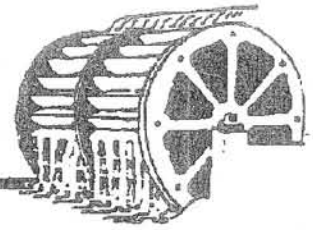


MILLWORK



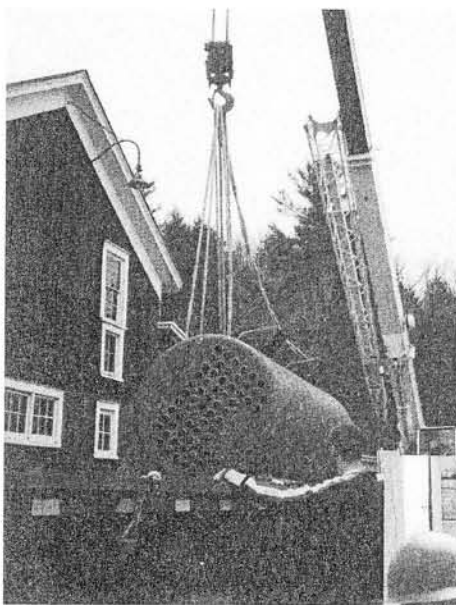
Spring, 2003

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Vol. 17 - No. 1

What's News?

The Boiler is Installed! - On March 26th, the museum's boiler, built by Troy Boiler Works of Troy, NY was delivered on a truck loaned to the museum by the Mirabito Fuel Group. Since the boiler weighs about 4 tons and is fairly large, we had to place it in the building through the roof using a crane from Ross Crane Service. All went smoothly - the boiler arrived by 9:00 in the morning and the operation was complete by 10:30. Below you will find photos by the museum's staff and professional photographer Meg Anderson-Argo. They tell the story better than words can.

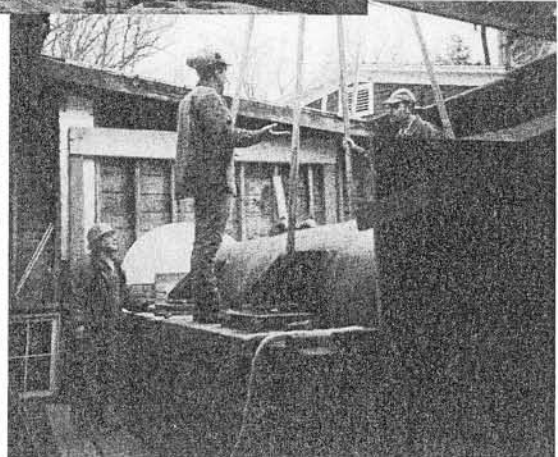


← 1. They have rigged the boiler to the crane and we're ready to lift!

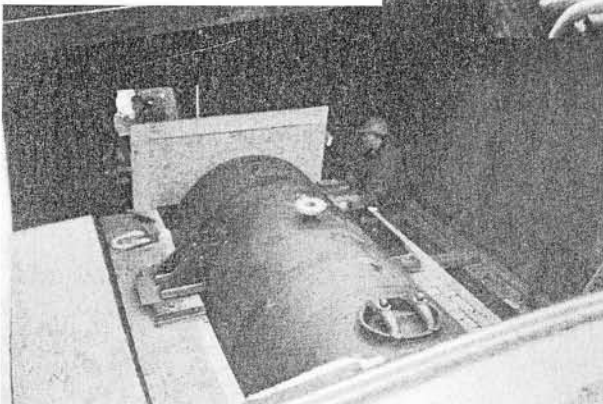


← 2. The crane lifted the boiler with little effort and just squeaked it into the opening made in the boiler room roof.

→ 4. The boiler sits on 4 "feet" that slide on graphite pads. As the boiler heats and cools, it will expand and contract on these pads, so we had to get it set right.



↑ 3. The boiler was set on the brickwork done by the Briarwood Co. of Otego, NY. It fit perfectly.



← 5. The boiler is in, but there is more to do. The boiler must be tested with pipes and pressure valves in place before the final brickwork can be installed.

In This Issue:

What's News?	Page 1
Director's Notes	Page 2
Blacksmith's Coal	Page 3
East Meredith	Page 4
Restoration Projects	Page 8
My "Icy" Welcome	Page 10
F.U.N. Workshop	Page 10
Upcoming Events	Page 11

8,000 and Counting...

Each year thousands of people make their way to the quiet hamlet of East Meredith to visit Hanford Mills Museum. Families, school groups, bus tours and individuals come to experience the power of history at work. And each year *more* visitors are coming to visit the Mill. In 2002 over 8,000 people visited the Museum - 15% more visitors than 2001, and 20% more than 2000.

It's unlikely that new visitors just "stumbled" upon Hanford Mills, since East Meredith is a few miles off the "beaten path..." Location, location, location... it's often the key to a business's success. The Mill's beautiful location is one of its greatest assets, and one of its greatest challenges. This year we're addressing this challenge! Thanks to a State grant facilitated by State Senator John Bonacic, and matching funds from the O'Connor Foundation, the Museum now has "Attraction" signs at exits 15 and 16 of Interstate 88. The grants also support the installation of "path-finder" signs guiding visitors from the exits to the Museum. The signs sure beat laying a trail of sawdust!!! The signs have the added benefit of reminding the thousands of people who drive by them on a daily basis that the Museum is just a few miles away, so they're also a great form of advertising.

