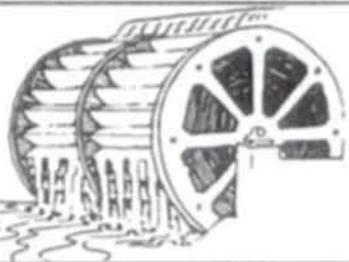


MILLWORK



Spring, 1992

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Vol. 6 - No. 1

Complete in all Departments

To introduce visitors to the Museum and its history, Hanford Mills Museum is now showing its new film **"Complete in All Departments"** in the Feed Mill, which also houses our exhibit, "An Enviably Reputation." This fifteen minute video tells the story of the mills' beginnings and the people who ran it. It is history told in the words of the people who were here, based on the museum's collection of historic photographs, Hanford business records, as well as local newspapers and diaries. We hope the images and voices will help people get a feel for what the mill was like.

The Matcher

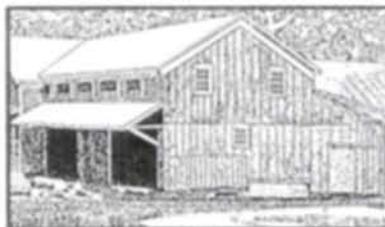
Just as the 1888 local newspaper said, the mill was "complete in all departments." Museum staff carries on the Hanford tradition as restoration continues in the mill. This past winter another original Hanford machine was returned to its proper location. It is a matcher made specifically to cut the tongue and groove for barrel heads. Bolt and belt holes in the flooring showed us where this machine originally sat. In the past this shaft was powered by turbines or the Hanford's 1881 steam engine, but is now powered by our trusty Fitz water wheel. This summer the matcher goes back to work along side the butter tub cover cutter where it belongs.

Power Ice Saw Donated

Last Fall a 1920s gasoline powered circular ice saw was donated by the Valentino family of Highland, NY. The Valentinos owned an ice harvesting and delivery business in Highland until the 1940s. The museum's new saw made its first appearance at the Museum during our Ice Harvest on February 3rd. Dan Rion, veteran volunteer of ten years, delivered it after generously donating his time and talent to restore it. The saw runs well now. Hopefully, at next year's Ice Harvest, you will be able to see how the work of this gas powered ice saw compares to our hand saws.

Josiah's Barn on Exhibit

The White Barn is open again this year. It was closed last year due to the installation of the museum's security system. The new exhibit deals with some of the machines used by farmers in the area. Many of these machines were sold by the Hanfords and some they even used themselves.



What's New!:

Now you know your copy of Millwork isn't lost in the mail. Just like spring, the debut of our new newsletter was slow in coming. We hope that you'll enjoy the expanded format and layout.

This isn't the only new happening at Hanford Mills though, so read on to find out more about what's been going on.



Lewis Quick Talks Ice

In February, visitors were able to try their hand ice harvesting, but to really experience ice harvesting you have to do it for a living. Lewis Quick grew up in Meridale, New York and spent a lot of time working with ice. Here are some of his memories:

John Staicer and Caroline Meek interviewed Lewis Quick in April of 1991.

Where did you cut ice?

Lewis Quick — Up on Meridale Farm. They had an ice pond up there. My father use to go up there and cut the ice and draw it home with the horses. He cut the ice up there for Meridale Farm for 13 or 14 years. One year they didn't get no ice until March. Then they went over to Spring Lake and built two stacks 40 feet square. They just stacked it outside and covered it up with hay. That would keep all summer.

So sometimes you had to go quite a ways when the weather wasn't right. How did everybody feel about that?

LQ Well, no matter how they felt they had to go anyway. You had the ice to cool the milk, you had to have it.

How many people did they have up there at Meridale Farms on the ice?

LQ Oh, they'd have a lot of 'em. *Did they have different jobs?*

LQ Yeah. It would take two men probably to saw and spud, and then there'd have to be men that floated it out. There'd be men send it in the chutes and spud it, separate the cakes, you know.

Did you all get paid the same?

LQ You had so much an hour. If you had a dollar a day you thought you were lucky.

