

**A History of the La Chute River Sawmill that  
Supported Fort Ticonderoga from 1756 until 1777**

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## Introduction

The motivation behind this project was to provide a history of the sawmill that supported the various military forces occupying the fort on the Ticonderoga peninsula, first called Fort Carillon and later Fort Ticonderoga. To date, this topic lacked any research from historians. Because of the lack of historical focus, there are several beliefs concerning the sawmill, some correct and some erroneous. This history will provide answers that both sustain and refute these beliefs, as well as highlighting some previously unknown facts concerning the sawmill, all of which will present a thorough history of the topic.

The goal of this monograph is to provide the reader with an understanding of the history and operations of the Ticonderoga military sawmill from 1756 until 1777. To better understand this topic, this monograph also provides details about the history and operations of civilian sawmills in North America in the eighteenth century, including some the European origins of sawmills. This combined information is not available in any history concerning Fort Ticonderoga. Therefore, this monograph is the first to document this subject. It contains all currently accessible historical information pertinent to the subject, while also allowing for additions from future historical research. It is likely that historians may uncover previously unknown sources, which may provide further details to this first step in the Ticonderoga sawmill's history.

The initial assumption was that the sawmill existed and operated from its construction by the French military in 1756 until the later years of the War for American Independence when the British military controlled Fort Ticonderoga, and possibly survived into the post-war years, as mill activity increased in the new village of Ticonderoga. However, as this history demonstrates, the sawmill went through several restorations, mostly due to the ravages of war and neglect by the users. Also, by the time of the American military occupation from 1775 until 1777, there were two sawmills present at the lower falls of the La Chute River that supported military construction at Ticonderoga, and one of the sawmills operated with 2 complete sawing mechanisms. By the end of 1777, there was only one sawmill remaining, and there is no record to suggest that that mill remained intact by the end of the American Revolution. This history documents the sawmill the French built to support Fort Carillon, from 1756 until 1758, and later the rebuilt British sawmill and accompanying civilian built sawmill during the British and American occupations from 1759 until 1777. This 21-year period involved examining numerous historical documents, mainly consisting of primary source books and maps. Most of the details for this history reside in the journals of soldiers and civilians who had a presence at Ticonderoga from 1756 until 1777.

Developing this monograph involved piecing together the various bits of information found in all the consulted sources and placing that information into a coherent timeline, and then extensively cross-referencing all the information to ensure this final history is as accurate an interpretation of the sawmill's history. For the French period, the sources were nearly all in French, which, although challenging, proved rewarding in the details uncovered, both to this research project and to the ongoing research efforts of the Fort Ticonderoga Museum. This project also provided the opportunity to transcribe various eighteenth century letters, some in French and some in English, which now reside in the Fort Ticonderoga Museum's Archives.

As with any historical research, original words and phrases from the sources may hold different meanings to a modern audience. To better retain the original context and understanding

of words and phrases, the original spellings and original words appear exactly as they do in the primary sources, so as not to amalgamate twenty-first century words into the eighteenth century context. Best illustrating this point is referring to an eighteenth century sawmill as a sash or up-and-down sawmill. Although a modern, twenty-first century, reader will likely understand what both of these references represent, both originate from the nineteenth century and were not in use in the primary eighteenth century documents consulted for this history. During the eighteenth century, there was no differentiation in sawmills because there was only a single-type of sawmill; therefore, the sources only mention 'sawmill.' The only distinction in eighteenth century sawmills is the source of power for a mill, whether that was wind, tidewater, or river. By the nineteenth century, sawmills saw a transformation from straight saws that moved up-and-down, into circular bladed mills, and eventually steam powered mills. Throughout the nineteenth century, all three types of sawmills were in operation throughout America, thus, it is logical that there was a distinction between these mills that began in that century.

This project is broken down into different sections that will provide the reader with a thorough understanding of eighteenth century sawmills and the history of the Ticonderoga sawmill. It begins with a glossary that has three sections with words or phrases pertaining to sawmills that appear throughout the primary sources, terrain related terms used throughout this history, and equipment connected, but not a part of, the sawmill and appearing in the historical records. The definitions in the glossary derive from eighteenth century dictionaries or encyclopedias. There are also French words that do not accurately translate into English; therefore, the original French word remains in the text of this history. For the terrain, the primary sources do not use these words; however, the use of these terms in this history provide better situational awareness of the historical context for the contemporary reader. Much of the terrain of the modern city of Ticonderoga and Fort Ticonderoga remains unchanged. Therefore, the objective of this section is to assist the reader to see past the modern trappings of the twenty-first century and visualize the area in the eighteenth century context.

To begin this history, there is a brief introduction into sawmills. While compiling this history, it was apparent that an understanding about eighteenth century sawmills would assist the reader to understand some of the context provided in the historical records. This section presents the introduction of sawmills into North America and the European origins of these North American mills. This section begins with a history of sawmills in early America, and follows with an introduction into the characteristics and operations of eighteenth century sawmills. This information derives mostly from eighteenth and nineteenth century sources pertaining to sawmills and the lumber industry. Also in this section is a brief discussion on military sawmills relating to the latter half of the eighteenth century, including how militaries utilized sawmills.

The next section is the history of the Ticonderoga sawmill, which has three eras. The first era covers the French occupation from 1756 until 1759, with a brief history of events before the sawmill's construction in 1756. This provides context for the events that occurred prior to sawmill's existence and for the sawmill's main function, which was to directly support the construction of that fort and to support the military infrastructure surrounding the French garrison of Carillon. The second era covers the British occupation from 1759 until 1775. The last era covers the American occupation from 1775 until 1777 and the final British occupation in 1777. For each of these eras, this monograph presents the context for military events occurring in the immediate area near the sawmills and avoids delving into the history of Fort Ticonderoga, which is abundantly available.

Following this is an examination concerning the location of the Ticonderoga sawmills. This discussion stems directly from the history, and reconciles that history with the primary source maps. This section explains why some maps provide excellent information, while other maps are either passable or inaccurate.

Next is a discussion on key highlights concerning the Ticonderoga sawmill that coincide with information concerning other sawmills. This section pulls the overarching features of the sawmill from all the military eras of Ticonderoga and compares those features with other contemporary sawmills. These highlights draw from both primary and secondary sources, as well as currently operating up-and-down sawmills in the United States. While each military had their own way of conducting operations at the sawmill, there were similar elements in each era, namely operations and maintenance.

The final sections are a bibliography and four appendices. The appendices cover maps, equipment, depictions of eighteenth century sawmills from primary source technical books, and detailed photographs from reconstructed sawmills in the United States.

The compiling of much of this history occurred at Fort Ticonderoga, using the museum's extensive archives. Numerous libraries throughout New York, Vermont, New Hampshire, Pennsylvania, Michigan, and Indiana also contained information that contributed to the history. In addition to these references, various historical sites also provided key information pertaining directly to sawmills. Although rare, there are some functioning up-and-down sawmills throughout the United States. The working up-and-down sawmills visited include the sawmill at Old Sturbridge Village in Massachusetts, the Ledyard Sawmill in Connecticut, the Bertolet Sawmill in the Daniel Boone Homestead in Pennsylvania, the sawmill in the Spring Mill State Park Pioneer Village in Indiana, and the sawmill in Historic Mill Creek Discovery Park in Michigan. Other museums visited that have either information or original parts from up-and-down sawmills were the Old Mill Museum in Vermont, the Mercer Museum in Pennsylvania, St. Clair Historical Society in Michigan, and the Spofford Sawmill in Greenfield Village Michigan. Visits to various forts also provided some context for military sawmills. These forts include Fort Stanwix, New York, Fort Ligonier, Pennsylvania, Old Fort Wayne, Indiana, Fort Meigs, Ohio, and Fort Michilimackinac, Michigan.

This research owes all these sites, and especially the onsite historians—some of whom are volunteers—gratitude for their gracious assistance. This research owes a special thanks to the always-professional staff of the Fort Ticonderoga Museum and to the numerous individuals connected with sawmills for their assistance in all aspects of this project. As a personal thank you, the following individuals provided assistance and freely shared their knowledge for this project. First, Dr. Matthew Keagle, curator for the Fort Ticonderoga Museum for his ability to recall the location of the many varied sources within the museum's archives, his knowledge of the various militaries inhabiting Ticonderoga in the 18th century, and his patience in answering many questions. Second, Alan Ganong, historian and volunteer for the Ledyard Sawmill for his knowledge on sawmills, who graciously answered many questions about the intricacies of up-and-down sawmills and provided feedback with some of the more obscure details on sawmill operations.

## Glossary

### Saw Mill

Board. Sawn lumber, typically up to one or one and a half inch thick.

Carriage. Wooden apparatus that moves across the floor of the mill. The carriage holds timber steady and moves the timber into the saw in conjunction with the speed of the saw. Contains the head and tail blocks.

Collar. Metal apparatus to hold the saw in place into the frame.

Crank. Wheel tuned by the water wheel that moves the pitman. The pitman attaches to the crank and opposite the pitman is a counter-balance weight.

Dogs. Iron pins attached to the head and tail blocks that secure timber into the carriage.

Fender Posts. Two vertical wooden beam that supports the saw frame. The saw frame slides up and down against the fender posts.

Frame. Wooden structure that secures the saw in place and moves the saw up and down. The pitman powers the movement of the frame. Commonly called the 'sash' beginning in the nineteenth century due to its similar appearance and operation as a window sash.

Gristmill. Mill that crushed grain into flour using a millstone. Operated with the same mechanisms as a sawmill.

Gudgeon. Hard metal (cast iron) rod that fits securely into the end of an axle so that the axle may spin on a wooden beam. Metal bands secure the gudgeon to the end of the axle. The end of the gudgeon (the journal) turns against bearings to lessen friction.

Head Block. Lumber beam across the carriage that supports timber. The head block supports the leading piece (headstock) of timber into the saw.

Head Gate. Gate that allows water from source into canal or sluice that lead to the mill's wheel.

Head Water. Water that feeds the mill's wheel.

Lumber. Processed wood from a sawmill.

Millwright. A trained person, either through formal academic training or apprenticeship, who could build, operate, troubleshoot, and supervise a mill. Millwrights were mathematicians and typically equated to an engineer.

Nogs. Small wooden pegs set into sawmill floor upon which the carriage slides.



Pitman. A wooden beam attached to the crank that moves the frame up and down. The name derives from the lower sawyer in a pit saw.

Pit Saw. Long bladed saw with handles at both ends. Typically used in a pit, with one sawyer below and one sawyer above. Also called Whip Saw.

Plank. Sawn lumber, thicker than a board, usually thicker than one and a half inches.

Rag wheel. Wheel that moves the carriage in conjunction with the speed of the saw.

Sawyer. Person who operates a sawmill or who operates a pitsaw.

Scantling. Small diameter lumber used for framing.

Tail Block. Lumber beam across the carriage that supports the timber. The tail block supports the end piece (tailstock) of timber into the saw.

Tail Water. Water that exits away from a sawmill after turning the wheel.

Tub Wheel. Wheel that moves the carriage back to its starting position.

Timber. Unprocessed wood.

Whip Saw. See Pit Saw.

## **Terrain**

Lower Falls. The furthest falls on the La Chute River, north from Lake George, approximately 2 miles from Fort Ticonderoga and Lake Champlain.

Saw Mill Area. It is the area in the immediate vicinity of the sawmill. For the context of this report, it is a circular area encompassing three quarters of a mile around the lower falls.

Ticonderoga Valley. This area is directly west of Fort Ticonderoga, bordered by Mount Defiance on the east, Lake George in the south, Cook Mountain in the west, and Mount Hope in the north, which is the equivalent to most of the modern city of Ticonderoga.

## **Equipment and Military**

Abatis. A barrier of felled trees laid perpendicular to a defended position. The trees lay in rows with the branches intermingled and facing the enemy.

Bateau (singular), Bateaux (plural). Flat bottomed naval vessel, propelled either by oars or by a sail.

Boîte. Small device used for igniting a small powder charge vertically. Typically made in bronze or wrought iron with handles attached to the tube.

Chèvre. A three-legged wooden structure used to raise heavy objects, such as stones, timber, or cannon.

Piquet. A temporary military unit of French origin. During the French and Indian War, the composition of this unit was 50 selected soldiers, usually from the same regiment, typically commanded by a captain. By the time of the American Revolution, a piquet (picket) was a body of outlying guards for an army.

Rouleau. A cylindrical piece of wood placed under large burdens to assist in their movement.

Troupes de la Marines. Troops under the control of the French Ministère de la Marine. Responsible for defending France's colonial territories, principally New France.

Troupes de Terre. The regular French army from France.

## Introduction to 18th Century Sawmills

### A Brief History of Sawmills in Early America and New York

By the eighteenth century, sawmills were a familiar feature on the American landscape. The growth of the early American sawmill coincided directly with the growth of settlements throughout North America because of the lumber needed to construct settlement structures.<sup>1</sup> Although manual sawing was still in use throughout this era, a sawmill offered a more economical means for sawing timber. In 1650, Virginians noted, “one [saw] mill driven by water, will do as much as 20 Sawyers,” while later in 1708 New York, the estimation was that “one [sawmill] of which would do more work in an hour than fifty men in two days.”<sup>2</sup>

The construction of the first sawmills followed the arrival of colonists in America. Europeans built the first river-powered sawmill in Virginia in the 1620s.<sup>3</sup> At a similar time, further north, Europeans built the first wind and tidewater sawmills in New Amsterdam, New York.<sup>4</sup> The next river-powered sawmills appeared in New England, first in Agamenticus (York), Maine in the mid-1630's and then in 1635 near the present city of Portsmouth, New Hampshire.<sup>5</sup> The mechanisms, millwrights, and carpenters for the Maine sawmills arrived from Europe in 1634 and construction began soon after.<sup>6</sup> In the same year, European millwrights also arrived to build and supervise the sawmill in New Hampshire.<sup>7</sup> Similar construction of sawmills appeared throughout every settlement in America, from Maine to Georgia. Because American colonists became so proficient at constructing sawmills, a captured American colonist from Massachusetts built a sawmill on the Chambly River near Montréal, Canada in 1706 to secure his freedom.<sup>8</sup>

By the middle of the eighteenth century, William Douglass, a Bostonian physician, noted these observations concerning sawmills in New England:

New England abounds in saw-mills of cheap and flight work, generally carrying only one saw. One man and a boy attending of a mill may in twenty-four hours saw four thousand feet of white-pine boards; these boards are generally one inch thick, and of various

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<sup>1</sup> Herbert C. Wise and H. Ferdinand Beidleman, *Colonial Architecture for Those About to Build* (Philadelphia: J. B. Lipponcott, 1913), 15.

<sup>2</sup> Peter Force, ed., *A Perfect Description of Virginia* (Washington: n. p., 1837), 5, in Peter Force, ed., *Tracts and Other Papers, Relating Principally to the Origin, Settlement, and Progress of the Colonies in North America, From the Discovery of the Country to the Year 1776*, vol. 2 (Washington: Peter Force, 1836), reprint (Gloucester, MA: Peter Smith, 1963). Quoted in J. Leander Bishop, *A History of American Manufactures from 1608 to 1860* [...], vol. 1 (Philadelphia: Edward Young and Company, 1866), 105.

<sup>3</sup> Charles E. Peterson, “Sawdust Trail,” *Bulletin of the Association for Preservation Technology* 5, no. 2 (1973): 94.

<sup>4</sup> William F. Fox, *History of the Lumber Industry in the State of New York* (Washington: Government Printing Office, 1902), 12.

<sup>5</sup> George W. Coffin, “Report of the Land Agent of the Commonwealth of Massachusetts, laid before the Legislature, January 10th, 1844,” in *The North American Review*, vol. 58 (Boston: Otis, Broaders and Company, 1844), 321; Bishop, *American Manufactures*, 95; Charles Wesley Tuttle, *Capt. John Mason, the Founder of New Hampshire* [...], John Ward Dean, ed. (Boston: Prince Society, 1887), 25.

<sup>6</sup> Paul E. Rivard, *Maine Sawmills: A History* (Maine State Museum, 1990), 15.

<sup>7</sup> Nathaniel Bouton, ed., *Provincial Papers. Documents and Records Relating to the Province of New Hampshire*, vol. 1 (Concord: George E. Jenks, 1887), 45.

<sup>8</sup> Bishop, *American Manufactures*, 101.

lengths; from fifteen to twenty-five feet, and of various widths, one foot to two feet at a medium; it is reckoned that forty boards make 1000 feet.<sup>9</sup>

To illustrate Douglass's observation, at the end of the eighteenth century there were 6 sawmills within a quarter mile of each other in Damariscotta, Maine.<sup>10</sup> However, while New England produced a good supply of lumber, the vast stretches of timber throughout New York and the burgeoning population gave that colony more advantages in lumber production.

The Dutch built the first New York sawmills in the early seventeenth century.<sup>11</sup> These first three sawmills appeared in 1623 at New Amsterdam built by the Dutch West India Company, powered by both wind and tidewater.<sup>12</sup> Shortly after this, a Dutch master millwright—Andries Corstensen—built river-powered sawmills near Fort Orange (Albany).<sup>13</sup> By the late seventeenth century, New York was exporting lumber to Europe.<sup>14</sup> In 1701, New York had about 40 working sawmills, and at least one sawmill had 12 working saws.<sup>15</sup> Records indicate that by 1774, New York was exporting “ten thousand seven hundred feet” of sawn lumber, and Albany was the center of New York's thriving lumber trade.<sup>16</sup>

In eighteenth century Europe, the Dutch were the leading constructors and purveyors of sawmills, having honed skills learned from Norwegians in the previous century—in his second volume of *Sylva or a Discourse on Forest Trees* (1664), John Evelyn called sawmills a “Norway engine.”<sup>17</sup> The Virginia Company employed Dutch millwrights to build their sawmill in Virginia.<sup>18</sup> The British employed a Dutchman to build the first sawmill in England in 1663, although the British abandoned this sawmill because it threatened the livelihood of hand sawyers.<sup>19</sup> When the British built another sawmill in 1767, the builder traveled to Holland to learn “the art of constructing and managing the sawing machinery.”<sup>20</sup> Therefore, it is understandable why Dutch sawmills populated North America, especially in New York, as that was originally a Dutch colony. Indeed, the mechanisms for the first New York sawmills emanated from Holland.<sup>21</sup>

The French followed the Dutch designs in sawmill construction. By the mid-seventeenth century, French settlers were building sawmills in New France (Canada).<sup>22</sup> A Frenchman built

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<sup>9</sup> William Douglass, *A Summary, of Historical and Political of the First Planting, Progressive Improvements and Present State of the British Settlements in North America*, vol. 2 (London: R. and J. Dodsley, 1760), 55.

<sup>10</sup> Bishop, *American Manufactures*, 100.

<sup>11</sup> Bishop, *American Manufactures*, 105-106.

<sup>12</sup> Fox, *Lumber Industry*, 12.

<sup>13</sup> Fox, *Lumber Industry*, 12; James Elliott Defebaugh, *History of the Lumber Industry in America*, vol. 2 (Chicago: American Lumberman, 1906), 306.

<sup>14</sup> Fox, *Lumber Industry*, 14.

<sup>15</sup> Fox, *Lumber Industry*, 13.

<sup>16</sup> Bishop, *American Manufactures*, 108. For a complete listing of the first sawmills throughout New York, see *Sixth Annual Report of the Forest, Fish and Game Commission of the State of New York* (Albany: James B. Lyon, 1901), 286-306.

<sup>17</sup> Frans-Arne H. Stylegar, “Sawmills in New Netherland: A Scandinavian Perspective,” *De Halve Maen: Journal of The Holland Society of New York* 93, no. 2 (October 2020): 27-28. John Evelyn, *Sylva or a Discourse on Forest Trees* vol. 2, 4th ed. (London: Doubleday, 1908), 77.

<sup>18</sup> Peterson, “Sawdust Trail,” 94.

<sup>19</sup> Samuel Smiles, *Industrial Biography: Iron Workers and Tool Makers* (Boston: Ticknor and Fields, 1864), 208.

<sup>20</sup> Smiles, *Industrial Biography*, 208. For a full description of this mill and accompanying plates, see Appendix C.

<sup>21</sup> Fox, *Lumber Industry*, 12.

<sup>22</sup> Joseph-Noël Fauteux, *Essai sur L'industrie au Canada sous Le Régime Français*, vol. 1 (Quebec: LS-A Proulx, 1927), 173-177.

the first sawmill in Montréal in 1670.<sup>23</sup> In 1687 Quebec, Frenchmen built 2 sawmills that operated with 2 saws each.<sup>24</sup> However, in New France sawmills did not develop as quickly as in the British colonies in the seventeenth century. The 1717 census of New France only recorded 6 sawmills.<sup>25</sup> Once French officials realized the value of Canadian lumber, especially as conflicts began to arise with the British in the early eighteenth century, they authorized more sawmills. By 1734, there were 52 sawmills.<sup>26</sup> In June 1756, the Intendant of New France, François Bigot, imposed an embargo on all lumber exports from Canada because lumber was too valuable a resource for Canada during the French and Indian War.<sup>27</sup> At that exact time was the beginning of the construction of the sawmill at Ticonderoga.

### Characteristics of a Sawmill

The sawmill of the eighteenth century operated with a straight saw that moved up and down, typically powered by water from a river.<sup>28</sup> A completely functioning eighteenth century sawmill had the following properties: a saw that moved up and down, a carriage to move the log into the saw, a mechanism to stop the carriage movement within 3 inches of the end of the log, and mechanisms to move the carriage back to reset the log for further sawing.<sup>29</sup> Water, striking a wheel that turned a crank, powered all of these motions.

This is the basic functioning of an eighteenth century sawmill as detailed in Oliver Evans's *The Young Mill-Wright and Miller's Guide*, a treatise on eighteenth century mills originally printed in 1795. For a visual depiction, the attached picture is from Evans's treatise (Figure 1).

The sluice drawn from the penstock **10**, puts the wheel **11** in motion — the crank **13** moves the saw-gate and saw **9** up and down, and as they rise they lift up the lever **2**, which pushes forward the hand-pole **3**, which moves the rag-wheel **5**, which gears in the cogs of the carriage **6**, and, draws forward the log **16** to meet the saw, as much as is proper to cut at a stroke. When it is within 3 inches of being through the log, the cleet **C**, on the side of the carriage, arrives at a trigger and lets it fly, and the sluice-gate shuts down; the miller instantly draws water on the wheel **14**, which runs the log gently back, &c. &c.<sup>30</sup>

<sup>23</sup> Alexander Jodoin and J. L. Vincent, *Histoire de Longueuil et de la Famille de Longueuil* (Montréal: Gebhardt-Berthiaume, 1889), 52.

<sup>24</sup> Fauteux, *Essai sur L'industrie*, 180.

<sup>25</sup> Fauteux, *Essai sur L'industrie*, 195.

<sup>26</sup> Fauteux, *Essai sur L'industrie*, 198.

<sup>27</sup> Fauteux, *Essai sur L'industrie*, 119, 218-219.

<sup>28</sup> Of note, wind powered some of the early seventeenth century Dutch built sawmills in New York, but water-powered mills largely replaced these structures by the eighteenth century.

<sup>29</sup> Oliver Evans, *The Young Mill-Wright and Miller's Guide*, 4th ed. (Philadelphia: M. Carey and Son, 1821), 353.

<sup>30</sup> Evans, *Young Mill-Wright*, 358.

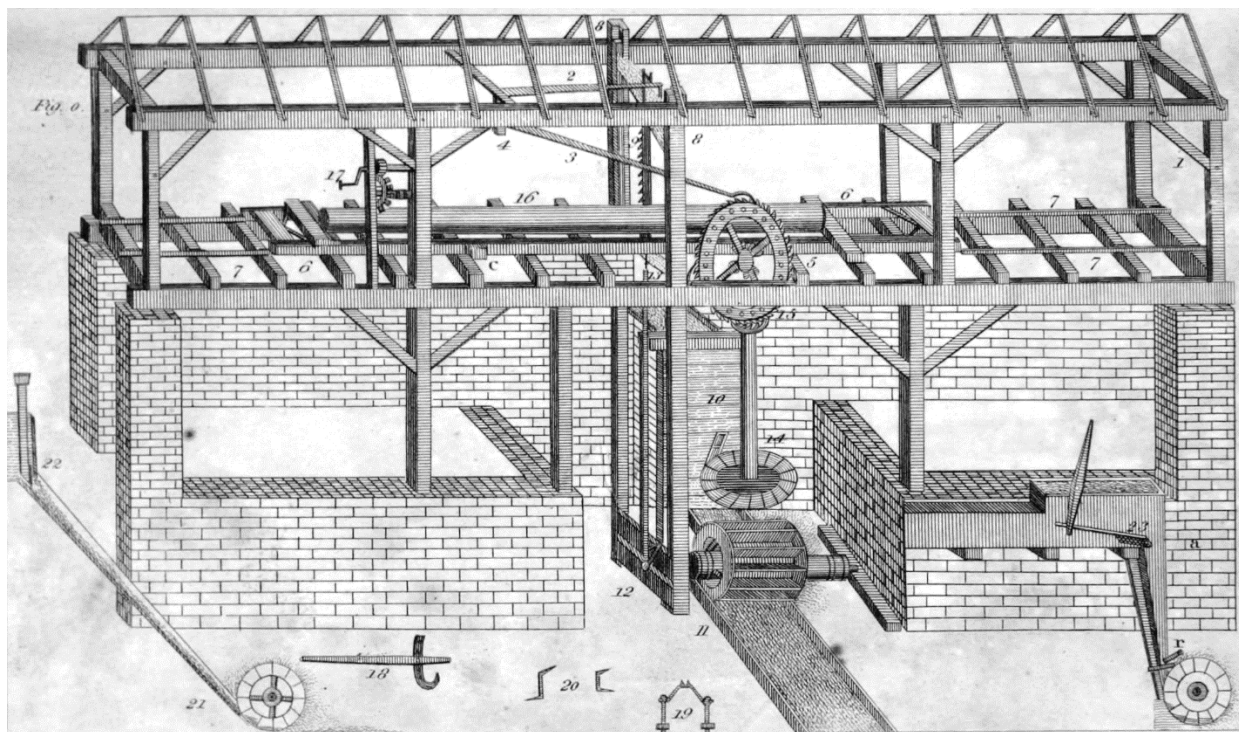


Figure 1. Evans's plan for a sawmill.

Oliver Evans, *The Young Mill-Wright and Miller's Guide*, 4th ed. (Philadelphia: M. Carey and Son, 1821), plate 23.

The water wheel was a common, recognizable feature that denoted a mill, whether the structure was a sawmill or gristmill. Most of the eighteenth century military maps concerning Ticonderoga typically represent a sawmill on a map with a spoked wheel or simply a cross, denoting the presence of a water wheel, as represented below.



Figure 2. Sawmill map marking.

Plan of Ticonderoga and Mount Independence, including Mount Hope. Charles Wintersmith, 1780. John Carter Brown Library.



Figure 3. Sawmill map marking.

John Brown's Map 1777. Fort Ticonderoga Museum Archives.

There were three types of wheels that powered sawmills: the undershot, the overshot, and the breast shot. The most common wheel for sawmills was the flutter wheel, which operates

exactly like the undershot and therefore, falls under the umbrella of that type of wheel. The flutter wheel was smaller and sometimes wider than a typical undershot wheel.<sup>31</sup>

The undershot wheel operated with water striking the wheel buckets (floats) at the bottom of the wheel. The water's percussion (momentum) moves the wheel. Once the sluice gate (penstock) is open, water travels down a path (millrace, sluice, canal, or chute), strikes the buckets, and turns the wheel.

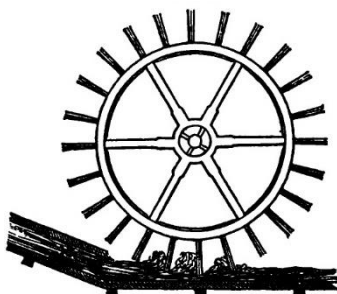


Figure 4. Undershot Wheel.

J. L. Comstock, *A System of Natural Philosophy: In Which are Explained the Principles of Mechanics* [...] (New York: Farmer, Brace, and Company, 1857), 135.

