Bridges and Mills of Old Epsom

The Bridge and Grist Mill at Short Falls

Who Remembers Short Falls, from Profiles Magazine

The Covered Bridge at Short Falls by Russell S. Yeaton

The Old Grist Mill by Russell S. Yeaton

A Sketch of the Mills and Water Power in the Town of Epsom, NH
by Hiram A. Holmes

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by Earl P. Robinson from Granite Monthly 1925

Two of Epsom's Early Industries The Barmer Narrow Fabric Companies
By Hattie B. Heath

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THE BRIDGE & GRIST MILL AT SHORT FALLS

The following is from the 25th Aniversary Issue of : Covered Bridge Topics by the National Society for the Preservation of Covered Bridges, Inc. Vol. XXV, No. 1 - April 1967, and can be found in the Epsom Historical Association books by Phil Yeaton and available through the Epsom Historical Association.

"According to the Journal of the House of Provincial Legislature, in 1744, a 'Canterbury Petition' lists the first bridge built in Epsom and known as the 'Old Canterbury Bridge,' as being constructed over the Big Suncook river. Note is also makde in 1758 that Nathan Marden, the Town Clerk of Epsom, recorded in the old Epsom Record Book that Captains Andrew McClary and John Clark,together with Joshua Cery (Seavey?), were appointed to survey and plan for a highway from Nottingham to Chichester.

The next recorded entry in the Hisotrical Sketch of Epsom, New Hampshhre, relates that John Tripp built a dam and saw mill at Short Falls about 1786, using the timber they cut in their mill. Later, another mill was built below the dam, to make paper and in later years cotton batting. This mill was burned in 1839, when both the grist mill and dam were rebuilt by another company. Reconstructed after deterioration, the mill had a most successful carreer, with farmers traveling thirty miles to bring their grain to be ground there. In 1927 there were still two grist mills in operation in the town.

Another bridge was built at Short Falls over the Big Suncook River on the date of August 22, 1791. Workmen were paid three shillings a day with the Selectmen authorized to furnish the thirsty workmen with such quantities of rum as they felt would be necessary to be expended in finishing this bridge. The record further states that timber and labor, along with the necessary amount of rum to rebuild the Short Falls Bridge came to $112.67.

Through the years traffic demands necessitated many repair jobs - with complete rebuilding being undertaken in 1831. Mr. George Yeaton, Selectman of Short Falls, verified this date, with the State Department of Public Works, giving the information that removal took place in 1948. The steel bridge which replaced the picturesque covered span was erected in 1950. [note from Phil Yeaton -"I don't believe that my father was the selectman from Short Falls, maybe it was Russell Yeaton. However, Dad would have been able to verify the dates with the Highway Department as he forked for them at the time."

When the covered bridge was dismantled in 1948, the good boards were taken and used to brace up the other covered wooded bridges that were still in existence in Short Falls and nearby townships.

According tot he research of Mrs. Madge Pierce, the covered bridge and Grist Mill were constructed in 1791. All available records of construction of the first covered bridge in the United States points to the year 1805 - the Permanent Bridge over the Schuykill River in Philadelphia, Pennsylvania. Covered bridge historians have long felt that this year marked the beginning of covered bridge building in this country."

FROM "Who Remembers Short Falls?"

NH Profiles magazine April 1976

"Covered bridges and grist mills were once common all over New Hampshire, though only a few of each remain today. It was unusual to have two of these landmarks side by side, so when such pairs did exist, they quickly became popular stops for photographers. One of the better known of these scenic spots was once in Short Falls, part of the town of Epsom. Today little remains of the bridge and the grist mill at Short Falls, but their story has been preserved in the notes of Russell S. Yeaton.

Yeaton was an alumnus of the University of New Hampshire, a dairy farmer and holder of numerous town and county offices. He was also the last man to operate the Short Falls grist mill. His property was near that on which the bridge was built, and he had crossed it many times. It was his prudence and imagination that saved it in the spring floods of 1937. And it was his foresight that saved the story of the bridge - and of the mill - for future generations.

Before his death in 1974, Yeaton compiled detailed notes on both the bridge and the mill. According to those notes, the bridge was probably built in the 1830's. Its abutments were of split granite (that is , quarried without the use of explosives), which supported a latticework structure about 110 or 115 feet long. When the bridge was less than three quarters of a century old, in 1893 or '94, ice coming down river during flood season snapped the tips off the lattice work. Russell Yeaton's father, Samuel Roby Yeaton, was road agent at the time, and he reinforced the structure with wooded arches. The value of this precaution would not become fully apparent for another 50 years!

During the disastrous spring flood of 1937, immense ice floes again came downstream, jamming up against the bridge, flooding its floor and preventing passage acorss it. All traffic between the village of Short Falls and Route 28 had to detour around the site. But the bridge withstood the diege, thanks to the ingenuity of Russell Yeaton. Recognizing the potential catastrophe ahead, he and seen to it that the bridge was supported in the crisis by actually chaining it to ancient and sturdy trees on both banks of the stream. The stout chains, coupled with the arches Russell's father had added, preserved the bridge.

It was not until the 1950's, when a new bridge was built downstream, that the covered bridge at Short Falls was destroyed. At that time, some feared that the eventual collapse of the old structure would threaten the new one downstream. There are others who found the destruction of the old bridge an irreparable loss.

For its true devotees, the Short Falls covered bridge never died. It has appeared in numerous paintings, on locally sold stationary, in the pages of New Hampshire PROFILES and its predecessors, and in the listings of covered bridge fanciers' publications.

The grist mill was probably built about 1818, just as the grain growing period was beginning on New Hampshire farms. Dur9ing World War I, as farmers were starting to grow more wheat to compensate for existing shortages, the mill was reconditioned to grind more grain. When it became necessary to replace a pinion gear to one of the grinding stones at the same time, a new one was cast from the original pattern, which had been stored all that time in the Old Concord Foundry.