What's the earliest memory of cutting ice?

LQ Up to Meridale Farm we use to plow with a horse and I use to lead the horse on the plow.

So even as a boy, you had a job to do.

LQ Yeah. Well, them times we all worked.

Do you remember any girls or women out there on the ice?

LQ No. They was no women on the ice then. They wasn't allowed.

Do you ever remember anyone going in the ice, falling through?

LQ Yeah, I've been through. It's cold. [Laughs] You sank right down on the bottom, like up to here on your [hip] and it gets cold pretty quick. Generally we fell in up next to the runway where you're spudding

or something.

One time up to Meridale barn there, we cut for three or four days and then when it froze up again we went back to try it. But this fellow, he was the boss of Meridale Farm, and I seen it that he was on the thin ice and I told him and I said, "Pete, you're on the thin ice there." Well, it was cracking and he said, "God, I don't dare move." Well, I said, "You better move." And just about then he broke through and he was standing right on the bottom. Then we had to go and get dry clothes for him.

Did you ever see a horse fall through?

LQ Yeah. Sometimes they had to cut a channel to the shore and get him out that way. Take an ice saw and saw a hole right through.

How did you end up buying a power ice saw?

LQ Oh, I bought it at auction when they sold out Meridale Farms up there in '38 or '39.

How was using a power ice saw different then what you were using before?

LQ We used the horses. One horse had a plow on it and four or five scoops on, one behind the other one. Then they used to plow ice with the horses and then they cross plowed.

Was the power saw quicker?

LQ Oh yeah! It was a good deal easier too. The horses you had to plow each furrow four or five times to get it deep enough. You couldn't cut it all the way down in one strip.

Were you cutting ice with the ice saw for yourself?

con't. on page 3



The Valentinos at work with their power ice saw. Lewis Quick used one much like it.

William Flower: Box Maker and Much More

In the 1920s, when Ralph Hanford was in college, he had a summer job in his father's box factory in the mill. There, workers put together wooden milk crates and bottle drainers. Ralph remembered "Bill Flower was over in the corner. He was an older man." It is a slim description for a 78 year old man who led a rather interesting life.

William S. Flower was born in the town of Delhi in 1842. He had at least five sisters and two brothers. In 1858 his sister Ann Eliza married D.J. Hanford. By the 1860 census, Will had moved from home. He was probably learning the carpenter trade along with his younger brother, John. By the early 1870s, they opened a furniture "factory" in East Meredith. They may have moved to be near their older sister Ann Eliza, and their younger sister, Carrie, who married Charlie Hanford (D.J.'s cousin) in 1873.

Will married a woman named Anna Scott. Diaries and letters give us an idea of Will's family life. A friend wrote Anna in 1875, "...if he won't come with you, come alone and stay till he is glad to come for you. That would'ent be long, I guess." A local diary noted in 1880 that the "Quire" met at his house.

Will and his brother did a good business. Their "factory" was located on the road to Meridale and powered by water from Mine Brook. They were known especially for their dog powers — a dog treadmill used to power churns. Unfortunately, John died in 1885 at the age of 38. His wife, Louisa, moved away leaving one of her children, Fred, to stay with Will and Anna.

Will continued the business. The *Delaware Dairyman* newspaper in 1895 tells of East Meredith's "Cabinet dealer" and the business he was doing. The correspondent proudly pronounced, "Will is a hustler." Will Flower also began a natural extension of his business, that of coffin maker and undertaker. An 1892 newspaper story tells us that Will was "never so happy as when carrying a person to his final resting place." That same year, East Meredith experienced a major flood which provided many humorous stories for the newspaper; "We are also told that undertaker Flower had strings put on all his caskets for towing purposes in case his shop went."

Will did other carpentry besides his furniture and coffin business. He helped frame a number of buildings in East Meredith, including the church in 1895 and Horace Hanford's house in 1897. Starting in 1895, he also occasionally worked for the mill. We know that by the 1920s, when he was in his late 70s, he was helping build milk crates. At that point, much of Will's furniture and dog power business was gone. Cheap furniture was available from catalogs like Sears, and gas engines had replaced dog power on the farms.

