

# Harvesting Natural Ice A Business Long Down The Drain

By Gordon 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 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 as it was done in grandpa's time. Ice was stored in various ways until needed.

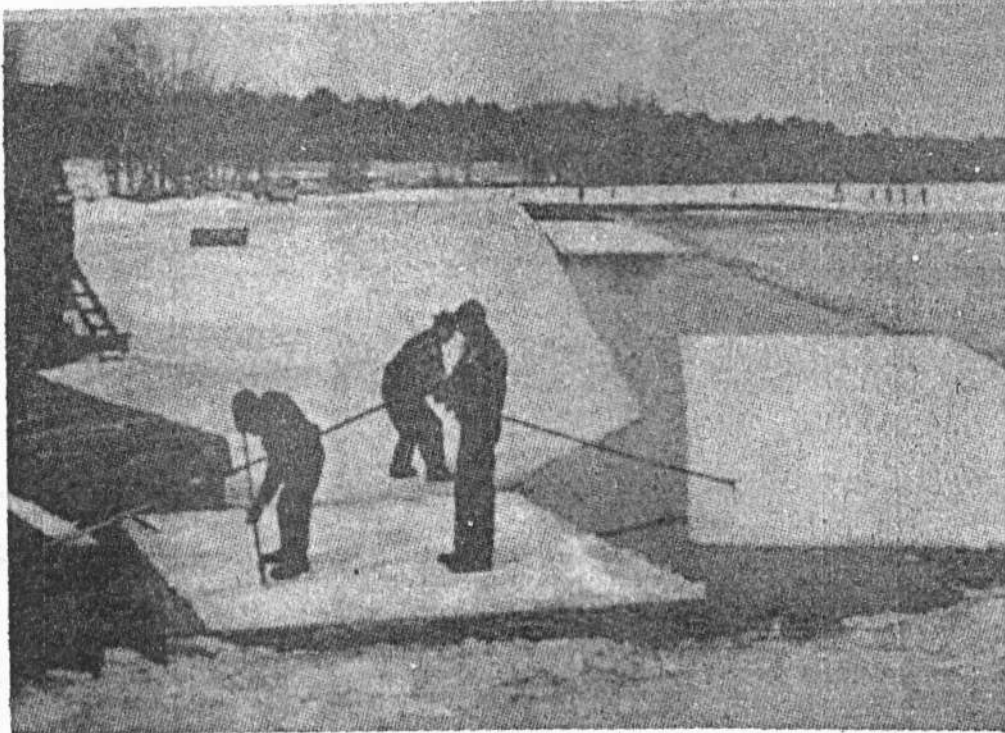
Mother Nature was the one who blew the whistle for the event. It was when the water of our ponds, lakes and rivers, not much matter what size really, had frozen at least a foot thick. This was usually in late January or early February. Working against time, this is when frantic action took place. Ice 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 stash it away in her natural oak finish icebox 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, about 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 Connells and the Shugrues in the north part of Westford cut ice on Long-Sought-for-Pond; "Boney" Blood, the Wrights and the Browns harvested ice on Forge Pond. These are only a few.



**HARVESTING ICE IN EAST ACTON.** Men are standing on furrowed ice floes, barring off properly sized pieces to be stored away in ice house (left) till summer needs. Men in distance are sawing out new floes. This scene made more than fifty years ago.

## Big Business

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 cool the meat packing houses, and for servicing 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 amazing 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 held ice-tongs held the cake on his back, protecting his body with a heavy rubber blanket folded at the bottom to catch the drippings.

It was hard work for little money. Fred A. Brown recalls

his daughter spending time at the end of each day wrapping just dimes dumped 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 East Acton. Beaver Pond in Lincoln and Sandy in Ayer were also used for commercial ventures. Almost any old timer will recall where ice was harvested in his vicinity.

## At Forge Village

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 212-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 aided by horsepower. Farmers in the area were eager to rent their animals and hire themselves out for this was exciting work.

Life on the farm in the winter was fairly quiet and the extra money was greatly needed. Teenage, husky 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 1864. He was shipping ice to Caribbean ports by sailing vessels (often glad for the ballast) through Boston. Only 35 miles away from the Hub, also having good rail facilities, he built a second plant.

The new building of rough sawed 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 levels on the pondside 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.

## Ready to Cut

Notwithstanding the simplicity of design, the building cost Hittinger \$65,000, 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 rotate a heavy link chain, with crossbars spaced every six feet, to pick the heavy ice cakes floating in 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.

When the water had frozen to the desired thickness, best at 12-14 inches, urgent calls went out to crews patiently waiting orders. Things had to be organized quickly for Nature is fickle and storms or mild weather could damage a harvest.