Even as late as 1920, the mill was a taxable property, which brought out a remarkable talent in a local tax collector.....After World War I, the mill was purchased by Suncook Mills, but it was not kept in repair and was eventually torn down. At the same time the new bridge was built, the dam and the mill's foundation were removed. Today all that remains are a few pictures, and for those who walked over the bridge to school or brought grain to the mill, many memories."

First two photos - from Robert Yeaton Collection - photo this page courtesy of Louise Dowst.

THE COVERED BRIDGE AT SHORT FALLS

By Russell S. Yeaton

The old covered bridge was probably build in the early 1830's. Originally it had lattice work construction from bottom to the surface of the water - about 18 feet. In 1893 or 94 ice coming down river at flood stage broke the tips of the lattice off and at that time wooden arches were installed by my father, Samuel Roby Yeaton, the road agent at the time, to strengthen it. It was originally completely covered on the sides. The shingles on the roof were hand split and shaved and were 3 ft. long. The abutments are split granite probably quarried back on the hills. Eighty feet actual space between the abutments plus the overhang at each end, probably measuring 88 feet. In winter snow was carried into the bridge so that sleighs and sleds could more easily be drawn across by horses and oxen. Up until 1910 snowing of the bridge was done for $100.00 according to records.

The floor was of double plank construction with 3" and 4" planks. With the coming of trucks which first had solid rubber tires, the cross flooring timbers were sometimes cracked and about 1918 these were replaced - double layer being used. (Barton's lumber operation from Ring's pasture.) Sometime in the 40's heavy 12" x!6" southern pine timbers were purchased in Portland, ME, and installed on horses built of similar materials.

In the 1937 flood the bridge was chained to up-river trees to prevent its going out, water covered the floor at that time.

In the 1950's a new steel and concrete bridge was installed downstream some 100 feet and engineers considered it dangerous to leave the bridge as it might go out during a freshet and take away the new bridge. Consequently it was reinoved much to the displeasure of those who cherished it. Timbers were taken to an area in the woods between Webster Park and the river.

THE OLD GRIST MILL

By Russell Yeaton

The grist mill at Short Fall was older than the bridge. Date of building is unknown. In the early part of the 1800's a John Tripp built a dam at the site, and had a saw mill at the left end on the west side of the river. Later a carding mill was operated there. I have been told water held back by this dam extended back some four miles to a point where Round Pond empties into the river. There is a flowage right mark on a rock upstream from the dam, I have been told, but have never found it. The Mill was about 30 feet by 50 feet. Perhaps the diagram best describes it. (See diagrams #1 and *#2.)*

The dame was built on the original site in fact the original log-mud sills were used in 1917-1918. I personally worked on this project as well as my brother George, George Haynes, Ellery Straw, etc. Wooden timber horses were used and place on the mud sills. It was about 90 feet long and 8 feet high. Because of the shortage of wheat during World War I, farmers were urged to grow more wheat. Therefore, the mill was reconditioned to grind grain. Special flour mill experts from Stratton Flour Mill in Penacook put Belgian Silk on the wheat bolt and the mill was in shape to grind. The corn and cob run had a stone called a French Burr. I believe this was imported from France. This stone ground quite fast. The shell corn stone had a special granite stone. The date 1818 was cut into it and this presumes that the mill was built about this time. (Mr. Whittemore of Pembroke Street now has this stone in his front yard.) History also tells us that this was the beginning of the grain growing period for New Hampshire farmers. At the time of reconstruction, it was found necessary to replace a pinion gear to one of these stones. In searching, we found in the Old Concord Foundry all the gear patterns (Walter Tripp), hence a new one was cast.

There were separate water wheels for each stone and a few more smaller water wheels for other uses, notably the carrier bets and buckets that lifted grain, wheat, etc. In the flume, when a gate was turned on or lifted, the water came in through racks (upper mill side) in the flume or penstock, turned the wheels, ran down through the center, and went out through the spillway. The wheels were of semi-turbine construction - mounted flat with vertical axis shaft.

The mill ownership was in the hands of a group of farmers who invested some had one/eighth ownership, some two/eighths and so on and received according to their ownership, as stated on shares, which remained with their estates for three or four generations. There were some well-known names such as Prescott, Tripp, etc. At the time of reconstruction of the dam, my father, Samuel R. Yeaton, owned a certain portion of the property. The house at the west end of the bridge, known as the Mill House was part of the property.

Finally, the water rights further downstream were taken over by the Suncook Mills and a new dam installed at Allenstown. This backed water up damaging the outflow poser of the mill. So grinding had diminished and some of the investors wished to get some of their money back. The mill house was sold and Suncook Mills bought out the water rights.

Some of the millers who ran the mills within memory were James Marden, Olaf Ring and I, Russell Yeaton, was the last. The mill, under the ownership of Suncook Mills depreciated and was taken down for the scrap it contained. Later when the new bridge was built south of this point, the dam was torn down and foundation of the mill removed. All that is left is a fond memory to some of us and an assortment of pictures, it having served the area for over a century.

Note: Robert Yeaton has the lignum vitae, a very hard wood used in marine and machine bearings, gear that supported the water wheel and some of the tin cups from a conveyor belt.

1920 Tax assessment to owners of the Gristmill. Figures taken from records of George H. Yeaton.

102.00	Heirs of Horace Fowler		3/32	of a	Grist	Mill	
825.00	"	James Fowler	11/32	"	"		"
300.00	"	Walter Tripp	11/64	"	«	"	
300.00	"	Warren Tripji	1/8	"	"	"	
300.00	"	Samuel Yeaton	1/8	"	"	"	
456.00	"	Ernest Dowst	3/6	"	"		"
103.00	"	Charles B. Fowler	3/64	"	"		"