Will Flower died in 1927 at the age of 85, after living a full life. He left his mark all over

town - in houses, furniture, dog powers, the cemetery and the Hanford business. [Next issue: Merritt Barnes, the boss's nephew]



L to R: Blacksmith, M. Tobey; cabinetmaker, Will Flower; & carpenter, Charlie Hanford.

Lewis Quick - con't. from page 3

LQ No, I just bought it on a whim. Well, they had it for sale. So when this came up for bid, I bid on it and I got it. Seven dollars.

Sounds like a pretty good deal.

LQ I thought it was, only there was no magneto to it. I know

the guy that had the magneto and I thought I could get it off him, but he didn't want to part with it for less than fifty dollars. So I said I wouldn't take it.

How big was Meridale Farm's ice house?

LQ Yeah. Oh, they had three or four. They use to put up ice for

themselves and they had a creamery there then and they had to cool all that milk. It was probably pretty near 100 feet long. Be thirty, forty feet wide.

And you had one on your own farm as well?

con't. on page 5

Sap's Running

By Walter F. Meade

Editor's note: This is one of the new features for Millwork. In each edition, a guest author will contribute an article on a topic of general interest. For our first edition, well known Catskill author, naturalist and story teller, Walter Meade, gave us this timely article. From the first Native Americans, to nineteenth century farmers, to today, maple syrup has played an important part in the Northeast's economy. Walt has given us both an historic and modern view of a very important springtime activity.

Each year, as the returning sun warms the ground and the retreating winter loses its cold grip, many seemingly lifeless things begin to stir. The dormant woodchuck, that for months has been more dead than alive, now emerges from its den and travels over the snow banks seeking a mate. The chipmunk, long curled up in its underground den, ventures forth and dashes over the melting snow like an overjoyed child with its very first hand sled. And now silently the sap moves in the hard maple trees... people call this changing period "sapping time."

Turning fresh sap - clear as spring water with only the faintest taste of sweetness - into a golden thick syrup takes plenty of hard work. And it has always been so, from the time of our forefathers who used wooden spiles and wooden troughs to catch the dripping sap, up to the most modern pipeline systems of today.

Historians tell us the early settlers learned the merits of hard maple sap from the Native Americans. I have always been curious how the Indians themselves discovered the slight sweetness of this sap. Did they learn from watching the red squirrels, who are maple sap drinkers? Each spring I watch them wound the maples around our home and then drink the sap from the dripping cuts.

To obtain maple sap, humans begin by boring a hole in the tree's trunk, next driving in the spile and last hanging a bucket on the spile's hook. This is now considered the old-fashioned way, although many persons still do it, especially the smaller producers. The modern method employs plastic pipelines to transport the sap from the trees to the storage tanks at the saphouse.

Sap is mostly water and it takes forty gallons of sap, more or less depending on the annual variation of the sugar content, to yield one gallon of syrup. The excess water is expelled by heat. A wood fire is built under a large container that is filled with sap and is

brought to a rolling boil. Thus the water is driven off as steam and sweetness is left behind. Many years ago syrup makers used large open pans, but almost everyone nowadays has in their saphouse a piece of specialized equipment called an evaporator, which is designed to do the boiling process most efficiently.

My recent syrup making has been at the Manhattan Country School Farm in Roxbury, where youngsters from the city come to take part in a farm operation. While the farm has an evaporator, we use the old-fashioned bucket system because the students can become much more involved with the entire process. At M.C.S. Farm, students learn by doing. Once they have spent time tapping, gathering sap, drawing wood and observing sap boiling in the saphouse, even first-time novices are appalled by anyone who wastes syrup at the breakfast table.

Syrup making requires hard labor, but some people love the chance to work in the sugarbush each spring. John Burroughs, the naturalist, reports in his writings on early farm life that sapping was his favorite of all the farm duties he had to perform. There is certainly a special fascination in saying good-bye to winter while turning the watery sap into the most tasty spread that ever hit a pancake.