Our highway signs should help more visitors find Hanford Mills Museum.

The new highway signs are just one of many promotional activities the Museum is undertaking to attract new visitors and remind old friends to return. A generous grant from the O'Connor Foundation has allowed the Museum to "invest" in the I Love NY matching funds program, and the staff's marketing activities have been supported by wisdom, expertise and networking provided by the Museum's Marketing Committee.

If you receive this newsletter you've probably been to the Mill before. Whether it's been a month, a year or a decade since your last visit, I encourage you to come back again soon, bring a friend who has not come before! And tell a few more friends to follow the signs and explore the Mill's great power! Maybe this year, as we celebrate our 30th anniversary, we'll celebrate another milestone...9,000 visitors... we're counting on you to help us get there!!!



Liz Callahan



I ♥ NY.

2003 Museum Events

Independence Day
Friday, July 4

F.U.N. Workshop
Saturday, July 12

Summer Apprentice Workshop
(day camp)*
Monday through Thursday
July 14-17

Summer Cookstove Workshop*
Saturday, August 2

**Lumberjack Festival
& Sawyer's Holiday**
Saturday, August 23

**Beginner's Blacksmith
Workshop***
Saturday & Sunday, August 30-31

Antique Engine Jamboree
Saturday & Sunday
September 13-14

Historic Textiles and Quilt Show
Saturday through Monday
October 4-13

Mechanics' Harvest Festival
Saturday, October 11

Fall Coostove Workshop*
Saturday, October 25

Volunteer Appreciation Dinner
Saturday, November 8

Members' Holiday Party
Saturday, December 6

Winter Ice Harvest
Saturday, February 7, 2004

* Requires preregistration
Look for more workshops to be advertised.

Coal - A Blacksmith's Principal "Tool"

by Patrick Grossi

Editor's Note: Hanford Mills Museum can boast some talented volunteers and members. Here, the museum's new volunteer blacksmith, gives you an indepth view of a part of his craft.

The success and integrity of a professional's work is often dependent upon the quality of tools, materials and skill applied. While the fire is of utmost importance for forging iron, the fuel used is indeed critical and likely the most important "tool" in the blacksmith shop.

Blacksmith's coal, the main fuel for forging should be a select grade of bituminous soft coal, not an anthracite or hard coal. This soft coal contains a relatively high content of volatile substances amounting to about 30 to 40 percent. These volatile substances produce a smoky fire in the early stages but assist in binding the coal so it can coalesce and convert to coke. Coke is a lightweight porous product which is the hot burning fuel needed to work iron. Anthracite coal has a greater percentage of impurities and does not coalesce when burned.

Blacksmith's coal has a low sulphur and phosphorus content. If high concentrations of sulphur and phosphorus are present, they may combine with the metal being forged and make it brittle. Too much sulphur makes the iron "hot short" that is, it makes it brittle while hot. Phosphorus makes iron "cold short", brittle when cold.

Good coal yields a minimum of

2- Day Blacksmith Workshop!

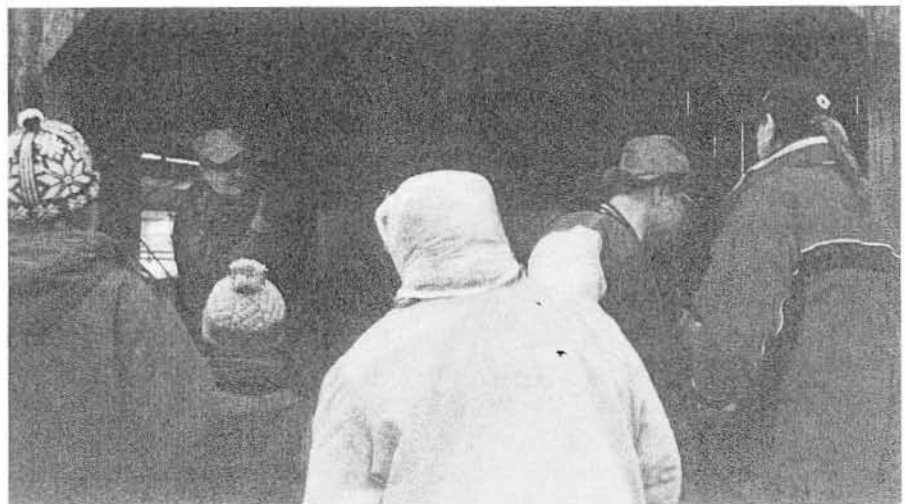
Hanford Mills Museum will offer a beginner's workshop taught by Patrick. Learn the basics and go home with a finished product.

See Page 11 for details.

ash particles and a low residue of incombustible materials, including sand and ash that produce undesirable "clinkers." Small amounts of sand and ash eventually form on the bottom of the forge fire "choking" the air flow. This reduces the fire, preventing it from producing a proper heat. These glassy "clinkers" need to be removed periodically in order to continue forging with a proper fire.

