

Water Powered Machine Shop

Back in 1936, Jack Thomas built a machine shop on Plumb Brooke on the Silver Hill Road. It was first powered by a 3 horsepower gas engine and then later powered by a 16ft overshot waterwheel. The mill was later shut down and moved to Degrasse, New York.

The following pictures and story were given to me by Joe Thomas of DeGrasse. Joe is the grandson of Jack Thomas. The story, "Down By the Old Mill Stream", was written by Eugene Hatch of Russell. Eugene was the former Town Historian for Russell and the story was part of the State Historian Project back in 1972.

Here are the pictures of the machine shop and how it worked. The water from Plum Brook was sent to the waterwheel by way of a pin stock (or flume) made of wood. On the way down the pin stock, there was a gate that could be closed to send water down to the waterwheel to run the mill. When left open, the gate would stop the water wheel from turning, which would stop the mill from running.

When the waterwheel was turning, the shaft of the waterwheel would run a large belt that ran into the upper part of the mill to turn the main shaft of the mill. That main shaft, in turn, would have smaller belts that came down through the ceiling to drive all kinds of machines, like grinders, drill saws, and machine lathes. Each machine also had it own lever to engage the belts.

Submitted by
Richard Knox













Photograph 

Handle with Care
Return in five days to

JACK L. MOWERS

CENTRAL N. Y. POWER CORP.

SYRACUSE, NEW YORK



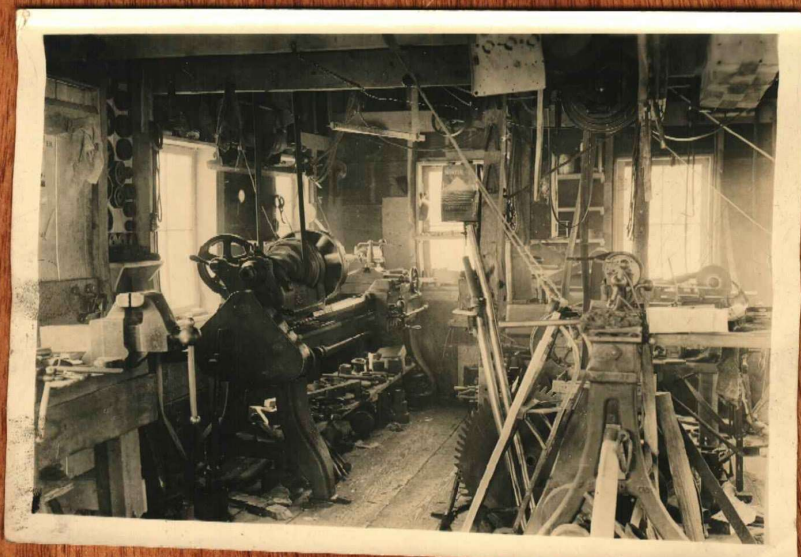
Property of John Thomas
DeGrasse,
N.Y.

SILVER HILL MILL
Photos loaned by John Thomas,
DEGRASSE.

MR. JOHN T. THOMAS,

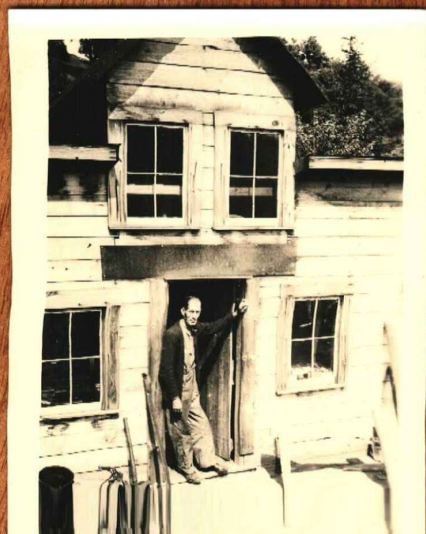
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RUSSELL, N.Y.

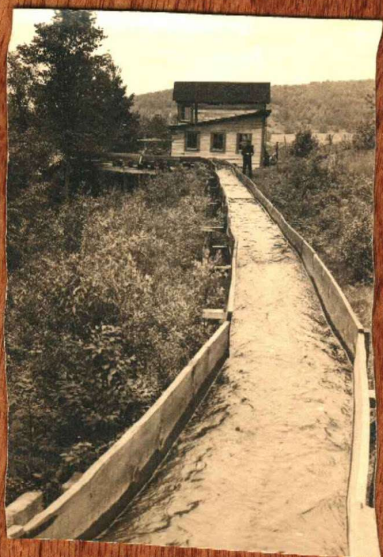


Wad's Shop on Silver
Hill road on Plum Brook
about 1940. In 1948, closed,
I moved to Degrasse, N.Y.

Wad's Machine Shop was
built about 1936, first driven
with 3 H.P. gas engine, later
with 16 ft. overshot water wheel.