Lewis Quick — con't from page 3

LQ We had a small ice house. It would hold probably 150, 200 cakes.

How did you insulate the ice in the ice house on your farm?

LQ With sawdust. Bigger ice houses, they used all hay. Course, sawdust was scarce at that time because people used it. They used it for bedding. If you wanted sawdust, you had to get over to the sawmill and get it about as it was sawn.

When was the last time they cut ice at Meridale Farms?

LQ Oh, it'd be thirty something, '38 or '39 probably.

Why did you stop cutting ice?

LQ Oh, after they got (electric) coolers in, well, then nobody needed any ice 'cause the coolers took the place of ice.

And you had electricity on the farm in '24 or '25? So you didn't need ice then after that. But you were still cutting ice even to the '40s?

LQ Well, a lot of people that lived on these back roads, they had to have ice yet. They [the electric company] went just to the main ones, like Meridale Farm up here.

In Memoriam

The museum is saddened by the passing of Lawrence Gilmour, Hanford Mills Museum Board of Trustees. Mr. Gilmour died this past February. He was a Trustee for two years, serving as treasurer and chairman of the personnel committee. He was a career educator and longtime area resident, originally from South Kortright.

The World Outside

By Caroline L. Meek

Historic sites focus on the people who lived there. Visitors hear about everyday activities or how an object was made. It is easy to forget that all these people lived in a larger world. Consider the Hanford family:

David Josiah Hanford was born in 1834, less than 10 miles from East Meredith. At the time, dirt roads and log cabins were common. East Meredith barely existed. Only the year before, the German composer Johannes Brahms and the Swedish inventor of dynamite, Alfred Nobel, were born. D.J. shared his birth year with the American author Horatio Alger and painters Edgar Degas and James McNeill

Charlie went to Merits to see...a reaper work. The first one used in our town." D.J. started life as a farmer and probably read agricultural magazines, and perhaps even saw information about McCormick's invention before it reached East Meredith.

D.J. moved to East Meredith some time before 1855 and was married there in 1858. That year, the pencil with an attached eraser was invented. It was a small thing, almost

Horace Hanford took his first ride on an airplane some time in the 1930s.



Whistler. He was a year older than Mark Twain and Scottish born industrialist Andrew Carnegie.

1834 was a quiet year in terms of "earth shattering" world events, but it was a time of growth for the United States. "Science" was making its way into American agriculture. New York agricultural magazines were leading the way. A man named Cyrus McCormick invented the reaper that year, making the harvesting of grain much easier. The reaper did not reach East Meredith until August, 1879 when D.J.'s aunt wrote in her diary, "Levi &

amazing that it had to be invented, but it changed how people wrote. D.J.'s aunt never used an eraser in her diaries even though she wrote in pencil. When she made a mistake, she crossed it out instead. On a grander scale, George Pullman designed his first railroad sleeping car that year, and the first trans-Atlantic cable was laid. The cable failed a month later, but not before messages were sent between President James Buchanan and Queen Victoria.

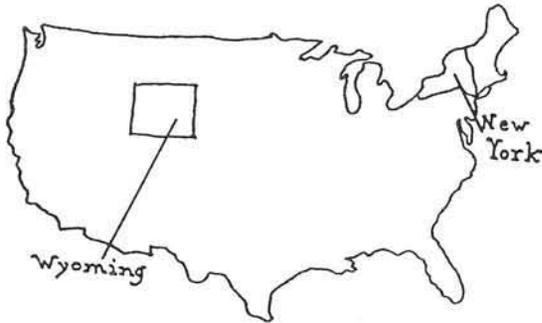
Two years later, D.J. bought the East Meredith sawmill.

con't. on page 6

World Outside — con't. from page 5

That was 1860, the year Abraham Lincoln was elected president and South Carolina seceded from the Union, starting the nation's slide into civil war. One of D.J.'s brothers joined the infantry and died of illness in 1863. There was also war in Italy, a land of many small principalities. Giuseppe Garibaldi started the unification of Italy in 1860 and it was a bloody process. On the brighter side, the Pony Express started delivering mail to California that year. In England, a man named Walton invented linoleum, a floor covering made of burlap, linseed oil, powdered cork and rosin.