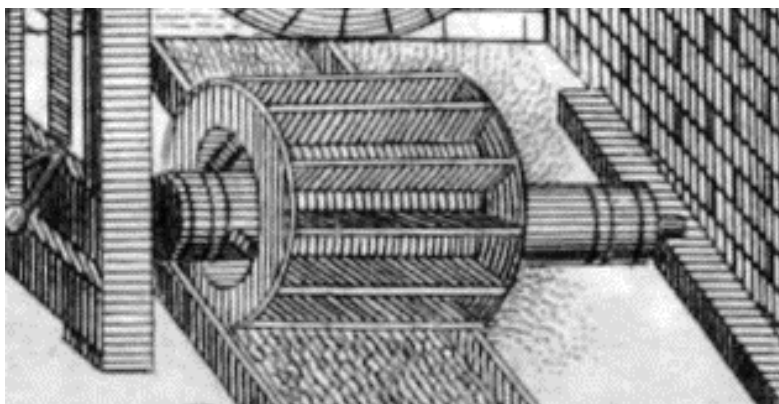


Figure 5. Flutter Wheel.

Oliver Evans, *The Young Mill-Wright and Miller's Guide*, 4th ed. (Philadelphia: M. Carey and Son, 1821), plate 23.

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<sup>31</sup> Evans, *Young Mill-Wright*, 160n.

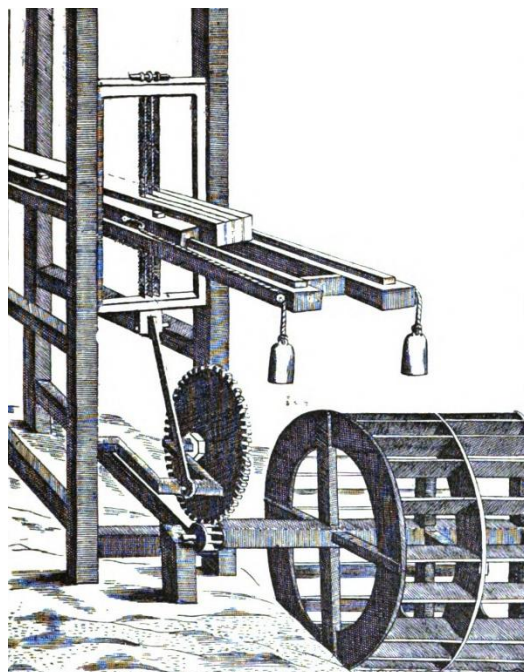


Figure 6. Seventeenth century depiction of sawmill powered by a flutter wheel.  
John Evelyn, *Sylva or a Discourse on Forest Trees* vol. 2, 4th ed. (London: Doubleday, 1908), 78.

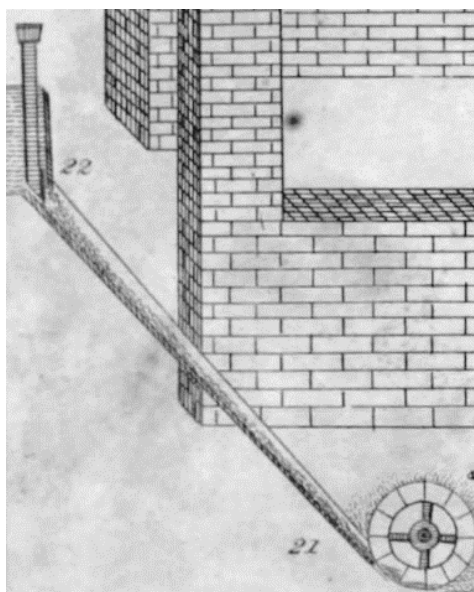


Figure 7. Depiction of gravity fed water.  
The sluice gate (22), when opened, allows water to move down maximum 45-degree angle to flutter wheel (21).  
Oliver Evans, *The Young Mill-Wright and Miller's Guide*, 4th ed. (Philadelphia: M. Carey and Son, 1821), plate 23.



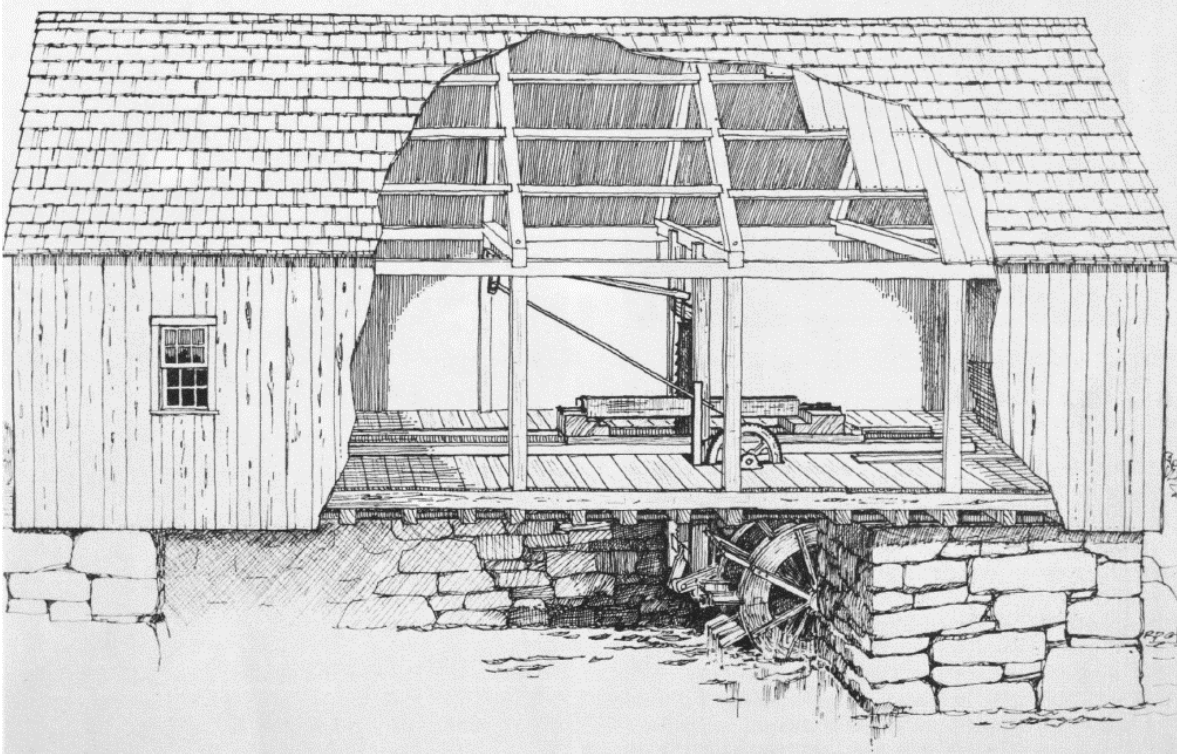


Figure 8. Artistic representation of the Dutton Sawmill in Maine (circ. 1782).

This mill uses a flutter wheel for powering the saw.

Drawing by Donald Bassett. Courtesy of the Maine State Museum.

The overshot wheel operated with water striking the wheel floats, or buckets, at the top of the wheel. The gravity (weight) of the water moves the wheel. This was a more powerful wheel than the undershot wheel.

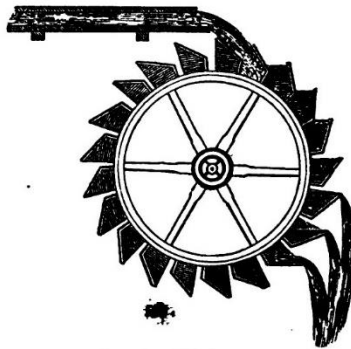


Figure 9. Overshot Wheel.

J. L. Comstock, *A System of Natural Philosophy: In Which are Explained the Principles of Mechanics [...]* (New York: Farmer, Brace, and Company, 1857), 134.

The breastshot wheel operated with water striking the wheel buckets in the middle of the wheel. The wheel moves from both the percussion and gravity of the water.

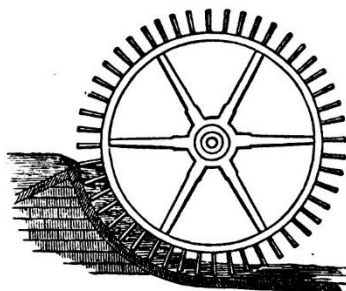


Figure 10. Breastshot Wheel.

J. L. Comstock, *A System of Natural Philosophy: In Which are Explained the Principles of Mechanics* [...] (New York: Farmer, Brace, and Company, 1857), 136.

The location of the sawmill, the water source, and the means of construction—whether monetary or available building material—were usually the determining factors for which wheel powered a mill. According to Evans, a sawmill should utilize an undershot wheel when there is a “great plenty of water,” which is the case at the lower falls of the La Chute River in Ticonderoga.<sup>32</sup> Generally, a sawmill would utilize an overshot wheel when there was little available water because the weight of the water, not the volume, turned the wheel. While the breastshot wheel compromised between the undershot and overshot, it usually wasted water, and if the water was not correctly striking the wheel—due to water volume or inaccurate placement of the sluice—it produced less power.

In Evans’s treatise, Thomas Ellicott, an eighteenth century millwright specializing in sawmills, explains the necessity for the flutter wheel in sawmills. Ellicott writes:

They [water wheels] have been variously constructed; the most simple and useful of which, where water is plenty, and above six feet fall, is the flutter-wheel . . . Flutter-wheels may be made suitable for any head above six feet, by making them low and wide, for low heads; and high and narrow for high ones, so as to make about 120 revolutions, or strokes of the saw, in a minute: but rather than double gear I would be satisfied with 100 . . . if there is very plenty of it [water], the [flutter] wheels may be made wider than directed in the table, and the mill will be more powerful.<sup>33</sup>

Ellicott further explains the proper gearing for a sawmill:

They should be geared so as to give the saw about 120 strokes in a minute, when at work in a common log . . . The wallower [horizontal axle connected to the wheel] commonly has 14 or 15 rounds, but so as to produce the right motion. On the wallower shaft is a balance-wheel, which may be of stone or wood: this is to regulate the motion. There should be a good head above the water-wheel to give it a lively motion, else the mill will run heavily.

As this history will demonstrate, the location of the Ticonderoga sawmill provides an abundant water supply and a steep drop at the lower falls, both of which aligns with Ellicott’s instructions.

<sup>32</sup> Evans, *Young Mill-Wright*, 155.

<sup>33</sup> Evans, *Young Mill-Wright*, 351-352. On page 352, Ellicott presents a listing of the proposed diameter for flutter wheels.

The lifecycle of an eighteenth century sawmill was the construction, the use, and the decline. Decline could occur from numerous reasons, including lack of waterpower, lack of timber, or lack of maintenance. Most sawmills, as a structure, did not survive long. The first sawmill built in New York in 1623 was “decayed and in ruin” by 1648.<sup>34</sup> Similarly, the first sawmills in Maine fell into the same state within twenty years of their construction.<sup>35</sup> The wooden wheel usually suffered the most, due its continuous impact and moisture from water, which resulted in repairs or replacement every five to ten years.<sup>36</sup>

For the sawmills at Ticonderoga, maintenance issues were the most prevalent issues, whether that was from personnel mishandling equipment or neglect of required structural and mechanism maintenance. Certainly, the presence of water—thus moisture—affected any wooden structure, which is an important factor at the continual flowing of water over the lower falls in the La Chute River. However, as this history will show, the most important reason why the Ticonderoga ceased to exist was its destruction during war.

### **Military Sawmills**

Eighteenth century civilian sawmills produced lumber in the form of boards, plank, and scantling, which carpenters then refined into workable lumber for construction projects.<sup>37</sup> Sawmills employed for the military produced the same types of lumber. Due to the speed of construction at Ticonderoga and lack of carpenters—particularly during the American period of 1775 through 1777—it is unlikely that carpenters finished all of the sawn lumber. Despite this, unfinished lumber—rough or unplaned—was useable, particularly in siding for buildings. However, carpenters planed most lumber, especially if the lumber was to produce planks for vessels and artillery platforms, oars, troughs for guns, skids, and wheels. American carpenters constructed all these items at Ticonderoga during the American War for Independence.<sup>38</sup>

Throughout the second half of the eighteenth century, various military forces built sawmills in conjunction with fortifications throughout North America. Most, if not all, of these sawmills were quickly built and did not last long, due to the ravages of war or eventual neglect. The following is a listing of several forts with connected sawmills uncovered during the research for this history. During the French and Indian War, the French built sawmills to support their building of Fort Frontenac (Canada) and Fort Machault (Pennsylvania)—this sawmill operated with two saws.<sup>39</sup> During this same war, the British built sawmills at Fort Oswego, Fort Stanwix, Crown Point and Fort William Henry (New York), and Fort Ligonier (Pennsylvania), and later in the 1760s at Fort Sinclair (Michigan). During the American War for Independence, monetary problems typically plagued the Americans, which forced the Americans to operate more frugally.

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<sup>34</sup> Resolution to Take Down the Mill on Governor's Island, New Amsterdam, 1648, E. B. O'Callaghan, ed., *Documents Relative to the Colonial History of the State of New York*, 15 vols. (Albany: Weeds, Parsons, and Company, 1853-1887), 14:82 (hereafter cited as DRCHSNY).

<sup>35</sup> Rivard, *Maine Sawmills*, 16.

<sup>36</sup> Charles Howell, “Colonial Watermills in the Wooden Age,” in Brooke Hindle, ed., *America's Wooden Age: Aspects of Its Early Technology* (Tarrytown, NY, 1975), 134.

<sup>37</sup> Bishop, *American Manufactures*, 115.

<sup>38</sup> “Benedict Arnold’s Regimental Memorandum Book,” *The Pennsylvania Magazine of History and Biography*, vol. 8 (Philadelphia: Historical Society of Pennsylvania, 1884), 371, 374.

<sup>39</sup> British forces, led by Colonel Henry Bouquet, discovered the burnt fort and sawmill in 1760. Bouquet wrote: “The saw mill is hardly worth repairing. The two saws are gone, and the Dam fallen down. None of our Artificers understand saw mills, but they imagine that in a Week’s time, it could be repaired so as to have one saw going,” see Bouquet to Monkton, Camp at Venango, July 13, 1760, in *Collections of the Massachusetts Historical Society*, fourth series, vol. 9 (Boston: Massachusetts Historical Society, 1871), 268.

Thus, the American army either worked contracts with civilian sawmills—as they did at Fort Ticonderoga and Fort Stanwix, and Fort Pitt (Pennsylvania), and even later in the 1790's at Fort Wayne (Indiana)—, or they seized unused or abandoned sawmills and placed them under military command, as they did at Ticonderoga, Skenesborough, and Fort Anne (New York).

During war, military commands often used soldiers as sawyers, both in manual labor and in sawmills. There are many instances during the French and Indian War and the American War for Independence of drafting soldiers who had experience in certain trade fields—such as teamsters, weapon armorers, carpenters, and millwrights. An example of this occurred at Crown Point in early July 1776, where Brigadier General John Sullivan remarked:

[I] have Sent Lieu Col<sup>o</sup> Wait with about Two hundred of his men. These men can Saw Boards & Plank & Send them over here which will be an amazing advantage to us. They can at the Same time protect the Inhabitants by Scouting parties being well acquainted with the Country & well acquainted with Saw mills.<sup>40</sup>

Despite these instances, most soldiers typically performed regular military duties, such as guard, scouting, and ordinary fatigue duties in a military encampment. As this history will demonstrate, untrained soldiers often operated sawmills improperly, which usually destroyed the intricate mechanisms in the mill.

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<sup>40</sup> Sullivan to Schuyler Crown Point, July 2, 1776, in Otis G. Hammond, ed., *Letters and Papers of Major-General John Sullivan Continental Army*, vol. 1, 1771-1777 (Concord, NH: New Hampshire Historical Society, 1930), 273-274.

## History of the Ticonderoga Sawmill: 1756-1777

### The French Occupation: 1755-1759

#### Strategic Situation of the Champlain Valley in 1755

To protect the southern approach into Canada down Lake Champlain, the French built Fort Saint-Frédéric at Crown Point in 1731. At this time, the English and their American colonists were firmly in the environs of Albany, New York and they were slowly expanding northwards. Fort Saint-Frédéric was a key launching site for French forces during King George's War (1744-1748), with French and their native allies attacking as far south as Saratoga.<sup>41</sup>

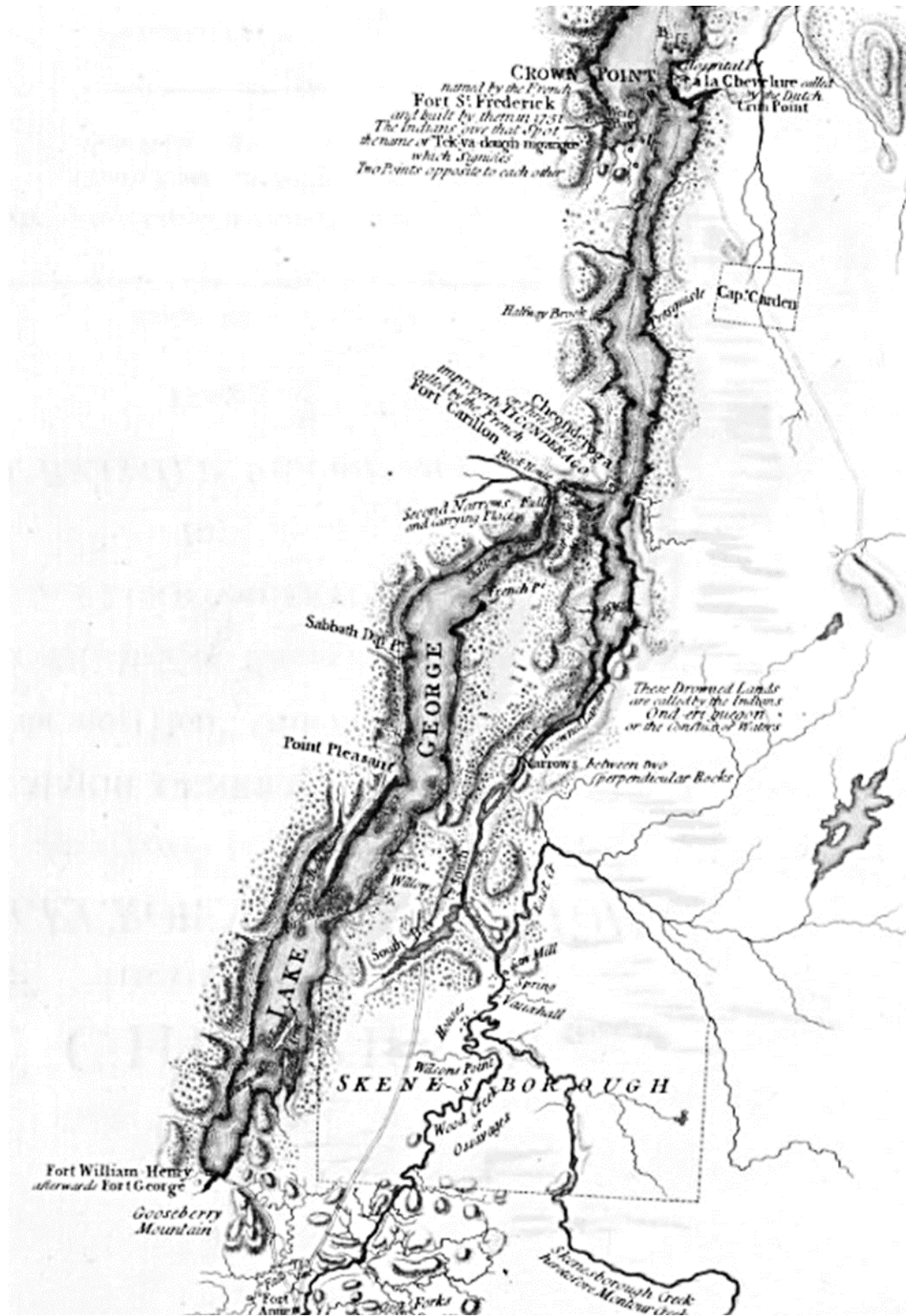
The peace after King George's War did last long. Hostilities commenced again between France and Britain, first, at the French victories at Fort Duquesne and Fort Necessity in 1754, and second, after the French defeated Major General Edward Braddock at the Monongahela River in July 1755. With hostilities increasing, the British expected more aggressions on the frontiers of the American colonies from the French and their native allies. Therefore, the British began constructing fortifications in the frontier areas of America. These forts offered both protection to the colonial settlers and a base for British forces to gather for their own offensive assaults against the French.

Because the lower Champlain Valley offered easy access for French military forces in New France (Canada) into New York and New England, the British built two forts at key portage sites in September 1755. This allowed the British military easier access into Lake Champlain, as a prelude to their expected attack on French forces garrisoning Fort Saint-Frédéric (Crown Point). The first fort the British began building in August 1755 was Fort Lyman (ultimately called Fort Edward) on the Hudson River, north of Albany. Also called the 'Great Carrying Place,' it was the launching site for British forces moving to the north from Albany.<sup>42</sup> This fort guarded the beginning of the portage north to Lake George—called by the French Lake Saint-Sacrament. Fort Edward would eventually connect a route to the northeast to Fort Ann, which connected into Wood Creek—called by the French the Chicot River—and ultimately into South Bay, which was the southern point of Lake Champlain. The second British fort built was Fort William-Henry on the southern shore of Lake George in September 1755. This fort guarded the northern end of the portage from Fort Edward.

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<sup>41</sup> George Warburton, *The Conquest of Canada*, vol. 1 (New York: Harper and Brothers, 1850), 339; DRCHSNY, 10:159.

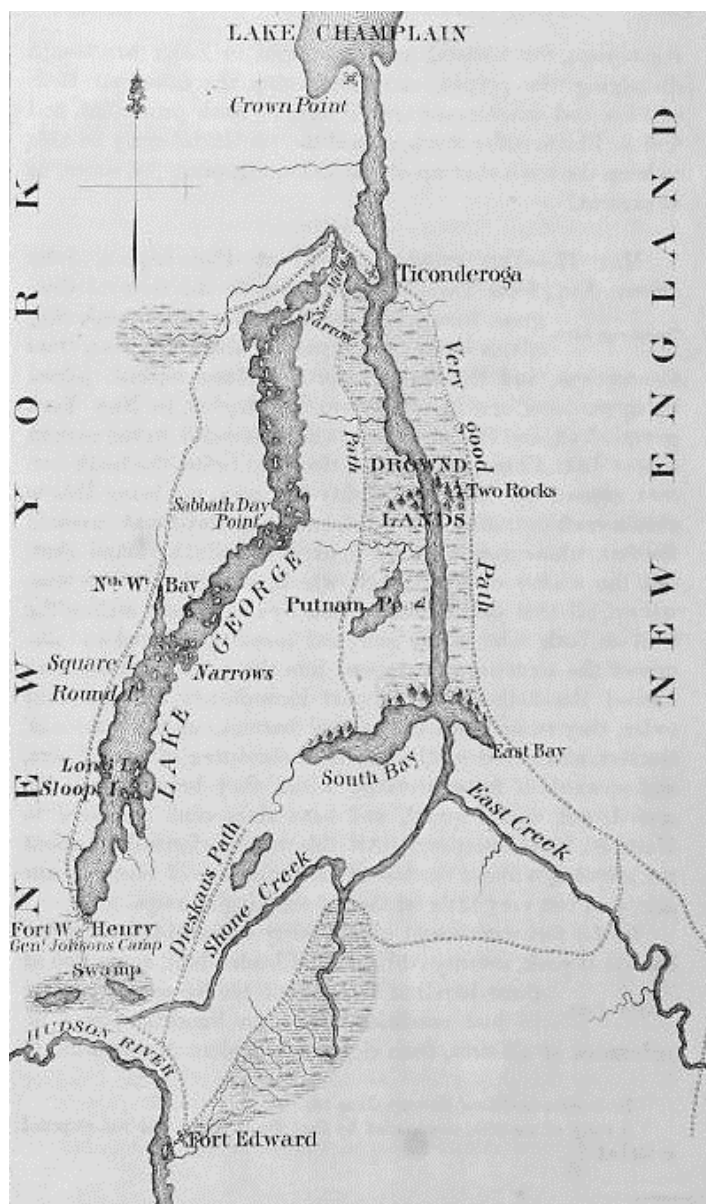
<sup>42</sup> Hardy to Lords of Trade, Fort George, November 27, 1755, in DRCHSNY, 6:1021.



Map 1. From the map "A survey of Lake Champlain, including Lake George, Crown Point, and St. John." William Brasier, 1762.

Norman B. Boston Public Library, Leventhal Map Center. See map A15, page A-27.

On September 3, 1755, Major General Jean-Armand Baron de Dieskau arrived at Carillon with French and native military forces. Dieskau's mission was to launch a preemptive attack on British forces before they could launch their own attack against the French. Dieskau moved south to attack on the British at Fort Lyman (Edward); however, he diverted to attack the British building Fort William-Henry, which he deemed an easier target. Dieskau's attempt ended in failure on September 8, 1755 at the Battle of Lake George with Dieskau wounded and captured; the remaining French and native forces moved back to the north. Although the Battle of Lake George was a defeat for the French, Dieskau's attack did enough damage against British forces in northern New York, which precluded any British attack north in 1755.<sup>43</sup>



Map 2. The Country between Crown Point and Fort Edward. 1759.  
Fort Ticonderoga Archives.

<sup>43</sup> John Marshall, *The Life of George Washington* [...], vol. 1 (Philadelphia: C. P. Wayne, 1805), 374-375; Francis Parkman, *Montcalm and Wolf* (New York: Da Capo Press, 1995), 182-183.

## 1755 and 1756

### The Military Situation at Carillon

The peninsula of Carillon connects the strategic convergence of Lake George and the southern portion of Lake Champlain. The French assessed that having a fort at Carillon was the key to impeding any British attack from the south. Therefore, the Governor of New France, Marquis Rigaud de Vaudreuil, sent instructions for the construction of the fort at Carillon on September 20, 1755, even before he received word of Dieskau failure.<sup>44</sup> Vaudreuil sent his instructions to the engineer Lieutenant Michel Chartier de Lotbinière who would assess the area, draw up the plans, and construct the fort at Carillon.<sup>45</sup> Lotbinière arrived at Carillon with French troops from Fort Saint-Frédéric on October 12 and began construction on October 14, 1755.<sup>46</sup> With the onset of winter, most of the French troops departed Carillon on November 28, 1755 and a small garrison remained with Lotbinière to construct barracks.<sup>47</sup> Lotbinière departed Carillon on February 10, 1756, which ended any further construction.<sup>48</sup>

Lotbinière returned in early May 1756 and construction at Fort Carillon, previously referred to as Fort Vaudreuil, resumed.<sup>49</sup> On May 18, 1756, Britain officially declared war against France and the French responded with their declaration of war against Britain on June 9, 1756.<sup>50</sup> Because of these events and intelligence received from scouts, the French expected a British attack against Carillon that summer.<sup>51</sup> Accordingly, Dieskau's replacement, Major General—*Maréchal de Camp*—Louis-Joseph de Montcalm, and his second in command, Brigadier General Chevalier François de Lévis, arrived at Carillon in early July 1756 with *Troupes de Terre* from the 2nd battalion *le Régiment de Royal-Roussillon*.<sup>52</sup>

Montcalm found the military situation at Carillon lacking since its initial construction, noting that construction on the fort was “very little advanced” from the previous year.<sup>53</sup> Therefore, he initiated improvements, including local reconnaissance patrols and establishing advance posts along the La Chute River. Montcalm emplaced three advance posts. The post furthest south was a camp on the west side on the river at the end of Lake Saint Sacrament, manned by three hundred *Troupes de la Marines* under the command of Captain Claude-Pierre de Contrecoeur.<sup>54</sup> The next camp was a post on the eastern side of the river at the portage site, manned by five hundred Canadian militia commanded by the Chevalier de la Corne.<sup>55</sup> The last

<sup>44</sup> “The Building of the Fort,” *The Bulletin of the Fort Ticonderoga Museum* 2, no. 3 (January 1931), 90 (hereafter cited as BFTM).

<sup>45</sup> BFTM 2, no. 3, 89-90.

<sup>46</sup> BFTM 2, no. 3, 90, 92; DRCHSNY, 10:356, 361, 367.

<sup>47</sup> BFTM 2, no. 3, 93; DRCHSNY, 10:411.

