What's New: Twenty Years Old!

Have you been wondering if we lost your address? Well, we haven’t, we’ve just been so darn busy that things got away from us. We hope that you will forgive us and read about some of the things we’ve been up to.

Dam Work

As we told you last Fall, the O’Connor Foundation committed capital support for the repair of the Mill’s dam and feedmill. Tom Howard began work on replacing the feedmill foundation at the end of March. By the beginning of April, John LeFever and George Walker began work on the dam. First the old flume was replaced and then a new dam built in front of the old. This allows the museum to keep the old dam intact while the new dam does all the work. James Kricker, who restored our water wheel, removed the forebay in March for repairs. He replaced it and reconnected the new flume just before we opened. The new dam is working well, though the drought this year keeps the pond level low.

Did’ja, WUl’ya, Come for Our Summer Programs?

Once the dam was finished, we had to worry about the new programs planned for this year. You might have noticed we have changed a few event names, but that just means we’ve added more activities to the old events. We hope you have enjoyed any of the events you attended.

We also added the Saturday Series for adults and families. This new set of programs offers visitors an in-depth look at special topics related to the mill. Despite rain we had visitors who participated in our water power program and the edible and medicinal plants workshop was well attended.

“Just for Kids Saturdays” gave kids an opportunity to learn about the local dairy and ice business while making ice cream the old-fashioned way, find out about Horace Hanford and photography while learning how to do pinhole photography, hear about farm work in the past while pressing apple cider, or learn about America’s wooden age while taking a tree walk. The ice cream and tree workshops were well attended, but not the pinhole photography, though, perhaps, the heat kept people away.

If you participated or wanted to participate but couldn’t, please write and give us your comments and suggestions for next year.

In Memoriam

The staff at Hanford Mills Museum would like to remember five men who passed away this winter and who will be missed by everyone.

Walter Meade, 77, died January 12, 1993. Walt was a well-known local naturalist and writer. Over the years, Walt often contributed to museum programs. You may remember seeing him in WSKG’s television show about ice harvesting at the mill as he told his own ice harvesting memories. Walt also came to the museum to share folkstories and wrote an article about maple syrup for Millwork in Spring, 1992. We will miss Walt very much.

Jake Nydam, 89, died February 8, 1993. Jake was a longtime East Meredith resident. He worked as a rural mail carrier, first using a horse (which he kept in Horace Hanford’s barn) and later automobiles. Jake told us many stories about the mill and the village. We will miss his friendly wave as he worked around his home by the museum.

Another former East Meredith resident, Thomas Mitchell, 83, died February 11, 1993. The Mitchell family lived in the town of Meredith for over 100 years. Tom, with his wife Elma - author of East Meredith’s three volume history, was an active member. Hanford Mills Museum has been listed among the organizations for memorial contributions in his name. All dona-

Con’t. on page 6
**Time For the Garden**

Editor's Note: It's that time of year again when people begin to think about gardening. We thought you might like to "listen in" on what some old time East Meredith area residents had to say about gardening in the past. The following are excerpts from a tape recorded during the Kitchen Garden program done at the museum in the summer of 1991. Elsie Haynes, now 93, graduated from Syracuse University and traveled New York as a Lyceum lecturer and met Charlie Haynes, now 91, in East Meredith where they were married and lived in the area from the 1920s to the present. Charlie's father moved to East Meredith in 1899 and Charlie followed in his footsteps as a blacksmith and later added an automobile garage business. Barbara MacClintock came to the area in the 1940s were she met and married Larry MacClintock in 1953. Larry's family farmed in the area since the early 1800s. Larry is now semi-retired from his contracting business, while Barbara is the bookkeeper for Hanford Mills Museum. Lenore Crandall was born in East Meredith, and is the granddaughter of another East Meredith blacksmith, Mack Tobey. She still lives in the heart of East Meredith with her husband. Joe Wyble grew up on a New Jersey truck farm, but has lived in Delaware County for quite some time. He often brings his draft horses to the museum's ice harvest special event. Caroline Meek, museum curator, moderated the program, which took place in the John Hanford farmhouse.

