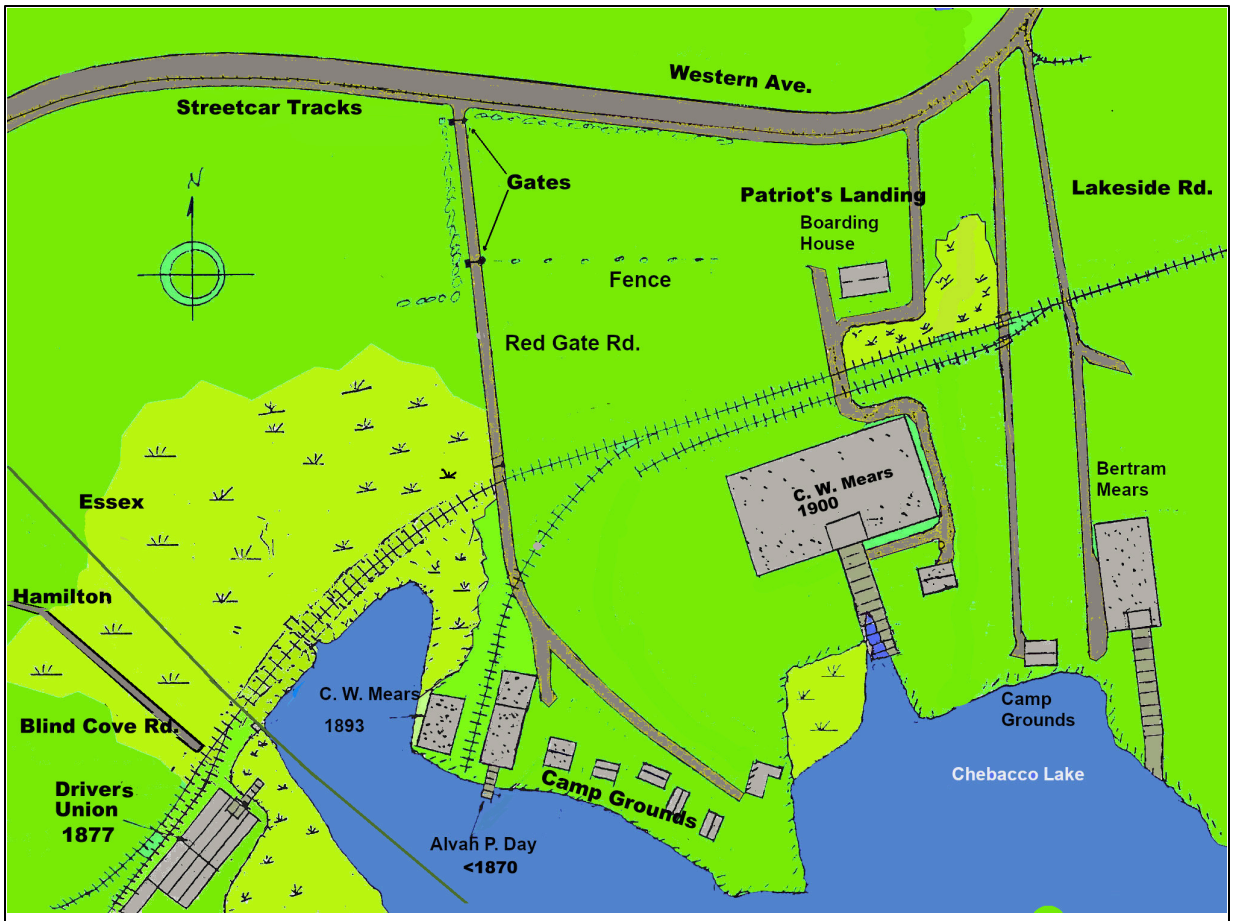


Union Drivers Ice Co., from 1877 to 1900, had a large ice harvesting business on Chebacco Lake. Its ice storage house was on the Hamilton side of Echo Cove. Map adapted from Hamilton Historical Society map

History of

Ice Harvesting on Chebacco Lake

Ice harvesting, for most of New England, began early in the 1800s. It rapidly expanded and flourished until the early 20th century.

In 1879-80, Boston harvested 600,000 tons of so called natural ice from streams and ponds in the region.[1] Ships and trains brought ice across the country and regions as far as Australia.

In the United States, ice was essential to refrigerated railroad boxcars that carried meat from mid-west slaughterhouses to markets across the country. The refrigerated cars, which had double walls filled with ice, also transported vegetables and fruit. Fishermen preserved their catches in holds capped with ice, allowing longer voyages and bigger catches.