Total valuation of the mill in 1920 was $3,205.00

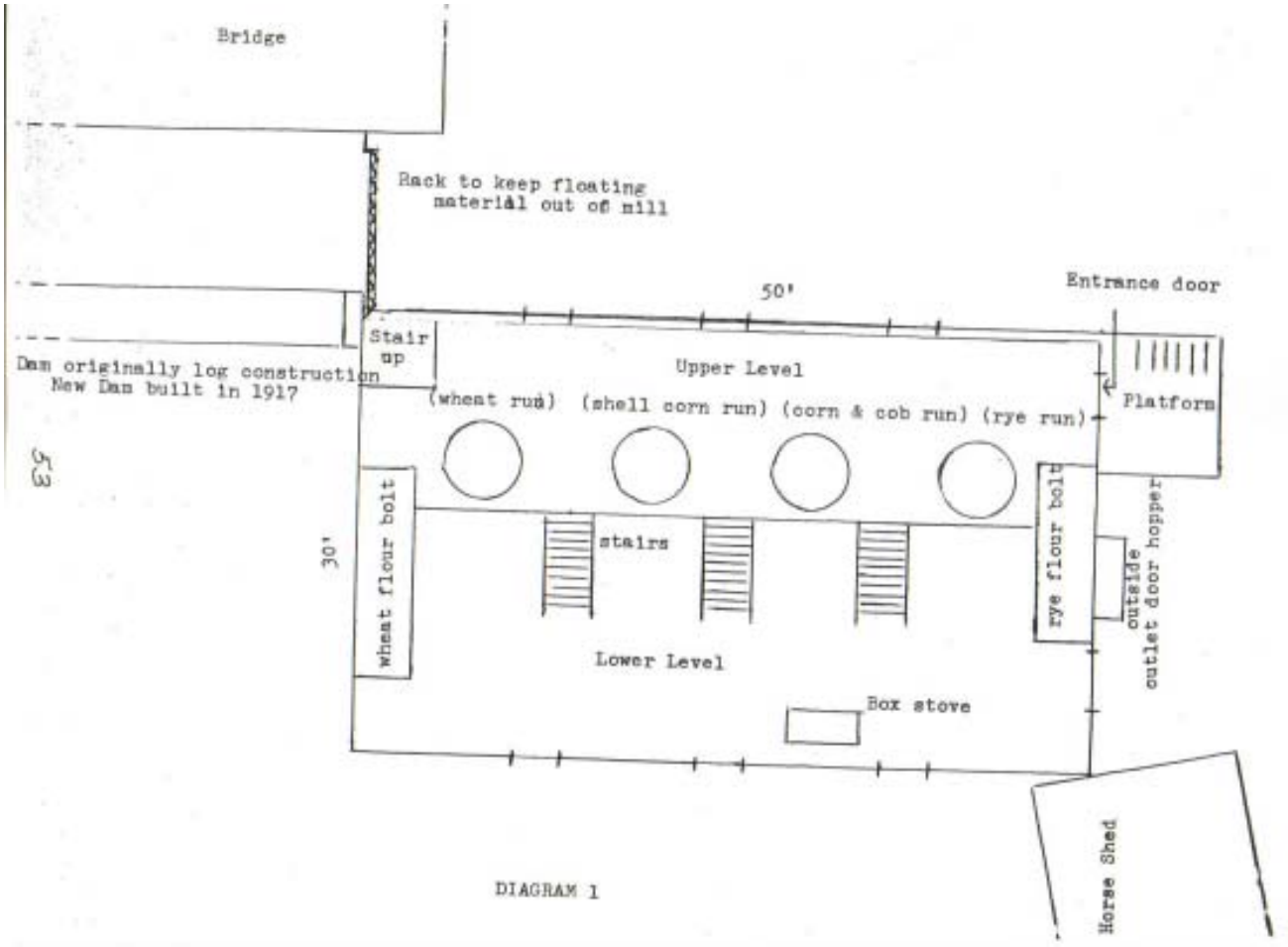
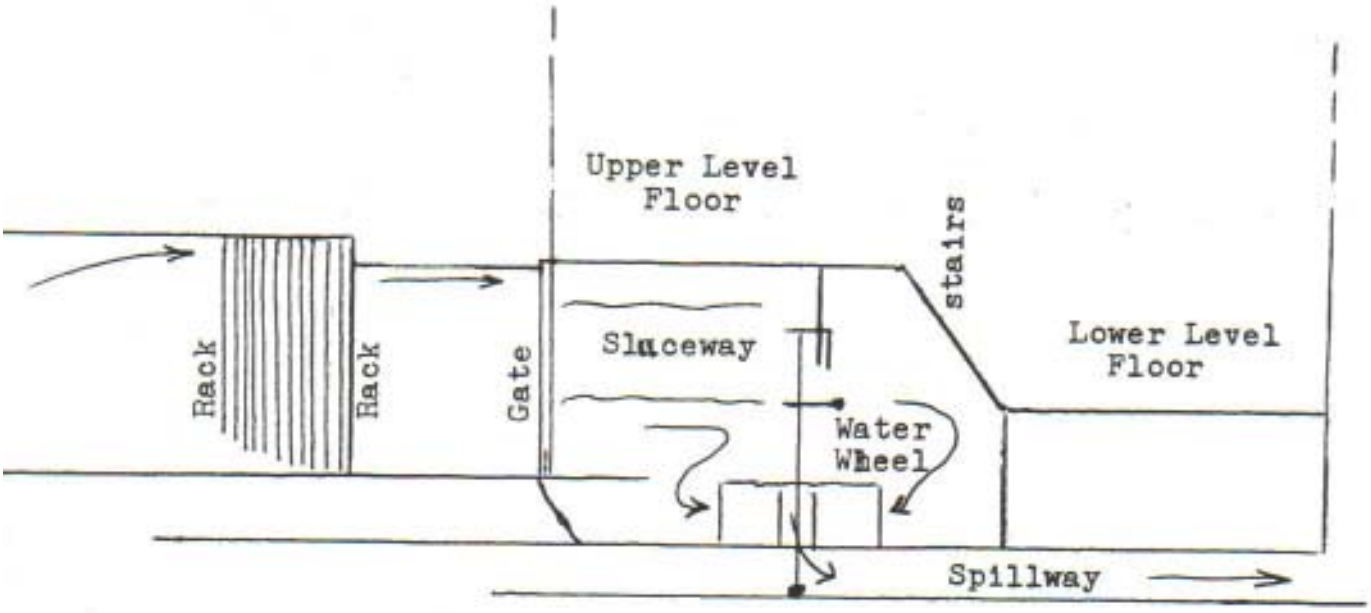