**Caroline** - Does anyone remember John Hanford's garden here at the house?

**Elsie** - I don't have any memory of his garden, but when he was farming here we ... used to go up and get a little pail of milk, quart of milk I think for 6 cents. ... Right out there ... was a bed of rhubarb. First fall we were here, John came out one day with a wheelbarrow full of fresh manure ... [and] covered the rhubarb. Oh, alas, there goes the rhubarb! (laughs) It was beautiful the next spring. So you can put fresh fertilizer on rhubarb and I think its about the only thing you can put it on like that.

[You can still find that patch of rhubarb in a corner of the Hanford House yard. Older diary accounts suggest that it may even be dated back to D.J. Hanford and the 1870s/]

**Barb** - Well, years ago when we had the farm, we used to take the silo top and put it on the garden all the time, because that would also lighten the soil. Larry's mother kept diaries. And I was going through one from 1929 and this is May 15th. Said they fixed the fence along the road, they manured the garden. Now the middle of May we usually have a lot of stuff in already ... least I do. Used to be that they didn't think of planting their gardens until Memorial Day. That was traditional. But I think seeds are a lot different now. ... Used to be you couldn't put the corn in because if it froze, why it was gone. With the hybrids now, you can put it in earlier and if it gets touched, it will still come on.

**Charlie** - Well, I think the reason that we held off in those days, we had ... later frosts in the spring.

**Barb** - What do you remember from your grandmother and grandfather's garden, [Larry]?

**Larry** - Well, they had a raspberry patch up there. Back side of the garden was about 60 feet by 12 feet wide. I seen them pick 100 quarts of raspberries year after year out of there. Our garden at home, our house was about 1829, and basically probably 140 years out of that time its been a garden right where ours is.

**Elsie** - I don't remember, way back in my youth, I don't remember so many different kinds of squash. I'm sure the only winter squash we ever had was Hubbard, and the only summer squash was a yellow crookneck. You never heard of zucchini. But the old gardens, I'm sure had just those two kinds of squash.

**Larry** - That's all I remember.

**Barb** - What did your dad have in the garden anyway? He had peas, I can remember. When Larry and I were first married, he was in the Navy, so I stayed with his family for a short time, and it was in the summer and I offered to go out and pick the peas. Well, no way was I allowed to go out and pick peas, and I think its, now that I have
cnt. on page 7

Gardens have always been on the mill site. We planted the 1880s corn patch, while this photo shows a 1910 garden in the same spot.
Between 1860 and 1945, Hanford Mills employed over 200 men, but one made perhaps the biggest impact on D.J. Hanford. This man was Andrew Brown, a pioneer settler, cabinetmaker, manufacturer, and D.J. Hanford’s mentor.

Very little is known of Andrew Brown’s early life. He was probably born in August, 1812. We don’t know his parent’s names, except that his mother was a Houghtaling. At some point, Andrew’s father died and his mother married Henry Dibble, a widower with a number of children. Mr. Dibble lived near Bloomville, NY, about 10 miles from East Meredith. It was probably there that Andrew married his stepsister, Sally Ann Dibble.

Maybe the Browns married in 1839, for that is the year they moved to East Meredith. Andrew leased a large section of land on the west side of the main road and is said to have built the first house in the village - a log cabin. By 1849, he bought the land (which covers about half of the modern village) for $739. At about the same time he built a frame home, one of the first, which still stands today. Over time, Andrew Brown sold off parts of his land all along Main Street. He may have even helped build many of the homes that are still there.