The select soft coal contains about 55 to 65 percent carbon. In the combustion process, the oxygen in the air combines chemically with the carbon in the coal to produce heat. The temperature depends on how quickly this take place and on the amount of carbon and oxygen combined within a given period of time. Ventilation must be increased in order to supply more oxygen to the coal and thus increase the rate of combustion. The temperature in this kind of fire can reach in excess of 2600 degrees Fahrenheit, while metal begins to melt at about 2500 degrees Fahrenheit.

Editor's Note: Patrick learned the blacksmith trade from his father John, who learned it from his father Pasquale, all born in the village of Villalago, Italy. John came to live in Albany, New York in 1930 and brought his family in 1947. Patrick grew up there and started a career as a probation officer. Still, blacksmithing was in his blood and once he retired in 1996, Patrick went back to his iron roots. Besides taking over his father's shop in Albany, he also volunteered at Hancock Shaker Village. Now Patrick is a full time resident of nearby Cooperstown. He was looking for a museum closer home where he could spend more of his time. He found us! Patrick plans to tend Hanford Mills Museum's forge this summer, usually in the last half of the week and on special event weekends. He will also teach one of our blacksmithing courses this year. Patrick hopes to improve the museum's blacksmith tool collection for use in demonstrations and workshops, and asks that anyone with blacksmithing tools and equipment please contact the museum.



Patrick Grossi demonstrates the blacksmith's trade to visitors during this February's Winter Ice Harvest. Patrick does a great job explaining the whole process and keeps visitors enthralled.

East Meredith - "The Coming Business Center of ... Delaware County"

by Caroline de Marrais

Today the village of East Meredith, New York is a quiet little hamlet. Many visitors to Hanford Mills Museum barely notice it's there. Other visitors don't even know it is the village of East Meredith. They might think they are visiting a museum in Hanford, New York. This is not hard to understand. Many company towns are named after their business or owner's name. When visiting the museum it is easy to think of East Meredith as a company town, but it wasn't.

A company town was a town form around and dominated by one business or company. They were the main employer, and they often provided company housing and company run stores. They often had control of every facet of their workers' lives. And when the company died, often the town followed. Instead, Hanford Mills was just one of the many businesses in the village of East Meredith. In fact, the Hanfords were not even unique in what they did. The Hanfords ran a water powered

factory. Other businesses in town were water powered. The Hanfords sold feed. They were not the only feed dealers in town. The Hanfords opened a hardware store in a village that already had a hardware store. The mill was important to the village, but it wasn't the *only* business, or even the main one.

Other manufacturers in East Meredith included a furniture maker, cooper, wagon maker, tannery, blacksmiths, tinsmiths, and a shoe maker. East Meredith also offered general stores, a meat market, feed stores, hardware stores, a doctor, church, undertaker, school, hotel, postoffice, livery stable and theater. None of these manufacturers or businesses were directly connected with the business of Hanford Mills. Here is an overview of what East Meredith had to offer its residents.

In the November 18, 1898 edition of the *Delaware County Dairyman* newspaper, the East Meredith correspondent wrote:
... that East Meredith was the coming business centre of this

portion of Delaware county. That our merchants were the most enterprising and sold everything from a thrashing machine down to a mouse trap for less money for a good article than you could purchase elsewhere. That our artisans were more skillful, that our preachers were more eloquent and better paid, ... That our farms were more productive, ... that our churches were beauties, our hotel a gem, and etc.

The writer of this article was very proud of his village, though not necessarily in reference to Hanford Mills. He starts first with the town's merchants.

Merchants

East Meredith's earliest known business was likely a combination store and craftsman's (or artisan's) shop dating to the early 1840s, even before the sawmill was in existence. Shoemaker Samuel Kenyon's daybook is the evidence for this early store. The book only shows references to the craft of shoemaking, but the size of his two story shop (the upstairs was his family's apartment) suggests he was doing more than making and selling shoes. The man who took over the shop some time between 1850 and 1860 was also a shoemaker, but known for running a "country store." This term refers to a typical general store. This building was located in the northern end of the village, approximately where Horace Hanford's house stands today. Levi Hanford, D.J. Hanford's uncle would buy this store in the mid-1860s. He dropped the shoemaking component and added a line of stoves and hired a tinsmith. His business

Con't on page 5



This early photograph of the northern end of Main Street shows Levi Hanford's store (on left) built in the mid-1860s and East Meredith's first store (on right) built in the 1840s. The white store was eventually moved to the center of town (see next page) and the dark store burned down in 1891.

East Meredith - con't from page 4
must have done well, for in 1868, he built another two story building right next to the first, and moved the general store (along with East Meredith's first post office) into the new building. This left the second building exclusively as a hardware store rented to a local tinsmith.

As East Meredith began to grow and expand south, the new center of town found itself where a road came down off the mountain from Meridale and other new road headed east toward Bloomville. In 1879, Levi Hanford relocated his general store to this new center by putting the building on rollers and physically moving the whole store building! The hardware store remained on the north end of town until it burned in 1891.

