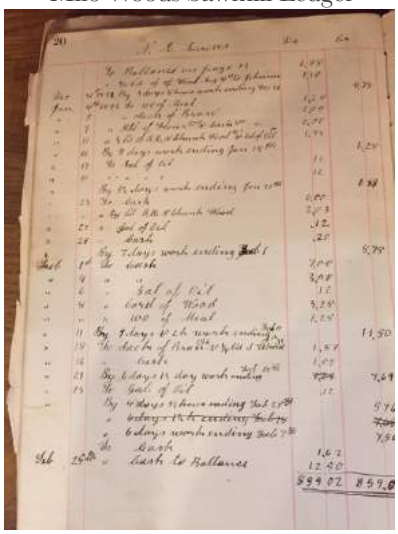
BRIDGEWATER HISTORICAL SOCIETY
NEWSLETTER

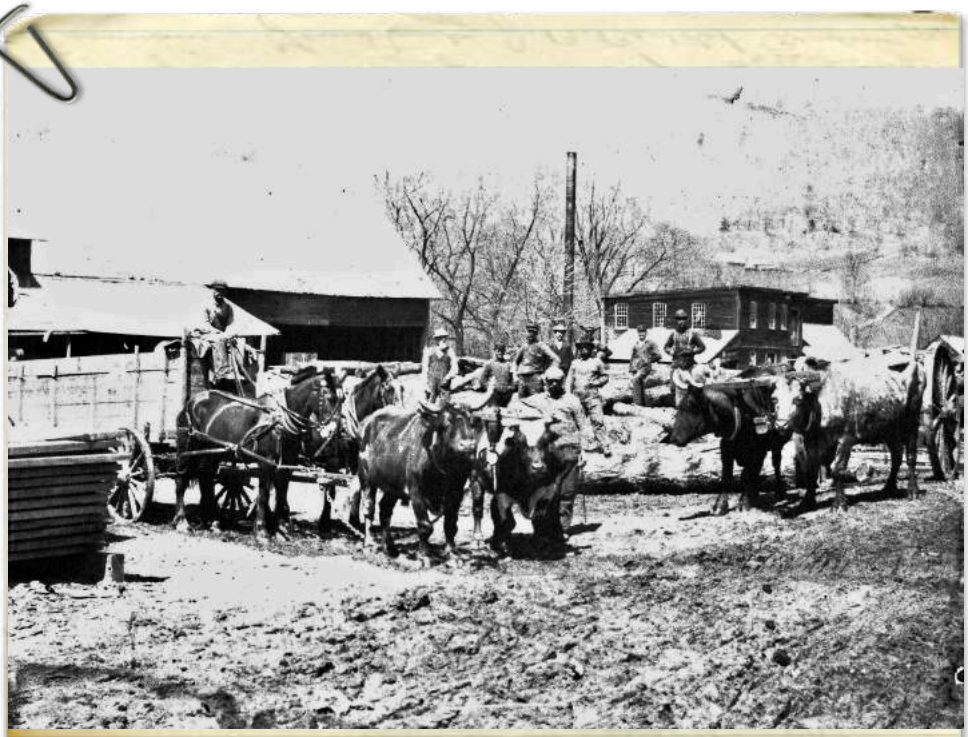
April 2021 Issue No. Nineteen

circa. 1911

Monthly meetings
held last Tuesday
of each month at 6:30 p.m.
Old Brick School House
12 North Bridgewater Road
Bridgewater, VT 05034
www.bridgewaterhistory.org