In 1916, the Massachusetts Ice Dealer's Assoc. reported an estimated 2 million tons of ice were harvested. The Association represented 160 ice dealers, of the estimated 250 dealers in the state. [22]

Chebacco Lake 210 Acres

Chebacco Lake, about 210 ac., was an ideal source for ice harvesting. While the lake was in both Essex and Hamilton, the State owned it, which meant that the ice was free for the taking.

Anyone owning or leasing lakeside land could harvest ice anywhere on the lake. This sometimes led to clashes between harvesters. Beginning about 1841, some Massachusetts landowners established a commission to allocate harvesting field sizes and locations. The rights could be used, leased, or sold. [30]

The ice field size typically was large enough to fill an icehouse with a single cutting and provide channels leading to storage houses. At a finished thickness of 10 inches, for each 1,000 tons of stored ice, 35,000 ft.^{3} of ice were cut

NOTE: Not all the photos are from Chebacco and Hamilton.

With the Essex branch railroad being near the north end of Chebacco Lake, ice fields were limited to this part of the lake. The longest siding to an icehouse was about 800 ft.

Chebacco was not the only site for ice businesses in Hamilton. Charles E. Whipple, a retail ice dealer, owned an icehouse at Beck's Pond. Austin Brown cut ice from Cutler's Pond, which he stored at Augustus P. Gardner's farm on Main Street. [29]

Railroad Built to Haul Ice

Chebacco Lake's size made it attractive for ice harvesting; however, the lack of railroad service that could quickly bring large amounts of ice to large markets held Chebacco back from being a major source of wholesale ice.

This changed in 1872. Eastern Railroad built and operated a short (*5.9 mi.*) branch line from the Hamilton depot to a depot in Essex. The railroad bought a four-rod (*66 ft.*) wide strips of land, through many properties, to lay the track. [32, 33] The branch connected, in Hamilton, with Eastern's main line to Boston.

Initially, the town of Essex owned the branch line that brought materials for Essex's large Fuller Shoe factory and its many ship builders. The line also transported shoes to Boston.

Service to and from Essex included both cars for carrying passengers and commercial products.

For transporting ice from Chebacco Lake, Eastern had special boxcars. The cars had double walls filled with sawdust and straw insulation.

Essex sold the railroad branch to Eastern Railroad, in 1874, for $95,000. [26, 27] Operating expenses likely were too much for the town.

In 1887, Eastern Railroad, to provide passenger service, extended the branch line to Conomo and built stations at Centennial Grove, Essex and Essex Falls. [26]

Several Ice Companies

One of the companies harvesting ice from Chebacco Lake was in Hamilton. In 1877, Drivers Union Ice Co. of Boston built 9 icehouses on a 3.6 ac. lot on the Hamilton north shore of Chebacco Lake, at the end of Blind Hole Cove Road. (*Renamed Echo Cove Road about 1928.*) [38]

The Boston & Maine Railroad, which built a siding to the Drivers Union site, brought all the wood and other materials and components used to construct the company's icehouses.

Harvesting by Drivers Union began in 1878. Quickly, ice harvesting became one of Hamilton's primary businesses.

Retail ice venders formed the Drivers Union Ice Co. of Boston, in 1866, The Chebacco ice farm allowed them to get ice at a lower cost than buying the it from distributors that bought ice from ice harvesting companies.

Several other ice harvesters were on the Essex side of Chebacco.

The Alvah P. Day icehouses (*2*), built prior to 1870, were also on Blind Hole Cove, but across from the Drivers Union buildings. They were at the end of Red Gate Road. Each of the Day icehouses could hold about 15,000 tons of ice.

Eastern built a siding to the Day icehouses in 1872. It connected with the branch line just beyond the Hamilton/Essex town line, where the there was a long curve on a high embankment.

Known as icehouse bend, [27] trains went slowly along this section. A story goes that when the train passed the bend, it could be seen at The Chebacco House hotel on the center section of lake. The kitchen then went to work preparing food for guests coming on the train.

Drivers Union Ice Co. built 9 connected icehouses in 1877, on the Hamilton side of Chebacco Lake. They were at the end of Blind Hole Cove Rd.
Photo revised, Hamilton Historical Society.

C. W. Mears icehouse, built in 1900, was on the Essex Shore of Chebacco Lake. Located at the end of Patriot's Landing, it could hold more than 40,000 tons of ice.
Photo, Hamilton Historical Society

Prior to the rail line, Day sold ice to local merchants, particularly in Gloucester. With the Essex branch, Day began shipping ice to Boston.

The Enoch Story ice storage house, built circa 1880, was also on the Essex shore of Chebacco Lake. It was at the end of what now is Ice House Lane. The Story building had 3 storage chambers. [39] Not having a rail siding, Story supplied ice to local businesses and residences.