DIAGRAM 1


Upper Level
Floor
stairs
Rack
Rack
Gate
Sluiceway
Lower Level
Floor
Water
Wheel
Spillway

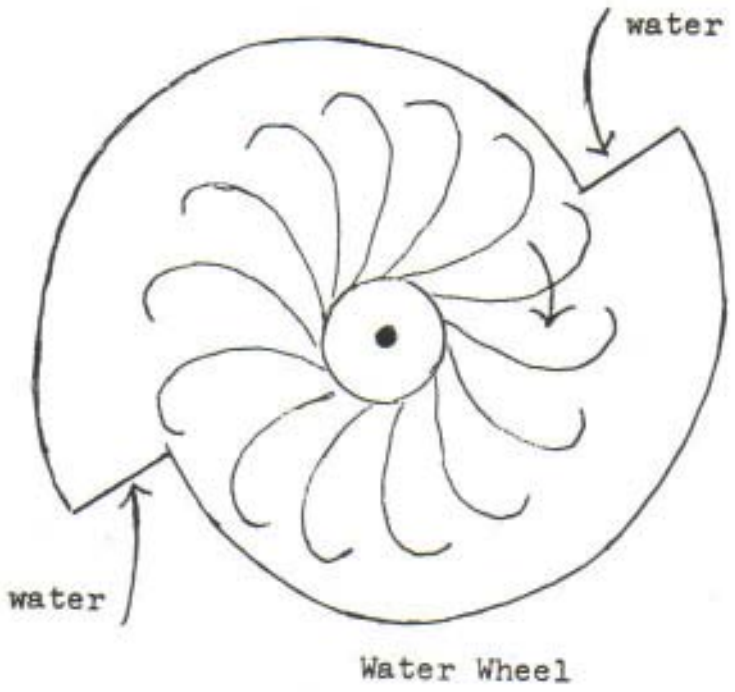

water
water
Water Wheel

DIAGRAM 2

A Sketch of the Mills and Water Power in the Town of Epsom, New Hampshire

by Hiram A. Holmes

Down the river with a fall of 55 feet we come to Cass Dam where there is seven feet head (referring to the little Suncook River). November 3, 1803 Francis Locke entered into a contract with John Chesley, Daniel Philbrick, John Downes and Philip Stevens to build a saw and grist mill to be leased to them for 20 years. Soon after the contract closed the mills were allowed to go down.

July 13, 1830, Ephraim Locke sold the right to run a carding and fulling mill to Dearborn Lord, who sold the same right to Joseph B. Cass on September 19, 1846, together with a right which he had bought of Bennett Lawrence, who was running a hat factory with water across the road from the dam. J.B. Cass took out the machinery and put in a lathe for making bobbins for the Lowell cotton factories. He continued running the carding mill for many years. (Near Mary Framback's home)

In 1846 the saw mill privilege was bought by George Batchelder and sold by him to Hiram A. Holmes, March 4, 1865.

Down river a half mile, with a fall of 50 feet was Isaac Libbee's fulling mill, with ten feet head. He sold out to a man named Kyer or Currier, who soon sold the machinery and let the mill go down.

About a quarter of a mile further down river with 8 feet fall was Capt. Samuel Locke's saw mill and grist mills, with 8 feet head. He sold out to a company of which Deacon Frederick Sanborn and his brother were members. They rebuilt the mills, Benson Ham was the millwright. (Across from Knowles' Store).

About 1858 Alonzo Wallace bought the mills and sold them in 1859 to a man named Smith. He reconstructed the saw mill putting in a circular saw machinery. About 1867 he sold out to Albion Locke. James D. Paige was the millwright and miller. About this time Mr. Paige moved the grist mill to the dam on the south side of the stream and added a shingle mill. Mr. Locke sold to Ephriam Heald in 1871. He had the mills rebuilt in 1873, millwright on the grist mill was William Shackford; on the saw mill was Hiram Holmes. (Ed: This is probably where Slab City got its name.)

At 12 o'clock on a September night in 1877, the mills were burned with all their contents. Mr. Heald sold the dam and privileges to Henry Knox, who sold it again in 1878 to Henry Knowles who built the grist mill now standing in 1880, as a merchant mill fitted with elevators and storage bins. Albert Ladd was millwright.A half mile down the river with 25 *feet* fall is Horace Bickford's dam with 11 feet head. At this place on March 12, 1778, Capt. James Gray bought the mill privileges and grist mill of Isaac Libbee (Libbey). Capt. Gray soon added a saw mill just below the grist mill which was afterward burned. Present saw and shingle mill build by Horace Bickford in 1870, with H. A. Holmes as millwright. In 1873 H.A. Holmes built a planing mill for himself and in 1875 added a grist mill, in 1894 moved them both away.

Down river a quarter of a mile with a fall of 12 feet is the shoe factory dam with a head of 12 feet. Dam and factory were built in 1880 by the Epsom Shoe Factory Company. The factory was built by J.C. Philbrick, the dam by H.A. Holmes, who also put in the machinery. Eight companies have carried on the shoe business there. From the shoe factory to the next mill there is an 8 foot fall. (Across from the Baptist Church on the river.)

Mills on the big Suncook River

At the first dam there is a 6 foot head. This mill and dam were built in 1872 by Morrill D. Bickford and William Tripp for the manufacture of lumber and boxes. H.A. Holmes was the millwright. William Tripp sold the box shop to Guy Marden who sold to George H. Burnham in 1889. About the same time Mr. Burnham bought out M. D. Bickford, added a water wheel and grist mill and is doing a thriving business.

The water from this mill flows nearly level to the next mill pond where the dam has 8 feet of head. The first saw and grist mill at this place was built by Jeremiah Gordon. Mr. Gordon granted to Nathan Bickford right to run a carding and fulling mill at the dam. Afterward he changed it to a shingle mill which was burned, rebuilt, and burned again. It was again rebuilt by M. D. Bickford and moved away.