Milo Woods Sawmill Ledger





Milo Woods - William Bugbee
Sawmill and Stretcher Mill
Bridgewater Corners

Letter From the President

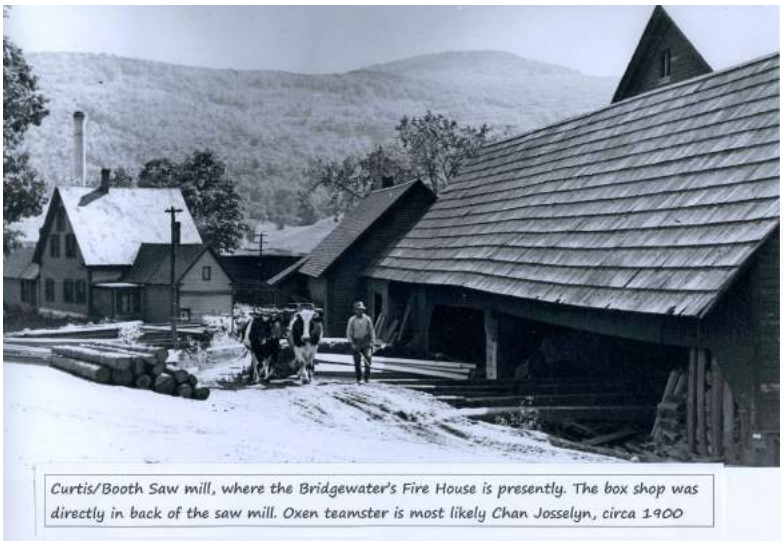
By Jeannette Sawyer

Welcome to our Spring issue. Our "Camp Life" exhibit has been well received and will continue through 2021. The newsletter stories brought our members closer as they shared memories and photographs. This Spring issue concentrates on our upcoming 2022 exhibit on "Logging – It's what we do". We have included first-hand accounts from families involved in the lumber business and logging operations over the generations. We looked back to Gladys Adams for her story on the pulp drives and to our very knowledgeable member Karole Thompson Messier, for her article on Mae Knudsen's recollections of life in a logging camp.

Circa 1942-1945

This past winter we received some very interesting gifts. Our online presence helped one donor to contact us with his gift of a Civil War diary of Alfred Sargent, 1862, of Bridgewater Corners. Mr. John Hadleigh, from Hampstead England, had bought the diary on Ebay in 2012 and decided it should come 'home' to Bridgewater. He found the website and contacted us and a week later we are now the beneficiaries of this wonderful glimpse into the life of a selectman/town agent in 1862. We look forward to researching Alfred Sargent's life and his possible ties with D'Algeroy Thompson, another of Bridgewater's Civil War veterans.

Our membership has been so generous this year. The Board decided not to host an annual fund. As risky as this sounded to us, we have been touched by many who stepped up and helped us with donations. The Brick Schoolhouse continues to maintain its position as not only a repository for historical artifacts related to the Town, but also as an architecturally significant place holder in a streetscape now undergoing rapid changes. Each cog in the wheel, while seemingly insignificant by itself, taken together helps maintain the value of village as a whole.



Curtis/Booth Saw mill, where the Bridgewater's Fire House is presently. The box shop was directly in back of the saw mill. Oxen teamster is most likely Chan Josselyn, circa 1900

Bridgewater Lumber Yard

A Brief History of the Chainsaw

By John and Polly Timken

For ages, man has had to use a "misery whip" a two man cross cut saw, or buck saw for sawing and bucking in the woods. Labor saving steam powered machines for sawing wood were invented quite early, about 1860. They were so cumbersome that they could really only be used in a well-traveled level, open area. The development of gasoline powered equipment began towards the end of the 20th century. Development of a chain with cutting teeth began in the 1920's. All of these early power saws were heavy and cumbersome, being mounted on tracks with a boom holding the far end of the blade. They were really nothing more than a not very portable sawmill.

Charles Wolf, an early inventor of various items including a submarine prototype, also worked with Henry Huntington's electric street railway in Los Angeles. Having developed the first electrically operated sawmill in the state of Washington, he turned his attention to working on chain development for saws. He and electrical engineer Frank Redman, came up with a design for the cutting chain, the sprocket that propelled it, and the bar that supported it. The chain was set up in the traditional cross cut configuration with clusters of pointed teeth separated by hooked rakers. These chains could cut in either direction. When one direction began to dull, the chain could be taken off and reversed to prolong the time between sharpening sessions. These chains became the standard until the 1950's.

By 1920 he patented the portable chainsaw, the Wolf Electric Drive Link Saw, teaming up with the Reed - Prentice Company in Worcester, Mass. They came in three models: a two foot bar weighing 70 lbs., a three foot bar weighing 80 lbs., and a four foot bar weighing 90 lbs.! All of these could be used in the field with a portable generator or in the sawmill with in-house power.

Most of the early chainsaws were used in construction on large timbers as they produced a straight smooth cut. The logging industry didn't adopt chainsaws very quickly because the machines were very expensive, heavy and hard to use. By 1931 Wolf had developed gasoline powered saws but coupled with the loss of his patents and a manufacturing facility due to WWII, Wolf ceased business. By that time, there had already been an influx of European companies that had developed smaller lightweight (60 lb.) saws.

