Then fed on to the moving chain, a crossbar would pick up a cake at a time, perhaps as many as 50 per hour, for the ride up the incline.

It was no great problem to handle the cakes in the water because they floated with one-fourth of their weight above the surface—every schoolchild knows. Small operators used horsepower attached to a block and tackle to raise the cakes up the ramps; Hittinger had the advantage of steam power.

The idea was to lift the cakes sufficiently above the level being filled, then release them on to chutes where the cakes would slide along on wooden rails by their own weight. Men along the way would steer the cakes around corners to proper resting places.

As the ice house filled, the cakes would be carried higher and the chutes then raised. Each course had to be level so that gliding cakes would not snag on projections.

Thickness of the cakes were standardized. As they rode up the incline, a crosbar knife would scrape off the surplus top, probably "snow ice," which was not too desirable.

IDEAL THICKNESS was about 12 inches of clear ice, which did not melt as fast, but if a mild winter occurred, the farmer would have to store whatever they could

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