<sup>48</sup> BFTM 2, no. 3, 93.

<sup>49</sup> BFTM 2, no. 3 (January 1931), 93. For reference to Fort Vaudreuil, see H. R. Casgrain, ed., *Journal du Marquis de Montcalm Durant Ses Campagnes en Canada de 1756 à 1759* (Quebec: J. Demers and Frère, 1895), 66 (hereafter cited as *Journal of Montcalm*); BFTM 2, no. 3, 95.

<sup>50</sup> Parkman, *Montcalm and Wolf*, 205.

<sup>51</sup> Parkman, *Montcalm and Wolf*, 219. For scouting reports around Ticonderoga in 1755 and 1756, see E. B. O’Callaghan, ed., *The Documentary History of the State of New York*, vol. 4 (Albany: Charles van Benthuyssen, 1851), 257-287.

<sup>52</sup> DRCHSNY, 10: 432; *Journal of Montcalm*, 73; H. R. Casgrain, ed., *Journal des Campagnes du Chevalier de Lévis en Canada de 1756 à 1760*, vol. 1 (Montreal: C. O. Beauchemin & Fils, 1889), 44 (hereafter cited as *Journal of Lévis*).

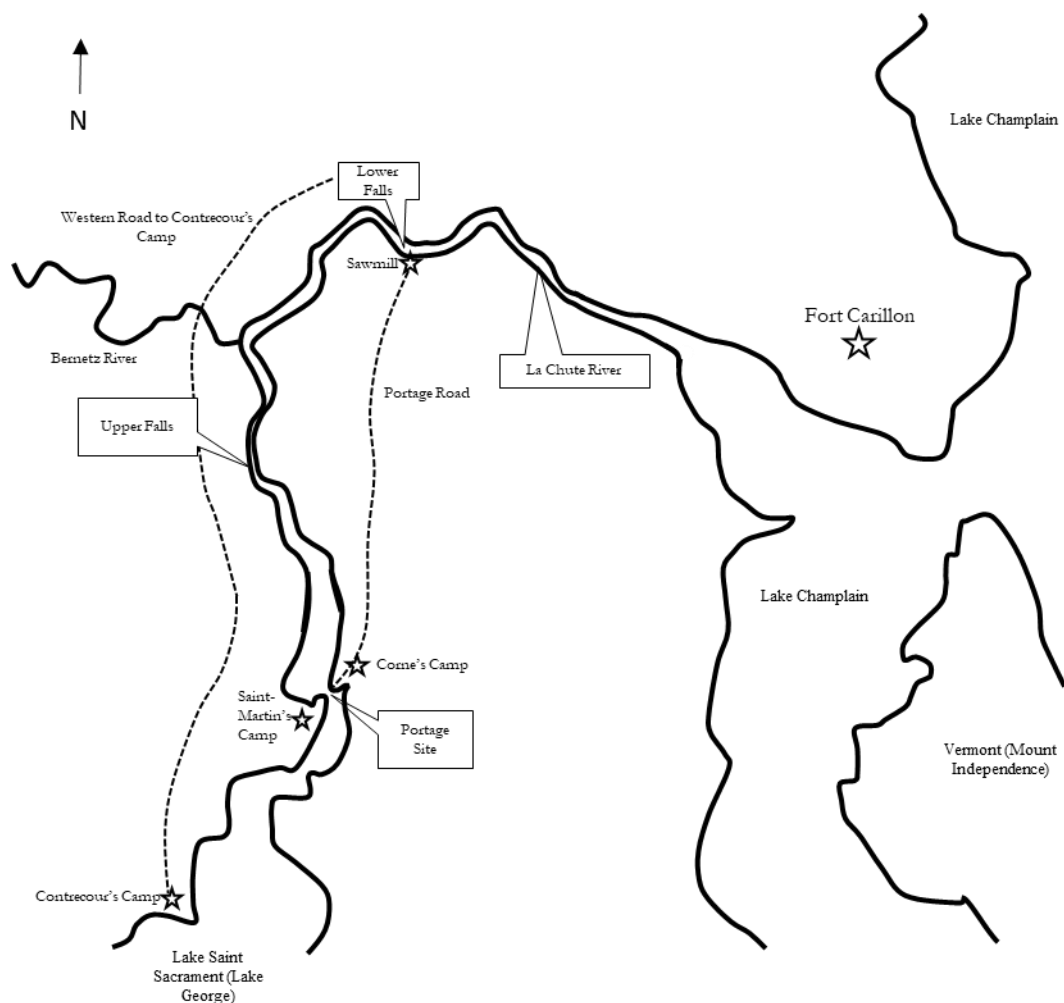
<sup>53</sup> Montcalm to D’Argenson, Montreal, July 20, 1756, in DRCHSNY, 10:433.

<sup>54</sup> *Journal of Montcalm*, 73.

<sup>55</sup> *Journal of Montcalm*, 73.



post was at the lower falls of the river, manned by *Troupes de Terre* who rotated with replacements from Carillon every four days.<sup>56</sup>



Map 3. Ticonderoga Valley, late summer 1756.

Montcalm's stay at Carillon was brief; he departed in the middle of July to conduct offensive operations against the British at Chouagen (Fort Oswego), leaving Lévis commanding at Carillon.<sup>57</sup> Lévis furthered the defense by adding a system of warning for the main garrison at Carillon in case of a British attack from Lake Saint Sacrament. He sent two *boîtes* to Corne and two to the camp at the falls.<sup>58</sup> On approach of the enemy, Corne would ignite the two *boîtes*, alerting the camp north at the falls to ignite their two *boîtes*, thus alerting the garrison at Carillon who would respond with two canon shots.<sup>59</sup> The system apparently worked because on August 13 and 23, the *boîtes* fired; however, these were false alarms.<sup>60</sup> Because of the continuance of

<sup>56</sup> *Journal of Montcalm*, 73.

<sup>57</sup> DRCHSNY, 10:432; *Journal of Lévis*, 45.

<sup>58</sup> *Journal of Lévis*, 47, 48. For BOÎTE, see Glossary.

<sup>59</sup> *Journal of Lévis*, 48.

<sup>60</sup> Nicolas Renaud D'Avène Des Méloizes, "Journal Militaire Tenu Par Nicolas Renaud D'Avène Des Méloizes, Ch<sup>er</sup>, Seigneur De Neuville Au Canada, Du 19 Juillet 1756 Au 30 Octobre De La Mémé Année," in *Rapport de*

false alarms, Lévis sent 60 *Troupes de Terre* to Contrecour's camp (these troops rotated every four days), and he added another post on the west side of the river across from Corne's camp comprised of 120 *Troupes de la Marines* commanded by Captain Jean-Jacques-Georges de Saint-Martin.<sup>61</sup>

Montcalm, after his success at Chouagen, returned with more reinforcements to Carillon on September 10, 1756 because of an expected attack from British forces.<sup>62</sup> With the influx of troops, there were further additions to the defensive system in September 1756. Montcalm reinforced the advance camps with additional troops; Contrecour's camp had 800 soldiers and Saint-Martin's camp had 300 soldiers.<sup>63</sup> Corne had 600 soldiers in his camp, and the camp at the falls contained the 2nd battalion *Régiment de Béarn* and the 2nd battalion *Régiment de Guyenne*.<sup>64</sup>

On approach of the enemy, the alert signal was from three *boîtes*, either from Contrecour's or Corne's camps, fired two times to alert the battalions north of the sawmill.<sup>65</sup> In case of an alarm, the *Régiment de Béarn* would march south along the portage road to Corne's camp, while the *Régiment de Guyenne* would take another road to Contrecour's camp.<sup>66</sup> This road originated north of the falls and followed the course of the La Chute River to the west and then turned south, crossing the Bernetz River, and ended at Contrecour's camp (see map 3).<sup>67</sup> The reason for this longer route was in case the British routed Contrecour and were moving north, the *Guyenne* battalion would be able to engage the enemy near the upper falls before they could flank French forces.<sup>68</sup> A detachment of soldiers from both the *Béarn* and *Guyenne* battalions would remain in their respective areas to guard their camps.<sup>69</sup> The 2nd battalion of *Régiment de La Reine* would move from Carillon into the "heights behind" the *Guyenne* camp.<sup>70</sup> However, outside of small patrols and isolated attacks in the latter months of 1756, the French never utilized this defensive system because there was never an attack by the British.

### ***Le Moulin à Scie (The Sawmill)***

On June 24, 1756, Lotbinière began to reconnoiter a site for a sawmill near the lower falls of the La Chute River.<sup>71</sup> Then on June 28, the French sent carpenters and miners "to establish a saw mill at the falls."<sup>72</sup> Despite the presence of the workers, the sawmill never materialized as a complete working structure during the summer.<sup>73</sup> Part of the problem was that the crucial metal

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*L'Archiviste De La Province De Québec Pour 1928-1929* (Quebec: Redeemed Paradise, 1929), 9, 11-12; *Journal of Lévis*, 60.

<sup>61</sup> *Journal of Lévis*, 61.

<sup>62</sup> *Journal of Montcalm*, 77.

<sup>63</sup> Jean-Guillaume-Charles de Plantavit de Margon de la Pause, "Le Chevalier De La Pause," in *Rapport de L'Archiviste De La Province De Québec Pour 1931-1932* (Quebec: Redeemed Paradise, 1932), 40.

<sup>64</sup> De La Pause, *Rapport de L'Archiviste*, 40.

<sup>65</sup> De La Pause, *Rapport de L'Archiviste*, 40.

<sup>66</sup> De La Pause, *Rapport de L'Archiviste*, 40.

<sup>67</sup> De La Pause, *Rapport de L'Archiviste*, 40.

<sup>68</sup> De La Pause, *Rapport de L'Archiviste*, 41.

<sup>69</sup> De La Pause, *Rapport de L'Archiviste*, 40.

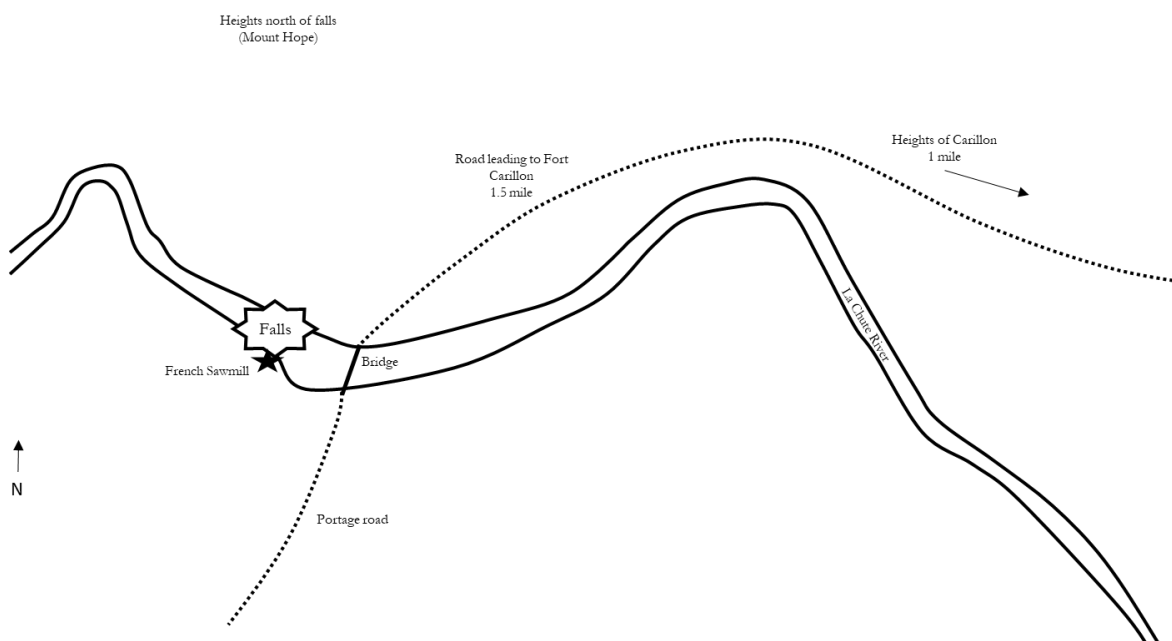
<sup>70</sup> De La Pause, *Rapport de L'Archiviste*, 40.

<sup>71</sup> "Diary of Captain Gaspard-Joseph Chaussegros de Léry," BFTM 6, no. 4 (July 1942), 141-142.

<sup>72</sup> BFTM 6, no. 4, 143.

<sup>73</sup> In 1933, at the inauguration of the Carillon bridge, A. de Léry Macdonald asserted that Lotbinière was able to construct a dam before the falls that could funnel water through a flume, which powered an overshot wheel; he gives no references for this information so it is unknown if this is fact or conjecture, see A. de Léry Macdonald, "Michel Chartier de Lotbinière: The Engineer of Carillon," *New York History* 15, no. 1 (January 1934): 34.

components had yet to arrive from Canada. Lotbinière sent a request for four saws for the mill to Canadian officials; however, officials failed to fulfill that request by late August 1756.<sup>74</sup> This is because Canadian smiths had yet to make the saws by August 23, 1756.<sup>75</sup> While waiting for the components, Lotbinière constructed a bridge over the river, just east of the falls.<sup>76</sup>



Map 4. Founding of the sawmill, late summer 1756.

While it is apparent that the sawmill construction was floundering by September 1756, some progress did occur. On September 10, Major Robert Rogers recorded that the French were actively building a sawmill “at the lower end of the falls” on the La Chute River.<sup>77</sup> It appears that Lotbinière renewed some construction effort into the sawmill, likely because Montcalm was returning to Carillon from Chouagen. However, it again appears that the sawmill construction stalled. Captain Louis Antoine de Bougainville, aide-de-camp to Montcalm, recorded that Major Jean-Guillaume-Charles de Plantavit de Margon de La Pause, aide-major of the *Régiment de Guyenne*, took charge of the sawmill construction in October 1756 and finished the structure at a cost of five hundred francs.<sup>78</sup> Aide-Major Maurès de Malartic of the *Régiment de Béarn* also recorded La Pause’s appointment; he wrote on October 1, 1756 that Montcalm “charged M. de

<sup>74</sup> H. R. Casgrain, ed., *Lettres de L’Intendant Bigot au Chevalier De Lévis* (Quebec: L. J. Demers & Frère, 1895), 21; H. R. Casgrain, ed., *Lettres Du Marquis De Vaudreuil au Chevalier De Lévis* (Quebec: L. J. Demers & Frère, 1895), 33 (hereafter cited as *Lettres De Vaudreuil*). This information is in letters written by the Intendant of New France, François Bigot and by the Governor of New France, Marquis Pierre de Rigaud de Vaudreuil.

<sup>75</sup> H. R. Casgrain, ed., *Lettres de Divers Particuliers au Chevalier De Lévis* (Quebec: L. J. Demers & Frère, 1895), 66.

<sup>76</sup> Macdonald, “Lotbinière,” *New York History* 15, no. 1: 34.

<sup>77</sup> Robert Rogers, *Journals of Major Robert Rogers*, intro. Howard H. Peckham (New York: Corinth Books, 1961), 24; *Journals of the Hon. William Hervey in North American and Europe, from 1755 until 1814; With Orderly Books from Montreal 1760-1763* (Bury St. Edmond’s, England: Paul & Mathew, 1906), 39.

<sup>78</sup> “Journal of Bougainville’s Campaigns in Canada,” *BFTM* 11, no. 1 (December 1962), 30.

Lapause with ensuring that the sawmill at the falls was working.”<sup>79</sup> It appears that sometime around the middle of October 1756, the sawmill was fully operational, because in that period the mill was able to produce one hundred and fifty planks every twenty-four hours.<sup>80</sup> Using sawmill treatises from the era, that rate of production indicates this sawmill operated with 1 saw.

### **Official Corruption, Lotbinière, and the Impact on the Construction Progress at Carillon**

It is clear in the historical record that colonial officials in New France grew rich from war profiteering during the French and Indian War. However, did the fraudulent dealings of colonial officials affect construction at Carillon, including the sawmill? The answer, according to officers of the *Troupes de Terre*, was a resounding yes. At the center of the French officers’ displeasure was the Canadian engineer Lotbinière.

Bougainville wrote in the middle of October 1756 that the “saw mill which under the direction of M. de L. [Lotbinière] never was gotten in shape to make planks, they had even decided to abandon it.”<sup>81</sup> While it is unclear exactly who made the decision, it seems clear that Bougainville is referencing Lotbinière. Bougainville wrote that Lotbinière, who he disparagingly called the “Vauban of Canada,” had no interest in finishing construction projects around Carillon because of greed, a sentiment shared by Major de La Pause.<sup>82</sup> Even Montcalm held a similar disparaging view of Lotbinière whom he considered not a very competent engineer.<sup>83</sup> This is likely why Montcalm tasked Captain François-Joseph Germain of *Régiment de La Reine* and by Adjutant Égide-Armand Joannes of *Le Régiment de Languedoc* to assist Lotbinière in the fort’s construction.<sup>84</sup>

Lotbinière was the focal point for the demeaning views because of a couple factors. Lotbinière was the cousin of Governor Vaudreuil, who appointed him as the lead engineer at Carillon; thus, the French officers viewed his appointment as a privilege, and not grounded by experience or skill. Further, Lotbinière was a Canadian, a characteristic held in low regard by officers from France.<sup>85</sup> However, Governor Vaudreuil defended Lotbinière’s engineering skills noting, “he [Lotbinière] did not first have the people he needed and moreover he experienced many difficulties and small altercations.”<sup>86</sup> Nevertheless, those justifications did not change the opinion of the French officers.

Major de La Pause detailed specifics about the corrupt nature of colonial Canadian officials:

Having interests to look after, he [Lotbinière] had been given the canteen; he was also responsible for paying the workers by certificates he gave them which, taken to Montreal or Quebec and stamped by the intendant [Bigot] or commissioner [Varin], were paid by

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<sup>79</sup> Maurès de Malartic, *Glories to Useless Heroism: The Seven Years War in North America from the French Journals of Comte Maurès de Malartic 1755-1760*, translated and annotated by William Raffle (Sulihull: Helion and Company, 2017), 93.

<sup>80</sup> BFTM 11, no. 1 (December 1962), 30.

<sup>81</sup> BFTM 11, no. 1 (December 1962), 30.

<sup>82</sup> BFTM 11, no. 1 (December 1962), 30; De La Pause, *Rapport de L’Archiviste*, 40-41.

<sup>83</sup> *Journal of Montcalm*, 409.

<sup>84</sup> DRCHSNY, 10:414.

<sup>85</sup> For the animosity held by both Canadians and French towards each other, see Parkman, *Montcalm and Wolf*, 268-272.

<sup>86</sup> *Lettres De Vaudreuil*, 26.

the treasurer immediately, after deduction of 4% ... this form of payment swarms with abuses prejudicial to the king and to the worker.<sup>87</sup>

Both François Bigot, the Intendant of New France, and Jean-Victor Varin, the Commissary and Controller of New France, were French born and well versed in the corruption and greed that “was a part of the political culture in Bourbon France.”<sup>88</sup> Both of these men used their official offices for monetary gain and profited greatly during the French and Indian War.<sup>89</sup> Included in Bigot’s partners was Michel-Jean-Hugues Péan who was an intermediary between Bigot and Canadian suppliers; it was Péan who notified Lévis about the smiths making the saws.<sup>90</sup>

Throughout his time in North America, Montcalm took note of the continual war profiteering from colonial officials, concluding that ‘it is up to criminal justice to play its role.’<sup>91</sup> French officials did exactly that and at the end of the French and Indian War, when the French government arrested, tried, and convicted Bigot and Varin of corruption.<sup>92</sup> Included in the list of corrupt officials were Péan, and Jean-Marie Landriève—the 1758 Commissary at Carillon—, and Héguy—storekeeper at Carillon prior to May 9, 1758.<sup>93</sup> Despite all the individuals implicated in corruption, there were no direct charges of hindering construction at Carillon. All the charges pertaining to Carillon revolved around inflating prices for rations, supplies, and wages for workers, and, most interesting, sending too many rations to the fort at exorbitant prices. Although there was corruption from the highest to lowest levels of officials in Canada, there appears to be no direct link that corruption slowed the construction process of Carillon or the sawmill.

There were no official charges against Lotbinière, even though officers of the *Troupes de Terre* believed him guilty of war profiteering.<sup>94</sup> Even the French Minister of War—Marshal de Belle-Isle—believed Lotbinière profited from the war.<sup>95</sup> The slow construction progress at Carillon and the sawmill stemmed from the lack of workers, the unwillingness of the French garrison to work, and, at times, a demanding workload that was too much for Lotbinière to handle by himself.<sup>96</sup> Further, Lotbinière defended himself against war profiteering allegations by noting that he was “very economical to not have spent more” in the “total expense connected

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<sup>87</sup> Jean-Guillaume-Charles de Plantavit de Margon de la Pause, “Le Chevalier De La Pause,” in *Rapport de L’Archiviste De La Province De Québec Pour 1931-1932* (Quebec: Redempted Paradise, 1932), 40-41.

<sup>88</sup> J. F. Boshier and J. C. Dubé, “Bigot, François,” in *Dictionary of Canadian Biography*, vol. 4, University of Toronto, 2003. [http://www.biographi.ca/en/bio/bigot\\_francois\\_1778\\_4E.html](http://www.biographi.ca/en/bio/bigot_francois_1778_4E.html).

<sup>89</sup> For a summary of corruption during the war, see George Warburton, *The Conquest of Canada*, vol. 2 (New York: Harper and Brothers, 1850), 68-69.

<sup>90</sup> See note 34 above.

<sup>91</sup> *Journal of Montcalm*, 425.

<sup>92</sup> The French king appointed the Intendant of Canada as an official who had “duties and powers ... as an independent administrative and judicial officer” and answered only to the king, thus, the French legal proceeding against Bigot, W. B. Munro, “The Office of Intendant in New France,” *The American Historical Review* 12, no. 1 (1906): 25. For the list of Bigot’s crimes and conviction, see Pierre Georges Roy, *Bigot et Sa Bande et L’Affaire Du Canada* (Quebec: Lévis, 1950), 25-32. For Varin’s crimes, see Roy, *Bigot*, 47-49.

<sup>93</sup> French officials ordered Péan to repay 600,000 livres for his crimes, see Roy, *Bigot*, 120. French officials eventually acquitted Landriève of all crimes, see Roy, *Bigot*, 170. Héguy did not appear in French court and nothing was ever finalized against him, see Roy, *Bigot*, 191.

<sup>94</sup> Montcalm wrote at the beginning of November 1756 that Fort Carillon “serves to enrich the Colonial Engineer, one of M. de Vaudreuil’s relations,” see DRCHSNY, 10:491.

<sup>95</sup> DRCHSNY, 10:889-890.

<sup>96</sup> BFTM 2, no. 3, 93, 95.

with this Fort [Carillon] and the Camps.”<sup>97</sup> There is no evidence that Lotbinière ever used his connection to Vaudreuil as a means to circumvent his requests to the Intendant of Canada; Lotbinière could only wait for any supplies arriving from Canada, such as the saws.<sup>98</sup> However, officers of the *Troupes de Terre* never fully accepted Lotbinière, despite his formal engineering education in France.<sup>99</sup>

### The Military Camp at the Sawmill

As stated, Montcalm established a military post at this site in July 1756. While there is no exact location stated for this post in the records of 1756, it was on the north side of the La Chute River (north of the sawmill) because that is where the arriving reinforcements encamped in September 1756. Also, while recommending a camp location at the sawmill area in 1757, Colonel François-Charles de Bourlamaque specifically stated that the military campsite in 1756 was north of the La Chute River.<sup>100</sup> The terrain north of the lower falls, which is high ground, makes an ideal location for strategically controlling the Ticonderoga Valley. Lévis directed the 2nd battalion *Régiment de Béarn* to camp on the north of falls upon their arrival on September 6, 1756.<sup>101</sup> The soldiers of *Béarn* began work on abatis to protect their camp from enemy forces the next day.<sup>102</sup> The 2nd battalion *Régiment de Guyenne* camped to the right of the *Régiment de Béarn* on their arrival to Carillon on September 10, 1756.<sup>103</sup> Further, Major de La Pause wrote that “there was a sawmill down below where these battalions provided a guard.”<sup>104</sup>

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<sup>97</sup> BFTM 2, no. 3, 96.

<sup>98</sup> For a balanced analysis of Lotbinière and the allegations of his misdeeds, see Roy, *Bigot*, 291-298.

<sup>99</sup> F. J. Thorpe and Sylvette Nicolini-Maschino, “Chartier de Lotbinière, Michel, Marquis de Lotbinière,” in *Dictionary of Canadian Biography*, vol. 4, University of Toronto, 2003.

[http://www.biographi.ca/en/bio/chartier\\_de\\_lotbiniere\\_michel\\_4E.html](http://www.biographi.ca/en/bio/chartier_de_lotbiniere_michel_4E.html). Major François-Marc-Antoine Le Mercier was another French born colonial officer who benefitted from war profiteering and who had ties with Bigot. Montcalm concluded that Le Mercier would “soon be worth about 6 or 700,000 livres, perhaps a million, if these things continue,” quoted in Jean Pariseau, “Le Mercier, François-Marc-Antoine,” in *Dictionary of Canadian Biography*, vol. 4, University of Toronto, 2003.

[http://www.biographi.ca/en/bio/le\\_mercier\\_francois\\_marc\\_antoine\\_4E.html](http://www.biographi.ca/en/bio/le_mercier_francois_marc_antoine_4E.html).

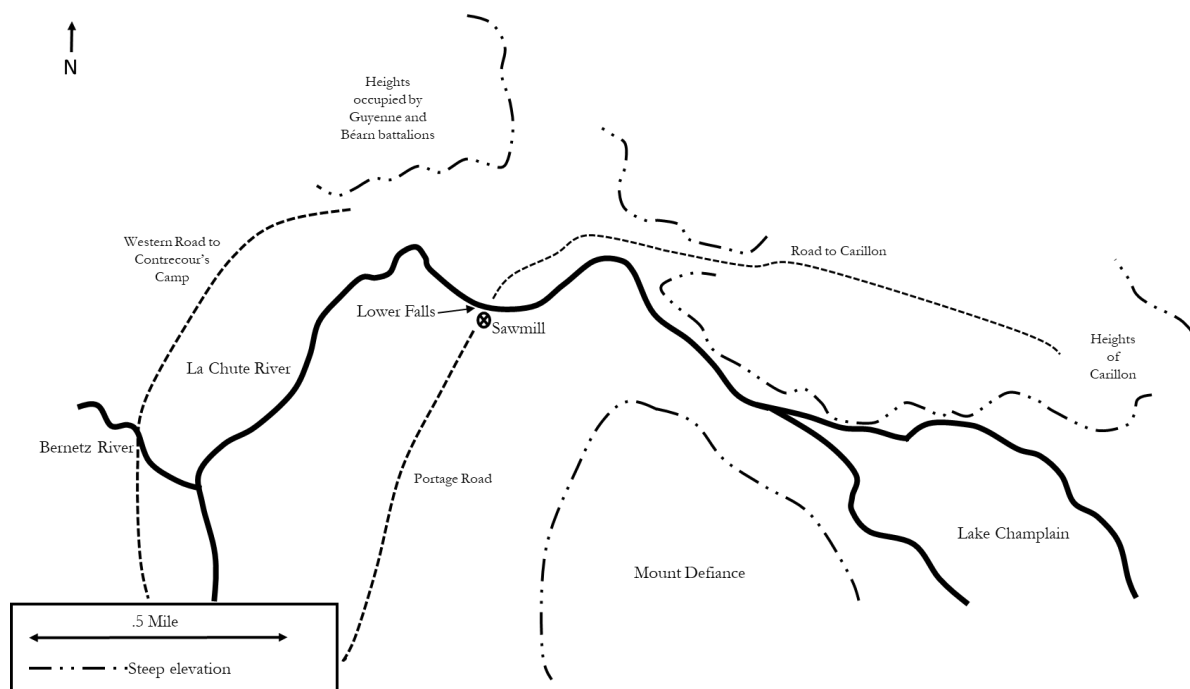
<sup>100</sup> H. R. Casgrain, ed., *Lettres de M. de Bourlamaque au Chevalier De Lévis* (Quebec: L. J. Dremer & Frère, 1891), 173 (hereafter cited as *Lettres de Bourlamaque*).

