

Evolution of the Sawmill Industry

The next five pages have been inserted as a brief backgrounder for readers to familiarize themselves with the industry that supported many of our Joanis ancestors. The photos show phases of lumbering from the woods to the sawmill, to shipping finished product.

Generations of Joanis families worked in the squared timber and lumber industries. From Jean-Baptiste cutting timber from his lands for fuel and for sale to others, to many Joanis men logging and hewing timber in winter shanty operations, to Jules working as a millwright in the Edwards sawmills in Rockland, they all participated in the developing Ottawa River timber and lumber trade.

The fur trade sustained much of New France's growth for 175 years. It was replaced by the timber industry along the St. Lawrence and then the Ottawa River area starting about 1800. The American Revolution eliminated New England as a source of timber for Britain. Eastern Canada, particularly the area along the Ottawa River and its many tributaries, was rich in old-growth white pine forests, perfect for ship masts, hulls and decks. Logging and squaring these large timbers during the winter season provided employment for many settler farmers. The squared timbers would be stamped with the company's mark, then skidded or hauled to the river's edge. In spring, they would be released into the river to float downstream. At the Ottawa River, they would be formed into large rafts, then floated down river into the St. Lawrence and on to Quebec for selling to merchants, and loading on ships bound for Britain. Each time the rafts came to rapids on the Ottawa, the raft would be broken down, timbers floated individually, or in cribs, past the obstruction, then reformed. The squared timber industry dominated the area until the mid 1800s.

The sawmill was a common feature of eastern Canadian villages. In the early 1800s,

they were simple, water-powered operations built beside large streams or rivers, with a single saw and one or two employees. They were slow and cut local logs mainly for local consumption. Sometimes, as with our Alexandre Lapointe, the sawmill was built, operated and maintained by the same settler-entrepreneur, side-by-side with a grist mill and blacksmith shop.

After 1850, sawmilling underwent enormous change. Increased lumber demand from the U.S., abolished U.S. duties on lumber, substantial capital investment, continued improvement in sawmilling technologies, logistics and work-flow, use of hydro-power (as at the Chaudière Falls) and steam-power (as at the Edwards mills at Rockland) and the advent of rail transportation, all resulted in fewer but larger mills, which greatly expanded lumber production and exports. By 1871, the Ottawa region mills were producing about 260 million board feet of lumber, a 10-fold increase in 13 years.

In lumbering, the sawlogs were usually smaller than squared timbers. Loggers worked in 3-man crews, falling trees, trimming off branches and bucking the trunks into 12 or 16 foot lengths. The sawlogs would be marked and hauled to a storage area near river's edge. In spring, logs would be released into the water and floated downriver toward the Ottawa. Log jams were dealt with by *draveurs* and men in maneuverable pointer boats. Once logs were sorted by mark, they were boomed and hauled by tug to the sawmill.

Large sawmills were complex operations, employing many hundreds of workers, including millwrights, sawyers, mechanics and technicians, and general labourers and boys as young as age 13. Sawyers were the highest paid as they controlled the process

and determined how each log was best cut, greatly affecting mill output and profitability. Pay for men in the 1880s was \$1.00-\$1.50 per day, and boys earned less. The workday was 6:00am to 6:00pm Monday to Saturday.

The sawmill process was a dangerous maze of machines, belts and pulleys. The power turbines (water or steam) were in the basement. A system of shafts and belts transmitted the power to the machines on the floor above. The jackladder brought the sawlogs into the building for processing through the circular, gang and band saws, producing lumber which was then sent on rollers to the edging and butting saws. From there, finished lumber was transported outside the mill to be sorted and piled for drying before shipment. Lumber yards were large and piled high with finished lumber.

Sawlogs could be used to make three types of product: (i) deals, 3-inch thick boards for the British market; (ii) dimension lumber, thick beams and joists for construction; and (iii) planks, boards and 2x4s for framing. Most sawmills focused on the third category. A few, like Edwards, produced both deals and planks, boards and 2x4s.

Working in a sawmill was hazardous. The noise was deafening. Sawdust swirled everywhere and bark scraps and wood waste

covered the floor. Ventilation was poor. Lighting from lanterns was low. Breathing and vision were affected. Floors were slippery. Accidents were frequent against the constant production pressure. Men were maimed and killed.