## Large Area

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 long with descending teeth, along a straight line. This would gouge a groove about two inches deep the full distance of the field. He would then return parallel to the original groove, with a marker arm to guide him, cutting a new furrow two feet distant.

When the area was so grooved, a new set of furrows, four feet apart, would cross all the others (like marking a pan of fudge) producing rectangles 2 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 channel already cut leading out from the shore. It was to be through this "main" channel that the ice cakes would glide to the immersed portion of the powered chain.

In the meantime, out on the field, men had been sawing the area into large sections, forming great ice floes. Each furrow at the edge of the floe had to be caulked with snow so that water wouldn't enter into, freeze and seal the grooves.

Furrows, when struck with a sharp pointed iron rod, would split the floe wide open, breaking it into neat, smaller sections. This was termed "barring off."

Long strips of two-foot ice, all properly grooved at four-foot intervals, would be poled into the main channel toward the shore and the waiting chain. They would be barred-off again (a favored chore) into the

proper 4-foot length. Then pushed over the moving chain, a crossbar would pick up a cake at a time, perhaps as many as 70 per hour, for the ride up the incline.

## A Slippery Ride

It was no great problem to handle the cakes in the water because they floated with one-tenth of their weight above the surface, as 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 substantially above the level being filled, then release them onto chutes where the cakes would slide by their own weight along on wooden rails. 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 was standardized. As they rode up the incline, a crossbar knife would scrape off the surplus top, probably "snow ice," which was not too desirable.

## Determined by Weather

Ideal thickness was about 12 inches of clear ice, which did not melt as fast, but if a mild winter such as we have been getting this year occurred, the icemen would have to reap whatever they could get, particularly toward the season's end.

Some years the water might freeze as thick as two feet or more before time permitted the harvest. This was not good, either, because flat cakes would not roll in handling where thick ones would.

Harvesting "in the dead" of winter was cold and wet work. Fortunate for him if he had the warm engine room in which to dry out; otherwise, it was a long, cold trip home for a change of clothes. Horses often would slip, too.

For the year 1881, records show that Hittinger employed 175 men and 50 horses to fill his Forge Pond house. Later he sent 35,000 tons to Boston which John P. Squire used in processing and storing meat products. He also stored 50,000 tons for the southern market.

Harvesting ice in New England was big business. It started from Boston when Frederic Tudor in 1805 sent a small cargo to Martinique, the place where we now send tourists.

A decade later, "cargoes" went to Cuba, then to Charleston and Savannah and by 1820 to New Orleans. Soon merchants were shipping "solid chunks of New England weather" to Canton and Calcutta, to London and Brazil.

Thoreau wrote about the "pure Walden Water mingled with the sacred water of the Ganges."

New York state entered the competitive picture, too, when the yearly demand of New York City in the 1870's was 300,000 tons.

## He Cometh No More

By the turn of this century, mechanical refrigeration began to take its toll on the natural ice business. It already had started in Florida as early as 1851. It appeared first into the big plants, and then trickled down to the home. When General Motors introduced its household model, those who could afford this new luxury bought a "Frigidaire," a name which "froze" early to every make whether it be a General Electric monitor top or a gas-fed Electrolux.

Folks found mechanical refrigeration clean, fast, dependable and usable every month of the year. Its ice was made from the purest of water.

No longer did the icemen leave a trail of water on the pantry floor, nor did the ice pan beneath the ice box overflow. In extreme hot weather, milk no longer soured nor did butter get soft. And no longer could the person who caroused at night at the corner bar alibi his headache on "bad ice" the next morning!

All over, during and right after World War I, ice houses began to disappear from the

landscape. The bright card left in the kitchen window to tell the man in the cart how much ice to leave, was torn up. And kids, following the dripping ice wagon for slivers of ice, had to turn to lollipops.

Eventually, natural ice was a business gone down the drain!

## Houses Disappeared

Some ice houses were left to rot and tumble down, others were demolished. But Hittinger's complex at Forge Pond, by now owned by Daniel Gage Ice Company of Lowell, suffered a severe blow.

Right at the height of the summer ice business, August 2, 1920, somehow the huge building caught fire. The flames and smoke could be seen for miles and the best the local firefighters could do was to wet down the surrounding neighborhood and homes to prevent the conflagration from

spreading.

The next day and for days after, the ruins smoldered. A wag in the newsroom could have written this headline:

"50,000 Tons of Ice Reduced to Ashes!"

The loss was set at \$111,000 with \$75,000 for the building. The insurance coverage was only \$30,500.

Even though the ice business was failing badly, Gage rebuilt on the same spot, but the set of buildings lasted only for another decade. Another conflagration took place on July 14, 1931, with records showing that the building was torched by "unknown parties," which was the final demise of what once had been a big enterprise. The difference on this occasion was that there was no harvest that year, the building was empty, and the ashes were undiluted with ice water.