The 1890s were the boom time for East Meredith. In the village's center, the Henderson family built another general store right next to the store Levi had sold to the Thompson family. When the hardware store burned, the tenant at the time moved to a building on the corner across from Thompson's general store. In 1901, a new hardware store was built closer to the mill where today's post office is now housed. The Hanford's did not enter the hardware store business in earnest until about 1910, in the waning years of the village's economic boom.

East Meredith had two other



This photograph, c.1900, shows the former Levi Hanford store (left) in its new position in the center of the village and the Henderson store (right) built in 1890. It was comparatively easy to move post and beam style buildings like the old Hanford store.

types of store. The first was the feed store. With the gristmill addition to the mill in 1869, the Hanfords were the first to enter the market. But with the 1890s boom, the Hazlett family added another feed store in 1895. Robert Hazlett purchased the unused Baptist church, moved it to the corner of Main and the road to Meridale and converted the building to another feed store.

Our streets are made lively nowadays by farmers hauling out feed. The two rival feed mills here are trying to under sell each other, and the good old farmer is the man who seems to be enjoying the situation. While the bottom is being knocked out of the price of feed he is quietly filling up his feed bins. Keep right on, gentlemen, it makes business lively and you are both selling more stuff than you

ever sold before; all of which goes to show that low prices and quick sales are the life of trade, and an additional feed store in place of

being a detriment is a positive benefit to all concerned - farmer, merchant and town.

Delaware County Dairyman, November 22, 1895

The other store added to the village in 1890 was a meat market built by Norm Parris. It appears that neither general store added a butcher's counter to their establishment. Instead, Norm took advantage of a natural bank near the road on the north end of town to build his market - providing a way to create a semi-subterranean meat locker that could be cooled by both ice and its position in the ground. Norm Parris and subsequent butchers grew much of their own stock - beef, mutton, pork, turkey and chickens. They also offered clams and oysters in season, and occasionally other items, including patent medicines.

Finally, there were two more types of more ephemeral merchants who appeared in East Meredith from time to time. While the general stores often offered fabrics and other sewing notions that local women could use for dressmaking and hat decorating, traveling milliners and dressmakers often visited the village. In an era when

Norm Parris, the town butcher, poses proudly on the porch of his brand new meat market building.



East Meredith - con't from page 5
no "lady" went out without a hat, it was important to have your hat done by a milliner whenever you could. The *Delaware County Dairyman* newspaper often mentioned when a milliner was planning to come to town. She would set up shop for a week in one of the general stores where she would sell new hats or decorate old ones. Dressmakers also visited the village. While local women had the skills to do general, everyday sewing, the complicated patterns for their best dresses might be beyond their skills. Sometimes a dressmaker might make a dress from start to finish, other times she might work with what her customer had already cut out or even help her finish a dress she had already started.

There were also traveling peddlers. They left no records of their own, but often appeared in local diaries. Peddlers who came to East Meredith usually sold a specific type or class of items. They might sell jewelry, medicines, eye glasses or gloves and mittens. There is no mention of any peddlers who sold a variety of items from one wagon or cart. With so many general stores in the area, it is likely that only specialty peddlers could survive.

Artisans

The East Meredith correspondent also mentioned artisans in East Meredith. These would be

the manufacturing businesses in the village. Of course, Hanford Mills was one of the largest, but there were many others throughout the village's history. There were even two other water powered businesses in the village. Early in village history there was a tannery (which made hides into leather).

Another was the woodworking shop and pond that was built on the road to Meridale. It was first used by Andrew Brown, who taught D.J. Hanford his carpentry skills, and later by the Flower brothers. This shop was known to produce furniture, coffins and dog-powers (a mechanism powered by a dog or sheep and used to drive other farm equipment).

Other artisans included the tinsmiths and shoemakers mentioned above. Early in village history, a wagon maker plied his trade. At times there was a cooper in town, making barrels and butter tubs. While the cooper often purchased his barrel heads from the Hanford's mill, he bought other barrel parts from other factories in Delhi and Bloomville.

There were also various blacksmiths in the village. Very often East Meredith was able to support two blacksmith shops at the same time. As the village entered the twentieth century, blacksmith Jesse Haynes saw the writing on the wall, and even sent his son, Charlie, to

learn how to repair automobiles in 1919.

At the turn of the twentieth century, a new manufac-

turer came into East Meredith - factory size creameries. These businesses took the farmers' milk and processed it. They either bottled it for shipment or converted it into other products such as butter, pot cheese or casein (a milk protein used in the production of plastics, glues, paints and foods). Two creameries were built along the railroad. One belonged to a New York City based company, the other was a farmer's co-op. Both eventually were owned by out-of-town companies until they went out of business.

Church and Hotel

Besides stores or the items you could purchase through the village's craftsmen, the *Delaware County Dairyman* correspondent also listed the attributes that made the village civilized and cultured. Most important was its churches. East Meredith started with a Baptist church, built in 1849. Over time, the area lost its Baptists, but gained Presbyterians. Many East Meredith citizens attended the Presbyterian church in West Kortright. When it became obvious that the Baptist church was no longer active, the building was sold (and moved to be used as a feed store as mentioned above), and in 1895 a new, beautiful Presbyterian church was built in its place.