Charles W. Mears had two sites for his icehouses, on the Essex shore of Chebacco Lake. One, built in 1893 had a capacity of about 15,000 tons. It was on Red Gate Road, across the cove from the Drivers Union building and next to the Day buildings. It shared a railroad siding with Day.

The other Mears icehouse, built in 1900, was much larger and was not close to the shore. At the end of what is now Patriot's Landing, [34] the 1900 Mears icehouse, which could hold more than 30,000 tons of ice, [23] had several chambers separated by walls. It had a railroad siding.

In April 1910, Bertram Mears, son of Charles W. Mears, bought the Story property. [3, 9] Mears replaced the Story building with a three-level icehouse. [9] Mears also had a retail ice business in Essex.

√ Independent Ice Co. of Worcester owned another large storage house (28,000 tons), Chebacco. [47]

Cutting ice for the storage houses had many steps, each with many details. Profit was in carefully performing each step.

Preparing Field

Harvesting ice started with the clearing of snow from the ice field. This was done when ice thickness could support the men, horses and plowing equipment.

With an augur a worker drilled a hole in the ice. He checked the thickness using a measuring rod. The end of the rod had a right extension that was pulled up against the bottom of the ice layer. Measurements were taken at various locations and weekly.

Plowing was done several times before the ice thickness was large enough, 10 in., for harvesting. A thick snow layer of snow impeded ice growth.

Wood scraper, about 8-ft. wide, cleared light snow from ice. Snow was dumped on shore side of the field.
Photo Maine Maritime Museum

When the snow was light, a horse-drawn wood scraper, about 8-ft. wide, could remove it. A worker guided the scraper and another led the horse. The scraper had a flat front section of thin wood boards, behind which were boards angled away from the front boards. Snow scraped by the front section was gathered in the back section. Runners, on which the driver stood, were behind the back section. Frequent trips were made to the shore to dump snow. Wet snow was removed using a heavy metal scoop scraper. It was only 3-ft. wide, which meant snow removal took longer and could require 2 horses.

After clearing the snow, a second scraper, with a steel blade, was used to remove a porous upper layer, which was about 3 in.

An alternate to removing light snow was to sink the covered field and let water flood the snow layer and freeze. To sink a field, a series of holes were drilled in the ice to allow water to flow up from below the ice. In addition to eliminating the cost for scraping, the sinking added to the ice thickness and made the harvested ice less likely to break.

To sink a field, a row of men, each with a long chisel and spaced at regular intervals in a row, moved across the field punching holes. The distance between holes was 6 to 10 ft., side and back.

When the cleared field was ready for harvesting, workers stretched a rope across it and tied it at both ends to metal stakes in the ice. Using the rope as a guide, a worker led a horse pulling a plow with a straight blade to cut a shallow groove across the field.

To reduce marking time, some harvesters used a sled cutter that had 2 runners with ice cutting teeth. Runner widths could be adjusted for different spreads to cut different row widths.

The process was repeated to cut grooves at right angles to the first set.

The prevailing block sizes were 12 x 32, 20 or 22 x 22, 22 x 42 or 44, and 44 x 44, the latter size being cut only in Eastern Massachusetts and New Hampshire. [36] Larger the ice blocks reduced the surface area of stored blocks exposed to the air, thereby slowed melting.

Next, workers deepened the grooves using a horse-drawn ice scorer that had two runners. One of the runners was a sliding guide, placed in a groove, to guide the other runner that had a series of steel teeth. Each tooth was set a quarter inch deeper. In one trip, an 8-tooth blade would deepen a groove by 2 in. Runs across the field were repeated until the groove was 2/3rds the ice thickness.

Harvesting Ice from Field

After field is cleared of snow:

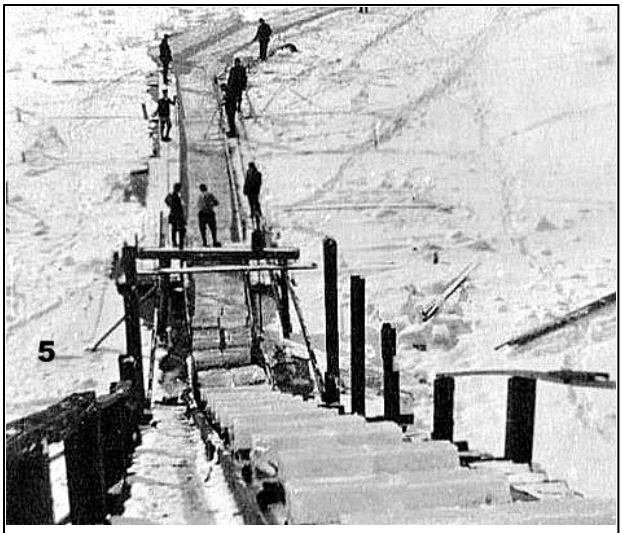
1) Deep grooves cut
2) Floats cut free
3) Floats guided toward icehouse
4) Strips cut from floats
5) Cakes separated from strips and fed onto conveyor