<sup>101</sup> *Journal of Lévis*, 66-67; Maurès de Malartic, *Glories to Useless Heroism: The Seven Years War in North America from the French Journals of Comte Maurès de Malartic 1755-1760*, translated and annotated by William Raffle (Sulihull: Helion and Company, 2017), 90.

<sup>102</sup> Malartic, *Glories to Useless Heroism*, 90.

<sup>103</sup> *Journal of Lévis*, 67; Malartic, *Glories to Useless Heroism*, 91; De la Pause, *Rapport de L'Archiviste*, 39.

<sup>104</sup> De La Pause, *Rapport de L'Archiviste*, 40.



Map 5. Sawmill area, late summer 1756.

Major de La Pause further describes the precautions taken in guarding the camp of the *Guyenne* troops. As with the *Béarn* battalion, the *Guyenne* battalion felled trees and constructed abatis around their camp. They also installed three different observation posts to the west and north of their camp, which their troops manned on a rotating basis. They also had a permanent camp guard on a small height south of their camp that could continually observe approach routes from the river and a ravine. To supplement these posts, the *Guyenne* also initiated roving patrols in the daylight.<sup>105</sup> Despite these robust additions for guarding the camp, Major Rogers was able to move through the area and capture a French soldier on the road from Carillon in late October 1756.<sup>106</sup>

### The End of 1756

Malartic noted that the fort needed 3,000 planks from the sawmill before the main military forces departed for the winter.<sup>107</sup> If the mill produced 150 planks every twenty-four hours, which would necessitate twenty days to complete the required amount of planks.<sup>108</sup> This would place the completing of the 3,000 planks sometime in early November. After this, evidence suggests the sawmill did not remain in operation through the winter. A captured French soldier divulged to the British that all French forces decamped from the area in early November.<sup>109</sup> This is likely because most of the French forces departed Carillon for the winter in early November, and because there was already a substantial amount of snow on the ground.<sup>110</sup>

<sup>105</sup> For all these details, see De La Pause, *Rapport de L'Archiviste*, 39.

<sup>106</sup> Major Robert Rogers, 25.

<sup>107</sup> Malartic, *Glories to Useless Heroism*, 93.

<sup>108</sup> See n38 above.

<sup>109</sup> Major Robert Rogers, 26.

<sup>110</sup> *Journal of Lévis*, 73-75; Malartic, *Glories to Useless Heroism*, 95. Lévis asserts there was at least one foot of snow, see DRCHSNY, 10:546.

When Lévis departed Carillon on November 12, he turned overall command of Carillon over to Captain Paul-Louis Dazemond de Lusignan of the *Troupes de la Marine*, and left special instructions for Captain Jean Baptiste Guillaume Le Prévost de Basserode of the *Régiment de Languedoc* who commanded the remaining *Troupes de Terre*.<sup>111</sup> The winter garrison for Carillon consisted of approximately 300-315 men composed of 1 *piquet* (50 soldiers) from the 2nd battalion of *Régiment de La Reine*, 1 *piquet* (50 soldiers) from the 2nd battalion of the *Régiment de Languedoc*, 1 *piquet* (50 soldiers) from the 2nd battalion *Régiment de Royal-Roussillon*, 100 soldiers of *Troupes de la Marine*, and 50 workers.<sup>112</sup>

While the records are unclear as to what the French utilized these workers for, there was no French military activity in the La Chute River area or the sawmill, and there is no evidence to suggest that there was any substantial construction activities at Carillon over the winter. During the winter, these workers would not venture far from the fort without an escort by French military forces, because of the continual presence of British and native patrols throughout the area. During the winter months, the sawmill did not operate.

## 1757

### Winter Events

It is unlikely that the French had soldiers posted at the sawmill throughout the winter of 1756 and into 1757. Lévis did note that he pulled in all the advanced posts before he departed Carillon in November 1756, exactly as a captured French soldier revealed to Rogers; this included the post at the sawmill.<sup>113</sup> The sawmill did not operate over the winter months due to icing in the La Chute River. In a letter from Vandreuil on March 12, he relayed to Lotbinière that he was sending Canadian militia to take advantage of the spring freshet and get the mill operating.<sup>114</sup>

Major Rogers led a patrol west of the La Chute River in January 1757.<sup>115</sup> This patrol would eventually engage French forces north of Carillon in the First Battle of the Snowshoes on January 21, and return through the same western area on their return to Fort William-Henry.<sup>116</sup> Rogers does not mention any military activity in the sawmill area, including patrols. His only concern after the battle was that French reinforcements might arrive from “Ticonderoga from whence the enemy might easily make a descent and overpower us by numbers.”<sup>117</sup> Further, a captured French soldier divulged that the garrison at Carillon was “well equipped, and in condition to march upon any emergency at the least notice.”<sup>118</sup> This emphasizes that all the French soldiers were at Fort Carillon and not at outlying posts. This soldier also confirmed that a “large number of troops” would arrive at Carillon in the spring and that the winter garrison at Carillon only consisted of 350 troops.<sup>119</sup> After the battle, the retreating Rogers wrote that his

<sup>111</sup> *Journal of Lévis*, 76; Lévis to Paulmy, Montreal, April 24, 1757, in DRCHSNY, 10:546.

<sup>112</sup> Bougainville records the plan for a winter garrison consisting of 300 soldiers, see <sup>112</sup> Louis Antoine De Bougainville, *Adventures in the Wilderness: The American Journals of Louis Antoine De Bougainville, 1756-1760*, translated and edited by Edward P. Hamilton (Norman: University of Oklahoma, 1964), 62. Lévis records that he left 315 men for the winter garrison, see *Journal of Lévis* 75, 76.

<sup>113</sup> DRCHSNY, 10:546.

<sup>114</sup> Contents of letter relayed in Macdonald, “Lotbinière,” *New York History* 15, no. 1: 35. The New York State Historical Society Library holds the original letter. A copy of the letter is in the Fort Ticonderoga Archives.

<sup>115</sup> *Major Robert Rogers*, 28-29.

<sup>116</sup> *Major Robert Rogers*, 28-32.

<sup>117</sup> *Major Robert Rogers*, 32.

<sup>118</sup> *Major Robert Rogers*, 29.

<sup>119</sup> *Major Robert Rogers*, 29.



troops stopped “six miles below the French advance guard.”<sup>120</sup> By using Rogers’s distances and terrain descriptions provided in his journal, and approximating his route, it is clear that the reference is to Contrecour’s camp from 1756, which was empty because the French vacated it in November 1756. Therefore, Rogers’s mention of the ‘advance guard’ indicates a reference point on the ground and not an active military post.

### **Beginning of the Campaign Season**

As the captured soldier revealed, Fort Carillon saw an influx of troops in late February for an attack against Fort William-Henry—called by the French Fort Georges. These troops departed Carillon and conducted an attack on the British fort in mid-March. After the attack, these troops stopped briefly at Carillon on their way back to Canada.<sup>121</sup>

In mid-May the 2nd battalion *Régiment de Béarn* and the 2nd battalion *Régiment de Royal-Roussillon* arrived at Carillon.<sup>122</sup> On May 15, 1757, Captain Lusignan departed after relinquishing command of Carillon to Bourlamaque.<sup>123</sup> Bourlamaque reconnoitered the La Chute River area; he sent *Troupes de la Marines* to occupy and fortify the eastern portage area—under Captain Ignace-Philippe Aubert de Gaspé—and the western portage area at the upper falls—under Captain Pierre-Joseph Céloron.<sup>124</sup> On May 24, Lotbinière returned to resume construction duties at Fort Carillon.<sup>125</sup> Then on May 25, Bourlamaque sent men to construct abatis at the previous site of Contrecour’s camp at the head of the La Chute River.<sup>126</sup>

### **The Sawmill Area**

Due to the ease of access for enemy forces into the sawmill area, it is likely that the French removed some of the key components from the sawmill, possibly saw blades and other metal components, back to Fort Carillon for the winter. While this is only a hypothesis, there is some information that supports this conclusion. On May 30, the French began moving timber and “*instrumens du moulin* [mill tools]” to the sawmill.<sup>127</sup> The record does not specify exactly what type of mill tools these were. However, it is apparent that the French recognized the vulnerability of leaving unguarded equipment so far from Fort Carillon; thus, they removed them during the winter.

With the influx of troops, the French had the sawmill functioning again; on June 19, the sawmill began to operate.<sup>128</sup> At that time, the sawmill began providing boards, via bateaux, for the construction of the hospital, which began on June 23.<sup>129</sup> Construction remained steady throughout the summer and the sawmill provided the needed boards and planks, and even supplied the ends and leftover of sawn lumber.<sup>130</sup>

Also with the new troop arrivals, military activity increased in the sawmill area. In late May, the French had approximately 40 soldiers stationed at an advanced post (possibly a

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<sup>120</sup> Major Robert Rogers, 32.

<sup>121</sup> *Journal of Lévis*, 80-81.

<sup>122</sup> Malartic, *Glories to Useless Heroism*, 110.

<sup>123</sup> Malartic, *Glories to Useless Heroism*, 110.

<sup>124</sup> Malartic, *Glories to Useless Heroism*, 112.

<sup>125</sup> Malartic, *Glories to Useless Heroism*, 113.

<sup>126</sup> Malartic, *Glories to Useless Heroism*, 113.

<sup>127</sup> Malartic, *Glories to Useless Heroism*, 114.

<sup>128</sup> Malartic, *Glories to Useless Heroism*, 119.

<sup>129</sup> Malartic, *Glories to Useless Heroism*, 119.

<sup>130</sup> Malartic, *Glories to Useless Heroism*, 121.

redoubt) near the sawmill, and they had soldiers patrolling the forests around the sawmill area.<sup>131</sup> To stage for the new upcoming attack on Fort William-Henry—as well as to guard the vital assets of the sawmill and the bridge over the La Chute River—Lévis encamped with 4 battalions in the sawmill area on July 8, 1757. These were the 2nd battalion *Régiment de La Reine*, the 2nd battalion *le Régiment de Sarre*, the 2nd battalion *le Régiment de Languedoc*, and the 2nd battalion *le Régiment de Guyenne*.<sup>132</sup> Before Lévis arrived, Bourlamaque, the commanding officer of Carillon, recommended to Lévis that the battalions encamp on the south side of the river above the sawmill at a new camp, so that the troops would have easier access to constructing the portage road.<sup>133</sup> Bourlamaque received directions from Montcalm on June 28 that *La Reine* and *Sarre* regiments should encamp at the falls—on the north side of the river—and the *Languedoc* and *Guyenne* regiments encamp “beyond it” on marked ground—on the south side of the river.<sup>134</sup> For this marked ground, Bourlamaque specifically stated that Lévis should clear the area and consult with Captain Louis-Thomas Jacau de Fiedmont for ropes, cables, chèvres, and rouleaux.<sup>135</sup>

On July 9, Lévis ordered the battalions to construct a road from the sawmill south to the portage area of the La Chute River.<sup>136</sup> While this path was already notable in 1756, it seems apparent that this new construction made the road more accessible for the movement of troops and equipment. Lévis recorded the troops completed this project on July 12; Lieutenant Jean-Baptiste D’Aleyrac notes that it took until July 30 to move all the military equipment south along the portage road in preparation for the attack on Fort William-Henry.<sup>137</sup>

During his trip to Carillon for the planned attack on Fort Georges (William-Henry), Montcalm visited the sawmill area on July 19 and 21, at which time the mill was working, powered by water from the falls.<sup>138</sup> Native tribes allied with French also encamped in the sawmill area, though not within the French camps.<sup>139</sup> A small number of Mohawks were able to slip into the French camp in the sawmill area on July 23, and attack the sentries, scalping two French grenadiers.<sup>140</sup> It is likely that Daniel, a Mohawk Chieftain, led this Mohawks patrol. Daniel and eighteen Mohawks departed Fort Johnson, New York in early July and returned there on July 29 with two scalps that they “took near Tionderogo [Ticonderoga] where they say there is a large Encampment also a considerable Number of Men at the Advanced Guard near the Saw

<sup>131</sup> Almon D. Lauber, ed., *The Papers of Sir William Johnson*, vol. 9 (Albany: University of the State of New York, 1939), 780-781.

<sup>132</sup> *Journal of Lévis*, 82; Jean-Baptiste D’Aleyrac, *Aventures Militaires Au XVIII<sup>e</sup> Siecle D’Après Les Mémoires De Jean-Baptiste D’Aleyrac* (Paris: Charles Coste, 1935), 54.

<sup>133</sup> *Lettres de Bourlamaque*, 173.

<sup>134</sup> *Lettres de Bourlamaque*, 173.

<sup>135</sup> *Lettres de Bourlamaque*, 173. For CHEVRE, see Glossary and Appendix B. For ROULEAU, see Glossary. Captain Jacau was a Canadian engineer and artilleryman who engineered cannon into bateaux at Carillon in June 1757, see *Malartic*, 120; BFTM 13, no. 3 (1972), 215n39; Étienne Taillemite, “Jacau De Fiedmont, Louis-Thomas,” in *Dictionary of Canadian Biography*, vol. 4, University of Toronto, 2003. [http://www.biographi.ca/en/bio/jacau\\_de\\_fiedmont\\_louis\\_thomas\\_4E.html](http://www.biographi.ca/en/bio/jacau_de_fiedmont_louis_thomas_4E.html).

<sup>136</sup> *Journal of Lévis*, 85.

<sup>137</sup> *Journal of Lévis*, 85; *Aventures Militaires*, 54.

<sup>138</sup> H. R. Casgrain, ed., *Guerre du Canada, 1756-1760: Montcalm and Lévis*, vol. 1 (Quebec: L. J. Demers & Frère, 1891), 231; *Journal of Montcalm*, 236, 240-241.

<sup>139</sup> *Journal of Montcalm*, 236, 240-241.

<sup>140</sup> *Montcalm and Lévis*, 1: 232; *Aventures Militaires*, 55; *Journal of Montcalm*, 250.

Mill.”<sup>141</sup> This situation highlights the danger that existed to isolated targets throughout the Carillon area.

On July 30, the 4 French battalions departed the sawmill area and moved south along the portage road as part of the gathering French forces to attack Fort William-Henry.<sup>142</sup> From July 30 until August 17, the sawmill area was guarded by a captain and 50 soldiers.<sup>143</sup> The 2nd battalion *le Régiment de Sarre* camped in the area on August 17, after their return from attacking Fort William-Henry.<sup>144</sup> The 2nd battalion *le Régiment de Guyenne* encamped here shortly after this because Montcalm inspected both units in the sawmill area on August 21.<sup>145</sup> Both units departed the sawmill area on September 1 when they left Carillon for Fort Saint Frédéric.<sup>146</sup>

### The End of 1757

Throughout September and October the French retained a small post of soldiers in the sawmill area. British allied natives attacked the post of the night of October 13, and the French responded by reinforcing the post with “some guns” and twelve men.<sup>147</sup> By the end of October 1757, most the French forces, including all the *Troupes de la Marines*, departed Carillon for winter quarters in Canada. Captain Louis-Philippe Hébécourt of *La Reine* commanded Carillon during the winter of 1757 and the beginning months of 1758. The Carillon garrison consisted of approximately 250 soldiers divided into 5 *piquets* from the *La Reine*, *Languedoc*, *Sarre*, and *Béarn* regiments.<sup>148</sup>

## 1758

### Winter Months

There is little evidence that the French had a continual presence at the sawmill during the winter of 1758 or that the sawmill was in operation. As in the previous winter, it is likely that the winter weather prevented operating the sawmill. In addition, there were no qualified or able personnel to operate the sawmill. Vandreuil wrote to Lotbinière on May 26 that he was sending troops for Lotbinière to use to get the sawmill operational.<sup>149</sup> As with the previous winter, it is likely that the French removed some of the key sawmill components to the safety of Fort Carillon.

Major Rogers led a patrol through the sawmill area in December 1757 and the only activity he noted was tracks from natives allied to the French.<sup>150</sup> Rogers’s soldiers captured two Frenchmen between the sawmill area and the fort. He further recorded that the French were all inside Fort Carillon and did not pursue his forces after they killed cattle and burned large piles of

<sup>141</sup> *Sir William Johnson*, 9: 795, 806. Fort Johnson was 75 miles to the south-west of Carillon on the Mohawk River.

<sup>142</sup> *Aventures Militaires*, 57; *Journal of Montcalm*, 271.

<sup>143</sup> *Bougainville*, 156; *Journal of Montcalm*, 274.

<sup>144</sup> Jean-Guillaume-Charles de Plantavit de Margon de la Pause, “Le Chevalier De La Pause,” in *Rapport de L’Archiviste De La Province De Québec Pour 1931-1932* (Quebec: Redempted Paradise, 1932), 66.

<sup>145</sup> De La Pause, 71.

<sup>146</sup> De La Pause, 71.

<sup>147</sup> Malartic, *Glories to Useless Heroism*, 147.

<sup>148</sup> Malartic, *Glories to Useless Heroism*, 147, 148. A *piquet* was typically a 50 soldier unit composed of a select group of soldiers, see Marcel Fournier, *Combattre pour la France en Amérique: Les Soldats de la Guerre de Sept Ans en Nouvelle-France 1755-1760* (Montreal: Société Généalogique Canadienne-Française, 2009), 19.

<sup>149</sup> Contents of letter relayed in Macdonald, “Lotbinière,” *New York History* 15, no. 1: 35. The New York State Historical Society Library holds the original letter.

<sup>150</sup> *Major Robert Rogers*, 52.

cut wood intended for the Carillon garrison.<sup>151</sup> It is curious why Rogers did not burn the sawmill during that patrol, considering there was no French guards there. A speculative explanation is that Rogers was aware of the forthcoming British attack in the summer and that the British wanted the sawmill intact for their perceived victory at Carillon.

There were serious discipline problems (sedition and mutinous behavior) with the French garrison at Carillon during the winter months, mainly stemming from a lack of winter supplies, including food, which was in short supply throughout Canada during the winter of 1758.<sup>152</sup> The discipline problems at Carillon were so serious that Lévis sent 16 non-commissioned officers to Carillon who were “intelligent and sure people” who could to restrain the garrison with their “good example.”<sup>153</sup> A detachment consisting of French soldiers, *Troupes de le Marines*, and allied native tribes passed by the sawmill area on March 12, 1758, but there is no mention of other French troops in the area.<sup>154</sup> This French force would engage Robert Rogers’s force in the Second Battle of the Snowshoes on March 13, 1758.

### Campaign Season

During the campaign season (late spring through autumn), the French continually had troops stationed at the Lake Saint Sacrament landing and at the sawmill area. These posts continually served as advance posts for Fort Carillon because the ease of travel for the British north on Lake Saint Sacrament. In preparation of the attack from British forces under Major General James Abercromby, Montcalm stationed his French forces in an in-depth defensive posture from the north of Lake Saint Sacrament back to Fort Carillon on July 1. At the portage site, he positioned three *Troupes de Terre* battalions—the 2nd battalion *Régiment de La Reine*, the 2nd battalion *le Régiment de Béarn*, and the 2nd battalion *le Régiment de Guyenne*—, some *Troupes de la Marine* and Canadian militia under the command of Bourlamaque.<sup>155</sup> Montcalm made his headquarters camp at the sawmill where he positioned four *Troupes de Terre* battalions. On the north side of the river was the 2nd battalion *le Régiment de Sarre* and the 2nd battalion *le Régiment de Languedoc*, while on the south side was the 2nd battalion *le Régiment de Berry* and the 2nd battalion *le Régiment de Royal-Roussillon*.<sup>156</sup> Besides guarding the approaches, these troops assisted in the defense of Carillon by constructing palisades and fascines.<sup>157</sup>

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<sup>151</sup> Major Robert Rogers, 54.

<sup>152</sup> De La Pause, 76-77; *Journal of Lévis*, 124-125; L’Abbe Gabriel, *Le Maréchal De Camp Desandrouins 1729-1792: Guerre Du Canada 1756-1760, Guerre De L’Indépendance Américaine 1780-1782* (Verdun: Renvé-Lallemant, 1887), 131. For food shortages, see De La Pause, 76; *Journal of Lévis*, 112, 118.

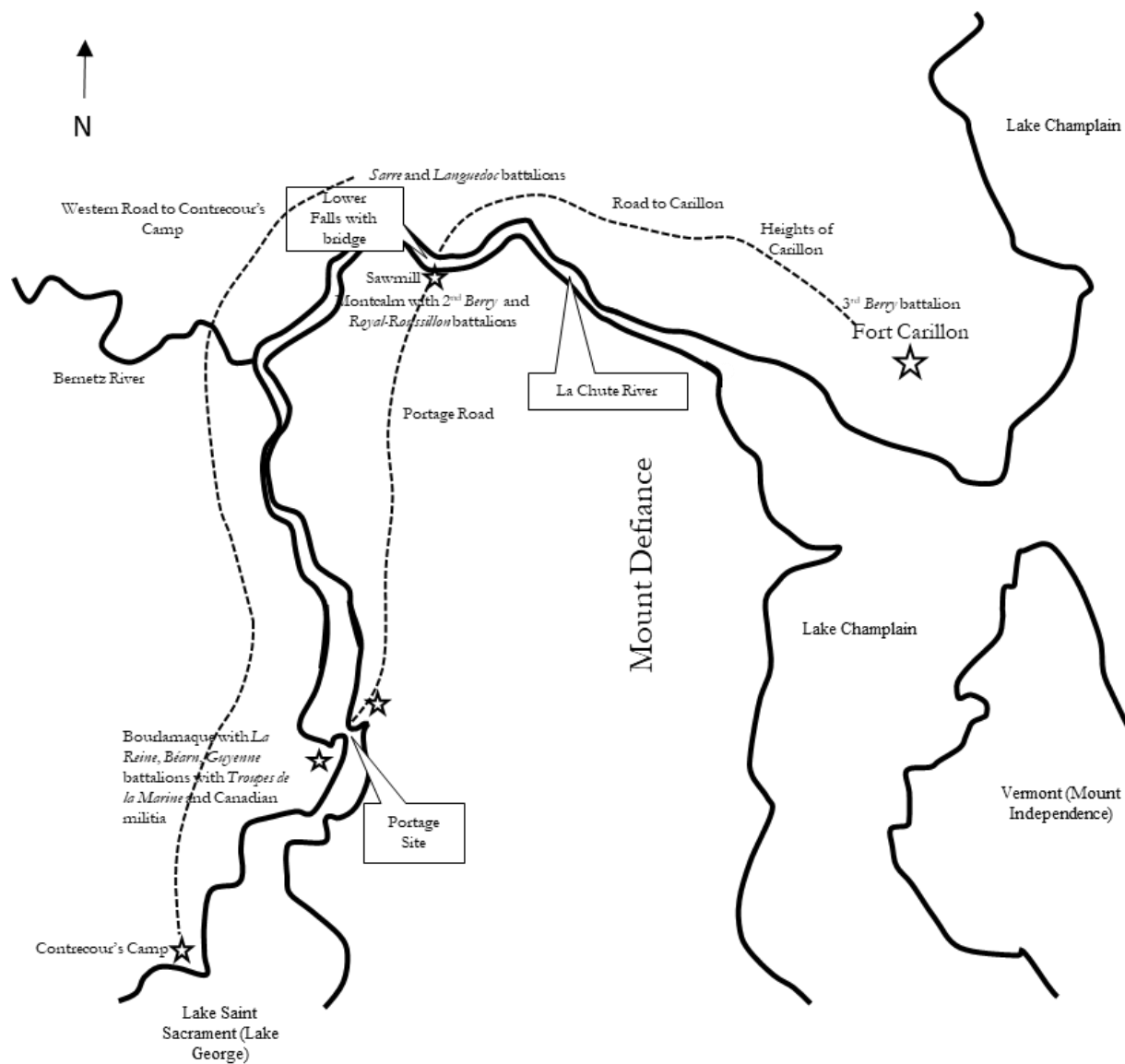
<sup>153</sup> *Journal of Lévis*, 125.

<sup>154</sup> *Journal of Lévis*, 126.

<sup>155</sup> Gabriel, *Maréchal De Camp Desandrouins*, 155. These *Troupes de Terre* battalions would form the Reine Brigade during the Battle of Carillon, see *Bougainville*, 231.

<sup>156</sup> William R. Nester, *The Epic Battles for Ticonderoga, 1758* (Albany: State University of New York, 2008), 115; *Aventures Militaires*, 68; *Journal of Lévis*, 131-132. The battalions of *Sarre* and *Languedoc* together formed the *Sarre* Brigade, while the *Berry* and *Royal-Roussillon* battalions formed the *Royal-Roussillon* Brigade during the Battle of Carillon, see *Bougainville*, 231.

<sup>157</sup> *Journal of Montcalm*, 386-387.



Map 6. French military dispositions July 1 – July 5, 1758.

On July 5, Boudamaque detached 350 soldiers to a lookout position on Mount Pelée, led by commanded by M. de Trépézé, captain of Béarn and accompanied by Ensign Jean-Baptiste Langy-Montégren of the *Troupes de la Marine*.<sup>158</sup> Although this detachment did warn the French advanced post at the portage of the approaching British, they were unable to withdraw before the British reached the landing site.<sup>159</sup> The detachment moved north and west to evade the advancing British forces, attempting to reach the French forces on the north shore above the sawmill. However, after their native scouts abandoned them, the detachment became disoriented and wandered several hours in the mountains.<sup>160</sup> When this detachment emerged in the west—where the Bernetz River connects into the La Chute River—the British advance forces were already

<sup>158</sup> Gabriel, *Maréchal De Camp Desandrouins*, 159; De La Pause, 80; *Journal of Montcalm*, 388.

<sup>159</sup> De La Pause, 81.

<sup>160</sup> *Journal of Montcalm*, 393.

before them. In the skirmish to break through, this detachment lost over half of its soldiers.<sup>161</sup> It was this skirmish where British Brigadier General George Augustus Howe died.<sup>162</sup>

On the approach of British troops on July 6, the French advanced posts retreated to the north shore above the sawmill, after first setting fire to the portage posts.<sup>163</sup> Montcalm records that on July 6, all the French forces vacated the advanced posts including the southern side of the sawmill area with the last forces destroying the bridge across the La Chute River.<sup>164</sup> This was the bridge crossing the river at the lower falls.<sup>165</sup> On July 6, Duprat and his Canadian militia were at the Bernetz River covering the western flank of the sawmill area, but Montcalm ordered these forces to withdraw along with the advance posts; Duprat and his company traversed the northern shore of the sawmill area during their retreat to the heights of Carillon.<sup>166</sup> All the French forces departed from the north shore of the falls on the night of July 6.

### **The Sawmill during the July 8 Battle and Aftermath**

Abercromby sent a British advance force consisting of the 44th Regiment, 6 companies of the 1st battalion 60th Regiment (Royal Americans), bateau men, and rangers under the command of Lieutenant Colonel John Bradstreet to occupy the sawmill area on July 7.<sup>167</sup> After discovering the destroyed bridge, Bradstreet initiated repairs, which his troops completed that day so that advancing British forces were able to cross onto the north side of the river.<sup>168</sup>

Abercromby and the main British forces moved north, and he made the sawmill location his headquarters on July 7, as well as the main encampment for the British forces.<sup>169</sup> Late on July 7, Sir William Johnson arrived with reinforcements at the sawmill; Johnson's forces were British-allied native tribes.<sup>170</sup> On the morning of July 8, Abercromby consolidated his troops on the north side of the river, and he then moved these forces east to attack the French at the heights of Carillon.<sup>171</sup> Initially, both Colonel Phineas Lyman's First Connecticut and Colonel Timothy Ruggles' Massachusetts Regiment remained at the sawmill as a rear guard and to construct defensive works; later in the day, both elements would participate in the battle at the heights of Carillon.<sup>172</sup> After the defeat at the heights of Carillon, British forces retreated to the west, and Abercromby evacuated the sawmill area and pulled all his remaining forces back to the landing area and departed south across Lake George.<sup>173</sup>

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<sup>161</sup> De La Pause, 81.

<sup>162</sup> *Journal of Montcalm*, 394; DRCHSNY, 10:726; *Journal of Lévis*, 134.

<sup>163</sup> John Knox, *An Historical Journey of the Campaigns in North America For the Years 1757, 1758, 1759 and 1760*, vol. 1, ed. Arthur G. Doughty (Toronto: The Champlain Society, 1914), 190.; De La Pause, 81.