The entire cost of this church, ... \$5,200, of which \$3,700 by subscription has already been pledged, and \$400 was raised at the dedication. The outlook is very bright for this society, with their elegant church so nearly paid for.

Delaware County Dairyman,
December 27, 1895.

And the church was successful and survives, though it shares a minister with two other churches, even today.

The newspaper correspondent also mentioned East Meredith's

Con't on page 7

Blacksmith Mack Tobey shoes a horse out in front of his shop. This building was torn down about 8 years ago, but two other buildings that housed forges still exist in East Meredith.



This 1894 photograph shows the hotel under construction (center left) with the two general stores to the right and the mill in the lower left corner.



East Meredith - con't from page 6
 hotel. Visitors to today's village would probably be hard pressed to pick out the hotel because it does not match traditional hotel styles, but the building survives today. The hotel was built in late 1894 and opened in January of 1895. It was first known as the Temperance House. East Meredith was a relatively "dry" village and known to have a tavern for only a short time. It opened in 1869 and was closed by 1871. The Temperance House soon became more commonly known by its owner's name as the Congdon House. The Congdons not only had rooms to let, but also served food and had a livery stable nearby. The hotel was an excellent location for the other businesses of East Meredith and even other villages to advertise their wares. The gentlemen's withdrawing room included a display of business signs around the clock hung on the wall. They advertised: two general stores, the doctor, a wagon maker, the undertaker, the mill, a blacksmith, the meat market, a hardware store, a soft drink and beer seller in Oneonta and a liquor store in Albany.

And Etc.

These are all the businesses the

East Meredith correspondent mentions, but there were still a few more. East Meredith very often had its own doctor. Admittedly they rarely stayed longer than a couple years, but they were a convenience that the citizens of the village encouraged.

At the opposite end of the spectrum, the village also boasted an under-

taker. This job was often done by the same carpenter or furniture maker who made coffins. From the end of the 1800s and into the 1920s, that man was Will Flower, known for having two hearses - one with wheels and one with runners. When you saw Will Flower smoking a cigar, you knew he had a funeral that day.

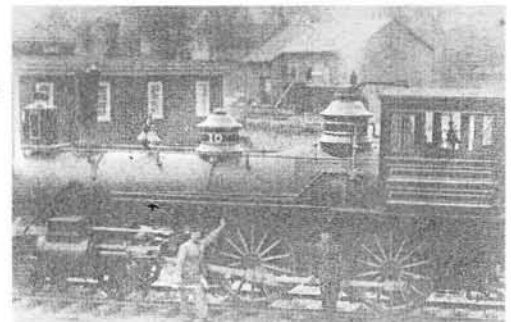
Government offices were not lacking in East Meredith, although the village was never incorporated and had no mayor. East Meredith received its first post office in 1868. In the past, the job of postmaster often changed to suit the national party in power, so the location of the post office also changed. Today, the East Meredith post office has managed to survive where many other rural post offices have closed. East Meredith was also the scene of local court cases. Lacking a courthouse, the hotel was the scene of these cases - mostly arguments about stock damaged by dogs or misunderstandings about payments. Besides court, East Meredith also had its own constable. Considering the village, this wasn't the most exciting of jobs. The most an East Meredith constable might have to do (besides acting as

court guard) was to run a drunk out of town.

In 1888, the East Meredith correspondent to the *Delaware County Dairyman* wrote when discussing the coming railroad connection to the village:

I expect to see East Meredith have a boom that will ... put Oneonta in the shade. All East Meredith wants is a chance to get in its fine work, and it seems as if that time had nearly come. I think for a place of its size, so far from any outlet, it has the most manufacturing interests of any place I ever saw.

In the end, unfortunately, even with the manufacturing interests and the railroad, East Meredith was not situated to be more than the small village it was at its height. While Hanford Mills (and its successor Pizza's Mills) was the longest operating business in the village, it was not the center of the village's success or eventual demise. 115 years ago, that newspaper correspondent hit upon the reason - even today East Meredith is "far from any outlet." And even today its location limits the business East Meredith and its mill can do. Hopefully, as signs pointing the way to Hanford Mills Museum go up this spring on the local highway, we can try again to "put Oneonta in the shade" at least in terms of the museum business. 🐾



East Meredith residents were proud of their railroad. Horace Hanford asked the train crew to pose so he could take a picture of the new train by his mill.

Mill Restoration Projects

by Robert Grassi

Steam Power

Most of you are aware that we are in the process of returning steam power to Hanford Mills, but you may be unaware of what has actually been involved in making this restoration a reality.