Andrew Brown also built a shop, and after he sold the first one, he built another, both on Mine Brook. We know that the second one had a water wheel in the basement. In these shops, “Boss” Brown as he was known, did his carpentry work, building “classic furniture”, coffins, and machines, run by dog power, that made butter. According to the 1920s memories of Dick Stinson, “He made the passing over easy for the sick, as the man did not have to worry over his wife having to put a mortgage on the farm to pay funeral expenses. Fifteen dollars would buy a fair cherry coffin, thirty dollars a good one, and for fifty iron men you could have the very finest burial outfit known in those days.” A table, possibly made by Andrew Brown, is housed at Lansing Manor near Blenheim, NY.

Andrew Brown is important in East Meredith history, but you might ask what did he have to do with D.J. Hanford? D.J. came to East Meredith some time between 1850 and 1855. He became Andrew Brown’s carpenter’s apprentice. D.J. probably had some woodworking skills (what farm boy didn’t know something about wood?), but Andrew taught him carpentry. By 1858, when D.J. married, he moved out and, in 1860, bought the mill.

That was not the end of Andrew Brown’s influence, however. D.J. Hanford recorded in his daybooks that Andrew occasionally worked for the mill, perhaps doing special carpentry work or advising. He also helped D.J. financially. Andrew did a good business in carpentry, undertaking and real estate and was well off. Between 1880 and 1893, he held a number of different mortgages on D.J.’s property, totalling over $10,000! D.J. always paid off each mortgage, though there were some years he could only pay the interest due. Despite the loans, Andrew Brown and D.J. Hanford got along well, visiting between Bloomville (where Andrew lived in his later years) and East Meredith.

Andrew Brown’s personal life is as interesting as his public life. While he did quite well financially, it was said that he did not spend money unnecessarily - some just called him miserly. One story goes that when his pipe smoking wife died, Andrew Brown took up smoking so Sally Ann’s tobacco wouldn’t go to waste. Despite this, Andrew Brown had friends and family ties in East Meredith. In Elizabeth Hanford’s diaries he was Uncle Andrew. He and Sally Ann where often at Elizabeth’s house, and also visited D.J.’s home. Other friends were made through the church; the Browns were active members. Andrew sold land to the church for the cemetery in 1853, and became a trustee in 1879.

As time went on, it looked as if Andrew and Sally Ann could not have children so they adopted a daughter, Isabel Dezel, who was 18 in 1855. Surprisingly, a year later, in 1856, they had their one and only natural child, a daughter they named Dellaphene. Sally Ann was 43 at the time! Records do not show what became of Isabel, but Della married a man named James Burdick and moved to Bloomville with him. Due to failing health, Andrew and his wife moved in with the Burdicks in 1884. Poor health didn’t keep Andrew Brown and his family from returning to visit...

Mill Workers

We thought you might like an introduction to the museum staff. If you have been a member for a while, you may remember Keith Bott the Director, Caroline Meek the Curator, Dawn Raudibaugh the Mill Operations Manager, Stephanie Kovar the Office and Gift Shop Manager, and Barbara MacClintock the bookkeeper, who remain hard at work all year. The former Programs Coordinator, Todd Pym, left at the end of March for a position where he can make full use of his training in music and drama. For the summer, we have Elizabeth (Liz) Callahan, a Cooperstown History Museum Studies graduate as a part-time Programs Coordinator. Liz not only has had to learn how our special events are organized, but she has to plan brand-new programs as well. If you see Liz at one of our special events, tell her she's been doing a good job, because she's working hard.

We also added some new part-time mill guides this year. Lou Anna Foote and Catherine McCarthy are both interested in museum work and hope that their experiences here will help them get into the Cooperstown History Museum Studies Masters Program. Sheilah Hamilton is a local girl. Her great-uncle used to work the Hanford Mills and her great-aunt was married to Horace Hanford. Roger Ree is very interested in museums, and also likes to work at the Guilford Museum. Bill Brindle, who has been with us for three years, has returned again. Ken Graig, another long time tour guide, has decided to work at home, but he helps us out on some of our busier days. You may also see John Hamilton, Sheilah's father and museum board member. John loves to help out with mill tours and sawmill demonstrations. And you might recognize Don Sulas, our Maintenance Man, who has worked here, on and of, for four years.