<sup>164</sup> *Journal of Montcalm*, 391.

<sup>165</sup> *Journal of Montcalm*, 388.

<sup>166</sup> *Journal of Montcalm*, 394; H. R. Casgrain, *Guerre Du Canada: Relations et Journaux de Différences Expéditions Faites Durant Les Années 1755-56-57-58-59-60* (Quebec: L. J. Demers & Frère, 1895), 152, 166-167.

<sup>167</sup> DRCHSNY, 10: 726.

<sup>168</sup> DRCHSNY, 10: 726; Casgrain, *Relations et Journaux*, 168; Stanley Pargellis, ed., *Military Affairs in North America, 1748-1765* (Hamden, CT: Archon Books, 1969), 419.

<sup>169</sup> E. C. Dawes, ed., *Journal of General Rufus Putnam* [...] (Albany: Joel Munsell, 1886), 68.

<sup>170</sup> *General Rufus Putnam*, 69; *Major Robert Rogers*, 83. Williams provides a list of every tribe, see *Sir William Johnson*, 9: 944-945.

<sup>171</sup> "Diary of Abel Spicer 1758," in Russell P. Bellico, *Chronicles of Lake George: Journeys in War and Peace* (Fleischmanns, NY: Purple Mountain Press, 1995), 101.

<sup>172</sup> *General Rufus Putnam*, 69-70.

<sup>173</sup> *General Rufus Putnam*, 68; Bellico, *Chronicles of Lake George*, 101; DRCHSNY, 10:727.

## The Burning of the Sawmill

Most British sources claim that the French burned the sawmill as they retreated across the La Chute River on July 6.<sup>174</sup> According to British sources, when Bradstreet's force reached the sawmill on July 7, they discovered the burnt sawmill and the destroyed bridge over the La Chute River.<sup>175</sup> However, Lieutenant Colonel William Eyre, a British engineer, wrote that he "found it [the sawmill] Abandoned," a view also expressed by Lieutenant William Hervey.<sup>176</sup> Eyre's account concurs with the French sources; the French record that they only destroyed the bridge over the falls at the sawmill.<sup>177</sup>

From the sources, it is clear that the British burned the sawmill sometime during their occupation of that area from July 7 or July 8. Rufus Putnam wrote in the following year—July 1759—that the British ordered the American Provincials to build a new "Saw-mill in the same place the French mill, we burnt last year, stood."<sup>178</sup> Caleb Rea—a doctor with the Massachusetts Provincials—wrote in his journal that the British forces burnt the mill on July 7, 1758.<sup>179</sup> Considering that Abercromby made his headquarters at the sawmill on July 7, it seems unlikely that the British burned it that day, especially considering the British assumed they would defeat the French and capture Carillon the next day. However, once the battle ended in defeat, the British burned the mill during their retreat late on July 8, something Private Lemuel Lyon noted in his journal.<sup>180</sup>

## Closing of the Campaign Season

The first French activity back towards the sawmill was on July 9 when a company of Canadian militia reconnoitered the sawmill area where they found the entrenchments made the American Provincials.<sup>181</sup> On July 10, Montcalm sent Lévis with some French troops to reconnoiter the sawmill area on their way to the portage site.<sup>182</sup> At the sawmill, Lévis found the "smoking ruins" of the burned mill.<sup>183</sup> From the sawmill area south to the portage and landing site, Lévis found the remnants of the departed British, including supplies, dead and wounded.<sup>184</sup> The French reoccupied positions in the sawmill area on July 17, composed of *Troupes de la Marines* and Canadian militia under the command of François-Pierre de Rigaud de Vaudreuil.<sup>185</sup> Likewise, on July 18 the French reoccupied the portage camp with *Troupes de la Marines* and

<sup>174</sup> DRCHSNY, 10: 726; "Letter of the Battle of Ticonderoga," *Gentleman's Magazine*, vol. 28 (London: D. Henry and R. Cave, 1758), 445; Knox, *Historical Journey*, 190-191.

<sup>175</sup> DRCHSNY, 10:726; *Gentleman's Magazine*, 445.

<sup>176</sup> William Eyre to Robert Napier, Lake George, July 10, 1758, in Pargellis, *Military Affairs*, 419; *Journals of William Hervey*, 50.

<sup>177</sup> *Journal of Montcalm*, 394; *Journal of Lévis*, 133; DRCHSNY, 10:738.

<sup>178</sup> Dawes, *General Rufus Putnam*, 91.

<sup>179</sup> F. M. Ray, ed., *The Journal of Dr. Caleb Rea Written During the Expedition Against Ticonderoga in 1758* (Salem, MA: n. p., 1881), 26.

<sup>180</sup> *The Military Journals of Two Private Soldiers 1758-1775* [...] (Poughkeepsie, NY: Abraham Tomlinson, 1855), 23.

<sup>181</sup> *Journal of Montcalm*, 402; Casgrain, *Relations et Journaux*, 159; *Journal of Lévis*, 138-139.

<sup>182</sup> *Bougainville*, 235; Malartic, *Glories to Useless Heroism*, 173;

<sup>183</sup> H. R. Casgrain, *Guerre du Canada, 1756-1760: Montcalm and Lévis* (Tours: Alfred Mame et Fils, 1899), 167.

<sup>184</sup> *Journal of Lévis*, 139; DRCHSNY, 10:741.

<sup>185</sup> Malartic, *Glories to Useless Heroism*, 175; *Journal of Lévis*, 142-143; *Journal of Montcalm*, 412.

Canadian militia under the command of Corne.<sup>186</sup> However, the British conducted no further assaults against Carillon; they only sent small patrols to gain intelligence.<sup>187</sup>

As the situation calmed, French forces slowly departed Carillon from August until November. On November 6, the last large contingent of French troops departed leaving a winter garrison at Carillon consisting of 400 soldiers under the command of Captain Hébécourt.<sup>188</sup>

## 1759

### Winter Months

There is no evidence to suggest that the French rebuilt the sawmill after its burning in July 1758. One historical record from 1858 notes “the French had built a saw-mill, some seven years previous [from 1763], which had been destroyed in the war.”<sup>189</sup> There was no further construction at Fort Carillon, which ceased in the latter months of 1758. By winter of 1758 and into 1759, evidence also suggests that the French did not have any presence in the sawmill area.

Lieutenant Dietrich Brehm—an engineer belonging to the 60th Regiment of Foot, the Royal Americans—conducted a scout of the entire area surrounding Fort Carillon in early March of 1759. The scouting party was quite large, consisting of Lieutenant Brehm, Major Rogers, 49 rangers, British Captain Lotridge, and 45 natives.<sup>190</sup> In his report of that scouting expedition, Brehm noted that he could not ascertain the location of the road from Carillon to the sawmill because of the snow.<sup>191</sup> This suggests that there was no traffic—human, animal or sled—from the French at the fort to the sawmill area. Further, Brehm describes the entire area from the Lake George landing up to and into the French lines at the heights of Carillon, which demonstrates the freedom of movement for his scouting party due to the absence of French troops.<sup>192</sup>

The French did conduct some local patrols, but it is doubtful that these patrols ranged as far as the sawmill area, due to the distance, lack of French troops, and the winter conditions. One such patrol found the Brehm’s tracks and traced his route inside the entrenched lines on the heights of Carillon, which was just over a half a mile from the fort.<sup>193</sup> Vaudreuil chastised Captain Hébécourt because of his lack of security surrounding Fort Carillon, especially when Rogers attacked a French working party to the east of Carillon across Lake Champlain (on the future named Mount Independence in Vermont).<sup>194</sup> These outlying areas were often targets of enemy forces, from both British and their allied native forces, unless there was a substantial presence of French troops in these areas.

### The Final Months of the French Occupation

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<sup>186</sup> Malartic, *Glories to Useless Heroism*, 175; *Journal of Lévis*, 143; *Journal of Montcalm*, 412.

<sup>187</sup> *Major Robert Rogers*, 87.

<sup>188</sup> *Journal of Lévis*, 159.

<sup>189</sup> Flavius J. Cook, *Home Sketches of Essex County. First Number: Ticonderoga* (Keeseville, NY: W. Lansing & Son, 1858), 20.

<sup>190</sup> *Major Robert Rogers*, 94.

<sup>191</sup> Gage and Haldimand to Lt. Brehm, Albany, March 17, 1759, in Clarence Edwin Carter, ed., *The Correspondence of General Thomas Gage with the Secretaries of State, and with the War Office and the Treasury 1763-1775*, vol. 2 (New Haven: Yale University Press, 1969), 4.

<sup>192</sup> Brehm notes that during this scouting expedition he wore snowshoes. Rogers records this reconnaissance in detail, see *Major Robert Rogers*, 94.

<sup>193</sup> DRCHSNY, 10:946.

<sup>194</sup> DRCHSNY, 10:946.



The French sent Bourslamaque with 3,000 reinforcements—consisting of *Troupes de Terre*, *Troupes de la Marines*, and Canadian militia—to Carillon in May 1759.<sup>195</sup> His orders were first to destroy Fort Carillon, and second to destroy Fort Saint-Frédéric, if a British attack force advanced north from Albany.<sup>196</sup> In preparation of the expected British attack, Bourslamaque reoccupied the camp north of the destroyed sawmill.<sup>197</sup> Bourslamaque also dispatched working parties to fell trees and place them across the portage road as an obstacle for any advancing British.<sup>198</sup>

On July 22, British advance forces consisting of grenadiers, light infantry, and rangers marched north from their landing on the east side of the Lake George and the La Chute River. They encountered Bourslamaque's forces on the north side of the La Chute River above the sawmill.<sup>199</sup> Bourslamaque retreated to Fort Carillon with all his troops.<sup>200</sup> Thus ended the French occupation of the sawmill area. On July 23, Bourslamaque departed Carillon to Fort Saint-Frédéric and left Hébécourt and 400 soldiers at Carillon.<sup>201</sup> On July 26, the French blew up the fort and departed Carillon.<sup>202</sup>

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<sup>195</sup> DRCHSNY, 10:1002, 1054.

<sup>196</sup> DRCHSNY, 10:1002, 1054.

<sup>197</sup> BFTM 1, no. 6 (July 1929), 19.

<sup>198</sup> See Skinner's map on pages A-11 and A-12; Jeffery Amherst, *The Journals of Jeffery Amherst, 1757-1763*, vol. 1, *The Daily and Personal Journals*, edited by Robert J. Andrews (East Lansing: Michigan State University Press, 2015), 115; *General Rufus Putnam*, 89.

<sup>199</sup> BFTM 15, no. 5 (1993), 381; BFTM 1, no. 6, 19; Amherst, *Journals of Jeffery Amherst*, 117; *Major Robert Rogers*, 100.

<sup>200</sup> BFTM 1, no. 6, 19; Amherst, *Journals of Jeffery Amherst*, 117.

<sup>201</sup> DRCHSNY, 10:1055; Amherst, *Journals of Jeffery Amherst*, 117, 132n172.

<sup>202</sup> DRCHSNY, 10:1055; Amherst, *Journals of Jeffery Amherst*, 119.

## The British Occupation: 1759 – 1775

### 1759

#### The Military Situation at the Sawmill Area

For the attack on Fort Carillon in July 1759, Major General Jeffery Amherst divided his force into four columns. The first column consisted of rangers, consolidated grenadiers, consolidated light infantry, Colonel Abjiah Willard's 1st Massachusetts Regiment, and Brigadier General Timothy Ruggles's 2nd Battalion Massachusetts Regiment. The second column consisted of 2 brigades of regulars. The third column consisted of artillery, Colonel Peter Schuyler's New Jersey Regiment, and Colonel Timothy Ruggles's 1st Massachusetts Regiment. The fourth column consisted of Colonel [Major General] Phineas Lyman's 1st Connecticut Regiment, Colonel David Wooster's 2nd Connecticut Regiment, Colonel Eleazer Fitch's 3rd Connecticut Regiment, Colonel Henry Babcock's Rhode Island Regiment, and Colonel John Lovewell's New Hampshire Regiment. Colonel Nathaniel (Nathan) Whiting's 4th Connecticut Regiment guarded the bateaux.<sup>203</sup>

The sawmill area became the hub of activity after British forces arrived on July 22. The first priority for Amherst was to clear the portage road of felled trees, which occupied Schuyler's New Jersey Regiment and Ruggles's 1st Massachusetts Regiment.<sup>204</sup> Clearing this road allowed the British to move their artillery forward, as well as bateaux for the eventual assault on Fort Carillon. The provincials cleared the road quickly and the British moved 2 twelve pound cannons and 2 six pound cannons and the bulk of their forces to the southern area of the sawmill before the night of the July 22.<sup>205</sup>

Amherst's second priority was to order carpenters to repair the bridge over the La Chute River so that he could move his forces north of the river and prepare them for their march east to Fort Carillon.<sup>206</sup> While Amherst mentions repairs, most British sources note that the bridge was fully functional.<sup>207</sup> It is likely that the carpenters strengthened the bridge, especially for the artillery carriages because 4 artillery pieces, 2 twelve pounders and 2 six pounders (possibly howitzers), arrived north of the river on the night of July 23.<sup>208</sup> For the night of July 22, Amherst established three camps for his army: south at the landing place, throughout the sawmill area (both south and on the heights north of the La Chute River), and on the north side of Mount Defiance facing Carillon.<sup>209</sup>

When Amherst moved east to the heights of Carillon on July 24, he left behind provincial troops to guard the key places of the La Chute River, which was then the rear of the British force at Carillon. At the landing were 3 battalions, at the sawmill was 1 battalion, and on the road between the sawmill and the heights of Carillon was 1 battalion.<sup>210</sup> On July 25 the provincials

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<sup>203</sup> *Commissary Wilson's Orderly Book* [...] (Albany, NY: J. Munsell, 1857), 88-89; *Orderly Book and Journal of Major John Hawks* [...], introduction by Hugh Hastings (New York: H. K. Brewer, 1911), 41-42; John Knox, *Historical Journal of the Campaigns in North America for the Years 1757, 1758, 1759, and 1760*, vol. 3, Appendix, edited by Arthur G. Doughty (Toronto: The Champlain Society, 1916), 39-40; Thomas Mante, *The History of the Late War in North-America* [...] (New York: Research Reprints, 1970), 210-211.

<sup>204</sup> Amherst, *Journals of Jeffery Amherst*, 117; *General Rufus Putnam*, 89.

<sup>205</sup> Amherst, *Journals of Jeffery Amherst*, 117; *General Rufus Putnam*, 90; Knox, *Campaigns in North America*, 41.

<sup>206</sup> Amherst, *Journals of Jeffery Amherst*, 117.

<sup>207</sup> *Major Robert Rogers*, 100-101; Knox, *Campaigns in North America*, 40.

<sup>208</sup> Amherst, *Journals of Jeffery Amherst*, 117; Knox, *Campaigns in North America*, 42; *General Rufus Putnam*, 90.

<sup>209</sup> Amherst, *Journals of Jeffery Amherst*, 117; *General Rufus Putnam*, 89.

<sup>210</sup> Amherst, *Journals of Jeffery Amherst*, 117.

moved more supplies from the landing to the sawmill area with the assistance of newly arrived horses, including several artillery pieces, entrenching tools, provisions, and boats. Amherst was preparing for the final assault on Fort Carillon on July 26 when the French evacuated the fort and detonated the powder magazine, which destroyed a substantial portion of the eastern portion of the fort.

With the French departed, Amherst adjusted his forces on July 28 to cover the area between the burning fort and west to the sawmill area. The grenadiers occupied an area west of the French lines at the wood line, near the sawmill road (the road between the fort and the sawmill). Slightly further west, the light infantry occupied an area right of the sawmill road. Lastly, and furthest west, Rogers's unit occupied the heights to the northeast of the sawmill where Amherst expected a French counterattack.<sup>211</sup>

### **The British Sawmill, The King's Sawmill**

On July 25, Amherst ordered an inspection of the destroyed French sawmill.<sup>212</sup> Captain Joshua Loring—of the Royal Navy—said that it would take eight days to make the sawmill operational.<sup>213</sup> On July 26, Captain Aaron Willard took command of the construction of the sawmill.<sup>214</sup> However, because Willard did not understand the business of constructing a sawmill, sergeant Rufus Putnam became the lead for the rebuilding of the sawmill.<sup>215</sup> Putnam was the logical choice because he apprenticed as a millwright for three years before enlisting in the provincials.<sup>216</sup> Putnam supervised the building of the new mill on the same location as the French sawmill. He wrote:

This day Capt. Willard by the Genls. orders went to building a Saw-Mill in the same place the French mill, we burnt last year, stood; in which service I was employed as master.<sup>217</sup>

The troops assigned to this task were from Lieutenant Colonel Joseph Ingersol's battalion, which was in Colonel Timothy Ruggles's 1st Massachusetts Regiment.<sup>218</sup> Shortly after the troops began rebuilding the sawmill, a request for "iron works for a saw mill" reached the Chief British engineer Colonel James Montresor back at Fort George on July 27.<sup>219</sup>

The Americans rebuilt the sawmill within 3 weeks. Due to the short construction time, it is apparent that the destruction of the French sawmill was not complete and that Putnam rebuilt on the existing structure. Considering it took several months for the French to build their

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<sup>211</sup> Amherst, *Journals of Jeffery Amherst*, 120; *Commissary Wilson's Orderly Book*, 101-102; *Major Robert Rogers*, 103.

<sup>212</sup> Amherst, *Journals of Jeffery Amherst*, 119.

<sup>213</sup> Amherst, *Journals of Jeffery Amherst*, 119.

<sup>214</sup> *General Rufus Putnam*, 91.

<sup>215</sup> Rufus Putnam, *The Memoirs of Rufus Putnam* [...], annotated by Rowena Buell (Boston: Houghton, Mifflin and Company, 1903), 26-27; *General Rufus Putnam*, 91.

<sup>216</sup> *General Rufus Putnam*, 91. Putnam apprenticed under Daniel Mathews in Brookfield, Massachusetts from 1754 until his enlistment in 1757, see *Memoirs of Rufus Putnam*, 10-11.

<sup>217</sup> *General Rufus Putnam*, 91.

<sup>218</sup> "Diaries Kept by Lemuel Wood," *Essex Institute Historical Collections*, vol. 19 (Salem: Salem Press, 1882), 150; Robert Ernest Hubbard, *General Rufus Putnam: George Washington's Chief Engineer and the "Father of Ohio"* (Jefferson, NC: McFarland and Company, 2020), 23.

<sup>219</sup> G. D. Scull, ed., "The Montresor Journals," in *Collections of the New York Historical Society for the Year 1881* vol. 14 (New York: New York Historical Society, 1882), 84.

sawmill, it is unlikely that the American provincials could replicate a functioning mill in just a matter of weeks. While there is some inconsistencies with Putnam's recollections concerning the exact timeline, the troops completed the building and the sawmill began operations on August 23.<sup>220</sup> On August 19, 300 soldiers of Colonel Willard's Regiment relieved Ingersol's troops for duty near the sawmill.<sup>221</sup>

Putnam noted that the finished sawmill at Ticonderoga operated with two saws.<sup>222</sup> However, the second saw did not become operational until the September 25, 1759.<sup>223</sup> At that time, Lieutenant Colonel Stephen Miller of Willard's Regiment was in command of the sawmill, having replaced Aaron Willard.<sup>224</sup> When the sawmill was operating with both saws, it produced 2,000 feet of boards every day.<sup>225</sup> Because of the increased production, Miller requested more men to haul logs because the two teams he had could not supply the needed timber.<sup>226</sup> On September 17, Miller received six oxen to assist with hauling timber.<sup>227</sup> However, there was not enough feed in the fields of the sawmill area to support the overworked oxen.<sup>228</sup> Further, Miller requested lanterns and candles so that the sawmill could operate throughout the night to support construction efforts.<sup>229</sup>

Apparently there were problems at the sawmill while Putnam was at Crown Point.<sup>230</sup> Lieutenant Diedrich Brehm—the lead engineer for repairing Ticonderoga—recalled Putnam to supervise the sawmill on the La Chute River. Putnam was unhappy about that arrangement, but returned as ordered.<sup>231</sup> Putnam remained at the Ticonderoga sawmill until the end of November, during which he supervised “Sawyears” and kept the mill “in order.”<sup>232</sup>

### Mill or Mills

Several British sources, including Amherst, write the word ‘mills’ when referencing the sawmill. In Money Penny's Orderly Book, the author distinctly records both the words ‘sawmill’ and ‘sawmills’ during Amherst's expedition in the summer of 1759.<sup>233</sup> Even Putnam, with his intimate knowledge of the sawmill, mentions ‘mills’ in a plural sense. This leads to the

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<sup>220</sup> “Stephen Miller's Journal 1759-1760,” page 12, University of New Brunswick, copy in the FTA. Putnam's timeline comes from two sources, his journal and his written recollection; see *General Rufus Putnam* and *Memoirs of Rufus Putnam*. In his journal, Putnam notes he remained at the Ticonderoga sawmill until his departure in November 1759, see *General Rufus Putnam*, 91-92. In his memoirs, Putnam recalls that after the sawmill operated, he went to Crown Point to join the main army, see *Memoirs of Rufus Putnam*, 27-28. It is clear that Putnam wished to remain with the army and departed Ticonderoga sometime after the sawmill operated; Brehm recalled Putnam back to Ticonderoga shortly thereafter.

<sup>221</sup> “Stephen Miller's Journal,” page 12.

<sup>222</sup> *Memoirs of Rufus Putnam*, 27.

<sup>223</sup> Amherst, *Journals of Jeffery Amherst*, 144n268; War Office, Amherst Papers, National Archives in Kew, UK, Miller to Amherst, Camp at the Saw Mill, September 26, 1759, WO 34/78/51.

<sup>224</sup> Amherst, *Journals of Jeffery Amherst*, 143n262. For Miller's position in the Massachusetts provincials, see Nancy S. Voyer, ed., *Massachusetts Officers in the French and Indian Wars 1748-1763* (Boston: New England Historic Genealogical Society, 1975), no. 3823.

<sup>225</sup> Amherst, *Journals of Jeffery Amherst*, 143n262.

<sup>226</sup> Miller to Amherst, Camp at the Saw Mill, September 16, 1759, WO 34/78/29.

<sup>227</sup> Miller to Amherst, Camp at the Saw Mill, September 17, 1759, WO 34/78/31.

<sup>228</sup> Miller to Amherst, Camp at the Saw Mill, September 26, 1759, WO 34/78/51.

<sup>229</sup> Miller to Amherst, Camp at the Saw Mill, September 26, 1759, WO 34/78/51.

<sup>230</sup> See n220.

<sup>231</sup> *Memoirs of Rufus Putnam*, 28.

<sup>232</sup> *Memoirs of Rufus Putnam*, 29.

<sup>233</sup> BFTM 2, no.6 (July 1932), 219-252.

conclusion that there were two sawmills on the La Chute River at this time. However, the evidence clearly shows that the British only built one sawmill, which is most evident in Putnam's account. Being the master millwright of the sawmill construction, Putnam's account is the most reliable. In addition, entries in Amherst's journal further verify that the context concerning the term 'sawmills' is in a single location.<sup>234</sup>

One possible explanation is that the reference to 'sawmills' may be a general reference to the area immediately around the sawmill. More plausible, however, is that the term 'sawmills' refers to the single sawmill building that operated with two saws, which justifies the use of the plural term. As already established, there were two saws operating in the British sawmill, which was not uncommon in eighteenth century North American sawmills.

### **Maintenance and Demands of the Sawmill**

Maintaining the sawmill was a challenging task for the American provincials who commanded and supervised the mill. Putnam recalled that during his time there, he was "very hardly fatigued, having the whole care of the [sawmill] work upon me."<sup>235</sup> Likely a big part of Putnam's fatigue was the workers operating the sawmill. The military employed workers to operate the mill, under military supervision.

The workers, usually called sawyers, also performed shoddy workmanship, often to the detriment of the sawmill's intricate mechanisms. Loring blamed some of the problems on Aaron Willard, who he noted broke a crank because he was attempting to see how fast the saw would work in a minute.<sup>236</sup> In September 1759, Miller wrote that the sawmill was frequently "out of repair" because

Sundry Persons have offerd: themselves as workmen in the mill and in a very Short Time have put her So much out Order, that She has frequently laid Still for a Whole Day, to be Repaired, which Disappointed me of Cuting the Stuff that might otherwise have been Reasonably Expected.<sup>237</sup>

By September 19, the only working crank, thus the only working saw, was inoperable. Loring—in charge of building naval vessels at Ticonderoga—lamented that because of the broken crank, his workers would have to "be Obliged to cut all the plank for the Sloop by hand."<sup>238</sup> Even after the second saw was working, by late September, Miller recorded that the crank of the new saw was inoperable, while the other saw continued working.<sup>239</sup> Loring requested to have spare cranks on hand so that any delays would be minimal. He wrote:

I should think it would be very right to send to New York for two cranks as they may be made much cheaper and better there then here; when you will always have a spare one to put in should any one brake.<sup>240</sup>

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<sup>234</sup> Amherst, *Journals of Jeffery Amherst*, 118, 120.

<sup>235</sup> *General Rufus Putnam*, 92.

<sup>236</sup> Loring to Amherst, Tionderoga, September 19, 1759, WO 34/64/163. In October, Miller would confine Willard to his quarters for "neglect of duty and disobedience to orders" for not completing the "boarding and shingling of the Saw Mill," see Miller to Lyman, Sawmill, October 26, 1759, WO 34/43/206.

<sup>237</sup> Amherst, *Journals of Jeffery Amherst*, 143n262.

<sup>238</sup> Loring to Amherst, Tionderoga, September 19, 1759, WO 34/64/162-163.

<sup>239</sup> Miller to Amherst, Camp at the Saw Mill, September 29, 1759, WO 34/78/56.

<sup>240</sup> Loring to Amherst, Tionderoga, September 19, 1759, WO 34/64/163.

Amherst turned this request down, noting that Loring previously made the same arguments for producing cranks at Ticonderoga.<sup>241</sup> Amherst offered that a wooden crank or a crank made out of an anchor would suffice.<sup>242</sup> Despite this reassurance, some of the iron workings made at Ticonderoga were faulty, as demonstrated by the frequency of broken sawmill mechanisms.

Exasperated by the continual delays, Loring specifically requested Putnam to oversee the sawmill in September 1759. He wrote:

I see no way of your Excellencys geting any Service from this mill but by putting her into other hands ... there is a very good man here that is well acquainted with Business, that is very willing to take charge of the workers, his name is Putnam.<sup>243</sup>

This situation is what prompted Brehm to travel to Crown Point to retrieve Putnam.<sup>244</sup> Brehm also needed the sawn lumber for repairing the fort at Ticonderoga, and Major Thomas Ord needed lumber for artillery. Miller explained his dilemma of managing the different entities vying for the sawmill's products to Amherst:

As I have not your Orders with Regard to the Saw mill, am at a loss whose Demands I am first to Comply with for boards, &c from this mill, as Major Ord, Capt. Loring and Mr, Breme, all at once Call upon me, for boards plank &c.<sup>245</sup>

Even under Putnam's direct supervision, problems arose at the mill. Brehm wrote on October 11 that the sawmill crank was inoperable.<sup>246</sup> In November, Brehm noted that the sawmill could not supply the required boards to finish the barracks.<sup>247</sup>

The military also employed carpenters for the finishing of the mill's lumber and utilizing that lumber for construction projects. However, these carpenters were taking wages without offering much work. Loring expressed his displeasure with the carpenters, noting that "the two days before they broke the crank, I can't find they saw'd one plank neither is there any stock of logs hauled for the mill."<sup>248</sup> Responding to a complaint about the carpenters in September, Amherst wrote:

I am Sorry You have had so many Carpenters Sick, if they are left to themselves they will Continue so, I don't mean that they would chuse to be Sick but their cure only Increases their disorder, for they will not Voluntarily Stir out of their Huts, but live in dirt & Nastiness Which they are vastly carefull never to Wash off from them.<sup>249</sup>

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<sup>241</sup> Amherst to Loring, Crown Point, September 20, 1759, WO 34/78/216.

<sup>242</sup> Amherst to Loring, Crown Point, September 20, 1759, WO 34/78/216.