Groove cutter, increased the groove depths to about 2/3rds the ice thickness. Photo various

Using long saws, workers cut long floats of multiple ice cakes from the ice field.
Photo Maine Maritime Museum

Floats sawed from field and guided into main channel separation into strips. Oldhouse web

Strips, separated from floats with a breaking bar, were fed into house channel leading to a conveyor.
Photo, Maine Maritime Museum



Cakes, separated from strips, were fed onto conveyor connected to icehouse. Photo whatsnewlaporte

Should a horse slip into the water a rope with a slipknot around the horse's neck was grabbed to hold its head above the water until a rescue team arrived to pull the animal out of the water.
Photo, Livingston County Historical Society

Workers filled the deepened grooves with slush, using a caulking bar. The grooves, if left open, could fill with water, when a main channel was opened next to the field. The cold weather would freeze the grooves, making replowing necessary.

When the field was fully grooved to the required depth, workers cleared a wide stretch of ice alongside the field. This main channel was about 4 blocks wide.

Many Steps in Harvesting Ice

Workers detached long sections of ice from the field next to the channel. Called floats, workers using long saws cut them along the deep grooves. Floats were 4 to 8 cakes wide and 10 to 30 cakes long, depending on cake size.

Workers standing on both sides of the main channel used pike poles or float hooks (*an iron point and adjacent sharp hook on the end of a pole 12 to 16 ft. long*) to push the floats through the main channel, which intersected a narrow channel leading to the icehouse.

As a float neared the house channel, workers separated strips the length of the float using breaking bars (*a tool with a wedge-shaped blade at the end of a handle*).

The house channel was at a right angle to the end of the main channel. The house channel was 8 to 10 in. wider than the strips.

In the house channel, the strips were separated into cakes, also using breaking bars. If done correctly, the cakes broke evenly, leaving no lips on the cakes and smooth surfaces.

Workers poled the cakes, with long pike poles, into a short (*30 to 40 ft.*), narrow (*about 5-ft.*) channel to an inclined conveyor. The channel had wood piers on each side, on which workers stood,

Using pike poles and tongs, workers fed ice cakes into a planer to remove some of the top surface and reduce the cakes to a uniform thickness. Ice from different parts of the field could vary several inches in thickness, and, if the harvesting lasted several weeks, the ice could be thicker. Consistent cake thickness was essential to storing level layers of ice. Planing also removed surface impurities.

From the planer, cakes initially were moved along a ramp to the bottom floor of the icehouse. Workers spread a layer of straw before laying a level. This allowed the cakes to be more easily moved, separated when removed and provided additional insulation.

Icehouses a Major Investment

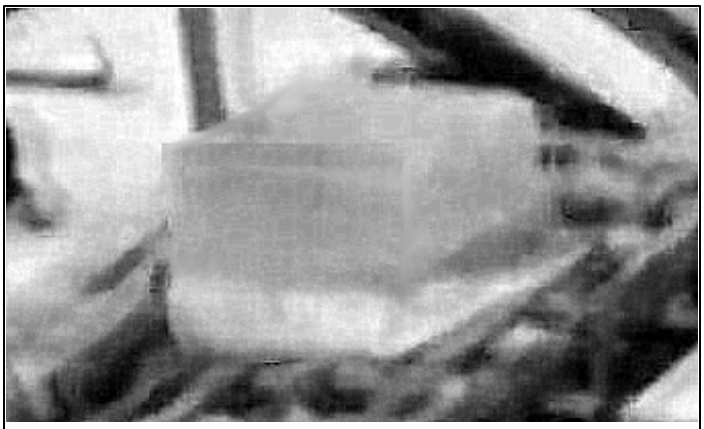
The major investment cost for the ice companies was their large icehouses. Unlike icehouses built for centuries before, icehouses built in the 1800s were above the ground and had wood framing. They were very large and high and did not have floors, other than one at ground level.

Ice weighs about 5 lbs./ft.^{3} and there are nearly 35 ft.^{3} to the ton. This number, however, was not used to determine the storage space needed in an icehouse. Space was allotted for shrinkage and separation between blocks. The calculated capacity generally was 45 ft.^{3} for a ton. [36]

The 9 Drivers Union icehouses were a block of 2 rows of 4 wood buildings and a single building at the back. The storage area of each of the 9 icehouses was 40 ft. long, 32 ft. wide and 30-ft. high, (*interior about 38,000 ft.^{3}*). [40] Each of the 9 houses, which had a gabled roof, could hold 10 tons of ice. (*Data based on photo of the icehouses.*)

In front of the north end of 4 units nearest the lake, there was a horse-powered chain hoist conveyor. The conveyer was at the mid point between 4 icehouses. At the top, there was a control shed, for the operator.