The European companies, Dolmar, and Stihl in particular, had introduced newer alloys and other developments that made their saws lighter, faster and more durable. Still, compared to modern standards, these saws were not for the timid or weak. There were handles on the ends of the inconceivably long bars for a second man to hold.

Reed Prentice 2 Man

As a result of WW II, Germany's international copyrights were nullified, which opened the way for anyone to make use of the innovations patented by Stihl and Dolmar. Many entrepreneurs went out on their own, taking the designs with them. D.J. Smith, formerly a Stihl distributor, started manufacturing almost exact copies of the Stihl saws. In 1947 Reed-Prentice contracted with Robert McCulloch for die-cast engines which were much lighter. The contract expired in 1948 and The McCulloch Company went on to produce their own saws. It was a rapidly evolving business open to innovation and fierce competition.

The early chainsaws could only be run while upright, letting gravity control the level of gas in the carburetor. To provide angle cuts, early saws had an over center clamp. When the clamp was released the bar could be rotated to whatever angle was desired and then locked in place by applying the clamp. Now the bar could be at any angle with the tree and the engine would still be level.

A Brief History of the Chainsaw

continued from page 3

McCullough designed a flexible diaphragm style carburetor in 1949 to regulate gas flow, allowing the engine to be rotated along with the cutting mechanism. This resulted in a much more versatile machine that didn't stall and sputter, as well as a 'modern' handle design with a grip on top and a grip in back to improve the handling of the machine. It was also slightly safer.

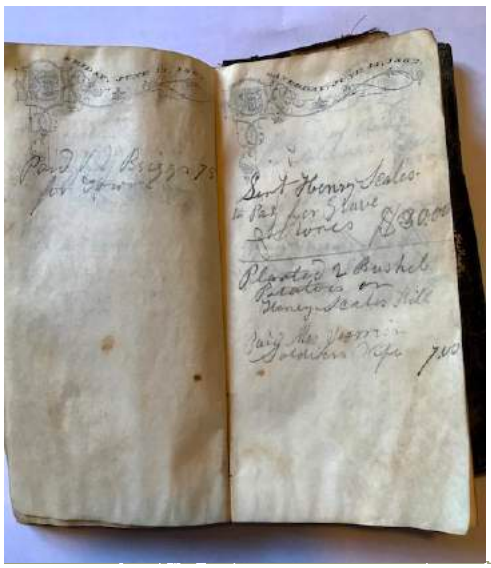
Many readers probably have some early chainsaws in their barns and sheds. By 1957 there were at least 45 manufacturers worldwide. The names are all still familiar: Pioneer, Husqvarna, Jonsereds, Disston, Remington, Poulan, Homelite, PM (Power Machinery Ltd.) Stihl, etc.

Here are two examples of early saws: A 1949 "P.M. Woodboss", and a Reed-Prentice two man saw, that Donald Atwood recalled using in the 1950's.

Credit for the material in this article goes to David Lee and Mike Acres who wrote "Chainsaws A History", published by Harbour Publishing, 2006.

Woodboss

Alfred Sargent's Journal



Curator's Corner

By Polly Timken

Last month we received an email from John Hadleigh, an Englishman, offering to give us a personal journal of Alfred Sargent, of Bridgewater Corners. John had bought the journal at a sale in 2012. This year he decided to find a home for it, researched Alfred Sargent and found the Bridgewater Historical Society.

The 1862 diary is similar to others of that era: leather, pocket-sized, and a fold over flap. In it, Sargent recorded his life as a town agent, with many transactions related to livestock, shoes, liquor, candy, lumber etc. He also records his work distributing payments to soldiers' wives and families. Sargent was in charge of enlisting soldiers. Included in the diary are the dates for muster for the 14th, 15th and the 16th Vermont Sharpshooters. This ties in nicely with our material on D'Algeroy Thompson and his service as a Sharpshooter.

BHS is very lucky to have been discovered by John Hadleigh and to be the recipient of this fascinating gift. His perseverance in finding the right home for the journal is immeasurable to an organization like ours.

Logging in Bridgewater

By Karole A Thompson Messier

Years ago, the logging industry was an important industry to the Bridgewater community. Although I was much too young to know the details, I can recall some of the stories related to the loggers and the camps. At one time, there were eight logging camps in Bridgewater. Ed Birmingham owned the logging business.

His daughter, Mae (Birmingham) Knudsen remembers going to the logging camps as a young child. Her mother would make a big pot of stew and Mae and her siblings would climb on the buckboard wagon and ride into the camps. One of her memories was seeing the long tables with all the food laid out on it for the loggers: "pies, breads, and just everything." When I asked Mae if her mother did the cooking for the camps, she said, "No, that each camp had a cook and a cookee". Their job was to prepare the food for the loggers in the camp.