In 1817 Jeremiah Gordon and Exekiel Burnham built a dam of timber cut on the river banks, some of the timber is still in the bottom of the dam. They also built a saw and grist mill which were washed away. Mr. Gordon built a saw mill after the company's mill washed out and sold it to Jeremiah G. Marden. September 2, 1847 he sold to William Goss and John Clark who soon sold to Stickney and Joseph Robinson. They sold to Atrel Boynton on March 16, 1850. Boynton paid $2,500 for this mill. By September 5, 1857 the mill had again been washed away and the mill privilege was sold to Isaaih Lane.

Samuel Bickford bought the mill privilege in 1860 and built a saw mill on the old site. In 1862 he sold one half of all to Capt. B.A. Noyes and the following year the machinery was changed from upright to a circular mill and a shingle mill was added. H.A. Holmes was again the millwright. Capt. Noyes bought out Mr. Bickford, the machinery was moved away, and the mill taken down. The mill privilege was sold to Freeman Marden on September 12, 1896. who also bought the right which M.D. Bickford owned to use the power from the dam, and built a shop for making doors, sash and general job work.

After passing down the rapids of Long Falls, with a fall of 14 feet, the water stands nearly level to the dam at Short Falls where there is a 6 foot head. About 1786 John Tripp built a dam and sawmill. A paper mill was built here and burned April 30, 1839. The present dam and grist mill were built in 1839 by a company consisting of Jeremiah Tripp, Winthrop Fowler, Squire Martin, James William Knox and Norris Cofran. Theodore Elliott was the millwright. The mill was reconstructed in 1873, with new flume, water wheels and machinery. H.A. Holmes was the millwright. This mill has been the most successful of any in the vicinity. Farmers have brought wheat thirty miles to be ground. There have been but five millers during the 63 years that the mill has been run. Millers; John Harvey assisted by James Marden and later Andrew Ladd for 8 years, Worcester Preston for 30 years, William Burnham for 7 years, to James W. Marden who has filled the place for 25 years. Long may he last! To all to whom I am indebted for information is regard to the mills, I extend my hearty thanks.

signed: Hiram A. Holmes. Hiram A. Holmes was born1838 and died 1916.

HOW ONE COMMUNITY TURNED THE TIDE

by Earl P. Robinson, County Agent

Published in Granite Monthly about
1925 Vol 55-525

Some places they are taking about quitting farming and moving to the city. But over in Epsom they say that the carpenters are all rushed with work and have more jobs scheduled with farmers than they can do in weeks. And furthermore, the writer did not hear the doctrine of reduced production advanced. He did learn that many were increasing their enterprises. In fact the activity of carpenters is in considerable part due to the expansion of business on poultry farms, and in lesser degree to the setting up of new poultry establishment. Since there are so many communities in Northern New England where a decreasing population, a decreasing number of farms in operation and a reduced acreage of crops and number of livestock indicate communities hastening on to dissolution, it seems the part of wisdom for all public spirited citizens to study communities that seem most successful stemming the tide and swinging back toward vigorous and healthy development. Epsom is such a community. Once a thriving dairy town with milk shipped out to Manchester and Boston, it later experienced hardship, discouragement and defeat.

Then something happened. They gave up dairying for poultry.

The story beginnings appear to be about like this. Mr. S. W. Bickford, becoming dissatisfied with the unsettled condition of and small returns from dairying about fifteen years ago, began to look around for a more remunerative type of agriculture, and noticed Mr. A. N. Peaslee of South Pittsfield, who had been in the poultry business for years and appeared to be very successful. Mr. Peaslee was helpful in his advice and encouragement with the result that Mr. Bickford got a good start with poultry more than a dozen years ago, and had progressed rapidly since then.

Mr. Bickford states that the introduction of the coal burning brooder stoves had considerable to do with his expansion of the business. This new apparatus enables a man to take care of much larger flocks of chicks than does the old style of brooder with lamps. Another man who was a pioneer in the business in Epsom was Mr. W. C. Burnham.

Another thing that has been of great importance in the development of the industry is the fact that Senator Walter Tripp of Short Falls, for years a merchant in the community, watching the developments taking place, noted with deep concern that there was less and less milk being shipped out each year. Realizing that a decreased output from the town meant a decreased income and consequent hardship and perhaps failure in the end, his voice was soon upraised in encouragement of the poultry enterprises that were starting in a small way. Mr. W.C. Pickard, employed in Mr. Tripp's store, was also spreading the gospel of poultry raising, with a good success. There undoubtedly were others in the community pointing the way toward a happier economic situation.

These men were among the to first recognize that Epsom was not holding its own with the old type of agriculture, and with considerable courage and initiative, they launched into something that from the evidence looked more profitable. And subsequently developments seem to have proved the wisdom of their choice.

Today Epsom is known far and wide as a poultry center. The assessors figures give it the largest number of hens of any town in New Hampshire. In January, 1923, one thousand and eighty-five cases of eggs were shipped from the two railroad stations of the town, bringing in close to

30,000.00. The buyers of baby chicks from many states come to Epsom, and even New York City commission men accorded distinction by establishing buyers at its two shipping points, Epsom Depot and Short Falls Depot.

Within the past six years, Professor A.W. Richardson of the State University, with his sound advice, infectious enthusiasm and substantial help in improving methods and meeting the problems of the business, has rendered a splendid service.

The store-keepers report that the increased prosperity is clearly reflected in the improved business and the prompt payment for goods. And they tell stories of laboring men and others who, once having a pretty stiff fight to keep even with the world, now have from 500 to 2,000 hens each and are rapidly getting ahead. One of the leading poultrymen is quoted as saying that with 300 hens well managed, a laboring man would find himself as well situated as with steady work at good wages working out. The writer, having the prosperity of the community as a whole in mind, did not investigate cases of individual poultrymen to see what the profits are. But the success of this community is significant because New Hampshire needs encouragement. And she also needs examples. What do we get from the success of Epsom that will turn other towns from their drift toward failure, right-about-face toward permanent success:

In the first place many communities will have to make radical changes to adapt themselves to changed conditions. Once the cities of Southern New England were under the necessity of buying their dairy products near-by. That practically settled the question of the type of agriculture for thousands of farmers near the cities. Now dairy products are easily secured from a more distant zone, and at the same time strong demands for vegetables, fruits and other heavy perishable products make their product relatively more attractive. That calls for readjustment of agriculture in many communities. The writer does not imply that there is no longer a place for dairying, but he does insist that in view of the rapid and decisive changes that have taken place in industry - including agriculture -every farmer needs to subject his farming enterprise to a most vigorous test to see whether it does shape up well with the new conditions. Try to see where one is likely to arrive in twenty years.