<sup>243</sup> Loring to Amherst, Tionderoga, September 19, 1759, WO 34/64/162-163.

<sup>244</sup> *Memoirs of Rufus Putnam*, 29; n214.

<sup>245</sup> Amherst, *Journals of Jeffery Amherst*, 143n262. Ord was in charge of artillery and Loring was in charge of naval vessels.

<sup>246</sup> Brehm to Amherst, October 11, 1759, WO 34/50/4.

<sup>247</sup> Brehm to Amherst, November 12, 1759, WO 34/50/6.

<sup>248</sup> Loring to Amherst, Tionderoga, September 19, 1759, WO 34/64/162-163.

<sup>249</sup> Amherst, *Journals of Jeffery Amherst*, 143n262.

Further, Amherst wrote that the military should “keep the Carpenters to their Work Which they ought to be very dilligent at on Accot. of their High wages” instead of employing them as cooks.<sup>250</sup>

### Winter Months

Throughout November and at the beginning of December, all the provincial units departed Ticonderoga. Putnam wrote that he, along with Lt. Col. Miller, left the sawmill on December 1.<sup>251</sup> The records are unclear if the sawmill continued operations in the winter. Despite the presence of Brehm, who remained at Ticonderoga throughout the winter to continue repairs, it is likely that the sawmill was not in operation and that the sawyers and carpenters departed for the winter.

The only perceivable information about the mill is on December 3, when French prisoners arrived at the sawmill for travel north. Captain Seton and his company of the 17th Regiment guarded the prisoners at the mill.<sup>252</sup> There was by this time a blockhouse at the mill and it was here where Seton’s troops guarded the prisoners.<sup>253</sup> The prisoners had a “considerable quantity” of baggage and the British recommended that the prisoners should build sleighs to transport that gear to Crown Point. However, there was a lack of British artificers to assist with building these sleighs, and that there was a lack of wood surrounding the fort.<sup>254</sup>

### 1760

As discussed, there is no direct evidence that the sawmill operated throughout the winter. This conclusion derives from the historical records that contain some evidence indicating the inoperability of the sawmill. The winter commander of Ticonderoga, Major John Campbell of the 17th Regiment of Foot, noted that there were not enough beds for his garrison in early December 1759.<sup>255</sup> From the context of Campbell’s letter, the inference is that there were no more boards forthcoming. While this does not verify the inoperability of the sawmill, it does point to a lack of useable boards, which would occur if the sawmill was not operating. In March 1760, Campbell wrote that his troops would have to build huts to shelter them after a fire destroyed the officer’s barracks.<sup>256</sup> In that era, typical military structures utilized boards, planks, and logs. Historical records do not provide exact information about how the British built these structures; however, with the sawmill not working boards or planks would not be available. It is a hypothesis that these huts were likely simple log constructions or the troops repurposed existing lumber.

There is a clear indication that there were no carpenters at Ticonderoga during the winter. However, Campbell commented that on April 21 that he was in need of axes because “all the sufficient Axes are employ’d by the Party at the Saw Mills.”<sup>257</sup> Therefore, there was some activity occurring at the sawmill by spring of 1760, which follows previous spring seasons of the

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<sup>250</sup> Amherst, *Journals of Jeffery Amherst*, 144n262.

<sup>251</sup> *General Rufus Putnam*, 92.

<sup>252</sup> Campbell to Amherst, December 8, 1759, WO 34/50/7.

<sup>253</sup> Amherst to Commander Ticonderoga, November 24, 1759, WO 34/50/164.

<sup>254</sup> Campbell to Amherst, December 8, 1759, WO 34/50/7.

<sup>255</sup> Campbell to Amherst, December 8, 1759, WO 34/50/7.

<sup>256</sup> Campbell to Amherst, March 24, 1760, WO 34/50/12.

<sup>257</sup> Campbell to Amherst, April 18, 1760, Gage Papers, transcription copy in FTA.

sawmill's existence. To bolster these workers, Amherst wrote to Campbell on May 10, 1760 that carpenters would arrive from the south.<sup>258</sup>

### **Campaign Season and the Sawmill**

With the onset of the campaign season, new construction tasks took shape west of Fort Ticonderoga. Brehm began first began construction of a blockhouse at the bateaux landing area, where there was already a wharf. Then he began laying out the plans for a blockhouse at the southern landing area where there was a redoubt built by Eyre in the previous year.<sup>259</sup> Carpenters were arriving by the time of the second blockhouse construction; some went to work on that project, while others went for constructing naval vessels.<sup>260</sup> Sometime by the end of May, sawyers were back in the sawmill and operating that facility. Brehm noted:

the Mill Hands, which if it [sawmill] could be kept going, would give time for seasoning of the Boards before they would be wanted; all the Boards which have been saw'd till now, are for the use of the Battoos.<sup>261</sup>

Apparently, problems with the mill's functioning continued to persist. Despite this, more carpenters continued to arrive in the summer.<sup>262</sup>

The renewed campaign brought new provincial troops to Ticonderoga. Massachusetts provincials under Willard, Ruggles, and Colonel Thomas Clapp all encamped in the sawmill area in June. Some units departed for Crown Point, while others remained. One of the remaining units was Captain Thomas Beaman's company, in which Ensign Rufus Putnam served—newly enlisted and promoted.<sup>263</sup> Beaman's company occupied the landing area and Colonel Stephen Miller, with a company, occupied the sawmill area.<sup>264</sup> Throughout the summer, the sawmill area was a staging location for supplies being shuttled north to Crown Point for the British army's campaign against Canada.

Putnam managed the sawmill and took charge of the construction of the blockhouse at the landing area at the request of the engineer at Ticonderoga.<sup>265</sup> Putnam mentions this was a new engineer, not Brehm. This was Lieutenant Hugh Rose of Captain Horatio Gates's New York Independent Company, who assumed engineering duties in the absence of Brehm, who Amherst detailed to examine multiple surrendered French forts in the west.<sup>266</sup> There is no further mention of the sawmill or problems at the sawmill, which indicate that the sawmill likely operated efficiently under Putnam's supervision. Putnam remained as sawmill overseer until his departure on November 19.

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<sup>258</sup> Amherst to Campbell, May 10, 1760, WO 34/50/174.

<sup>259</sup> Campbell to Amherst, May 12, 1759, WO 34/50/14.

<sup>260</sup> Campbell to Amherst, May 12, 1759, WO 34/50/14; Campbell to Amherst, May 16, 1760, WO 34/50/18.

<sup>261</sup> Brehm to Amherst, May 27, 1760, WO 34/50/21.

<sup>262</sup> Amherst to Haviland, June 18, 1760, WO 34/52/55, transcription in FTA.

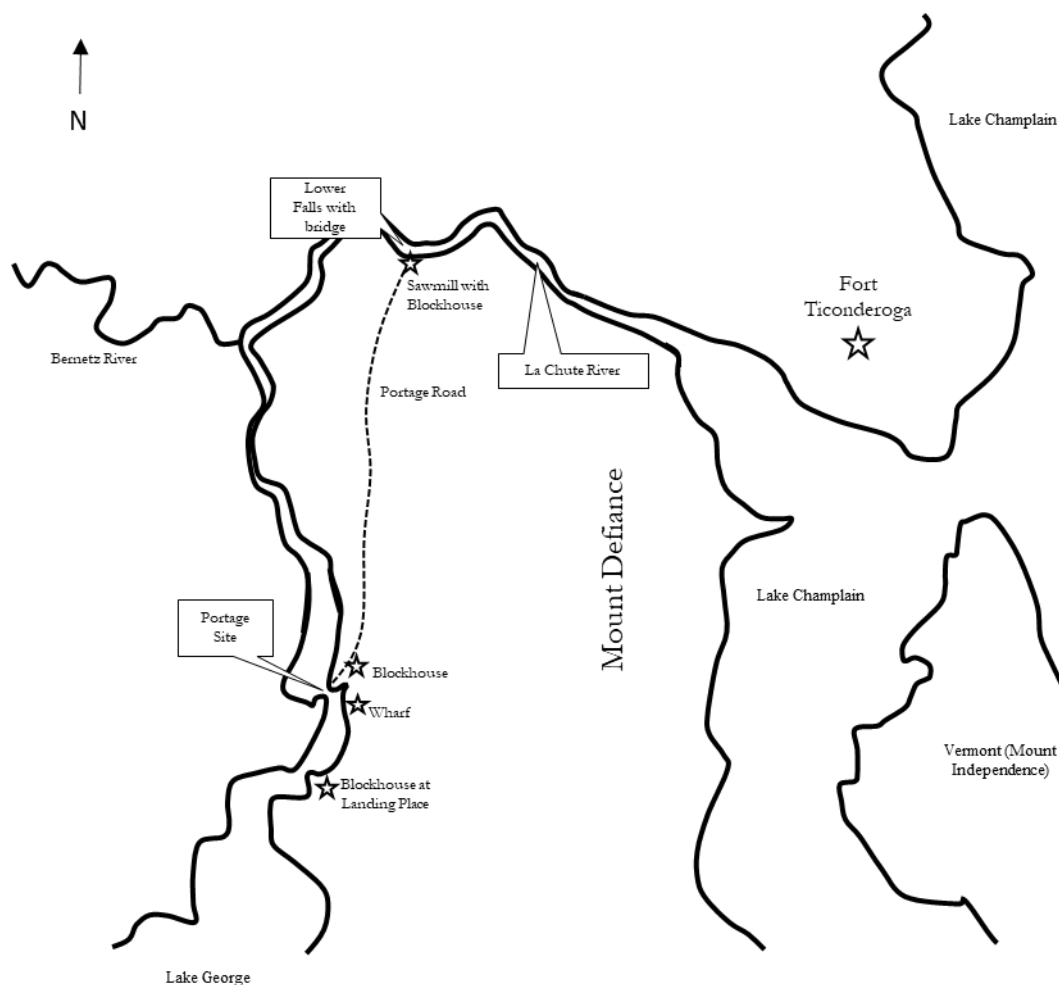
<sup>263</sup> *Memoirs of Rufus Putnam*, 33, 34.

<sup>264</sup> *General Rufus Putnam*, 100; *Memoirs of Rufus Putnam*, 34.

<sup>265</sup> *Memoirs of Rufus Putnam*, 34.

<sup>266</sup> Amherst to Rose, Jun 13, 1760, WO 34/50/190. Brehm traveled extensively and he personally assessed forts in Ohio, throughout Michigan, Wisconsin, and Indiana.





Map 7. British military dispositions, 1760.

## 1761

### Winter Months

It appears at some point in the winter that ice encased the La Chute River, thus making the sawmill inoperable. Rose recorded on March 8 that he would get “the mill a going when the Ice is gone.”<sup>267</sup> Despite the stoppage at the mill, Rose continued to gather lumber throughout the winter so that when the ice melted the sawmill could operate immediately. On December 20, 1760, Rose requested horses to move logs to the mill throughout the winter and spring months.<sup>268</sup> Eventually, he received 3 horses in early March 1761, at which time he amassed 83 logs at the sawmill with assistance from cattle.<sup>269</sup>

According to Lieutenant Alexander Grant, Royal Navy, there were 2 ‘devils’ (French *triqueballes*) at the sawmill in January 1761.<sup>270</sup> These were two-wheeled apparatuses were for

<sup>267</sup> Rose to Amherst, March 8, 1761, WO 34/50/42.

<sup>268</sup> Rose to Amherst, December 20, 1760, WO 34/50/30.

<sup>269</sup> Rose to Amherst, March 8, 1761, WO 34/50/42.

<sup>270</sup> Grant to Amherst, WO 34/50/33.

moving large loads, typically artillery barrels.<sup>271</sup> Due to their presence at the mill, it is likely that the soldiers used these devices to haul logs to the mill. This was likely why Rose requested horses because the animals would be able to maneuver them easier than humans, who disparagingly nicknamed the wheeled devices as ‘devils.’ Rose apparently put these devices to work throughout February to stockpile such a large amount of lumber by March.

### **Campaign Season and the Sawmill**

Once the ice broke, Rose was able to get the mill working on cutting needed lumber, mainly planks for Grant’s construction of naval vessels. Due to the shortage of useable lumber near the fort, Rose directed the carpenters to cut trees from the eastern shore of Lake Champlain. Once the ice melted and the lake was navigable, workers could transport these logs through the water and into the La Chute River to the sawmill.<sup>272</sup> To remove the logs from the water, Rose built “a Capsten with a Ladder and Rolers that Hawls the Log's out of the water up to the mill, without the asistance of Cattle.”<sup>273</sup>

However, in the middle of May, the carpenters broke one of the mill’s cranks.<sup>274</sup> Amherst theorized that the broken crank was because the careless workers let “down the whole weight of water at once, before the Saw is Entered, and that must of Course break the Crank.”<sup>275</sup> To compensate, Rose continued the sawmill’s operation with the one working saw, which he ordered to keep “going night and Day to keep up the Number of Boards I had Cutt at the Usual Hower's [hours], with the two Saws.”<sup>276</sup> Rose also requested to have spare cranks sent to him to keep any future stoppages at the mill to minimum delays.<sup>277</sup> It seems that this continual work also damaged the second crank. Amherst agreed and sent Eyre to Ticonderoga to take the measurements of the crank, after which, smiths could produce the spare cranks.<sup>278</sup> However, it would take time to construct the new cranks and Amherst directed that Rose have his smiths “repair the Iron one, or you must work with a wooden one.”<sup>279</sup>

At the time of the broken crank, Rose reported that the mill cut 1,800 boards and still had an abundance of logs.<sup>280</sup> By July, Rose reported that the sawmill was working smoothly and that he had a storage of sawn boards at the mill.<sup>281</sup>

## **1762**

With the onset of winter and the winding down of the war in North America, the garrison at Ticonderoga shifted, with the British regulars departing and command of the fort falling to Lieutenant William Spearing of Gates’s New York Independent Company. Rose reported that there was still a good supply of sawn boards at the mill.<sup>282</sup> Rose also requested to keep the horses

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<sup>271</sup> For TRIQUEBALLE, see Appendix B.

<sup>272</sup> Rose to Amherst, March 8, 1761, WO 34/50/42.

<sup>273</sup> Rose to Amherst, May 26, 1761, WO 34/50/56. For CAPSTAN, see Appendix B.

<sup>274</sup> Rose to Amherst, May 26, 1761, WO 34/50/56.

<sup>275</sup> Amherst to Rose, May 30, 1761, WO 34/50/210.

<sup>276</sup> Rose to Amherst, May 26, 1761, WO 34/50/56.

<sup>277</sup> Rose to Amherst, May 26, 1761, WO 34/50/56.

<sup>278</sup> Amherst to Rose, May 30, 1761, WO 34/50/210.

<sup>279</sup> Amherst to Rose, May 30, 1761, WO 34/50/210.

<sup>280</sup> Rose to Amherst, May 26, 1761, WO 34/50/56.

<sup>281</sup> Rose to Amherst, July 20, 1761, WO 34/50/64.

<sup>282</sup> Rose to Amherst, November 19, 1761, WO 34/50/84.

at the sawmill because he intended to use them to haul logs to the lakeshore so that in the spring, workers could float the logs through the water to the sawmill.<sup>283</sup>

The sawmill did not operate during the winter. However, there was a substantial surplus of sawn boards at the sawmill.<sup>284</sup> As with the previous winter, Rose continued gathering logs at the mill for use in the spring.<sup>285</sup>

By the end of April, British regulars relieved the New York Independent Companies. Rose departed and Brehm returned as the engineer at Ticonderoga. There was some minor construction during this time and some provincial troops arrived towards the end of the year. As the war in this region was over, Ticonderoga became an outpost situated in the middle of the New York colony, now entirely controlled by Britain.

### 1763

Throughout this year, the garrison of Ticonderoga consisted mostly of British regulars of the Royal Artillery, the 55th Regiment of Foot, the 17th Regiment of Foot, and later the 44th Regiment of Foot. There was also a small number of provincial troops from Connecticut during the summer months. In June, the commanding officer at Ticonderoga recorded that there were only 2 soldiers assigned to take care of the sawmill.<sup>286</sup>

As 1763 ended, the winter garrison at Ticonderoga consisted of approximately 125 soldiers.<sup>287</sup> This year also marked the official end of the war with France, which occurred in February. As the British focus shifted further west in North America, Ticonderoga and the accompanying sawmill began a steady decline in the following years.

### 1764

#### **Military Situation**

With hostile forces no longer in the area, there was a minimal need for a robust presence of British troops at Ticonderoga. For the spring of 1764 until the summer of 1765, there was only 1 company of the 44th Regiment of Foot garrisoned at Ticonderoga under the command of Captain Charles Osborne. Further north at Crown Point was the regiment's commander with 4 companies.

#### **Land Grants in the Saw Mill Area**

With the war over, the British government directed the New York Governor to begin assigning land grants to retiring or reduced soldiers throughout the Champlain Valley.<sup>288</sup> In response to this, the acting New York Governor, Cadwallader Colden, wrote in June 14:

As I am directed to grant Lands to the Reduced Officers on the same conditions Reservations & restrictions on which Lands are usually Granted in this Province I think that I am not at liberty to make any new conditions or restrictions to them to which others

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<sup>283</sup> Rose to Amherst, November 19, 1761, WO 34/50/84.

<sup>284</sup> Rose to Amherst, January 5, 1762, WO 34/50/91.

<sup>285</sup> Rose to Amherst, January 5, 1762, WO 34/50/91.

<sup>286</sup> Return, June 1763, WO 34/50/131.

<sup>287</sup> Amherst to Ormsby, September 19, 1763, WO 34/50/260; Amherst to Ormsby, August 7, 1763, WO 34/50/257; Clarence Edwin Carter, ed., *The Correspondence of General Thomas Gage with the Secretaries of State, and with the War Office and the Treasury 1763-1775*, 2 vols. (New Haven: Yale University Press, 1969), 2: 210-211.

<sup>288</sup> The official proclamation for land grants came from the British Crown on October 7, 1763.

are not subjected. No man would submit to a condition that the Garrison may cut wood on his land at their pleasure, and there can be no necessity for such condition.<sup>289</sup>

To differentiate the area in the Ticonderoga Valley from military and private use, Colden explained:

No extent was given from the Block Houses at the Landing & Saw Mill. I have ordered ten acres to be reserved at each of them, which I think sufficient for any publick use there.<sup>290</sup>

The British military retained control of the Fort and all the area 1,500 yards from the northeast bastion from Lake Champlain to the La Chute River (see Map 8).<sup>291</sup>

There were three grants issued to former British soldiers that encompassed the Ticonderoga Valley in July and August. The first land grant went to Lieutenant John Stoughton from Captain Horatio Gates's New York Independent Company. During 1760 through 1762, Stoughton was part of the garrison at Ticonderoga, which undoubtedly familiarized him with the area.<sup>292</sup> He received a tract of land that encompassed an area west of the La Chute River up to just beyond the Bernetz River and an area east of the La Chute River up the lower falls. Lieutenant Roger Kellet received a tract of land from Stoughton's northern boundary and east across the north shore of the La Chute River to the lower falls, then continued north and east to Lake Champlain. Part of the stipulation in Kellet's grant was that a "Public Road, of the Breadth of Six Rods [100 feet]" would cut through his land leading to Crown Point.<sup>293</sup> Lieutenant John Kennedy received the land surrounding Fort Ticonderoga.<sup>294</sup> These were the first civilian land grants in the Ticonderoga Valley. These grants were free for a ten-year period. After that, the settlers would have to pay a yearly tax to the British government.<sup>295</sup> Further, there was a stipulation in the grants that the grantees had three years to settle their lands or else the government dissolved the grants.<sup>296</sup>

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<sup>289</sup> "The Colden Papers," in *Collections of the New York Historical Society for the Year 1876*, vol. 9 (New York: New York Historical Society, 1876), 332.

<sup>290</sup> "The Colden Papers," *New York Historical Society*, 9: 332.

<sup>291</sup> Cockburn Family Papers, 1732-1864, New York State Library, Albany, NY, SC7004, 2a/59/58. See map 7.

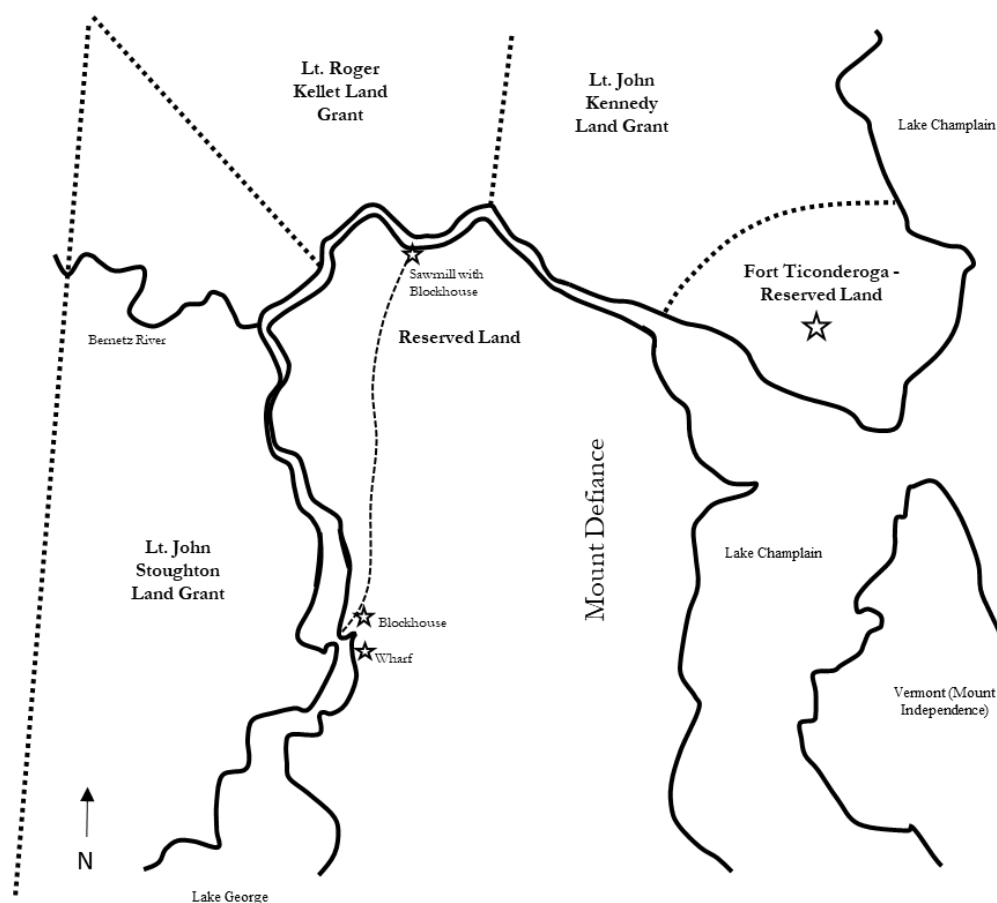
<sup>292</sup> There are numerous letters from Stoughton at Ticonderoga to Gates throughout 1760-1762 in the Horatio Gates Papers.

<sup>293</sup> Cook, *Sketches of Essex County*, 23.

<sup>294</sup> See Map 7.

<sup>295</sup> Cook, *Sketches of Essex County*, 21.

<sup>296</sup> Cook, *Sketches of Essex County*, 22.



Map 8. Land grants of 1764.  
For map of original land grant boundaries, see map A16, page A-29.

As part of the land grants, the British Crown reserved the right to any “mines of Gold and Silver, and also all White or other Sort of Pine Trees fit for Masts of the Growth of Twenty-four Inches Diameter and upwards, at Twelve Inches from the Earth” within the land grants.<sup>297</sup> Further, Colden specified that 10 acres around the sawmill and 10 acres around the southern blockhouse remained as Crown land.<sup>298</sup> This essentially covered the southern portion of the La Chute River south to Lake George and cut slightly into Stoughton’s tract of land.

While there is no record of the sawmill operating, future events will demonstrate that it was operating. However, there is no record of who was operating the mill. It seems unlikely that the garrison worked there, as there is no mention of detailing soldiers to that location. It is more plausible that the British continued to hire workers to operate the mill.

## 1765

### Military Situation

When the 44th Regiment of Foot departed Ticonderoga in the early summer, their replacements were from the 2nd Battalion, 60th Regiment of Foot—Royal Americans—under

<sup>297</sup> Cook, *Sketches of Essex County*, 21.

<sup>298</sup> “The Colden Papers,” *New York Historical Society*, 9: 332.

the command of Captain-Lieutenant Frederick Christopher Spiesmacher.<sup>299</sup> Other than these new arrivals, there is little in the historical record about any military centric activities occurring at the fort throughout 1765.

Towards the end of autumn and into the winter, British authorities were assessing sending more troops to Fort Ticonderoga, which was a response to the riots in New York against the Stamp Act. However, this did not occur as the riots subsided towards the end of the year.

### **William Gilliland and the Sawmill**

William Gilliland was a British veteran and businessman who purchased many tracts of lands north of Crown Point. Consequently, he moved a substantial amount of personnel, equipment, and animals north to that location, which would eventually become Willsboro, New York.<sup>300</sup> On June 1, Gilliland arrived at the Ticonderoga landing area with his entourage.<sup>301</sup> It took two days for Gilliland to move all his belongings, personnel, animals, and bateaux from the landing to the sawmill. Once there, he launched into the La Chute River and moved north. However, he left 4 oxen and 4 men at the sawmill. The oxen and 2 men—Martin Taylor, a farmer, and Ireland, Gilliland's black slave—worked to haul logs to the sawmill in a trade for 120 boards.<sup>302</sup> The other 2 men transported these boards northward on June 7.<sup>303</sup> While there is no mention of when Taylor, Ireland, and Gilliland's oxen departed the sawmill, Taylor was at Willsboro by the middle of July. Therefore, their stay and employment at the mill was likely over a month.

This transaction shows that the mill was in operation and that there was a ready supply of sawn boards available. Because of the trade of Gilliland's men and oxen for boards, it seems likely that the transaction involved the British commander at Ticonderoga because the sawmill was still on Crown land and therefore under the garrison's control. The military governor of Montreal, General Thomas Gage, specified to Spiesmacher that he should use his troops to "see that no Encroachment is made on the Lands reserved to the Crown," which denotes that the British garrison at Ticonderoga had a continual presence within the Ticonderoga Valley.<sup>304</sup>

### **Land Grants and Crown Lands**

In July, Spiesmacher wrote that he was negotiating with John Stoughton about the land Colden retained for the Crown. Spiesmacher suggested that there should be 5 acres on either side of the La Chute River, instead on all 10 acres on the eastern side of the river. He wrote:

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<sup>299</sup> *Correspondence of Gage*, 2:278; Thomas Gage Papers: Inventory, 42; Spiesmacher to Gage, July 29, 1765, Thomas Gage Papers American Series Vol. 40, William L. Clements Library, The University of Michigan; Gage to Spiesmacher, August 18, 1765, Thomas Gage Papers American Series Vol 41, William L. Clements Library, The University of Michigan (hereafter cited as Gage Papers).

<sup>300</sup> BFTM 9, no. 1 (Winter 1952), 73.

<sup>301</sup> Wilson C. Watson, *Pioneers History of the Champlain Valley* (Albany, NY: J. Munsell, 1863), 95.

<sup>302</sup> Watson, *Pioneers History*, 95.

<sup>303</sup> Watson, *Pioneers History*, 95.

<sup>304</sup> Gage Papers, Gage to Spiesmacher, August 18, 1765, 4/2: 12/Ticonderoga/330, transcription in FTA. The British military were the only official forces in these remote areas. Gilliland recorded an incident in early 1766 when 6 British soldiers from Crown Point had to act as protection against fugitive tenants, see Watson, *Pioneers History*, 122, 122n1.