Also, she told me that her mother would drive to Canada and bring some men down to work in the camps in Bridgewater. The Canadian loggers were very experienced in the logging business and were well-known for their skills she said. Then after a time they had to go back to Canada and a new crew would come down to work.

One year, Mae remembers, after the logs had been skidded down to the river the boom broke down in Taftsville. Of course, the logs were lost. She recalls how the men still came to work even though they had to wait longer for their pay.

During the heyday of the logging business my mother and my grandmother owned the only restaurant in town, the Thompson's Restaurant (known today as the Doyle Apartments.) I remember my mother telling me that she always kept plenty of cash on hand so that when the loggers got paid, once a week, they would come to their restaurant and cash their checks. They would stay and eat supper, spend the evening, have a few drinks and spend some of their pay. All the food was homemade: bread, rolls, doughnuts, hermit cookies and hearty food for the loggers.

During the time my mother owned the restaurant, she was pregnant with me, which was 1941. Mae's brother, Reggie Birmingham, brought in a gift for me of little moccasin slippers, which I have kept all these years.

There was one particular story my mother related to me that always fascinated me. I asked Mae if she had heard my mother tell that story, and she said she had heard the story. It involved a man, a logger who was at the restaurant at closing time. He needed a ride. My mother offered him a ride. It was at closing time, and Dr. Cram had been there at the time and he expressed his concern to my mother about her giving this man a ride. She assured him she would be okay. I cannot remember where she gave him a ride to but during the course of that trip, she said he asked her how she dared to give him a ride as he had been in State's prison. I wish I could remember her answer. It was something to the effect that she did not have that much money, and he would only end back where he had already been. He did not pursue the matter further.

Bridgewater Center Logging Team

Pulpwood River Drives

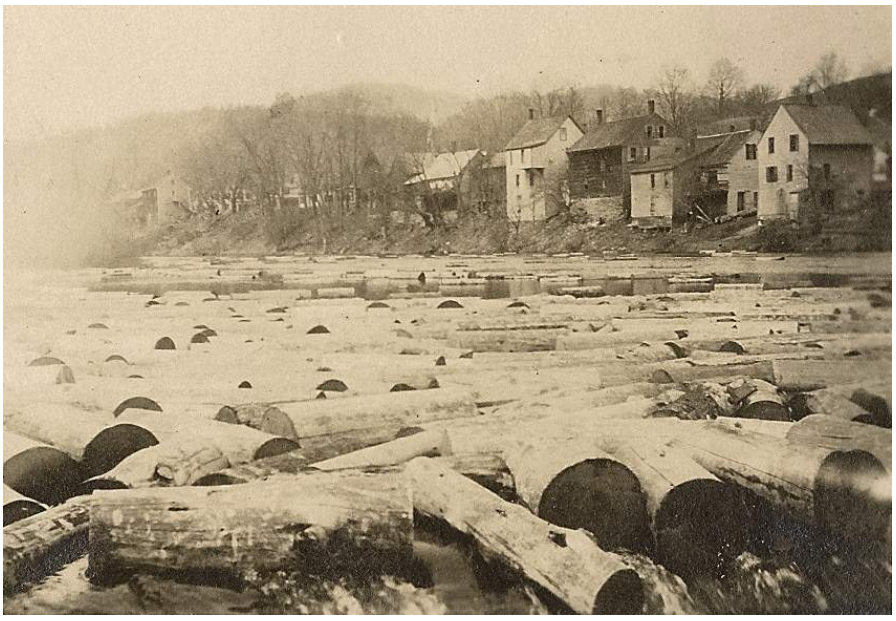
From "Bridgewater Vermont 1779-1976" by Gladys Adams

William Carr and Edward J. Birmingham were in the pulpwood business in Bridgewater from 1921 to 1929. Until 1922 the wood was floated from Bridgewater to the Connecticut River and guided by a crew of thirty men. Mae (Birmingham) Knudson remembers some local men who worked for her father: Gus Godda, Milton Dailey, Haskell Royce and Harold Miles. French Canadians were always welcome and Mr. Birmingham would post a bond for them. Paul LeGendre came and later became a permanent resident.