Workers pulled ice blocks off the conveyer onto an inclined run leading to the icehouse. There were runs at 3 levels. Workers signaled the operator, by the ringing of a bell, to halt and start the conveyor.



Ice block, after planning, generally had two layers. Clear bottom layer was frozen lake water. Top layer was mix of snow and lake water. Photo Maine Maritime Museum

Ice Data	
Ice weight/ft.^{3}	57.2 lbs.
Ton of ice, vol.	35 ft.^{3}
25'x 30'x 1' field	10 tons
Cakes (*22 in.^{2}*) in 25'x30' field	±190
Cake (*22 in.^{2} x 10 in.*), wt.	160 lbs.
Cakes (*22 in.^{2} x 10 in.) in ton*	±12

On both sides of the conveyor, there were three long loading stages that had 2 parallel sections. Workers, standing on a walkway guided ice blocks off the conveyor runs along a ramp to an entrance port in the center of the icehouse. To reduce reduced the drag on ice blocks as they were pushed, the ramp had openings between boards.

Access to each level was a loading port between 2 studs; the port stretched the height of the icehouse. From each entrance port, workers inside the building spread layers of ice cakes, starting at the front 4 houses. Loading the 5 icehouses behind the front ones was done through openings connecting the buildings.

The cakes were about an inch apart to prevent their freezing together. When the layers of ice blocks reached the next stage, boards were placed between the studs. The laying of the next layer started, using the next higher loading stage.

A layer of sawdust was spread between layers for insulation and to make the cakes easier to separate, later. The layer was thicker above the last top layer.

Depending on the block thickness, there could be many as 30 layers in an icehouse. Lake ice has excellent compressive strength.

To exit the top layer, the Drivers Union icehouse had a small door near the gabled roof.

Workers moved from one level to the next climbing ladders attached to the lake side of the icehouse. A ladder was at the intersection of each gable roof. The conveyor operator and workers left and entered the buildings by climbing the ladders.

The buildings' double walls contained bark, charcoal, sawdust, hay, wood shavings, and straw. The buildings were painted white, in order to reflect the sun. These measures kept ice volume decline during storage, on average, to 10 to 30%.

A slightly slanted wood plank bottom floor allowed for melted ice run-off. The floor was high enough above the ground to allow air to circulate, which delayed thawing of the ground.

Unloading the Drivers Union icehouses was from their east (*long*) side, on which there was the railroad siding. There also was a conveyor with a control shed, on this side.

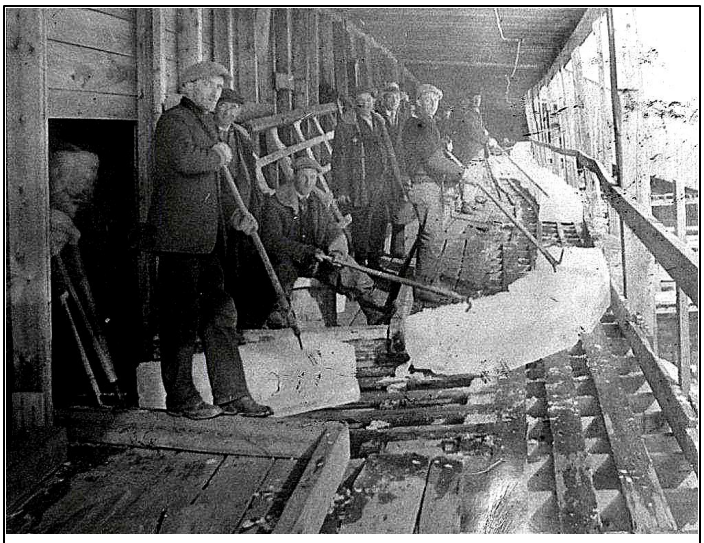
The large Mears icehouse, built 23 years after the Drivers Union building, had several differences: it was a single building with 2 vertical partitions, and its roof was flat. The building was not near the shore, therefore, its delivery channel was long and between 2 wood piers.