There is a familiar face and one new one in the gift shop as well. Nancy Baldwin, who has been with us many years, returned for another season, while local resident, Judy Wood, has joined the staff to help in the shop.

Thank You

Hanford Mills Museum would like to thank the following people for generously donating documents, photographs and artifacts to the museum's collections in 1992:
- Warren Ainslee & Rachel Hamblin
- Jonathan Collett
- John Coss
- Alden & Sandra Hanford Davis
- Fred Frewert
- Charles Funk III
- John Hamilton
- Charles Haynes
- Carlton Kellogg
- Stephanie Kovar
- James Kricker
- Bill Lange & Margot Mott
- Dick Meyer
- Ed & Mary Personius
- Radcliffe College
- Dawn Raudibaugh
- Rick Ray
- Bob Stone
- Pauline Swanick
- James Van Buren
- Daniel, David & Charles Wightman
- John Willis

Their donations included items such as historic machinery advertising, agricultural equipment, books, lumber and logging tools, dairy equipment, ice harvesting tools, East Meredith and Hanford related documents and photographs, and mill equipment and machinery. The museum is always looking for documents and artifacts that can be related to Hanford Mills, East Meredith, and milling in general. If you think you have something that the mill would like, please call or stop by. Ask for the Director Keith Bott or Curator Caroline Meek. If it is something the museum should have, we would love to have your donation.

Thank you for the welcome gifts of all past, present and future donors.
"Found Hung up in the Bushes..." - Tall Tales in East Meredith

By Caroline Meek

Do you wonder what your grandparents and great-grandparents were like? Have you seen them in photographs, posing stiffly, staring emotionlessly at the camera? Were these "fun" people?

Hanford Mills Museum's archives are filled with photographs like that. So many, in fact, that you might begin to think East Meredith was a boring town. Not so - while the photographs show grim faced people, the local newspaper from the 1890s shows a more frivolous, fun side of the inhabitants of East Meredith.

The Delaware Dairymen, which covered all of Delaware County, included columns from each of the villages in the area. The correspondent from East Meredith (probably a man named Richard Stinson) had a pretty good sense of the ridiculous. From comments made in the paper, his East Meredith readers appreciated his brand of humor.

The correspondent's stories were all based on fact, but it does seem that he got a little carried away with the specifics:

"George Connors' large stables were invaded by the flood, water running through them about two feet deep. The cows were securely stanchioned, consequently they were all there when the water went down. But Connor was not so lucky with his hog pen and calf house, for when the raging waters struck that the walls were knocked out, and the hogs and calves being loose were washed away and carried down stream, but were all recovered, being found hung up in the bushes and trees; one four hundred pound hog being found unharmed hanging in a goose berry bush thirteen feet from the ground." - May 13, 1892.

Four hundred pounds?

Thirteen foot gooseberry bush?
The flood really happened, but I'm not so sure about the hanging hog. How about this story of a visit from a "ruthless invader":

"Last Friday evening this place was entered by a man whom some said was slightly deranged; others called it a case of over-indulgence in the ardent. But all admitted that he was an object of suspicion and the town was in danger. The police board was hastily convened, and prompt and concerted action was taken. 'Colonel,' the watch dog of the treasury, was called from the bone he was caressing, and chained to Thompson's safe, the museum of curiosities on High street was carefully guarded, sentinels were posted in every kitchen where there was good feeding, to prevent said kitchens from being looted by the ruthless invader. The gabling guns in the tower of the Farmers' Friend,' corner of Meridale and Main streets, were manned by a volunteer force, a chestnut hill was laid across the entrance to the cemetery, hedges were locked, hens were enticed into cellars, the Every wall on Main street was strengthened by the addition of a few boulders, and numerous other precautions were taken. But the man who fitted nicely into the niche, 'the man of destiny' who rose to the high altitude that the occasion demanded was officer Dudley. Taking his life in one hand, grasping a two-year-old sapling with the other, with a bound copy of the constables' guide in one hip pocket, in the other an accident insurance policy, he boldly advanced on the suspect, and in haste and beautiful language he informed the intruder that there was a wide and hospitable county south of this where the weary wayfarer might rest, and where 'hand-outs' were plenty. And in the kind and persuasive manner peculiar to this officer he conducted him to the frontier (village limits). The town was saved; we breathed again. The Lord reigneth, and the government at East Meredith still lives." - May 21, 1897.