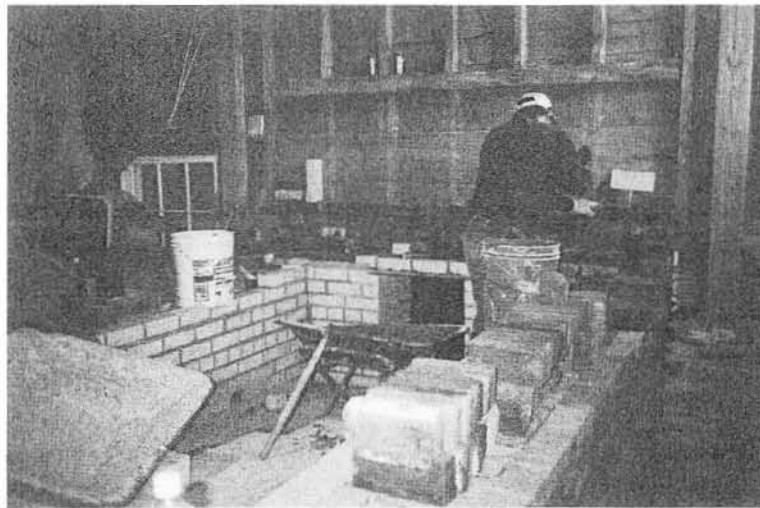
To begin with, we are very fortunate to have in the museum collections the original 1893 blueprint of the boiler setting (the masonry structure used to support and house the boiler vessel). This was supplied in 1895 by the Erie Iron Works in Erie, Pennsylvania. Erie was the manufacturer of the Hanfords original 50 horsepower boiler.

We are also very fortunate to have many of the original invoices and shipping lists of steam related items and materials used by the Hanfords during construction. Along with all the physical evidence, these have proven invaluable in helping us recreate the original setting construction and boiler installation. Using all this information, we have closely duplicated the original with only a few exceptions to meet modern regulations. When completed, we will have a fully operational steam plant ready to power steam engines to drive our mill.

In the Fall of 2002, Troy Boiler Works in Troy, New York, began construction of a reproduction of the original Erie horizontal return tube (HRT) boiler utilized by the Hanfords. It is an exact replica with only one exception. For modern safety criteria to be met (and New York State boiler codes), the old method of riveted seams

was replaced in construction by modern welded seams. All other criteria of the original Erie boiler were replicated, including the size and amount of fire tubes.

Archaeology of the boiler room back in 1999 revealed the original



A mason from the Briarwood Company works on the firebox for the boiler. The light colored brick is firebrick.

foundation walls for the setting. These were found to be intact and to be in excellent condition. The top of these foundation walls inside the boiler room are several feet below the outside grade. Laid with mortar, the bluestone walls are 20 inches in width and more than 24 inches high. Twelve inches of bank run (stone and sand mixture) lies under them for drainage over the subsoil. Clay was packed around all sides and topped with bluestone flags for the surrounding floor. One can really appreciate the work involved in its construction one hundred and eight years ago.

Work began nearly the day after we closed for the 2002 season in November. Masons began laying the more than 15,000 red and fire brick required for the construction of the setting. The red brick was donated to us. It came from the

site of the D & H round house in Oneonta (see "Full Steam Ahead" *Millwork*, Fall/Winter, 2002, Vol. 16, No. 2). The 1999 archeology also confirmed the bond and construction utilized in the original brick setting as well as the location

of the rear binder bar components.

The binder bars are cast iron, approximately ten feet in length. Set up vertically (two per side) in pairs, they held the setting side walls together and kept them from spreading. All of the iron castings utilized in construction (doors, grates, binder bars and arches) had to

be newly cast. They were custom made for this project at Catskill Castings in Bloomville, New York. Wood patterns used in the manufacture of these castings had to be handmade. We designed them to match the original castings. We used physical evidence (parts of the binder bars recovered from the 1999 excavation), the invoice and shipping lists from 1895, the original blueprint (for the design and sizes of the doors), and boiler periodicals of the late 19th century to help guide our fabrication.

The steel components, including all tie rods, bolts and the smoke stack, were also constructed to match the originals as close as possible. This includes riveted construction of the stack components. Unfortunately to date, we do not have any photo documenta-

Con't on page 9

Mill Projects - con't from page 8
tion of the original interior of the boiler room to assist us, but we do have exterior photos. These period photos were a great help in the design and construction of the smoke stack.

Mill Floors

In the fall of 2001, while moving a large electric motor in collections from the basement of the box room to the basement of the barrelhead shop for storage, the flooring collapsed. Upon investigating the damage, we discovered that all the floor joists in that area of the basement were rotted. Removing the old flooring revealed rotten and missing sills and floor joists, many had all but disappeared.

The physical evidence revealed this floor to be a replacement of the original, most likely last installed back in the late 1960s or early 1970s. At that time all the flooring was removed with the exception of only a very small section near the northwest corner. That was found to be original, dating back to 1880, the original construction date of this shop addition. It was in good, usable shape. Its only flaw was in its oil soaked condition from years of oil absorption from line shaft bearings.

The original floor joists (measuring approximately 6x6 inches laid on 24 inch centers) were left rounded and only trued (squared and flattened) on their tops to accommodate the flooring above. These surviving floor joists are beech and maple. The surviving floor itself was basswood. The

sub-floor and the finish floor were both laid in the same direction, perpendicular to the joists. This random width sub-floor, measuring only 5/8 of an inch in thickness, was made of rough sawn material, most with edges undressed but many left unsawn all together with wain and bark edges.