It wasn't until 1869, when the war was long over, that D.J. started adding to his business, first building a gristmill. New York was also growing; the state began work on the State



Capitol used today. Women's opportunities were expanding as well. Wyoming was the first U.S. territory to allow women to vote in local elections and hold office. D.J.'s aunt, Elizabeth, was well aware of election days. She recorded them in her diary, but never expressed any wish to vote.

While some things were growing, the world itself was getting smaller for travelers in 1869. Two companies, the Central Pacific and the Union Pacific, completed the transcontinental railroad linking the east and west coasts of the United States. Further afield, the Suez Canal was completed in 1869. This allowed ships to go directly from the Mediterranean Sea to the Indian Ocean, avoiding the time consuming and dangerous voyage around Africa.

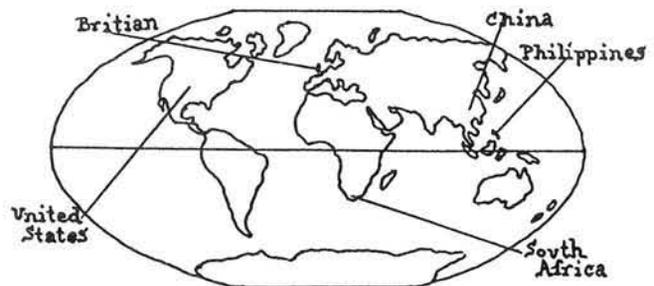
Through the 1860s and 70s, as D.J. expanded his business, the same was happening in his family. His first child, Elizabeth, was born in 1861, the same year the Russian serfs were emancipated by Czar Alexander II and two years before slaves in the U.S. were given their freedom. Willis came next in 1863, the same year Thanksgiving became a national holiday John was D.J.'s last child, born in 1872 when Yellowstone became our first national park and Montgomery Ward opened for business. D.J.'s

third child, Horace, had the biggest impact on the mill.

Horace was born in 1870. Indian political leader Mohandas Gandhi, French painter Henri Matisse and American architect Frank Lloyd Wright were all a year older than Horace, while airplane inventor Orville Wright, Russian mystic Rasputin and U.S. author Stephen Crane were a year younger. Horace was the same age as Russian leader Vladimir Lenin. It was also the year that men of color were finally given the vote. The Fifteenth Constitutional Amendment said that all men had the right to vote regardless of color. That same year the first African-American senator and congressman were elected.

Horace grew up with his brothers and sister in East Meredith, and he eventually joined his father's business. In 1897, Horace married May Hamilton and started his own family. That year saw the beginning of many things we take for granted. Campbell's condensed its first soup (tomato) and sold it for ten cents. There were other canned soups, but none were condensed and none were so inexpensive. That same year, Jell-O was invented in Le Roy, N.Y. Besides firsts in food, 1897 was the year of the first Boston Marathon which was won in two hours, fifty-five minutes and ten seconds.

Two years later, in 1899, D.J. Hanford died of a stroke at the age of 65. That year was a rather violent one. The United States was involved in a guerrilla war in the Philippines, as Filipinos tried and failed to gain independence. The Boer War also started that year in South Africa. Britain was the victor in that one, and also in the Boxer Uprising that started in China the same year.



Asians and Africans were beginning to show their resentment of their colonial rulers. All these wars were well reported in magazines and papers that the Hanfords received by mail.

Horace's only surviving son, J. Ralph, was born in 1902, the year the Boer War ended. He was the same age as pilot Charles A. Lindbergh

con't. on page 7

World Outside-con't. from page 6

and author John Steinbeck; Walt Disney was a year older. Ralph would be the first of the Hanfords to go to college. He went on to be an electrical engineer and had no interest in the family business. When Horace retired in 1945, he sold the mill to longtime employees.

Not much has to be said about 1945. The Second World War was finally over, but it also brought unwanted changes. President Franklin D. Roosevelt died that year. It was also the year when the first atomic bomb was detonated.