Besides the usual fish stories, which the correspondent included in the paper, he also had an eel story:

"The Kortright is not a very large river, but it seems there are some very large fish in it. One of our boys claims to have sighted an eel in that stream the other night that was at least 8 inches in diameter and as long as a telephone pole. We cannot vouch for the story, but give it just as we got it. If we ever meet that eel on the road we shall take to the brush." - June 28, 1895.

The correspondent always seemed to be able to joke about the weather - mud, drought, snow:

"Every sign seems to indicate an exceptional hard winter. We have a sign here that was never known to fall. - J.H. Thompson's clerk has taken his seat between the chimney and the stove at least three weeks sooner than he was ever known to before. Our people are almost paralyzed with fear, and are banking their houses clear up to the windows, getting up enormous piles of wood, buying the heaviest of overcoats and the thickest of underclothing." - October 16, 1891.

Con't. on page 6

A group of East Meredith residents on a picnic at what is known today as Pine Lake at Davenport Center, NY. Though it is hard to believe by just looking at them, these people loved to have fun.
Tales - cont. from page 5

When the correspondent wasn't making fun of the local residents, he started to pick on ex-residents:

"With the approach of winter and the Thanksgiving turkey, hard cider and other treats, comes ex-Officer Green, of Meridale, with a clean shave and a three-for-a-quarter smile covering his bronzed weather-beaten features and his pants rolled up in the latest Prince of Wales fashion. 'Ed.' says his health is good, which he ascribes to a liberal use of Hood's Saraparilla, and his business prospects were never brighter. He is connected, we believe, with some kind of a nickel-in-the-slot machine company that travels extensively through the northern portions of this state. You drop in a nickel, and up pops a finely executed photograph of yourself, your sisters, your cousins and your aunts, a fine view of your farm buildings, stock, etc. For another nickel and a lock of your hair the machine will hand you up a finely finished crayon portrait (framed) of your future wife's husband, with a duly certified marriage certificate attached. We are not just clear in our own minds whether the foregoing is just what friend Green told us or not, but anyway it was something in the picture line, and was bringing him in lots of 'mun.' Come again, 'Ed.' - November 22, 1895.

People were always interested in weddings, and the correspondent recorded most in a very decorous style, but not always:

The matrimonial cyclone that is sweep-over the country is making sad havoc in the ranks of the confirmed old bachelors of this place. A few years ago there was a fine lot of us. But now we can only call to mind three, to wit: Haxton, Shellman and Stinson. The statute of limitations and his excessive modesty protects that last named. Haxton has grabbed a root and is hanging on ... and expects to weather the storm if it takes a lung. And Shellman - but why multiply words; we have got a nice marriage puff written for him and expect to get a chance to use it soon. We are onto you, Charlie. But then, we have a few frisky widowers to affiliate with, which fact prevents life from being entirely burdensome." - December 13, 1895.