The finish floor, also random width, was laid with its edges overlapping the sub-floor below. This floor was dressed both sides but the edges were only jointed and laid tight edge to edge and it was face nailed with cut nails. This technique was used throughout the mill's early floor construction and is fairly typical of mill floors of the time period throughout the region.

The sills measure 22 feet in length. The north sill (hemlock) was found to be mostly intact with the exception of the east end. Because of fungal decay it needed approximately eight feet replaced. The center sill (beech) was all but

were used for sill material. We made sure to provide adequate ventilation when possible to provide natural airflow to help deter future fungal growth.

As a testament to the original builders' integrity, when we laid our replacement center and southern sill in place, they were exactly level and true to the existing north sill. After 120 years, this stone foundation was still true. For the new flooring we chose the same materials utilizing basswood flooring of the same dimension. All original flooring and joists that were still usable and in good shape were left in place in their original location. Primary and secondary line shafting had to be removed and reinstalled to working position during this restoration. This work was completed during the Winter of 2001-2002.

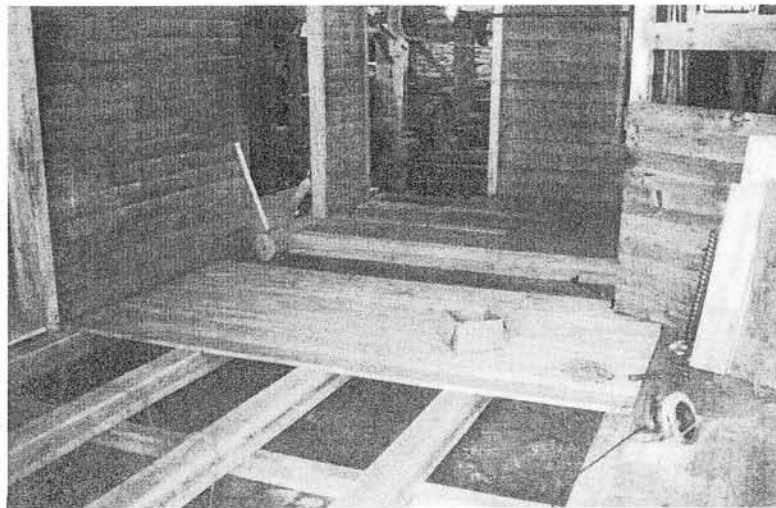
The southeast quarter of the basement flooring also was in need of work in the adjoining box room.

In fact we knew this a year earlier when we noticed the floor sagging from the weight of a large electric motor in storage there. It was in the moving of this equipment off this floor area and into the barrel head room next door that caused that floor to collapse back in the Fall of 2001.

After we closed for the 2002 season, we removed the top flooring and it too revealed little if no remnants of the sub-floor and floor joists

in this section. In fact, under further examination, all the finish flooring in the southern half proved to be a later replacement after the mill closed commercially in 1965. It was made up of 1x6 inch rough

Con't on page 12



This photo shows the new tamarack floor joists as Robert began laying the basswood flooring in the room below the box room.

gone with the exception of a four-foot piece in a state of bad decay on the west end. The south sill was completely gone, a victim of long ago decay. All sills were laid on dry laid stone foundation. As in the original, 8x8 inch wooden beams

My "Icy" Welcome

by Tim Duerden

"...and don't worry, the ice this year is about two feet thick. You're not going to fall through..."

That was the oft repeated phrase uttered to the numerous school groups who visited the museum for Ice Harvest during January and February of this year.

Thanks to this year's perfect winter weather Hanford Mills hosted a record number of area students who came to learn in a fun and hands-on way about the very serious business of ice harvesting once undertaken each winter in these northern climes. During the

month-long program the museum attracted an estimated 540 students, teachers and chaperones to the site.

While the numbers are encouraging and working directly with kids is always exhilarating, it is also nice to have the experience behind me. Now I'm hoping to be able to settle in and learn more about my new job(s) before the next groups of school kids begin visiting in spring.

For those of you who don't know me, or didn't see the previous edition of *Millwork*, I am the new museum educator and programs

coordinator. Mine is a shared position with the Delaware County Historical Association and as such marks a new venture of closer collaboration between these two Delaware County historical institutions. Personally, it means I'm having to learn and adapt to two new jobs!

The next major task for me was planning and coordinating the Catskill Region National History Day event. For the past several years the educator at Hanford Mills has served as coordinator of History Day - a celebration of middle and high school historical excellence. This year's event was held March 15 at Cooperstown High School and featured over 100 entries and some 20 judges.

Immediately after this, came our annual Children's Egg Hunt on April 19th. Nearly 900 visitors swept through the site, collecting eggs filled with candy and prizes. Children were also able to enjoy spring crafts and a parade of finery with prizes. Parents were introduced to what the museum does. We hope that many people who visited that day, will come back to see the mill at work. In the meantime, Ice Harvest is over, spring is here, and I can't wait to hear once again the refrain "wheel's on!" after opening day, May 1, 2003.

Editor's Note: Unfortunately, after Tim finished this article he left the museum for a new position. Tim Duerden is now the director of the Delaware County Historical Association and we wish him well. Assistant director, Caroline de Marrais will be handling education and programming with the help of two Cooperstown Graduate Program history museum studies students, Suzanne Soden and Kate Weller.