Horace lived to be 89 and died in 1959. He died only two years short of seeing man's first trip into space. 1959 saw the final two states admitted to the Union, Alaska and Hawaii. There were only 24 states when D.J. was born and 38 when Horace was born. The last surviving Civil War veteran, Walter Williams, also died that year at the age of 117. 1959 held a birthday for some including the Barbie doll and the St. Lawrence Seaway, simplifying shipping between the Great Lakes and the Atlantic. In 1959 Fidel Castro took over Cuba.

Three generations of Hanfords saw great changes in the world. They went from wagons, dirt roads and log cabins to automobiles, air travel and skyscrapers. At the museum, we talk about the Hanfords, their mill and their machines, and it isn't always easy to remember that the Hanfords were involved in more than that. D.J. and Horace were in touch with the world through magazines, the telephone and later the radio. The Hanfords' were not only part of the small village of East Meredith, but also of the world outside.

An Improved Ice Plow

*Editor's note: In the last half of the nineteenth century there was an explosion of inventions and patents for everything under the sun. The magazine **Scientific American** encouraged this activity by providing a patenting service and by publishing many small articles about specific inventions. **Scientific American** helped many people, including D.J. and Horace Hanford, keep abreast of the changes in the world and the way it was understood. **Millwork** plans to include one of these invention articles in each edition. In honor of our ice harvest, the Valentino donation, and Lewis Quick, our first is about ice harvesting and an ice plow on display at the museum.*

The ice plow shown in the illustration is very simple and durable in construction, and designed to be very effective in operation. It has been patented by Mr. Hamilton Pray, of Clove, N.Y. Its frame consists of two parallel longitudinal beams, connected by suitable transverse beams, two U shaped runners of different length being held adjustably on the front and rear ends of each longitudinal beam, while cutting blades of different length are held adjustably on the beams between the runners, extending below the lower ends of the front runners. In beginning to cut an ice field, a first cut is made to serve as a guide for the runners and cutters of

the second longitudinal beam, and thereafter the plow is made to travel in grooves already formed, the advance to a new cut being made with the runners and cutters of one beam in a groove already formed, so that the animal is prevented from dragging the plow out of its grooves by a sidewise pull. All the runners and blades are adjustable, so that the plow may be arranged to cut at regular depths at all times, and can be drawn over the ice field with a steady, uniform pull. This plow has been in practical use for two seasons and is said to have given great satisfaction as a thoroughly efficient ice cutter.



PRAY'S ICE PLOW.

Water Power Chronology

2nd Century B.C. First undershot water wheel, in Byzantium

c. 85 B.C. First horizontal water wheel, in Greece

c. 20-11 B.C. First gristmill powered by horizontally shafted vertical water wheel, in Rome

by 400 A.D. Besides gristmills and watermoving, water power was being used to cut stone & power sawmills

c. 470 A.D. First overshot water wheel, in Greece

c. 550 A.D. First laws dealing with water regulation and mill properties

Middle Ages Water wheels were common.

1086 A.D. According to Doomsday census, there was approximately 1 mill in England for every 350 people

c. 1600 A.D. Water wheel designers start to experiment with bucket shapes and angles

1620 A.D. France has first described horizontal tub wheel

1624 A.D. Possibly first record of water powered mill in North America at Rollinsford, NH

Mid 1700s A.D. John Smeaton does studies to improve water wheels, in England

1791 A.D. Earliest application of water power for general manufacturing in the United States, in Patterson, NJ at 1100 HP

Early 1800s A.D. The term "turbine" is first used, but there is no practical way of applying the theories yet

1827 A.D. First "modern" turbine installed, in France

1838 A.D. First radially inward flow turbine patented in Geneva, NY

1840 A.D. U.S. census shows 1860 steam powered mills to about 50,000 water powered mills

1879 A.D. First hydroelectric plant, at Niagara Falls, NY

by 1880 A.D. Steam power use exceeds water power in United States

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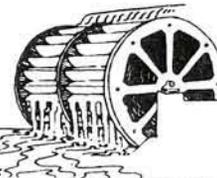
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