The way this is written definitely suggests Dick Stinson is the correspondent, since he mentions "us." He did get married, by the way. Then there is this account of an old-fashioned wedding custom:

"There was a wedding over in Kortright last week, and an enterprising neighbor got up a serenade or horning. Six hardy musicians responded to the call of the tin horn. We had supposed that horning bees were a back number and had gone out with tallow candles, tin lanterns, and sich. But no sir, old Kortright can still find six men who will prance around in the cold, with the mercury at 16° below, with an old tin horn and a shot gun or two, and do it for the fun there is in it. All honor to the immortal six. A small medocum of praise should be awarded to the party serenaded, who had to go out and load the guns and chop the ice out of the horns before the last number on the program could be played." - December 20, 1895.

Not only was the correspondent responsible for writing the news of the village, but he was also supposed to sell subscriptions to people in his area. The correspondent in East Meredith used humor to try to drum up some business:

"The man that borrows the DAIRY-MAN and then locks the door while he reads it ought to subscribe for it. Read it openly. It will bear the light; besides, it will do him lots of good." - April 5, 1895.

Perhaps the most annoying humorous story from the correspondent is the story that wasn't told. It's doubtful that anyone knows what the story was supposed to be anymore:

"Knowledge is necessary in all business. There is a know how even in setting a hen. That and eggs, and the right kind of eggs too. There is a good story in connection with this, but L.O. Hanford can tell it so much better than I can I will refer the curious to that gentleman." - July 10, 1896.

What was L.O. Hanford's problem with eggs? We'll never know ...

So keep these stories in mind when you look at 100 year old photographs of people. They may not have been as grim and forbidding as they look. At times they were downright silly.

Memoriam - cont. from page 1

Hanford Mills Museum

Spring-Summer, 1993

also helped others learn about milling through the articles and books he wrote. Charlie served on Hanford Mills Museum's Board of Trustees and often came down for spring planting and fall harvest to run the gristmill. We'll miss his expert advise and his funny stories.

And last of all, as Winter came to an end, Ken Kelso, 76, died April 16, 1993. Ken Kelso is the reason Hanford Mills Museum exists today. When the last mill owners, the Pizzas, were having their going out of business auction, Ken couldn't bear to think that the mill would be lost forever. So he bought machines and the water wheel at the auction and, eventually, the site which he opened as a museum. After about five years of operation, he sold the site to the non-profit corporation that runs it now, though he remained on the board for a time. While Ken Kelso and the board had their differences, the museum honors Ken for saving the mill. We will miss hearing the stories he told. Donations in his name were made to the endowment.
Gardens - con't. from page 2

gardened myself, peas are a lot of work. You know, you plant them, you put up a fence, you pick them, its back breaking work, you sit there and shell them. And I think it was because he didn't feel confident enough that I knew which peas to pick.

Larry - That's when he didn't have so many. I remember when he had three people picking and three people shelling. Then when you got done picking, you had six people shelling, because we use to can them. You didn't freeze them. But what we had, what most the gardens had, is like Elsie said, the winter squash, Hubbards, and the summer crooknecks, onions, salsify or vegetable oysters, beets, carrots, string beans, pole beans ...

Barb - Lima beans were big. Lima beans you said your father had climaxed?

Larry - Well, Jim Smith ... had a strain of lima beans that were about this size [fava bean size] and he had kept the seed and climated them until they developed faster than the ones you buy from the store. Two or three of them and you know you had a meal!

Elsie - We use to cream salsify, usually. Cook it and serve it with milk or fry it like you do squash.

Lenore - We scraped ours to begin with and then cut it up in about that thick [1/4 in.] pieces and cooked it. We fixed ours like you would regular oysters and crackers and stuff. Yeah, just like scalloped oysters.

Elsie - They didn't get very big.

Lenore - (Laughs) I didn't like scraping, it was terrible scraping.

Charlie - Well, they looked like a small parsnip.

Joe - Yeah, I know. I was supposed to dig parsnips one time and I went out and dug up a half a row of that and [I was in trouble]!

Elsie - They're very good. I don't know why they don't raise them anymore.

Lenore - Too much work to get them ready to eat.

Elsie - I guess so, and it grows spindly.

Larry - Parsnips ... we always left in all winter. Parsnips you could go out and dig next April, they'd be all right.