Such a forward view by a prominently successful dairyman in Peterboro has led him to the policy of starting an orchard on some of his rough fields that are difficult to cultivate. In his case dairying has been and still is profitable, but he is looking forward to the time when he will no longer want to wage the stubborn battle with boulders in a rock-strewn field, and when that time comes he wants to be prepared to fall back on a crop that will give him returns and satisfaction comparable with the business he has for years handled so successfully.

In the second place Epsom community forcefully emphasizes the fact that our fortunes are very closely bound up together. Failure for a part of any community is in some measure failure for all. And success for many also betters the fortunes of all.

Take the matter of production. There is no place so favorable for a beginner to start as in Epsom or some other community where there are many successful Ipoultrymen. He can get his stock easier, can watch the methods employed and learn from the failures as well as the successes. In such communities new discoveries and better methods make their first appearance, and there also warnings of danger are first sounded. The writer believes also, from his brief survey of the community, that Epsom realizes that any failure in the community hurts all of the members. There is therefore, a sympathetic interest in the new ventures and hope that they will meet with success.

And marketing, that great unsolved problem of the farmer, becomes much simpler where a large volume of business develops in a given community. One man said it amused him this past summer to witness the discomfiture of hucksters who previously had done a flourishing business there, who now return to their home towns in Massachusetts almost empty-handed, because local representatives of two large wholesalers from New York, recently established in Epsom and Short Falls, have put the market above what it had been. There are rumors that these firms plan to establish a service of carload shipments of poultry. That means reduction of handling and shipping costs, which will at least in some measure benefit the poultry raiser.

It appears, therefore, that Epsom has prospered. That should encourage every community in the state and should suggest the means of turning the tide where it is now flowing in the wrong direction.

There has been little written about the poultry business in Epsom. However, during the era of this writing, there were large poultry plants all over town. Cow barns had been converted into hen houses, many long one or two story buildings built to house large numbers of chickens. Ernest Dowst had a large plant next to Webster Park. Scott Monroe had large hen houses where Rick Harkness now lives, Fred Fife on route 28, John Cox up at the Center are some of the larger ones that I remember. Most every farmer had some chickens. The general stores each had grain rooms. I remember the incubator house at home that my father had built. The basement had that long wooden structure with doors that opened into the many compartments that held wire trays for the eggs that were to hatch. There was a crank that was used to move the trays and the eggs several times each day so that one did not have do this by hand. The incubator was heated by a coal heater at the end

I believe that eggs sold for about $1.00 a dozen making them a valuable crop. Herbert Hoover’s campaign promise to put “a chicken in even.’ pot” was to be a step up for the working class. The crash of 1929 took its toll on the poultry industry as it did on all other industries. However, many survived that set-back and continued to make a living with their chickens for years after that. Robert Cass is a poultryman who could tell a great deal about a successful poultry business that he shared with his father in the Mountain District.

Two of Epsom's Early Industries
The Barmer Narrow Fabric Companies

By Hattie B. Heath

I would like to share with you a few highlights of two of Epsom's early Industries, the Barmer Narrow Fabric Companies. The owner of the mills, Robert Zinn, my father, was born in Barmem, Germany, coming to this country in 1907. His brothers, also skilled in the weaving profession, had come to this country a few years earlier, finding work in the Artistic Weaving Co., in Barnstead, N.H. When an opening came for a foreman in the company, they sent for my father and family. My father was at this time supporting his widowed mother, and wife and infant son.

Traveling by ocean in the early part of the century was long and tedious. Acting on the advice of his family and friend, who suggested that sea-sickness could be fatal to one as young as my brother Ervin, they left him in the care of my grandmother. It was to be three years before they were reunited in America.

My father stayed with the Barnstead Artistic Web Co. for two years as their foreman. Two more children were born there to them. Everyone has a dream. My father's dream was to own a weaving factory of his own. He became acquainted with a family by the name of Hall in Epsom. It was through the generosity of Mr. Sumner Hall, who extended him a loan that he was able to start his own factory; the first Barmer Narrow Fabric Company came to be.

This old building had been a shoe and box factory, and was no longer in business. It was ideally located near water, affording power for my father's enterprise. This building was on the road a short distance between the Epsom Baptist Church and the little bridge spanning the Little Suncook River. The first Barmer Narrow Fabric Co. was mostly referred to by the town's people as the "silk mill." Here they could purchase lace, edgings, and insertions of all kinds for their handiwork. The narrow edgings were mostly woven to trim corsets and undergarments. The insertions were used on children's dresses.

I do not have too much data on the first factory except that it was in operation for seven years prior to the fire in 1916. Have you ever had anyone ask you, "How far back can you remember?" My earliest recollection in regards to this factory was when I was four years old, and it was in regards to the fire. We were all seated around the evening's meal when our kitchen door was violently opened and our Aunt Martha rushed in. "Robert, Robert. Die fabric ist un feur" she cried. ("Robert, the factory is on fire"). And my father pushing back his chair, with terror in his eyes followed her from the room.

Four years old seems young, but I witnessed all the unbelief in their faces. A scene one does not forget, for my place at the table was across from my father, with the kitchen door to my right. I was told by folks who remember the fire, that flames seemed to have leaped miles into the sky. If you can visualize Epsom in the early part of the century, you can also picture what leaping flames from a two-story building must have seemed like in utter darkness.

On the following day school children were allowed to come and view the ruins. Mrs. Ruth Stevens, who was one of the children, remembers that lace and boxes were strewn all over the ground. Perhaps that was part of the desperate attempt to salvage whatever could be saved.