The five acres about the Wharf, it is my opinion is sufficient for the King's use ... The reserve on the opposite of the Creek, I cannot perceive will be of any service. The Reserve at the Saw Mill, and Road I think sufficient.<sup>305</sup>

Stoughton, being a businessman, was using the wharf for landing supplies. Because the wharf was on the east side of the river, Stoughton intended to construct buildings there for storing his supplies.<sup>306</sup> However, Spiesmacher specified the limits of construction surrounding the Crown's lands. Spiesmacher wrote that he

acquainted him [Stoughton], that no building in the neighborhood of the Block House, would be permitted, upon which he offer'd to Exchange the Land round the Block House for the Land intirely on the left hand of the Road, and to the southward of the Wharf. This I have not agreed to, as it would incommode the Landing place, for he might then build near the wharf. He then acquainted me that he proposed to build where the Hutts stand, which are only sixty yards from the Block House; as he has no other convenient place for a publick house and store for marchandize.<sup>307</sup>

Until Spiesmacher received official instructions from Gage, he directed Stoughton to cease all construction. Gage agreed with Spiesmacher's recommendation and further directed that Stoughton could utilize the blockhouse, if needed. However, if the military required use of the blockhouse, British troops would take control of it.<sup>308</sup> This exchange depicts how the British military managed the area west of Ticonderoga, and shows that the garrison at Ticonderoga routinely had a presence throughout this area.

There is no information as to if Kellet and Kennedy actually settled on their lands, as both of these plots bordered on the north side of the La Chute River from the sawmill. It is certain that Kennedy did nothing with his land because he died shortly after receiving the grant. His claim went to his brother Henry Kennedy who sold it on September 26, 1765 to New York merchants.<sup>309</sup>

## 1766

### Military Situation

Throughout the winter and into the late spring months, there was only a small amount of troops garrisoning Ticonderoga. In the summer, 1 company of the 15th Regiment of Foot arrived from Montreal to relieve the Royal Americans at Ticonderoga.<sup>310</sup> The 15th Regiment was in turn relieved by the 1 company of the 17th Regiment of Foot in September.<sup>311</sup> The 17th Regiment remained at Ticonderoga throughout the winter.<sup>312</sup>

<sup>305</sup> Gage Papers, Spiesmacher to Gage, July 29, 1765, 4/3: 3/Michilimackinac/985, transcription in FTA.

<sup>306</sup> For map of this area, see map A17, page A-30.

<sup>307</sup> Gage Papers, Spiesmacher to Gage, July 29, 1765, 4/3: 3/Michilimackinac/985, transcription in FTA. For the map of this area, see map A17, page A-30.

<sup>308</sup> Gage Papers, Gage to Spiesmacher, August 18, 1765, 4/2: 12/Ticonderoga/330, transcription in FTA.

<sup>309</sup> Cook, *Sketches of Essex County*, 23.

<sup>310</sup> *Correspondence of Gage*, 1:108.

<sup>311</sup> *Correspondence of Gage*, 1:108.

<sup>312</sup> *Correspondence of Gage*, 2:382.

Besides these troop movements, there is little information about Ticonderoga or the sawmill area. The only known settlement activity was from Stoughton at the south end of the La Chute River.

## 1767

### Military Situation

The single company from the 17th Regiment of Foot remained at Ticonderoga until the summer, when troops from the 15<sup>th</sup> Regiment of Foot came down from Canada to relieve them at Ticonderoga.<sup>313</sup> In the autumn, a detachment from the 16th Regiment of Foot relieved the 15th Regiment at Ticonderoga.<sup>314</sup> By the beginning of 1767, the fort was in a state of “very declining condition,” a condition that worsened as the decade ended.<sup>315</sup>

### Activity in the Land Grants and Sawmill

Stoughton still occupied the blockhouse in the summer of 1767.<sup>316</sup> Sometime in early 1767, a New York merchant named Samuel Deall purchased land to the northwest that bordered Stoughton’s and Kellet’s grants.<sup>317</sup> Deall was in business with Stoughton and he regularly shipped goods north up Lake George to Stoughton’s location.<sup>318</sup> In Deall’s account books, there are records from October 1766 until November 1767 where Deall shipped “largely goods and building materials” to Stoughton.<sup>319</sup> Part of these shipments included alcohol, which undoubtedly the British soldiers from the Ticonderoga garrison purchased, likely from the tavern operated by Deall.<sup>320</sup>

Although outside of Ticonderoga, there was another land grant assigned to Captain Alexander Macintosh, which bordered the north of Kennedy’s land.<sup>321</sup> Macintosh and his descendants appear throughout the historical record from this time and throughout the American Revolution in various interactions with the sawmill area and the garrison of Fort Ticonderoga.

Two events in the latter months of 1767 affected the land in the Ticonderoga Valley. The first event was the death of John Stoughton, who drowned in Lake George while transporting goods north to Ticonderoga on November 27, which explains why Deall ceased shipping activity to Stoughton in that month.<sup>322</sup> With his death, Stoughton’s widow and only child departed the area in 1768 for Connecticut and never returned, although they retained the land and sold it after the American Revolution to Edward Ellice.<sup>323</sup> The second event was that Deall purchased Kennedy’s land, which Deall intended to settle and build his own sawmill.<sup>324</sup> This suggests that

<sup>313</sup> *Correspondence of Gage*, 2:410; *Correspondence of Gage*, 2:424.

<sup>314</sup> *Correspondence of Gage*, 1:153.

<sup>315</sup> Carleton to Gage, Quebec, February 15, 1767, in DRCHSNY, 7:984.

<sup>316</sup> Francis Grant, “Journal from New York to Canada, 1767,” *New York History* 13, no. 3 (July 1932), 320.

<sup>317</sup> See map A16, page A-29.

<sup>318</sup> Cook, *Sketches of Essex County*, 23.

<sup>319</sup> Robert Warren Arthur, “The Deall Account Books 1756-1778,” *New York Genealogical and Biographical Record*, vol. 116, 1985 (New York: New York Genealogical Society, 1985), 218.

<sup>320</sup> For alcohol shipments, see Deall to Stoughton, New York, May 4, 1767, in Cook, *Sketches of Essex County*, 24. For the problems of alcohol and the British Army, see Paul E. Kopperman, ““The Cheapest Pay”: Alcohol Abuse in the Eighteenth-Century British Army,” *The Journal of Military History* 60, no. 3 (July 1996), 445-470.

<sup>321</sup> See map in Appendix A-16.

<sup>322</sup> Deall to Ruth Stoughton, New York, December 28, 1767, in Cook, *Sketches of Essex County*, 24; Samuel Wolcott, *Memorial of Henry Wolcott* (New York: Anson D. F. Randolph, 1881), 216n1.

<sup>323</sup> Cook, *Sketches of Essex County*, 22.

<sup>324</sup> Cook, *Sketches of Essex County*, 23.



Deall calculated that it was cheaper to maintain his own sawmill or that the King's Sawmill was becoming an unreliable source for lumber.

## 1768-1774

### Military Situation

Throughout these years, there was little military activity at Ticonderoga and the fort saw a steady rate of decline and disrepair. For most of 1768, the detachment from the 16th Regiment of Foot occupied the fort.<sup>325</sup> In the autumn of 1768, a detachment from the 1st Battalion, 60th Regiment of Foot, under the command of Captain-Lieutenant Ralph Phillips, relieved the 16th Regiment.<sup>326</sup> This detachment garrisoned Ticonderoga until June 1772, until their relief from a detachment from the 26th Regiment of Foot, under the command of Lieutenant Jocelyn Feltham, arrived at Ticonderoga.<sup>327</sup> In September 1773, Captain William DeLaplace assumed command at both Crown Point and Ticonderoga and he located himself at Ticonderoga due to the ruined state of Crown Point.<sup>328</sup> The 26th Regiment and DeLaplace remained at Ticonderoga until the fort's capture by American forces in May 1775.

### Land Grants, Inhabitants, the King's Sawmill and Deall's Sawmill

After Stoughton's death and the departure of his family, the first civilian workers arrived into the Ticonderoga area in late 1768. Deall employed these people to prepare his land for construction projects and eventual settlement. Deall was planning to build both a gristmill and a sawmill. Deall sent three men to the King's Sawmill, two to cut timber and one to haul logs to the sawmill. At least one of these men had his wife with him and there were other people, all of whom lived at the blockhouse—formerly used by Stoughton—at the beginning of 1769.<sup>329</sup> There was also a tavern in the area, most likely operated by Deall's employees.<sup>330</sup> However, there were some delays in the mill's construction stemming from problems of delivering supplies to Ticonderoga, particularly the large and fragile stone for the gristmill.

There was some friction with Macintosh to the north, who evidently encroached onto Dealls' lands—the lands formerly granted to Kennedy surrounding Fort Ticonderoga.<sup>331</sup> Deall explained that this area was lawfully his and that “no man Living has any Rights to but myself.”<sup>332</sup> Also exasperating the situation was that one of Deall's workers owed a monetary debt to Macintosh.<sup>333</sup> Despite this friction, Deall did conduct business with Macintosh from November 1770 until October 1773.<sup>334</sup> During the American Revolution, Macintosh and his family were loyal the British Crown, as was Deall.

Once the building supplies arrived, Deall initiated construction for his mill in August 1769. Deall left these instructions for the placement of his mill:

<sup>325</sup> *Correspondence of Gage*, 1:196.

<sup>326</sup> *Correspondence of Gage*, 1:187, 192, 196; 2:480; Nesbit Willoughby Wallace, *A Regimental Chronicle and List of Officers of the 60th [...]* (London: Harrison, 1879), 88.

<sup>327</sup> *Correspondence of Gage*, 2:601, 638.

<sup>328</sup> Haldimand to De la Place, September 22, 1773, Haldimand Papers, B33, 98.

<sup>329</sup> Deall to Fox and Huntington, New York, January 16, 1769, in Cook, *Sketches of Essex County*, 25.

<sup>330</sup> Deall to Fox and Huntington, New York, January 16, 1769, in Cook, *Sketches of Essex County*, 25.

<sup>331</sup> Macintosh's property is visible on the land grant, map A16, page A-29.

<sup>332</sup> Cook, *Sketches of Essex County*, 26.

<sup>333</sup> Cook, *Sketches of Essex County*, 25.

<sup>334</sup> Arthur, “Deall Account Books,” 147.

I cant spare but one Acre of the Clear Meadow next to the Mill, to Run up from the Mill Dam to the Road that crosses from the Clear Land Down to the great Swamp that the Army made to go to the Breast Work, and you may Clear and work as much of the Land as you please between that Road and the River.<sup>335</sup>

Despite the workers, it took some time to complete Deall's mill. Apparently the lead carpenter was sick and it took until the winter of 1771 to complete Deall's sawmill and the summer of 1772 to complete Deall's gristmill.<sup>336</sup> When completed, Deall's sawmill had one saw.<sup>337</sup> It is very probable that Deall's gristmill and sawmill were in the same building. Often times in this era, one building housed these two types of mills.<sup>338</sup> Also, there is no map depictions of a separate mill north of the La Chute River from this era, and there is no further mention of a gristmill in later years.

Deall did not have a permanent presence in Ticonderoga because his business practice was in New York City. Therefore, he entrusted the management of his property to his workers and relatives. It also appears that Deall sold some of the Kennedy grant to Macintosh, possibly in the early 1770s, because there is a record in Deall's accounting books that James Macintosh "purchased Ticonderoga land from Deall."<sup>339</sup> During the final years of the British occupation, the small number of Ticonderoga inhabitants frequently interacted with the British garrison at Ticonderoga. Francis Arthur, the overseer of Deall's mill, made regular visits to the fort to dine with DeLaplace.<sup>340</sup>

In 1772, a visitor traveling through the area recorded that there were two sawmills—one British and one privately owned [Deall's]—facing opposite each other at the falls, with both mills operating off the same milldam.<sup>341</sup> At that time, the British sawmill was "out of repair" and not working.<sup>342</sup> It is apparent that the British garrison did not have the workers or money for workers to restore the King's Sawmill. They also neglected any maintenance of the fort, likely for the same reasons. By 1773, British officials noted that the fort was in a "most ruinous state."<sup>343</sup>

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<sup>335</sup> Cook, *Sketches of Essex County*, 26.

<sup>336</sup> Cook, *Sketches of Essex County*, 26. 2 men named Fox and Huntington built Deall's mill, see *Sixth Annual Report of New York*, 292; Cook, *Sketches of Essex County*, 25-26.

<sup>337</sup> This comes from a report to the British forces in 1777, see BFTM 10, no. 3 (1959), 243.

<sup>338</sup> Fox, *Lumber Industry*, 13.

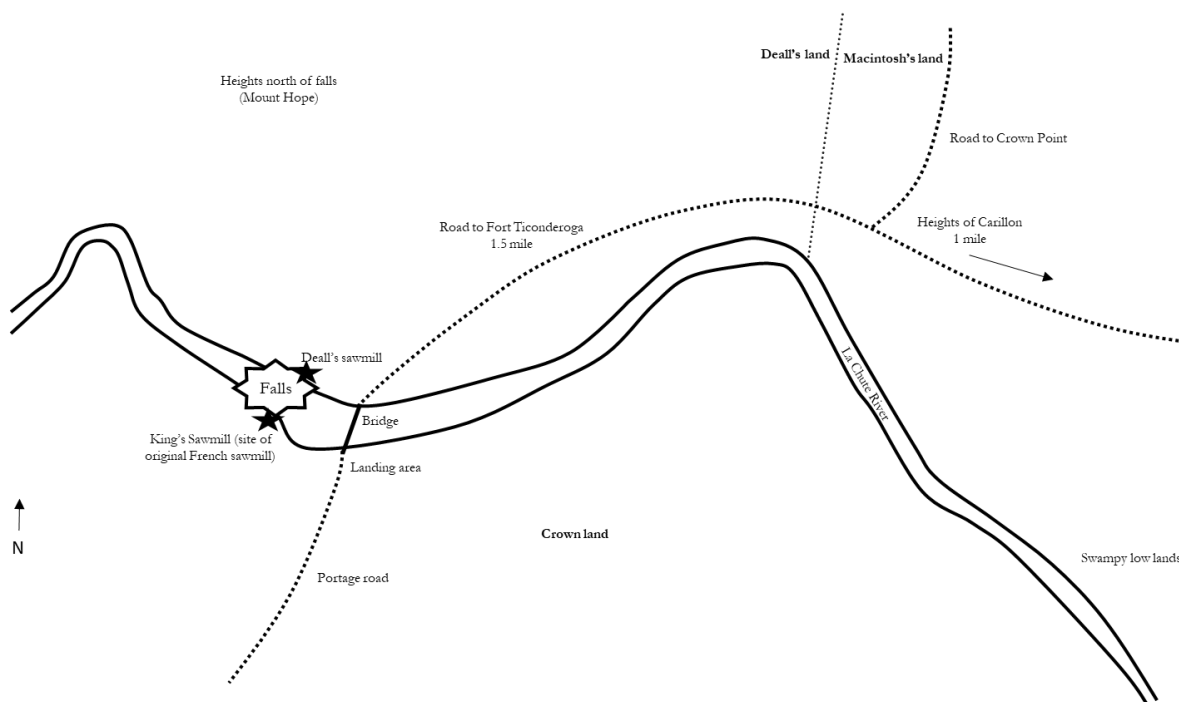
<sup>339</sup> Arthur, "Deall Account Books," 147.

<sup>340</sup> Cook, *Sketches of Essex County*, 26.

<sup>341</sup> "Adolphus Benzel's 1772 Notes on Lake Champlain," BFTM 12, no. 5 (December 1969), 360. For a discussion on the milldam, see page 73.

<sup>342</sup> "Adolphus Benzel's 1772 Notes on Lake Champlain," BFTM 12, no. 5, 360.

<sup>343</sup> Haldimand to Tryon, New York, September 1, 1773, in DRCHSNY, 8:395.



Map 9. Sawmill area, 1771-1772.

There is little information concerning the two sawmills from 1772 until the American capture of Ticonderoga in May 1775. From the events in 1775, it is presumed that the King's Sawmill was not operable, unlike Deall's sawmill. While there was no construction at the fort, it is likely that there was some civilian construction in Deall's and Macintosh's grants that needed sawn lumber from the one working sawmill.

### The End of the British Era

By 1774, rebellion was brewing in the American colonies. Due to Ticonderoga's strategic position between British forces in Canada and the most settled areas of New York, British authorities considered re-establishing and strengthening Fort Ticonderoga.<sup>344</sup> However, this did not happen. Even Americans recognized the importance of Ticonderoga, and they assessed the value of taking the fort in early 1775.<sup>345</sup> Americans forces finally took Ticonderoga on May 10, 1775, after the outbreak of hostilities in Massachusetts. This American action at Ticonderoga ended the first British occupation of the fort.

<sup>344</sup> Dartmouth to Colden, Whitehall, July 6, 1774, in Peter Force, ed., *American Archives*, series 4, vol. 1 (Washington: M. St. Clair and Peter Force, 1837), 519.

<sup>345</sup> Brown to Committee of Correspondence of Boston, Montreal, March 29, 1775, *American Archives*, series 4, 2:244.

## The American Occupation: 1775 – 1777

### 1775

#### The Military Situation

After the Americans captured Fort Ticonderoga on May 10, 1775, the fort and the surrounding vicinity became a focal point for military activity for the Americans. Despite initial reluctance from the Continental Congress to retain Ticonderoga, they eventually authorized to send more troops to the location as a hedge against any British incursion from Canada. Aside from the various military forces that captured Fort Ticonderoga, troops belonging to Colonel Benjamin Hinman's 4th Connecticut Regiment were the first Continental troops to arrive in the middle of June.<sup>346</sup> Throughout the summer months, more troops arrived, both Continental and militia forces predominately from Connecticut and New York. From the relative inactivity of early May, Ticonderoga and the surrounding area saw an influx of sizeable amounts of soldiers, sutlers, supplies, naval vessels, and various cattle for the remainder of the year.

As Hinman was arriving, the Continental Congress appointed Philip Schuyler as a Major General, and shortly thereafter, General George Washington made Schuyler the commander of all troops in New York.<sup>347</sup> Schuyler commanded the New York Department, later called the Northern Department. He arrived at the Lake George landing place on July 18, assumed command of the fort, and began to organize, discipline and strengthen the military forces and posts throughout Ticonderoga.

With Congress's decision to invade Canada in late June, Ticonderoga became the hub for gathering forces. Schuyler began positioning forces further north at Crown Point. While most of the soldiers departed for Canada at the end of August, Ticonderoga still saw an influx of troops throughout the year, as the arriving troops moved north. Except for brief time at the beginning of September, Schuyler remained in command at Ticonderoga. He finally departed the fort in early December and appointed Colonel James Holmes of the 4th New York Regiment as Ticonderoga's commander.<sup>348</sup>

#### The Sawmills

Shortly after the Americans captured Fort Ticonderoga on May 21, Colonel Benedict Arnold visited the sawmills to "engage a quantity of plank for carriage boards and Battows."<sup>349</sup> He then traveled south to the landing, presumably to become acquainted with the wharf area, as this would be the location to both launch and receive bateaux on Lake George. Arnold's request for boards went to Deall's sawmill, as the King's Sawmill was inoperable. It is also likely that the people working Deall's mill departed shortly after this.<sup>350</sup> When Schuyler arrived at Ticonderoga in July, he found that there were "no Batteaux, no Boards, no Workmen, or

<sup>346</sup> Trumbull to Massachusetts Congress, Lebanon, June 19, 1775, in *American Archives*, series 4, 2:1026.

<sup>347</sup> *Journals of the Continental Congress 1774-1789*, 34 vols. (Washington: Government Printing Office, 1904-1937), 2:186 (hereafter cited as JCC); Washington to Schuyler, New York, June 25, 1775, *Founders Online*, National Archives, <https://founders.archives.gov/documents/Washington/03-01-02-0017>.

<sup>348</sup> Benson J. Lossing, *The Life and Times of Philip Schuyler*, 2 vols. (New York: Henry Holt, 1883), 1:471. Disgusted with garrisoning Ticonderoga and missing the Canada campaign, Holmes resigned his commission, see Thomas Jones, *History of New York During the Revolutionary War* [...], vol. 2 (New York: New York Historical Society, 1879), 620.

<sup>349</sup> "Benedict Arnold's Regimental Memorandum Book," 368.

<sup>350</sup> Cook asserts that after the American Revolution started, Deall left his "property in the wilds of Ticonderoga to the ravages of war and the dilapidations of time," see Cook, *Sketches of Essex County*, 26.

Materials to build them.”<sup>351</sup> This suggests that the mill workers Arnold employed were no longer present.

Schuyler found that the sawmills were inoperable and in a state of disrepair.<sup>352</sup> Prior to his arrival, Schuyler petitioned the New York Provincial Congress for supplies to accompany him when he moved north. Among the various supplies, he requested “4 chests of carpenters tools; 28 mill saws for Dutch mills; 7 d<sup>o</sup> for English mills; 5 dozen mill saw files.”<sup>353</sup> These supplies did not arrive and Schuyler had to make do without them.<sup>354</sup> To obtain needed sawn lumber, Schuyler contacted Gilliland, who by this time had a very developed sawmill and community in Willsboro, north of Crown Point. In late July, Gilliland sold 659 feet of 32 one and a half inch pine planks and 2,532 feet of 91 one-inch pine boards to Schuyler at Ticonderoga.<sup>355</sup> In the letter, Gilliland wrote:

I should have sent you some Oak Boards that I have had Sawed out purposefully for Boats I am building, only that I doubted the scantling would not suit for House Build<sup>g</sup>, which I’m informed is the use they are intended for - those which I have by me being wither ½ inch, ¾ inch, or 1 ½ inch for the Bottoms of Batteaux & for seats &ca – should you want any of them you may have them, or if of any other size, shall get them ready for you quick as possible.<sup>356</sup>

This letter provides details about how the Americans used this lumber at Ticonderoga, as well as specifics on bateau boards.

Despite the lack of equipment, Schuyler ordered the troops at Ticonderoga to repair both sawmills.<sup>357</sup> The first sawmill was operational on July 23.<sup>358</sup> This was presumably Deall’s sawmill, as that mill functioned in May. According to Schuyler, the second mill would only become operational after the supplies arrived from New York.<sup>359</sup> This was the formerly named King’s Sawmill, because, when working, it had two saws; Schuyler specifically noted that that sawmill would only work “when the saws arrive.”<sup>360</sup> According to Walter Livingston the Deputy-Commissary General for New York, on July 29 both sawmills were working; however, they only operated with one saw each.<sup>361</sup>

Schuyler wrote to Livingston on July 24 about the lack of support from New York, including carpenters that Schuyler requested in early July.<sup>362</sup> Schuyler requested to Livingston to send 20 carpenters from Schenectady—who he promised would receive “the same wages as

<sup>351</sup> BFTM 1, no. 1 (January 1927), 11

<sup>352</sup> BFTM 1, no. 1 (January 1927), 11.

<sup>353</sup> Lossing, 1: 344.

<sup>354</sup> Schuyler to Congress, Ticonderoga, July 21, 1775, in *American Archives*, series 4, 2:1702.

<sup>355</sup> Gilliland to Schuyler, Willsboro, June 24, 1775, in Philip Schuyler Papers, New York Public Library, Military Papers, Letters, William Gilliland, <https://digitalcollections.nypl.org/items/ceec6680-cc7a-0134-2f6b-00505686a51c>.

<sup>356</sup> Gilliland to Schuyler, Willsboro, June 24, 1775, in Schuyler Papers.

<sup>357</sup> Schuyler to Washington, Ticonderoga, July 31, 1775, in *Founders Online*, National Archives, <https://founders.archives.gov/documents/Washington/03-01-02-0130>.

<sup>358</sup> Schuyler to Congress, Ticonderoga, July 21, 1775, in *American Archives*, series 4, 2:1702.

<sup>359</sup> Schuyler to Congress, Ticonderoga, July 21, 1775, in *American Archives*, series 4, 2:1702.

<sup>360</sup> Schuyler to Congress, Ticonderoga, July 21, 1775, in *American Archives*, series 4, 2:1702.

<sup>361</sup> Walter Livingstone to New York Congress, Albany, July 29, 1775, in *American Archives* series 4, 2:1753.

<sup>362</sup> Orderly Book of Philip John Schuyler, 1775, June 28 - 1776, April 18, New York, Fort Ticonderoga, Albany, Fort St. George, Huntington Library Manuscripts, page 41/column 74 (hereafter cited as Schuyler Orderly Book).

those from Albany”—under the supervision of Jacob Froman.<sup>363</sup> On July 25, Schuyler sent another request to Livingston, asking for “ten Mill saw files for English Mills.”<sup>364</sup> By the end of July, Livingston sent the 20 carpenters to Schuyler and promised to send the requested supplies from New York.<sup>365</sup> The carpenters from Schenectady arrived at the beginning of August.<sup>366</sup> Of note, not all these carpenters worked at the sawmill, most were employed in other duties at Ticonderoga. Typically, primary sources label the workers at a sawmill as sawyers.

The principal use of the sawmills in the summer of 1775 was to construct naval vessels, although some sawn boards went for artillery planking in redoubts.<sup>367</sup> Schuyler recorded that when he arrived at Ticonderoga, there was only enough “Craft to move 200 men.”<sup>368</sup> In late August, just before the invasion of Canada, Schuyler declared that the Americans had enough vessels to “move about 1300 [soldiers] with Twenty Days Provision” and 6 nine pound artillery pieces.<sup>369</sup> Even after the bulk of the American forces departed for Canada, Schuyler instructed that the remaining workers and carpenters work on constructing boats.<sup>370</sup>

However, not all the wood for these vessels originated at Ticonderoga. On July 22, Schuyler sent soldiers and carpenters to Skenesborough to repair and operate the sawmill at that location.<sup>371</sup> Due to the ease of access to Lake Champlain, the Skenesborough sawmill would eventually produce lumber for the larger naval vessels in 1776. By July 25, the Skenesborough sawmill provided more wood than the one working sawmill at Ticonderoga. Schuyler remarked to the officer commanding Skenesborough that he was sending another

Sawyer to assist the one You have, for the Mill must certainly be kept going night & Day or otherwise all the work here will stand still ... Do not let the Mill stop for want of Logs – If You have not Cattle, you must hire more.<sup>372</sup>

This entry also details dimensions of planks that shipped from Skenesborough to Ticonderoga as “two and a half inch and one and a half inch Stuff and as long as You can possibly saw it ... I do not mean every Log should be twenty seven feet long, but as long as You can get them.”<sup>373</sup> By the middle of August, the Skenesborough sawmill was still supplying sawn lumber to Ticonderoga.<sup>374</sup>

On September 28, Schuyler further requested “Two hundred, Inch and a half pitch pine plank, and Six hundred Inch white pine boards” from Fort George.<sup>375</sup> His follow up on September 29 is curious because he wrote to “Hurry over plank and boards, as my carpenters are

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<sup>363</sup> Schuyler Orderly Book, 41/74.

<sup>364</sup> Schuyler Orderly Book, 44/85.

<sup>365</sup> Walter Livingstone to New York Congress, Albany, July 29, 1775, in *American Archives* series 4, 2:1753.

<sup>366</sup> Schuyler Orderly Book, 83/210.

<sup>367</sup> Schuyler explains the need for building boats for the invasion of Canada on August 14, see Schuyler Orderly Book, 101/268. For artillery planking, see Schuyler Orderly Book, 120/331.

<sup>368</sup> Schuyler to Franklin, Albany, August 23, 1775, in *Naval Documents of the American Revolution*, 12 vols. (Washington: n. p., 1966-2013), 1: 1217 (hereafter cited as NDAR).

<sup>369</sup> Schuyler to Franklin, Albany, August 23, 1775, NDAR, 1: 1217.

<sup>370</sup> Schuyler Orderly Book, 120/329.

<sup>371</sup> Schuyler Orderly Book, 33-34/49.

<sup>372</sup> Schuyler Orderly Book, 45-46/87.

<sup>373</sup> Schuyler Orderly Book, 45-46/87.

<sup>374</sup> Schuyler Orderly Book, 99/260.

<sup>375</sup> Schuyler Orderly Book, 154/397.