Joe - Yeah, they're better in the spring. Same as Brussels sprouts, let the frost hit them first and then they're better.

Barb - Yeah, Larry's mother always used to make a parsnip stew that was always good. It was made with salt pork. Did you make that too, Lenore?

Lenore - Well, I always put salt pork with my parsnips, thicken them.

Barb - Did you put celery or onions or potatoes or anything like that?

Lenore - No, I just had plain parsnips and salt pork, or bacon I use now, and thicken it.

Larry - She put dumplings on it sometimes.

Elsie - (I used a turnip souffle recipe because) I wanted to teach [the girls] to make a cream sauce in the beginning.

Barb - Who were you teaching to make the cream sauce?

Elsie - The 4-H girls. Oh, they were from an age of 12, 13, 14. There were maybe seven or eight of them and they used to come down to the house.

Caroline - What year was this?

Elsie - '28, '29, '30, along in there. And that was something everybody had in their garden and was easy to come by ...

Editor's note: The conversation went on, talking about preserving the harvest. We don't have room for that now, but below you will find the actual recipe that Elsie Haynes used to teach late 1920s 4-H girls how to make a cream (or white) sauce. Many early recipes are not as specific as the modern ones, so you may have to experiment a bit with amounts. If you like turnips, though, it is a good recipe.

Elsie's Turnip Souffle Recipe:

Recipe:

Brown - con't. from page 3

from time to time, however.

Andrew Brown was 86 years old when he died in 1899, 2 months after his old apprentice, D.J. Hanford died at 65. Andrew is buried in the Bloomville cemetery with his wife, daughter, and son-in-law.

Andrew Brown helped shape the village of East Meredith as he bought and sold land, and used his skills to build homes and furniture. He also made possible D.J. Hanford's success by providing the younger man with experience, funding, and probably lots of advice. What would East Meredith be like today without D.J. Hanford's mentor, Andrew Brown?
The Largest and the Smallest Water Wheel

We've done a lot of repair work on our water power system this year, so we thought we would show you what the largest and smallest water wheels were according to Scientific American on March 19, 1892.

The overshot water wheel shown in the accompanying illustration has the reputation of having been the most costly to build as well as that of being the largest water wheel ever constructed. It is at Laxey, on the Isle of Man, where it is used to pump water in working a lead and silver mine. The wheel is 72 ft. 6 in. in diameter, 6 ft. in breadth, has a crank stroke of 10 ft., and develops about 150 b.p. The power operates a system of pumps raising 250 gallons of water per minute, the lift being 1,200 ft. The power is transmitted several hundred feet to the pumps by means of wooden trusted rods, supported at regular intervals, the supports resting on small wheels, running on iron ways, to lessen the friction. The water to turn the great wheel is brought from a distance in an underground conduit, it being carried up the masonry tower by pressure. This great wheel was constructed some forty years ago, and has been running continuously ever since.

In the upper right hand corner of the same picture is represented another water wheel, drawn to the same scale, and which will afford as much power under similar conditions of head and water supply. This small wheel is the well known Pelton, having peculiar cup-shaped buckets on the periphery of the wheel, into which the water is so directed from one or more nozzles that nearly the full value of its weight for the height of its head or fall is transformed into the inertia of the wheel. The power represented by the force of the water is thus converted into mechanical movement, almost entirely without friction, "the buckets simply taking the energy out of the stream and leaving the water inert under the wheel." The Pelton wheel is extremely simple in construction, and is in size and appearance apparently but little more than a mere toy, in comparison with the ponderous piece of machinery shown as the great Laxey wheel, with its massive column, arches and stone foundation. Probably the cost of putting in position a Pelton wheel to afford the same power as this great overshot wheel would not be one-fiftieth of that of the earlier and cumbersome construction.

Such an object lesson is of value in showing the wonderful progress in hydraulic engineering practice during the last half century.