Mrs. Flossie (Clement) Birmingham was a capable horsewoman who could skid a log out as well as any man. She loved horses and on seeing an employee mistreat a horse, she would dismiss the man immediately - "send him down the road."

After 1922 the pulpwood went only as far as Taftsville Dam where it was held by means of a boom. In the spring the high water brought the four foot lengths of wood down the Dailey Hollow and Chateauguay Brooks to the Ottaquechee River where pulp coming down from Plymouth and Curtis Hollow joined in.

Men working on the drive lived in tents and meals were brought in a chuck wagon. When there was snow, a long green sleigh drawn by a single horse was used. Mrs. Birmingham would load the meal into the sleigh and find the men at their work, and they would come, tin plate in hand, to get their dinner.



Pulp drive at the Bridgewater dam, 1924

Carr & Birmingham had a passenger car they had bought from Woodstock Railway Co. stationed on the spur track at Taftsville and this was outfitted as a cook shack and bunk house. At Taftsville the pulp was transferred to railroad cars and shipped out.

Nov 1927 brought heavy rain and high water and Carr & Birmingham decided to float their pulpwood down to Taftsville then. They had no way of knowing that the continued downpour would result in one of the worst floods in the history of Vermont. The boom chain broke and all the pulpwood went over the dam and down the river. An estimated 2,500 cords of wood and ten tons of chain, total value about $80,000.00, were lost. (See Taftsville Tales)

WWII brought a big demand for pulpwood and in 1941 there were twelve pulp camps in Bridgewater, Sherburne, Reading and Plymouth, the majority of which belonged to E. J. Birmingham & Son. The largest was the Leonard Moren Camp eight miles south of Bridgewater where forty five men were employed.

The pulp was brought out to the logging roads where it was loaded on trucks and carried to Glens Falls, N.Y. The previous year 12,000 cords had been shipped out and Reginald Birmingham expected that an even greater amount would be cut in 1941.

The horses used in the woods were sent to Arthur Knudsens at Bridgewater Center where Gerald Miner did the blacksmith work and mended harnesses. Gerald Miner also used a car to go about as a traveling blacksmith.

Farm Logging in North Bridgewater

By John Atwood

Bridgewater was settled by people with the independent spirit of do-it-yourself-ness beginning with Asa Jones making his own "sugar." That spirit continued to recent times on Vermont farms despite better transportation and communication connecting us to the "outside world." That spirit typifies the people that we think of as "Vermonters," especially those working the land. For simplicity's sake, we will call them the "farmers," an appellation they, themselves, preferred. This is a short account of the independent spirit of logging by the Atwood and Bigelow families of North Bridgewater. Methods undoubtedly varied throughout the state.

Being a farmer meant engaging in several activities providing consumer goods for the farm as well as income for needs and wants and for minimizing costs. Farmers provided beef, hogs, chickens, eggs, milk products, large and small fruits, garden vegetables for storage in stoned cellars, or for preservation by canning, and for later freezing. Logging was part of that independent spirit, and most farmers owned a woodlot as a source for building materials, fuel, and, of course, maple products.