Special Tools and Clothing

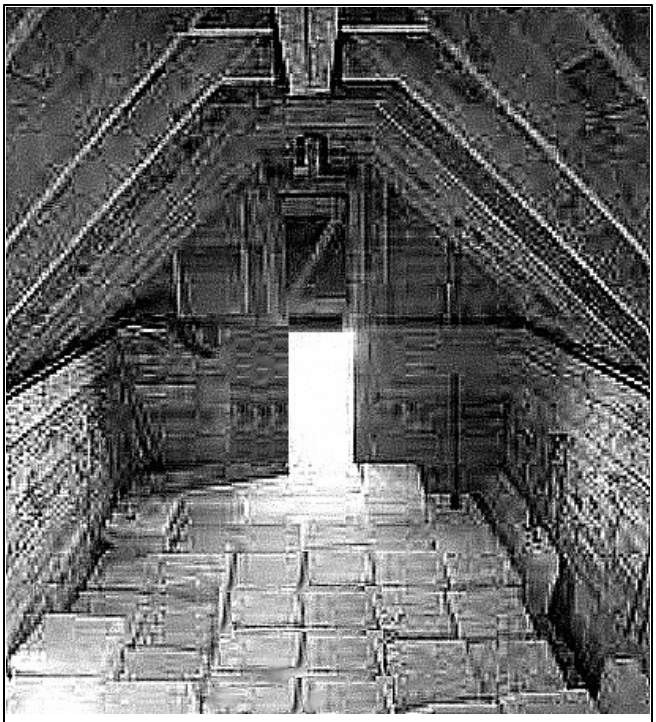
Ice harvesting used many different tools, including ploughs, saws, grapples, jack-grapples, breaking bars, caulking bars, packing chisels, house bars, fork bars, float hooks and line makers.

Most of the tools were long wood poles with steel fixtures attached on one end.

In hands numbed by hours in freezing temperatures, pile poles were dropped into the lake. The long wood pole allowed the tool often to be recovered when dropped into the lake. Most of the ice fields were in areas about 10-ft. deep. The water was quite

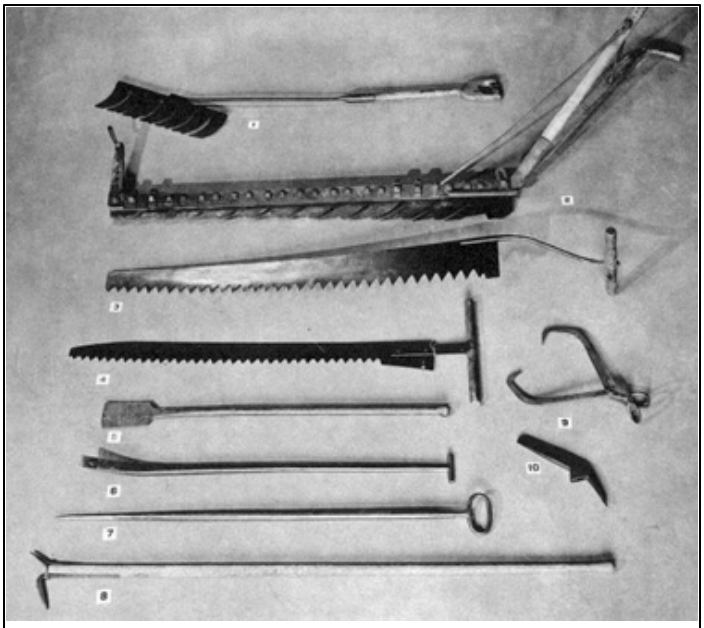


Workers moved ice blocks along loading platform to openings in icehouse. Photo, Hamilton Historical Society



Layers of ice blocks in storage chamber were separated by layers of straw and blocks were slightly apart.

Photo revised, M. P. Gadomski



Ice cutting tools: 1) Hand plow; 2) Plow & swing Guide; 3 & 4) Saws: 5) Caulking bar; 6) Splitting fork; 7) Pick; 8) Poling hook; 9) Tongs; 10) Axe. Photo, courtesy Wenham Museum

clear for about 3 to 4 ft., which meant the wood handle remaining upright could be seen. A ring on the end of a chisel pole helped grip the lost tool's pole end.

Special clothing was not supplied to workers. To keep warm, they wore several layers of clothes under a jacket. Some farm workers had heavy leatherwork gloves; others used a couple of cloth gloves on each hand.

Some workers wore boots that had cleats in the soles, but because these boots were expensive, most workers used metal spikes attached with straps to their boots. Between the sole and the cleats, workers strapped corked strips to insulate their feet.

Manually sawing the ice, produced chips that sprayed onto workers and melted. Full-length rubberized aprons kept them dry.

Ice workers wore many different types of hats, including various caps, knitted beanies, scarves and dress hats. Very few had their ears covered.

Unloading the icehouse started at the top layer. Workers guided lines of cakes along the ramps to horse-drawn carts that were pulled to a lift beside insulated railroad cars. Horse-powered pulleys allowed the lift's height to be raised as cake layers were laid in the cars.