School groups enjoy visiting the museum for a chance to try hands-on historical activities such as ice harvesting.



F.U.N. Workshop

Families Understanding Nature

The Catskill Forest Association will be hosting their 2nd annual F.U.N. Workshop on July 12th from 10 am to 3 pm at Hanford Mills Museum. The workshop is an opportunity for kids (and parents) to learn about plants, trees, birds, mammals, and much more. Last year's agenda included: birds of prey, self-guided family woodwalks, environmental learning stations, miniature horses and great weather. This year will be more of the same plus participants can enjoy Hanford Mills Museum.

The Catskill Forest Association, also called "CFA", is a non-profit organization dedicated to enhancing all aspects of the forest in New York's Catskill region. The mission of the CFA is to promote forest stewardship

Con't on page 12

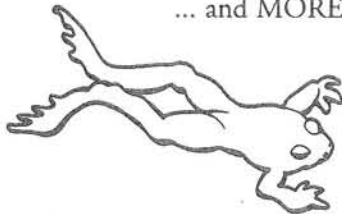
Hanford Mills Museum's
**Independence Day
 Celebration**



Friday

10 am-5 pm

- Meet President Teddy Roosevelt!
- Mill Tours
- Tug of War Contests
- Children's games
- Frog Jumping Contests (BYOF)
- Homemade Ice Cream
- Live Music by Hilton Kelly & the Sidekicks
 ... and MORE!



Upcoming Events & Workshops

S.A.W. Day Camp (Summer Apprentice Workshop) - July 14-17, 9 am to 3 pm each day - Children ages 8 through 13 can explore chores and fun from the past. Learn how to do laundry by hand, build a box, play parlor games, make ice cream, play town ball, and much more. Children must be preregistered - call the museum for the form. Members' discount of \$60 per child.

Summer 1920s Cookstove Workshop - Saturday, August 2, 9 am to clean-up after lunch - Learn about cooking in the 1920s, find out about summer cooking for the farm hands and try your hand at cooking on the John Hanford Farmhouse cookstove. This workshop is for adults and older children accompanied by an adult. Preregistration is required - see below left. The fee is \$20 or \$18 for members.

Lumberjack Festival & Sawyer's Holiday - Saturday, August 23, 10 am to 5 pm - Come see the Indian River Olde Time Lumberjack show with cross-cut sawing, souped up chainsaws, log rolling and much more. Try the amateur events or watch 200 years of sawing history - from hand pitsawing to modern portable bandsaws.

Two-Day Blacksmithing Beginner's Class - tentatively scheduled for August 30 & 31 - with Patrick Grossi - The class activities and fee have not been formalized yet, but if you are interested, please use the form at left to request information.

**Summer 1920s Cookstove Cooking Registration
 AND request for further workshop information**

Name _____

Address _____

City _____ State _____ Zip _____

Phone _____ My fee is enclosed _____

E-Mail (for faster confirmation) _____

- Please send me information on: Children's Day Camp
 Blacksmith Workshops



Mill Projects - con't from page 9

sawn hemlock reused from exterior siding on another building.

The northern half of the flooring in this shop was heavily patched and pieced over the years, but all was intact and sound. This included both the sub-floor and floor joists. The finish flooring is made up of random width tongue and groove boards, laid perpendicular to the sub-floor. Quite a variety of species were used for this flooring. Basswood, hemlock, yellow pine and hard maple are all evident. But it is apparent that basswood was the material of the original finish flooring, due to its prominent use,

and in the fact that the other species were used in small amounts in a patch work fashion for repairs in the past.

The southeast section floor joists were all but gone, but the southwest section had its original 6x6 inch floor joists and they were in good usable condition. All sills were intact and usable. We needed only some light jacking and straightening to true them up. We replaced the missing and rotten floor joists with 6x6 rot resistant tamarack (larch) lumber sawn on our sawmill. The original random width sub-floor was made up of rough sawn 1-inch thick hemlock.

The edges were left rough sawn and square. They were laid tight, edge to edge, and face nailed. We left all that was usable in good condition and replaced only what was necessary. Tongue and groove basswood was chosen for the finish floor in 3, 4 and 5 inch widths. We laid it ninety degrees to the sub-flooring and blind nailed, just like the surviving original floor.

We welcome your comments and suggestions on these and all future restoration projects. Come visit us as we progress further along on our steam restoration project throughout this up and coming season.

*F.U.N. - con't from page 10*

in the Catskill region by forest landowners, timber harvesters, foresters and the general public. The association advocates quality forest management practices (especially forest stand improvement practices or "FSI") for the purpose of improving the health of the forest, preventing threats to the

forest ecosystem (including "high-grading"), and supporting conservation efforts. Membership in the CFA is open to anyone interested in

protecting the working forests of the Catskill Region.

The F.U.N. workshop is FREE and open to the public so please tell your friends, and fellow parents. Please bring a bag lunch, and make sure to dress for the weather. You may call Hanford Mills Museum or CFA at (845) 586-3054 for more information.

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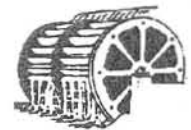
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