After a fire men often search the ruins to estimate the loss. My father sorted all the iron, separating salvageable parts, and drawing samples of these. He took them into the Concord foundry, located on South Street, to be reinforced and made new. From these parts he built four new looms, except the battens that hold the shuttles. These he imported from Germany, as the proper tools for fashioning these were not available at this early time. Later, as his plans to relocate developed, he ordered four more new ones from Germany.

Roscoe Warren's father was my father's maintenance man at this time, and greatly aided in the building of the looms from the salvaged iron. During the next two years following the fire, a power house was erected over the water wheel and dynamo. It was from here that power and electricity were generated for his new factory. Also electricity was wired into homes near by, supplying them with light. The engine was a thirty-horse power, one-cylinder engine, and burned kerosene. One man, Billy McKenzie, was so impressed by its operation that he named it "Old Dick."

Looking back, it is hard to forget my father, a courageous man, fighting the odds, and starting over again following this nightmare of misfortune. Even today I look back and think back to the many nights, after he had established the second Barmer Narrow Fabric Co., how I would watch from my bedroom window across from the factory, to see him walk alone, with only the light from his kerosene lantern, down to the power house to lock up for the night, plunging that part of Gossville into total darkness.

My earliest recollection of the second factory, located on the Black Hall Road, where the House of Kirk (Kitchen Klean) is now located, was our front yard. It seemed that huge boxes were constantly being delivered by men with strong horses. These boxes served two purposes. One, they held an assortment of things for the new factory, wooden warp beams, yarn, gears, breast beams, and what not. Second, when empty, they served as play-houses for the Zinn kids and their playmates. These boxes were made from rough lumber.

Another recollection is of the men and women that worked there. These women all wore unique dust caps to keep the lint from snarling their hair. The men wore dark colored denim aprons, and caps with green celluloid visors. These caps shielded their eyes from the glare from light bulbs in the loom, and the many windows in the building.

Proper tools were a pair of sharp scissors and a weaver's hook. The hooks were often of different lengths, the longer ones to reach back reels. We were taught early the proper way to hold our scissors, with our little finger in an opening and the scissors part resting in our palm, always readied for swinging into position for instant use, when cutting web or when a thread broke. The weavers usually kept their hook behind their ear or in the breast pocket.

In the early days, yarn was bought by skeins. These skeins often came through quite tangled and gave the operation of a spool machine quite a few tearful moments when trying to find an end. The machine had a wooded prop on the side, where the operation hung the skein and with her hand would have to give the inside of the skein a few karate chops in order to bring out the end. This machine was not automatic, so the

operator would have to watch carefully that her spools would not run over the sides while filling. After the spools were filled, they would then be taken to a quiller machine, where the operator of this machine would run off the yarn onto smaller quills to be used in looms. Although the company wove a great deal of white trim, the yarn often came through in beautiful shades, the colors having enticing names like Indian Orange, Crab Apple, Ashes of Rose, Egyptian Green and many more like these mentioned.

Many of the looms had a wire of brass or steel that was used in a looped design. The wire was twisted around a rod in back of the reeds, brought forward through the reed, or through the eye of the harness, then through the front reed, where it would be smoothed over a front rod to hold the lace intact while the looms were in operation. A non-looped design did not require it.

My father was very particular that all weavers should smooth the lace and wire in each strip before beginning their work. He had given my brother Erwin this instruction, showing him just how he wanted it done. The last words my father said to him were, "Now you do vart I tell you. You vill get a big smesh is you don not vart I tell you." But boys being boys, my father had no sooner left the upstairs office, when Erwin glanced over his looms and said to himself, "Huh, they look all right to me. I'm not going to bother with that."

He had not sooner started up his looms, however, before he learned what a smesh on a loom is all about. He thought the end of the world had come. Weights began to drop all over the place. The lace and wire buckling up into little tee-pees, shuttles got stuck, breaking out hundreds of ends and what not.

If you can picture what forty strips per loom, with weights of eight to ten pounds for each strip sounds like when falling from a height of six to eight feet above onto a hard-wood floor, you can well imagine the racket it made, let alone the damage it did.

My brother surveyed the smash and held his head. "What shall I do?" he thought. "I've got to go up and tell Pa. He must have heard the noise." Well, my father had indeed heard all that noise and knew exactly what had happened. He met my brother. My father had rather large eyes, and when we had done something to displease him, we knew what we were in for when he fixed those eyes on us. Pointing his finger at my brother, he scolded, "You did not do vart I tol you. I tol you you'd get a smech, you dum-koft!" My brother said he never forgot to straighten the wire and lace out after that morning.

Do any of you like to doodle? My father was forever doodling. When I got old enough to understand, I realized that his doodling was a means to and end. He was drawing ideas onto scraps of paper before the ideas could vanish. Later the doodlings were carefully copied onto graph paper with brush and water color. Each little square that was filled in represented a part of a design that a designer or card cutter understood. A finished design tells them the amount of ends or threads needed in the loom when this particular design is used.

Before these patterns are ready for a loom, they are taken to an operator of a card cutting machine and placed in an encloser to be read line by line, as he works. As he reads the design, he begins to cut numbered cards, by pressing keys and a foot pedal on a machine similar to a small organ. When all the cards are cut, they are taken to a lacing device, where the numbered cards are laced together, ready for a loom.

A very unique machine was invented in 1800 by a weaver's son named Joseph Jacquard. He was born in Lyon, France. By the year 1804, he had perfected this machine so that up to date there has not been needed in the use of a shuttle loom. This machine is placed onto the top of a loom, and its intricate work-

manship plays a vital part in weaving. It is so built, that knives lift and lower as a cylinder revolves, picking up a new card each time while completing its cycle, usually from one hundred to two hundred cards or more, depending upon the design that is being run in the loom. This machine also holds all needles that lift the harness when called for by timing the holes in the cards. When there are no holes in a card the needles do not work. Today folks bemusedly call it early computerization.

Harness making for looms is in itself a separate art. Today there are very few harness makers in New Hampshire. My father taught my husband this trade. Usually harness makers are sent out from New Jersey and demand very high wages. They do not, however, set up a loom, doing only the cutting and tying.