When many ice-filled cars, from different icehouses, were joined, a second engine either in front or pushing from behind was used. The Charles W. Mears Ice Company, in 1925, shipped 463 carloads of ice. [3]

Advances Cut Costs

During the 19th century, there were many advances in ice harvesting technology. In 1825, Nathaniel J. Wyeth developed the horse-drawn ice cutter that allowed blocks of ice to be cut more efficiently, reducing the cost of harvesting ice from $7.30 a ton to $2.40. [30] By 1847, the cost was down to $2.00 per ton. [42]

Wyeth also developed improved insulating methods that decreased melting losses, an arrangement to raise blocks from the water, an ice plane and an arrangement for distributing blocks in an icehouse. [30]

Ice harvesting technology continued in the 20th century. The most significant advance was the introduction of the internal combustion engine.

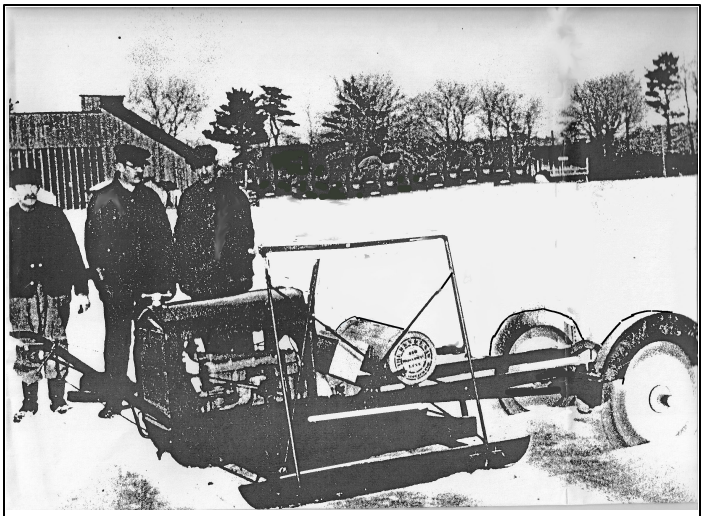
In 1924, ice was harvested from Chebacco Lake using a motorized cutter. It had √ 2 large circular saw blade mounted on the rear axle of a car chassis. A car engine on the front of the chassis powered the blade. An operator lowered the blade to cut deep grooves in the ice and steered the chassis from the front. A gasoline tank was on the center of the chassis. Two grooves the width of the ice block, were cut in one pass, eliminating the previous time-consuming method of repeated passes.

Workers Came by Train

Despite ice harvesting being very labor intensive, labor was not a major cost factor. Wages were low and the harvesting season short.

Annually, ice harvesting began when the ice was 10-in., or more, thick. At this thickness, it was strong enough to hold the weight of a horse, man and cutting equipment, or about 2,500 lbs.

At the peak of the harvesting season, when cakes began to be cut and guided to the icehouse, as many as 110 to 130 workers were employed.



Charles W. Mears, second from left, acquired a motorized ice-grooving machine, in 1924.
Photo revised, Essex Shipbuilding Museum

Many of the workers were farm workers looking for winter employment. Other workers came by the Boston & Maine Railroad line that ran north of the lake. Trains did not stop near the lake in Hamilton; it is said that the train engineer slowed the train, as it passed the different sidings leading to the icehouses, to allow workers to jump off.

When trolley service came to Chebacco Lake, in 1895, local workers used it rather than the train, especially during the prime cutting time. The trolleys had small electric heaters. [45]

To maximize output, teams of workers were trained to do very specific tasks, in the ice harvesting production line. There were clearers, scrapers, grapplers, plowers, boaters, sawyers, splitters, gaffers, guides, caulkers, separators, loaders, wingers and shine boys.

In addition to the line workers, there were specialty workers. To ensure that the main channel remained free flowing during the night, workers rowed a boat along the channel or pulled a pointed ice-breaking wood float back and forth.

The use of horses brought some problems of their slipping off the ice, even with their cleated shoes, and into the frigid lake water. Before going out on the ice, drivers placed a rope with a slipknot around the horse's neck. Should a horse fall into the water, the driver grabbed the rope and held the horse's head above the water until a rescue team arrived with another horse arrived to pull the animal out of the water. There is no record of a horse drowning in Chebacco Lake.

Ice blocks were loaded in insulated railcars, on siding near icehouses. 34-ft. cars generally could hold √80 tons of ice.

Photo, Hvrt.org

When a horse relieved itself, while on the ice, a call would go out for a "shine boy," the name coming from the horse refuse leaving a shiny spot. if not quickly removed. Shine boys poured formaldehyde on spots to kill germs and halt its spread and prevent a shiny spot. They also pulled a wooden sleigh, with a waterproof lining, to collect horse droppings.