Fire was a constant threat. Despite the latest in hoses, water pump equipment and dedicated firemen, the wooden buildings, the ever-present sawdust, heat generated by the machinery, and the huge lumber piles in the yard, all were fuel for fires. Many fires destroyed mills and lumber production, sometimes for the second and third time. Hull suffered from massive mill fires in 1875, 1880 and 1888. Ottawa's mills and LeBreton Flats were reduced to charred remains in the great Ottawa fire of 1900.

Once the finished lumber was dry, it was readied for shipment. Lumber shipments were for the local market, for Britain, the U.S. and other export markets. Shipment was by tug and barge down the Ottawa to Montreal and Quebec for shipment overseas, or down the Rideau Canal and on to Ogdensburg for shipping south. Some shipments went up the Richelieu River into Lake Champlain for on-shipment to Boston and New York. As the number of railways increased, shipment by rail became the preferred method.

Selected Photos of the Lumbering Industry



Lumber shanty in winter Lièvre River c1870



Sawing pine into logs c1878



Hauling logs



Log driving c1900



Jam of 150,000 saw logs on the Lièvre River 1876



A pointer boat shooting the rapids c1910



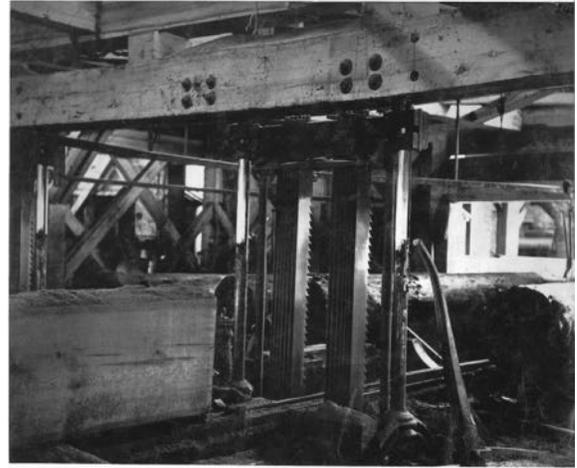
Towing a log boom to Edwards Mills Rockland



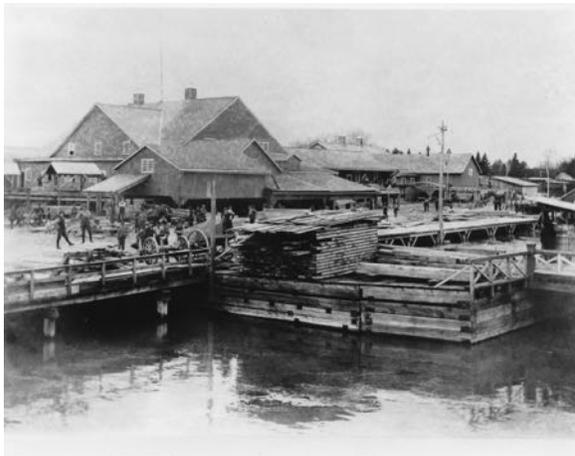
Lumbermen sorting logs Gatineau Mills c1885



Circular saw Wright, Batson, Currier Ottawa 1872



Gang gate saw Wright, Batson & Currier Ottawa 1872



Stacking planks at Hamilton Mills c1895



Lumber yard Edwards Mills Rockland



Fire reels at Forwarding Lumber Co., Ottawa, 1901



Loading lumber in a train Fraser Company c1895



Buckingham lumber slide c1898
Lumber sawn in Buckingham was floated down the Lièvre River in a slide to the "Basin" in Masson where it was piled to dry before shipment by boat on the Ottawa River



High Falls on the Lièvre River
with lumber chute to Masson Basin 1877



Shipping lumber Ottawa River c1873



Lumber barge on the Rideau Canal
Ottawa East c1892

ⁱ For further readings on the Ottawa River sawmilling industry, see the ottawariver.org website <http://ottawariver.org/pdf/0-ORHDC.pdf>; Outaouais' Forest Industry website,

<http://www.histoireforestiereoutaouais.ca/en/c20/>; Hughson and Bond's *Hurling Down the Pine*; and David Lee's *Lumber Kings and Shanty-men*