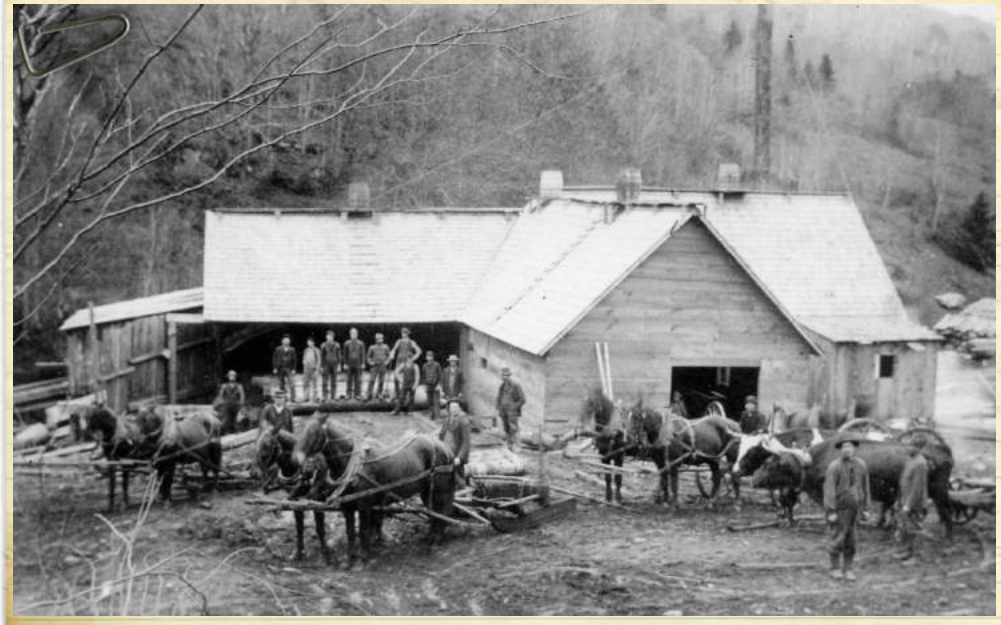
Both softwoods and hardwoods were usually cut in late fall or winter before sugaring but never in summer when crops were planted and harvested. Softwoods, mostly red spruce and hemlock. Red spruce was the more stable wood, but hemlock was easier to work when green. Frank Shurtleff once indicated to John Atwood, Sr. that white pine was locally unavailable, until planting around dwellings provided seed sources for seedling generation. The ubiquity of hemlock and its ease for shaping beams by hand-hewing or with "up and down" saws probably accounts for its broad use in early buildings. In North Bridgewater sawing was most likely originally done at the Boyce sawmill (built 1784). By the 1950's, logs still removed from the forest by draft animals (soon to be replaced by bulldozers) were brought to the sawmill by truck and cut with more efficient circular saws. The Atwood and Bigelow farms sent logs to mills in the Prosper Valley. This writer (ca. 1953) once accompanied John Atwood, Sr. to watch the removal of logs by horse, an activity that had changed little from Roman times. Sometimes a farmer would hire a "logger" to cut much needed logs. In 1958 Guy Lamson of Pomfret was hired by John Atwood, Sr. to cut logs. This writer recalls one of two enormous cut conifers that left a stump with 238 counted rings; a tree that existed since 1720, well before the English colonists started settling Vermont!

With his own softwood lumber Leonard Bigelow built a garage for his model T Ford (ca. 1930) and a large equipment barn (1949), both still in use. He also furnished lumber for repurposing an English barn moved (ca. 1930) from a farm referred to as the McGlinchy place (probably settled by Selah Montague). John Atwood built a hunting camp (1954), silo (1958), and a milk house (1963). Only the camp still stands. One thing about early buildings, (especially barns and school houses); they are easily repurposed. One can't do much to repurpose silos and milk houses!

Hardwoods were less often cut for building materials. Despite its current market value today, hardwoods in those days were mostly used for fuel, either for household heating or for fueling maple syrup production. Dense hardwoods in North Bridgewater (sugar maple, red maple, white ash, black cherry, and yellow birch) created abundant heat, especially when selecting small diameter limb wood. Larger diameter wood had to be split by hand. One of the most dense local woods with high heat yield is the understory Hop Hornbeam (*Ostrya virginiana*), called "remen" by Bridgewater farmers, a name used mostly within Windsor County. Despite its heat yielding qualities, hornbeam dulled saws and therefore often avoided. White birch was avoided because the less dense wood burns quickly providing less heat. Conifers with less dense wood were rarely used as fuel, since resins condensing in chimneys and metal smoke stacks caused chimney fires. But this writer does recall using conifer slab wood (salvage remnants from log preparation) for starting fires in the sugar house, and it was usually free.

Wood preparation for home heating was more complex involving cutting large trunks, usually of dying maples, and almost always in winter. The trunks were dragged by animal to the home and cut into chunks by a machine called the "drag saw." This was a saw with horizontal blade motion powered by a John Deere "one-lunger" connected by a belt. The one-lunger with single piston fueled by gasoline made a racket: putt-putt-putt--BANG--BANG--putt--putt--BANG--putt--putt--putt--putt...etc. Lining up the one longer with the saw was critical to prevent the belt from slipping off. The machine could be erected anywhere there was flat ground. It consisted of the saw blade and a log feeding system requiring a pair of railroad-like tracks with dolly. The mechanism allowed the positioning of the log so that chunks about 18 inches high were made. These were stacked like cheese wheels until the following fall when they were split to firebox size by hand. The final product was either stored for drying for a season or stored directly in the woodshed where it dried in place. By the 1990's, machines called log splitters were used; a great invention much appreciated by aged human wood splitters!

This is the self-sufficient world of the Vermont farmer of the mid 20th century. We realize how our habits of production and consumption have changed when we buy a board at Home Depot!



Butler Sawmill Chateauguay

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