Workers experienced various types of injuries, including broken bones, cuts, strained muscles and near drowning. Medically trained workers came to the aid of the injured. A 1905 newspaper article reported that an injured ice worker, whose foot was punctured, went back to work after the wound was cleaned and bandaged. [41] There is no record of a worker dying while harvesting ice from Chebacco.

Typically, the ice-harvesting season lasted 6 to 8 weeks, [4] from mid January through March. Filling a large house, with good weather, generally required less than 5 weeks. [36]

Workers were employed 10 hours a day 7 days a week. In 1874, the Boston Globe reported the base pay-rate, at Jamaica Pond, was on average $1.75/day [29] for plowers, shovelers, planers, sawyers, pikers and adzers. Conveyor feeders could get $2.00. The top wages went to railcar packers, $3.00/day. [19]

While the ice companies used many horses for various functions, they bought the horses only for use during the harvesting season. Most were sold after harvesting, with a few kept for unloading the icehouses. Streetcar companies were a ready market for the horses.

The large number of horses used to harvest the ice caused a health problem. Their waste led to pollution of both the water and the shoreline.

Workers Boarding House

For those workers coming a long distance to work during the ice-harvesting season, there was a boarding house near the path (*Patriots Landing*) that led to the C. W. Mears icehouses.

Owned by Mears, it likely was similar to the 3-story boarding house near the Manning Mills, on the west side of Hamilton, which had large rooms with multiple beds and a single dining room, serving only breakfast and dinner meals.

Clothes (*workers had at least 2 sets*) hung from wall pegs. To keep warm, workers wore multiple layers of clothing. A fireplace on each floor provided warmth.

A large kitchen and dining hall was on the first floor. Keepers, a husband and wife, likely ran the boarding house. They also prepared meals for the workers.

Fires Destroyed Most Icehouses

A major threat to the ice businesses was fire. The materials used to insulate the icehouses was prone to self-ignition. Sawdust is prone to spontaneous combustion, and loose straw is highly flammable.

On Mar. 25, 1910, fire destroyed 8 Chebacco Lake icehouses. [10, 11] The fire, reportedly started by airborne cinders from a blaze in downtown Hamilton, reduced 5 of Charles Mears' icehouses (*valued at $40,000*), and 3 owned by Enoch Story (*valued at $15,000*) to ashes. [13, 43] (*Note: Nationally, this was one of 18 national ice storehouse fires reported, in early 1910.*)

On Aug. 4, 1914, fire struck the former Drivers Union icehouses. [5] (*In 2021, a portion of the stone foundation remains, at the end of Echo Cove Rd., where the Boston Ice buildings once stood. Nearby is the embankment for the former railroad siding.*) [5] No cause was reported for the fire.

On Aug. 16, 1916, the 8-room Bertram Mears ice house burned. At the time, it was said to hold about 30,000 tons of ice. [2, 21] Again, no cause was reported for the fire.

Man-Made Ice Led to Natural-Ice Demise

Profits in the ice business could be very large. However, yearly production varied widely. Winters were not always cold enough or long enough. in 1880, a very warm winter in the north caused the natural ice harvest to be greatly reduced. [35]

Perhaps finding operating its own ice harvesting field was too much, Drivers Union Ice sold out, in 1900, to the Boston Ice Co. [25] Drivers' Union Ice also had ice storage businesses at Wenham Lake, Lovell's Pond at Sanbornville, NH, and Lake Washakum, South Framingham. Boston Ice already had had fields at Milton and Newton Junction, NH; Ayer; North Chelmsford, Wakefield, Woburn, Sharon Heights, and South Weymouth. [18]

Boston Ice sold the property in 1926 to Alonzo G. and Robert S. Foster of Beverly, [37] who promptly sold part of the property to Fred C. Berry of Hamilton.

Competition was strong. In 1912, the Boston Ice Co., sold delivered retail ice, at 25¢ for a 100 lb.; 15¢ for 50 lb.; and 10¢ for 25 lbs. Wholesale prices were: 25¢/100 for 100-400 lbs. orders; and 20¢/100 for 500 lbs. and more, per delivery. [20]

The end of the natural ice harvesting era began in 1873 when the first commercial ice makers were built.

In 1899, 13 million tons of natural ice were sold, compared to 8 million tons of machine-made ice.

In 1912, the Boston Ice closed the Chebacco Lake location, which it had bought in 1905. [10]

In 1914, electricity made domestic refrigeration possible.

In 1946, Boston Ice Co., advertised that it was a manufacturer of *artificial ice*. [44]

Jack. Hauck, Oct. 1, 2021

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