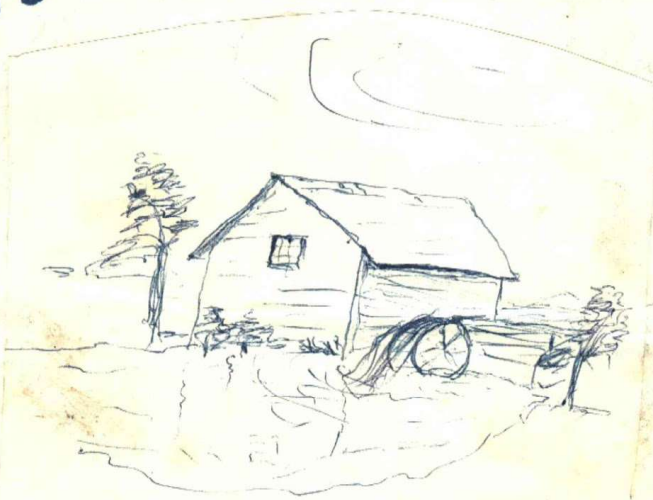
The Boss on
the job







DOWN
by the
OLD MILL STREAM



IN
RUSSELL
by
EUGENE HATCH
HISTORIAN
STATE HISTORIAN'S PROJECT
1977

Down By The Old Mill Stream in Russell

11

When the first settlers came to Russell, their prime necessities were food and shelter.

Temporary shelter was provided by erecting a log cabin. We may think that these log cabins were romantic and picturesque, but they were untidy, drafty and the chinking between the logs was always falling out. Many of these cabins had only dirt floors. The settlers wanted frame wood houses like those they had left in New England.

Since the settlers came to make farms, after they built a cabin, they had to clear a space in the surrounding wilderness to raise a food crop. With his axe the new settler had to clear the forest trees for space to grow his corn or wheat. A clearing of six acres a year was considered a fair amount. Sometimes trees were girdled so the sunlight could reach the precious crops. After the harvest, before the grain could be cooked for food, it required crushing and pounding into coarse flour, a tedious and time consuming task.

A power driven mill was the answer to these problems of securing food and shelter, of grinding the grist of wheat or corn. With the prime trees of the virgin forest growing in abundance, a saw mill was essential to provide lumber for the wood frame house.

The settlers were well acquainted with water powered mills from their New England origins. The first New England water driven mill had been built in 1634, fourteen years after the Plymouth Rock landing.

The most efficient type of water wheel was the overshot wheel where the stream of water fell on the blades from above, causing the wheel to rotate. It required a steady stream of water.

In Russell, the rapid flowing streams rising in the Adirondack Mountains and descending through the town into the St Lawrence Valley were a plentiful source of waterpower for saw and grist mills. The streams in Russell except Stammer Brook flow into the Grass River basin. Stammer Brook flows into the Oswegatchie.

It was not by accident that one of the first two settlers coming to Russell in 1805 was Joel Clark, a miller. Clark began to build a water mill on Plumb Brook.

But before the mill was completed, the first settler, Nathaniel Higgins was obliged to take his first crop of wheat to Ogdensburg to be ground. The journey by ox cart through wood trails took a whole week.

In the atlas of 1858, our first known printed map of Russell, shows eight saw mills located on our streams.

The brick grist mill at Russell ~~and~~ was running in the beginning of our century and I well remember going there as a boy with my uncle with a grist of corn.

We took our turn with a long line of teams. The Wallace mill at North Russell on Little River was sawing lumber and pressing cider as late as 1936 and I visited a water mill near Silver Hill operated by Jack Thomas in 1960. Thomas used the water power to saw light woodwork and for tool grinding.

The older houses which today stand so stately

13

were built from lumber sawed at the water powered mills. From the simple lines of the early houses where beauty was centered on one or two features like front entrance doors, the houses built in the 1880s became encrusted with Victorian wooden frills and fancies. A family's prestige was measured in great part by the possession of a large house with high ceilinged rooms.

The Arba Gates Mill at Palmerville

Last year, through the thoughtful kindness of Mrs Eva Spaulding of Perkinsville, Vermont, Mr Gates' granddaughter, I have received for our town records the account books of his mill business, five in number. These date from 1871 and the last entry is for May 24, 1905. Most of the entries are bills for sawing, but there are notations of grinding grain right up to 1905.

For a time on Plumb Brook on this mill pond was operated a fulling mill by George Hosford, Malachi Van Brocklyn and others. Here woven woolen cloth was cleansed and given a closer texture by treating it with fuller's earth usually of a greenish color. The process was performed by beating the woven wool by stampers powered by the water wheel.

These mills were very likely located on the same site which Joel Clark selected for his mill in 1805.

During Arba and Minerva's busy life in Palmerville they reared ten children and on a back page of one ledger, in old fashioned script, he has carefully listed their names and date of birth. They are—
John, born May 14, 1875. —————

4
August 5, 1887; George L, Dec. 18, 1881; Mona, March 25, 1884;
Charles B, April 1, 1886; Carl born March 3, 1888. He died
a year later in September; Harry N, 1890; Stanley March 19, 1895.
Arba, himself ^{born 1839} lived on to the ripe age of 95.

Eva Spaulding, donor of the ledgers and records was a
daughter of Susan D.

None of the Russell watermills are now in operation.
Built, most of them of wood they have long since disappeared.
The brick grist mill at Russell was battered down by
huge chunks of ice when the bridge above it was threatened
by the ice and the ice was blasted loose by dynamite.

The millers were technicians of a high order and
when they ceased their labors the mills closed never to
reopen. Around the sites of some of the old mills you
may see a few remnants of ponderous castings of the
mill machinery. Meanwhile the water unharnessed and
free rushes over picturesque waterfalls on its way to
the St. Lawrence.

The End.