A very accurate measure of the cord used must be calculated to determine its success or failure when tying the knots in a harness. If not the harness will hang uneven and when the loom is in operation, the weavers will experience many broken ends. A harness maker likes to keep records of how many hours are spent in completing a harness. My father always hung his gold watch in a loom, and my husband his wristwatch.

Many hours go into a fully assembled loom and we would need a Philadelphia lawyer to figure out the many parts needed for its final operable run. Just to name a few vital parts, we would need a frame that in the early century was constructed from apple wood for durability when fashioned in Germany. Warps are needed for the fill, many gears of all descriptions, pick wheels which will determine the length of the lace, reeds of al widths for the woven products, pulleys, and a hundred and one more items, too numerous to mention.

Before the different designs were taken to a consumer, they were first woven on a sample loom. Here it was carefully scrutinized for any flaws or mispicks. When fully satisfied, they would then be ready for the public. My father took many business trips, many to large cities in places like New York, New Jersey, Pennsylvania and Rhode Island. In looking back, I've often thought how remarkable it was that a man from a foreign land, with scanty English and no interpreter,

But, my father was gifted with a sense of humor that easily made friends for him. He often told us how on some of his visits a secretary was hesitant in announcing him if her employer was otherwise occupied. He'd say, "Tell him dat de old man of de mountains is here." This is always brought the owner from the office with a hearty handshake and a warm welcome. More often than not, a generous order came too.

As is often the case, when the cat is away, the mice will play. The Barmer Narrow Fabric Co., was no exception. Before all of the floor space was in use for looms, some of the more spirited young people would seize this opportunity to do the Portland Fancy during their lunch hour, or even when their looms were running O.K..

In April of 1921 an indenture was made between my father and George M. Hall to become partners of the second Barmer Narrow Fabric Co.. George Hall was the nephew of Mr. Sumner Hall and had been in college learning how to conduct business, making it possible to accept my father's partnership.

The woven lace was cut from the loom by a weaver when the amount required was finished and the inspector usually pulled it over a rod, or cord near the top of the loom to keep it from snarling into the bins. It was then inspected and the flaws cut out and the strip pasted together. A worker would then wind it onto cards, by the yard, usually three yards to a card.

Much of the web would be brought into our home where hours of time were consumed by my mother, getting it ready for shipment. Our kitchen table would resemble an assembly line day after day as she slipped a special designed label between the bottom and upper strip. When she had completed row after row of this, she would then turn each card over and paste the label together, and stack so many to a pile, and tie them together into bundles. There were many nights when my mother worked on a rush order, that she could not stop to put the youngest child to bed, so the child laid stretched along side of the work, sound asleep. The paste was bought in crockery jars, resembling rich cream, from John B. Varisk & Co. in Manchester. As the Zinn children became old enough, they were taught the trade of weaving or as floats, aiding where needed.

In 1922 my father again sailed to Germany. He had become interested in automatic lace machines that would weave lace in large quantities and in a shorter period of time than his shuttle looms. These machines were round.

Otto Daeber, Weaver

As was the custom, families always relied a great deal on other family members who were also skilled in the weaving trade. So at this time, my Uncle August and his family came back with may father to run the machines. My brother Walter learned to run these machines too. When I was writing a little history of our factory during the bicentennial, I wrote to my brother, who furnished me with the following information: There were 21 lace machines; 2-32 spool machines, 4-36, 4-40, 2 -44, 4 -52, 1 -60, 3 -54, and 1 -72. These used cotton yarn. Then 12 -2. 1 - 2, 8-2, and 6 - 2 also rayon and silk. These undoubtedly wove the wider lace. These had springs with different tensions in the spools. If a thread broke or a spool ran out, the machine would shut down by itself. Sometimes a spool would get lost, while running, or two would run into each other. On the 2 - 44 spools, Pa made the most money, they ran all the time.

The finished lace ran on reels. They ran at 160 rpms, If they ran any slower than that, they would snarl up. They made about 15 yards an hour. On the 32 spools you would get two strips and on the 64 spools you would get four strips, the same with the 36 and the 72 spools. If you wanted a wide piece of lace or a single piece of lace, you could have it, but you would have to iron it out.

By now, in Epsom, there were so many German families, that it was often referred to as German Town. There were nine families in the ell of the hotel. Some of these people wanted to learn better English, so engaged two teachers to meet at the home of my Uncle on Tuesday evenings for class. Although an improvement was noted, a barrier still existed at times.

One of these times was the day my father handed my husband some change and said, "Yah, go to de store for me and get me a Pinzel." When my husband got to what was then Silver and Young's store, he thought, "What can he do with one pencil? I might as well get him a half a dozen." When he got back to the factory, my father asked, "Did you bring me de pinzel?", my husband said, "Yes."

"Yah, come mitt," my father said to him. But when he was handed the pencils he asked, "Yah,, vat do you vant me to do mitt dem pencils?" He had wanted a brush to clean the reeds, the similarity of the words, tripping him up.

From 1929 on my father's dream began to slowly disintegrate, what with the stock market's crash and the depression rearing its ugly head. Business began to decline. People just were not buying. He carried on by purchasing 24 sewing machines to sew curtains, to utilize his stock. But this ended in failure. The help carrying home most of his profit.

During the thirties, my father invented a device on his looms that could weave two way elastic, negotiating with a firm in Massachusetts. Between 1936 and 1937 he sold his looms to a weaving factory in Pittsfield and ran them until the factory in Pittsfield had added on to its factory for them. My father's children, some married, went to Pittsfield with the looms to obtain work there.

In closing, I'd like to leave the thought with you that each of us had a dream, and like in all our dreams, we encounter strange happenings, some things to our delight, and often a terrifying nightmare. When we wake up we ponder our dream. Why did we dream as we did? We do not question it. We accept it as it happens. And so it is in life, we dream on until its end.

NOTE - This article available in Vol. 3 of Epsom Historical Documents compiled by Phil Yeaton and available from the Epsom Historical Association