Idle.”<sup>376</sup> This seems to indicate that the sawmills at Ticonderoga were either not working, not staffed, or that pine timber was not available in the Ticonderoga area. Further, Schuyler directed on October 7, that “One hundred Inch & a half plank, and three hundred Inch boards and no more until further orders.”<sup>377</sup> On October 24, Schuyler sent another request to Fort George, writing, “Timber for knees of batteaus is so Scarce in this part of the Country that the General is under the necessity of procuring them from Lake George.”<sup>378</sup> This request demonstrates that certain useable parts of trees were unavailable in the Ticonderoga vicinity at that time. However, there was still plenty of timber available. With winter snows hitting in November, the Americans used sleds to both haul timber to the sawmills and to move sawn wood from the sawmills.<sup>379</sup>

### **Military Activity in the Sawmill Area and the Ticonderoga Valley**

When Hinman took command of Ticonderoga in June, he placed a contingent of soldiers at the landing—formerly occupied by Stoughton—and at a post at the sawmill.<sup>380</sup> Schuyler encountered the detachment at the landing when he arrived on July 18. He noted that that detachment consisted of 1 captain and 100 soldiers, and that they were extremely lackadaisical in their military duties.<sup>381</sup> The landing was in use daily as bateaux moved north and south across Lake George, escorting provisions, correspondence, supplies, animals, soldiers, and workers between Fort George and Ticonderoga.<sup>382</sup> All personnel or materials shipping on Lake George into Ticonderoga arrived first at the landing place, and then moved north on the portage road to the bridge in the sawmill area. From there, soldiers put the material into bateaux to travel to either Fort Ticonderoga or further north.

For movement to the sawmill landing the Americans used carriages, as well as to move equipment for the sawmill landing to the fort.<sup>383</sup> Although writing in 1776, Charles Carroll witnessed the system for moving bateaux across land, which Schuyler had in place in 1775.<sup>384</sup> Carroll wrote:

General Schuyler has erected a machine for raising boats when emptied, and then letting them gently down on a carriage constructed for that purpose ... These carriages consist of 4 wheels united by a long sapling at the extremities of which the wheels are placed; Over the axletrees is fixed a piece of wood on which each end of the boat is supported and

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<sup>376</sup> Schuyler Orderly Book, 156/406.

<sup>377</sup> Schuyler Orderly Book, 167/430.

<sup>378</sup> Schuyler Orderly Book, 181/471.

<sup>379</sup> Schuyler to Hancock, Tyconderoga, November 11, 1775, in NDAR 2: 989. For lumber sleighs, see pages 77-78 and D-21.

<sup>380</sup> Schuyler to Hancock, New York, July 3, 1775, in NDAR, 1: 809; Schuyler Orderly Book, 29/32.

<sup>381</sup> Schuyler to Washington, Tionderoga, July 18, 1775, in *Founders Online*, National Archives, <https://founders.archives.gov/documents/Washington/03-01-02-0076>.

<sup>382</sup> This order sums up the activity on Lake George, recorded in the Schuyler Orderly Book 43/80:

To The Officer Commanding the Landing at the North End of Lake George

Sir,

You are to send a boat with Cap<sup>t</sup> Vandyke and Captain Douglass and their ~~Company~~ party to Fort George to be rowed by themselves unless a batteau should be going on ordinary business-By Order of the General-Headquarters Ticonderoga 24 July 1775.

<sup>383</sup> Schuyler Orderly Book, 103/275; Allan S. Everest, ed., *The Journal of Charles Carroll of Carrollton as One of the Congressional Commissioners to Canada in 1776* (Fort Ticonderoga: n. p., 1976), 33.

<sup>384</sup> “Journal of Major Henry Livingston of the Third Continental Line, August to December 1775,” *Pennsylvania Magazine of History and Biography*, vol. 22 (Philadelphia: Historical Society of Pennsylvania, 1898), 32.

made fast by a rope and secured round a bolt at the undermost part and in the center of the axletree. This bolt is iron and passes thro' the aforesaid pieces of wood and the axletrees. These carriages are drawn by 6 oxen.<sup>385</sup>

Carroll further described that at the end of the mile and a half journey to the sawmill landing were "35 or 40 men" who unloaded the bateaux back into the La Chute River.<sup>386</sup> Near the sawmill landing was also a bridge located "60 or 70 yards" to the east of the lower falls across the La Chute River.<sup>387</sup> This was the bridge built by the French and restored by the British after they captured Ticonderoga in 1759.

The Americans used bateaux to transport supplies back and forth from the sawmill landing to the fort.<sup>388</sup> Once the main force departed to Canada, Ticonderoga became the intermediary for supplies heading north to support American forces in Canada. Lake George saw a constant stream of bateaux going back and forth between the landing and Fort George; Schuyler even ordered that no boats would remain at either location for more than three hours.<sup>389</sup> Schuyler ordered that the arriving boats were "to be Immediately unloaded and sent back with fresh hands as they are plenty of men for that purpose at both theses posts."<sup>390</sup> Further, Schuyler directed that all the naval vessels on Lake George have a number on them so that there would be an easy way to record their service and supplies delivered.<sup>391</sup>

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<sup>385</sup> Everest, *Charles Carroll*, 33.

<sup>386</sup> Everest, *Charles Carroll*, 34.

<sup>387</sup> Everest, *Charles Carroll*, 36.

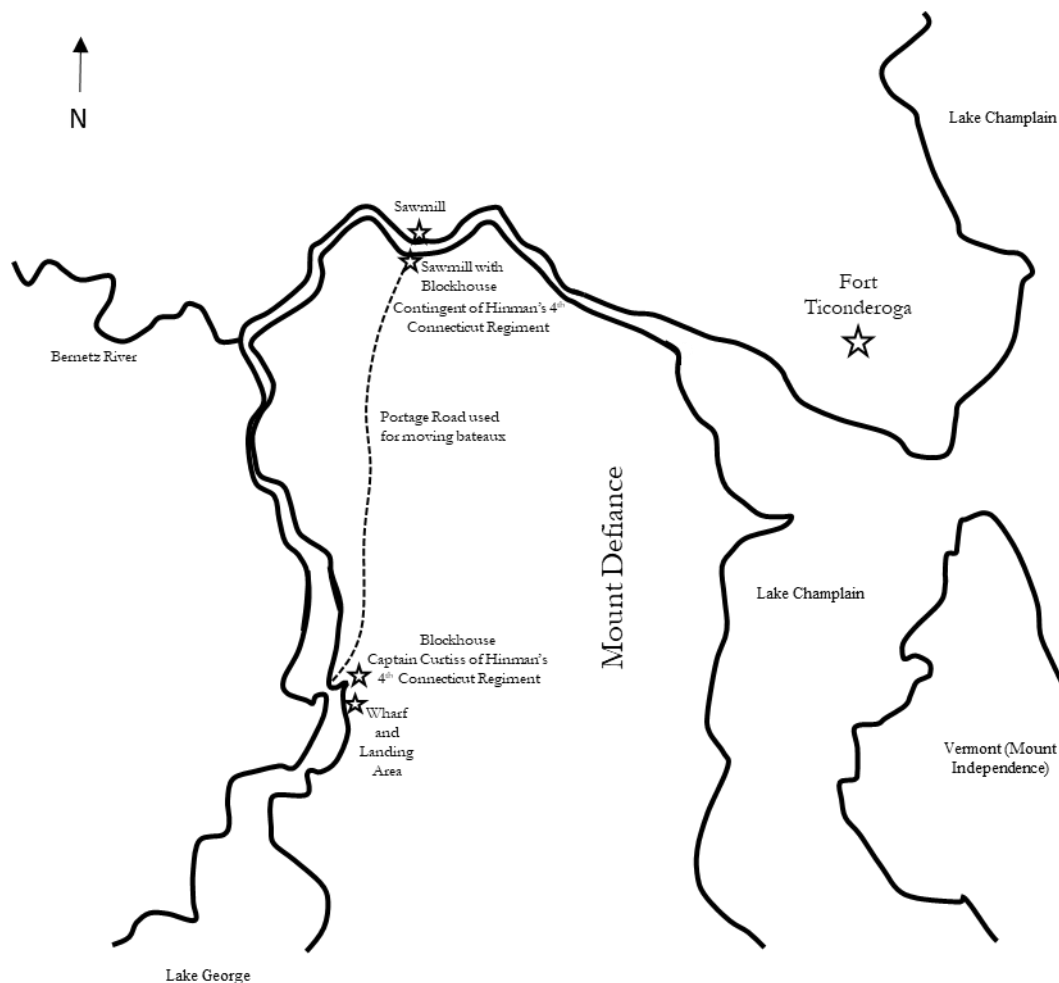
<sup>388</sup> Schuyler Orderly Book, 104/277.

<sup>389</sup> Schuyler Orderly Book, 144/380.

<sup>390</sup> Schuyler Orderly Book, 144/380.

<sup>391</sup> Schuyler Orderly Book, 145/380.





Map 10. American troop disposition in the Ticonderoga Valley, summer 1775.

The Americans also had an express system to deliver items or correspondence from Fort George all the way to Crown Point. Sources only mention express between Fort George and the landing at Ticonderoga by bateaux. In Schuyler's request on July 25, he specifically mentioned that the mill files should arrive "by express."<sup>392</sup> In the next entry of the orderly book, the General expressed his displeasure that the "fat cattle & express horses" wandered away from their pen due to negligent guards.<sup>393</sup> The Americans likely used these horses for express items between Crown Point and Ticonderoga, which was a route more easily traveled overland than the overland route between Fort George and Ticonderoga.

For most of the summer and all the autumn, the landing was under the command of Captain Eleazer Curtiss of the 4th Connecticut Regiment. Once Curtiss departed, command fell to Captain John Johnson of the 1st New York Regiment. These men were under orders to regulate traffic on Lake George and ensure boats continued moving ferrying military supplies, soldiers, and prisoners from Canada—including any wife, children, or baggage of prisoners.

<sup>392</sup> Schuyler Orderly Book, 44/85.

<sup>393</sup> Schuyler Orderly Book, 45/86.

## 1776

**Military Situation**

Schuyler departed Ticonderoga in early December 1775 and he placed command of the fort and its environs to Colonel James Holmes of the 4th New York Regiment.<sup>394</sup> By the beginning of January 1776, there were very little troops anywhere at Ticonderoga. By the middle of the month, most of the garrison departed, including Holmes.<sup>395</sup> As a stopgap, Schuyler was able to get small numbers of newly raised recruits and units to garrison Ticonderoga for the remaining winter months. With the arrival of spring, American military forces again began to funnel through Ticonderoga on their way north to Canada.

Through the spring and early summer months, the garrison of Ticonderoga was relatively small, usually a company sized element. Schuyler visited the fort briefly at the end of April accompanying three Congressional delegates—Benjamin Franklin, Samuel Chase, and Charles Carroll—who were on their way north to visit American troops in Canada.<sup>396</sup> Schuyler again visited the fort in early June, at which time Colonel Cornelius Wynkoop of the 4th New York Regiment was in command of the fort.<sup>397</sup>

By early July, American forces were in full retreat from Canada, and Ticonderoga was the center of their reorganization. At that time, small pox was ravaging the American forces.<sup>398</sup> Major General Horatio Gates assumed command of Ticonderoga on July 8 and he, along with other commanders, decided to fortify the eastern shore across from the fort, which the Americans called Mount Independence. Throughout July, Ticonderoga swelled with troops. By the end of that month, Gates organized his forces into four brigades, three on Mount Independence and one at Ticonderoga.<sup>399</sup>

From August until the beginning of November, the over 14,000 troops at Ticonderoga and Mount Independence equated to a large city in America. After Arnold's defeat at Valcour Bay in October, the Americans braced for an expected attack from the British coming up Lake Champlain from Canada. However, the British decided to retreat and reconsolidate during the winter and spring months of 1777. After the British withdrawal, American forces began to depart Ticonderoga. Gates also departed and left command of Ticonderoga and Mount Independence to Colonel Anthony Wayne on November 18.<sup>400</sup> As with other winter months, the numbers of

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<sup>394</sup> Lossing, *Philip Schuyler*, 1: 471; Schuyler Orderly Book, 242-243/616.

<sup>395</sup> Schuyler to Hancock, Albany, January 13, 1776, in *American Archives*, series 4, 4:667. Schuyler notes that the garrison of Ticonderoga said they would depart on January 13, see Schuyler Orderly Book, 264/665. Wooster records there were stories circulating that there were no troops at Ticonderoga in the middle of January 1776, see Wooster to Schuyler, Montreal, January 14, 1776, NDAR 3:779.

<sup>396</sup> Lossing, 2:42; JCC 4:219.

<sup>397</sup> Schuyler to Thomas, Ticonderoga, June 4, 1776, *American Archives*, series 4, 6:711; a letter from Schuyler on June 3, 1776 showed his location as Fort George. For Wynkoop, see Extract of Letter from Wynkoop to Schuyler, Ticonderoga, June 20, 1776, in *American Archives*, series 4, 6:1058; Wynkoop to Schuyler, Ticonderoga, June 10, 1776, in NDAR 5:451.

<sup>398</sup> Sullivan to Schuyler, Isle Au Noix, June 22, 1776, in Otis G. Hammond, ed., *Letters and Papers of Major-General John Sullivan Continental Army*, vol. 1, 1771-1777 (Concord, NH: New Hampshire Historical Society, 1930), 257-259.

<sup>399</sup> Doyen Salsig, ed., *Parole: Quebec; Countersign: Ticonderoga: Second New Jersey Regimental Orderly Book 1776* (Cranbury, NJ: Associated University Presses, 1980), 176; Appleton Morgan, ed., "The Diary of Colonel Elisha Porter, of Hadley Massachusetts," *Magazine of American History*, vol. 30 (New York: Magazine of American History, 1893), 202.

<sup>400</sup> *Orderly Book of the Northern Army, at Ticonderoga and Mount Independence, from October 17th, to January 8th, 1777* (Albany: J. Munsell, 1859), 85.

soldiers in the garrisons of Ticonderoga and Mount Independence slowly dwindled down as enlistments expired and units returned home to disband.

### Sawmills

There is little reference to the sawmills operating for the latter part of 1775 and for the first half of 1776. There are three possible conclusions for the lack of any references about the Ticonderoga sawmills. The first, and most likely, was that the sawmills were inoperable, either from the winter weather or because of broken equipment from improper handling, as was the case many times over the years with the sawmill. Second, there may have been a lack of quality timber available for cutting at the sawmills. On July 12, Colonel John Trumbull lamented the scarcity for the “conveniences for making” artillery carriages, as well as noting that while there was an abundance of carpenters there was “neither places for them to work in, nor materials” to adequately employ them, which suggests that timber or lumber was unavailable at that time.<sup>401</sup> Lastly, the sawmills (or at least one the buildings) did operate but they did not produce enough sawn lumber to warrant any specific mention. Carroll noted the presence of a sawmill at the lower falls of the La Chute River on April 21; however, there is no mention of another sawmill or if the mill was operating at that time.<sup>402</sup>

All references to obtaining sawn lumber for Ticonderoga for the first half of 1776 pertains to sawmills at Fort George or Skenesborough; troops also obtained sawn boards from other sawmills in the region.<sup>403</sup> In 1776, Skenesborough became the central point for building naval vessels due to the depth and access to Lake Champlain.<sup>404</sup> By June 22, the Skenesborough sawmill was sawing wood for gondolas.<sup>405</sup> On June 25, Schuyler requested more saws in the Northern Department, writing:

If any Dutch Mill Saws can be procured at New York be pleased to order up four Dozen with six Dozen of Files for them.<sup>406</sup>

From the events surrounding this request, it is probable that these items were for the Skenesborough sawmill. At the time of Schuyler’s request, the Skenesborough sawmill was at the center his focus for any sawn lumber in the Northern Department.

It appears that when the American forces began arriving at Ticonderoga in July, the sawmills began operating again. On July 21, orders sent to the Pennsylvania troops at the French lines required them to begin construction of artillery platforms, which would likely involve wood planking.<sup>407</sup> Captain John Lacey wrote that sick soldiers were camped at the sawmills in July,

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<sup>401</sup> John Trumbull to Jonathan Trumbull, Ticonderoga, July 12, 1776, BFTM 6, no. 4 (July 1942), 145.

<sup>402</sup> Everest, *Charles Carroll*, 34.

<sup>403</sup> *American Archives*, series 4, 6:1057-1058; Isaac W. Hammond, ed., *Diary and Orderly Book of Sergeant Jonathan Burton of Wilton, N.H., while in service in the army on Winter Hill: Dec. 10, 1775-Jan. 26, 1776 and of the same soldier as Lieutenant Jonathan Burton, while in Canada expedition at Mount Independence, Aug. 1, 1776-Nov. 29, 1776* (Concord, NH: Republican Press, 1885), 30.

<sup>404</sup> John Trumbull, *Autobiography, Reminiscences and Letters of John Trumbull, 1756 to 1841* (New Haven, CT: B. L. Hamlen, 1841), 30.

<sup>405</sup> Schuyler’s Letterbook, 103/1010.

<sup>406</sup> Schuyler to Washington, Albany, June 25, 1776, in NDAR 5:730.

<sup>407</sup> Orderly Books of the 4th Pennsylvania Battalion, 1776, Mar. 31 - Sept. 1, New York, Albany (N.Y.), Ile aux Noix (Québec), 55v, in Huntington Library, San Marino, CA, Digital Library, Manuscripts, Orderly Books of the American Revolution.

which was likely a quarantine location away from the American's main camp.<sup>408</sup> Further, Lacey obtained sawn boards from the sawmill on July 18, which indicates that the mills were operating at that time.<sup>409</sup>

On August 29, Colonel Jeduthan Baldwin wrote that he began construction of a sawmill.<sup>410</sup> While this could possibly be another mill, it is more likely that he repaired one of the existing sawmills because he sent troops north to recover mill parts—running gears—from Raymond's Mill near Crown Point.<sup>411</sup> There is no evidence from other journals, orderly books, or maps to suggest that there was a third sawmill in the Ticonderoga Valley in 1776 and 1777.

On September 14, troops began construction of huts in the French lines, which required wood boards from the sawmills.<sup>412</sup> In late September, American troops began building guard quarters in the redoubts throughout Ticonderoga, which presumably used boards from the sawmills.<sup>413</sup> Also throughout September, troops began building wooden structures on Mount Independence.<sup>414</sup> This building occurred throughout October and into November.<sup>415</sup>

General Orders for October 2 stated that all the "Artificers and Laborers attending the Two Saw Mills" were under the command of the Deputy Quarter Master General, who could dismiss any of them for negligent duty.<sup>416</sup> Therefore, by this time, the sawmills were operating. Among the list of items needed by the Northern Department at the end of 1776 was "Mill-saws for Dutch and English Mills;"<sup>417</sup> Schuyler specifically requested "Six saws for English Mills, and four Dozen for Dutch Mills."<sup>418</sup> It is also apparent that the sawmills needed continual maintenance because Wynkoop—writing from his command at Skenesborough—responded to General Gates that he could not locate "the saw mill crank" to send to Ticonderoga, presumably to repair one of the broken sawmills.<sup>419</sup>

### The Sawmill Area

Part of the duty of the garrison of Ticonderoga was to reestablish the transportation system from the previous year, which consisted of hauling soldiers, equipment, and provisions from the Lake George landing north to the sawmill landing on the La Chute River. These new arrivals utilized the same route as in the previous year from the landing, along the portage road, and to the bridge near the sawmill. From there, bateaux waited to transport the equipment either

<sup>408</sup> John Lacey, "Memoirs of Brigadier General John Lacey, of Pennsylvania," in *The Pennsylvania Magazine of History and Biography*, vol. 25 (Philadelphia: The Historical Society of Pennsylvania, 1901), 346.

<sup>409</sup> Lacey, "Memoirs of John Lacey," 346.

<sup>410</sup> Jeduthan Baldwin, *The Revolutionary War Journal of Col. Jeduthan Baldwin 1775-1778*, Thomas Williams Baldwin, ed. (Bangor, ME: De Burians, 1906), 72.

<sup>411</sup> Baldwin, 72. Raymond's Mill figured prominently into supplying sawn lumber for Crown Point and Arnold's fleet in the summer of 1775, see "Benedict Arnold's Regimental Memorandum Book," 370, 374.

<sup>412</sup> Orderly Book of the 4th Pennsylvania Battalion, 1776, Sept. 3 - Oct. 12, Ticonderoga (N.Y.), 21r, in Huntington Library, San Marino, CA, Digital Library, Manuscripts, Orderly Books of the American Revolution. There was a substantial amount of huts built by the beginning of October, see Persifor Frazer, *General Persifor Frazer a Memoir, Compiled Principally from His Own Papers* (Philadelphia: n. p., 1907), 121.

<sup>413</sup> Orderly Book of the 4th Pennsylvania Battalion, 1776, Sept. 3 - Oct. 12, 30r.

<sup>414</sup> "The Diary of Henry Sewell," BFTM 11, no. 2 (September 1963), 78-79.

<sup>415</sup> Baldwin records finishing barracks in November, see Baldwin, 85.

<sup>416</sup> Orderly Book of the 4th Pennsylvania Battalion, 1776, Sept. 3 - Oct. 12, 55v.

<sup>417</sup> *Orderly Book of the Northern Army*, 171; BFTM 3, no. 5 (January 1935), 210.

<sup>418</sup> Schuyler to Lewis, Albany, December 17, 1776, in "The Trial of Major General Schuyler. October 1778," *Collections of the New York Historical Society for the Year 1879*, vol. 12 (New York: New York Historical Society, 1880), 48.

<sup>419</sup> Wynkoop to Gates, Skenesborough, November 6, 1776, BFTM 5, no. 1 (January 1939), 10.

to Fort Ticonderoga or destinations further north.<sup>420</sup> There were soldiers posted at both the landing and the sawmills to assist in the movement of material.<sup>421</sup> As in 1775, there was a substantial amount of bateaux located at the landing place near the sawmills.<sup>422</sup> There was also a blockhouse in the sawmills area by the end of June; this was likely the blockhouse built by the British years earlier at that location.<sup>423</sup>

In early July, the Pennsylvania troops posted at the French lines conducted scouting daily, directly to the northwest of the sawmill area.<sup>424</sup> Of note, the orderly books and journals all record that there was extremely heavy rain and storms from the end of July and throughout August and September, which slowed or ceased construction and working parties.

On August 25, Colonel Arthur St. Clair, Wayne, and Baldwin went to assess the ground north of the sawmill for the placement of two Continental regiments, and they assessed the future Mount Hope as a location to “Command the pass.”<sup>425</sup> This ‘pass’ refers to the Ticonderoga Valley, which Mount Hope has a dominant view. Situated on a prominent hill north of the falls, troops stationed at the redoubt at Mount Hope would easily be able to see in all four cardinal directions—although in the present day, numerous trees mask these vistas. To the south, troops could see the northern edge and landing at Lake George, the portage road, the northerly course of the La Chute River, and the entire sawmill area. To the west are mostly flat lands and the eastward turn of the river. To the north are mostly flat lands consisting of low, rolling hills that encompass the approaches from Crown Point and 3 Mile Point. To the east is steep terrain on both sides of the eastward flowing La Chute River, which possibly allows visibility to a small portion of Lake Champlain and Mount Independence—Fort Ticonderoga would not be visible due to its lower elevation and location behind higher terrain.

The two regiments destined for Mount Hope arrived in early September. Colonel Samuel Brewer’s Massachusetts Regiment and Colonel Aaron Willard’s Massachusetts Regiment encamped north of the sawmills; Baldwin arranged the camps for both units.<sup>426</sup> On September 8, Baldwin went to north side of the La Chute River by the sawmills, and laid out the fortification on Mount Hope, which Brewer’s and Willard’s regiments were to occupy.<sup>427</sup> The Independent Company of Stockbridge Indians under Captain Ezra Whittlesey joined these units on September 13.<sup>428</sup> These units provided nightly guards surrounding their camp.<sup>429</sup>

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<sup>420</sup> Philip Schuyler Papers, New York Public Library, Letterbook of General Orders 1776 April - 1777 June 29, page 12/ column 865 (hereafter cited as Schuyler’s Letterbook). Sullivan describes the situation upon his arrival at the landing on May 25 thus:

“The Teams here are Extremely weak but the Quarter Master is a very Industrious person & gives us all the Dispatch in his power. I hope to get as far as ticonderoga Fort to Day & Early in the morning of tomorrow Set off for St Johns,” see Sullivan to Schuyler, Ticonderoga, May 25, 1776, in Hammond, *Letters and Papers of Sullivan*, 209.

<sup>421</sup> Schuyler’s Letterbook has numerous mentions of soldiers at these places in April 1776.

<sup>422</sup> On May 2, Schuyler wrote that troops at Skeneseborough required “all the bateaus at Tyconderogas Sawmills,” see Schuyler’s Letterbook, 19/878.

<sup>423</sup> Schuyler’s Letterbook, 100/1003.

<sup>424</sup> The orders specify the scouting area as the bridge all the way to Lake Champlain to the northwest, see Orderly Books of the 4th Pennsylvania Battalion, 1776, Mar. 31 - Sept. 1, 48r.

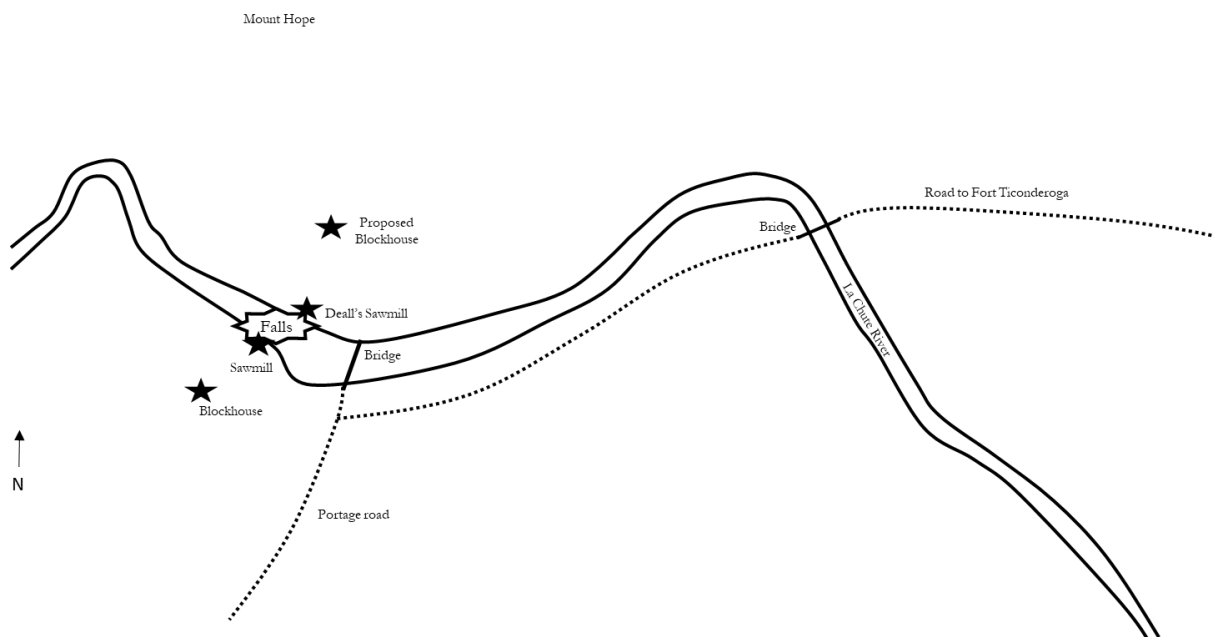
<sup>425</sup> Orderly Books of the 4th Pennsylvania Battalion, 1776, Mar. 31 - Sept. 1, 97r; BFTM 3, no. 1 (January 1933), 53

<sup>426</sup> Baldwin, 73.

<sup>427</sup> Baldwin, 74.

<sup>428</sup> Orderly Book of the 4th Pennsylvania Battalion, 1776, Sept. 3 - Oct. 12, 19v. The Americans ordered that these friendly Indians wear a “Blue and Red Cap as a distinguishing mark from the Enemies Indians,” see Orderly Book of the 4th Pennsylvania Battalion, 1776, Sept. 3 - Oct. 12, 20r.

<sup>429</sup> Orderly Book of the 4th Pennsylvania Battalion, 1776, Sept. 3 - Oct. 12, 30v-31r.



Map 11. Sawmill area, October 1776.

With the defeat of Arnold's fleet at Valcour Bay on October 11, British forces penetrated south on Lake Champlain. Because of this, Baldwin ordered the construction of a blockhouse near the sawmill on the river.<sup>430</sup> From maps, this blockhouse was north of the river and south of Mount Hope. However, it appears that this blockhouse never materialized in 1776 because Baldwin built a blockhouse at that location in May of 1777. On October 22, enemy activity returned to the Ticonderoga Valley; British allied Indians killed one man and captured two others in the area.<sup>431</sup> Then on October 28, British regulars and Hessians also landed at 3 mile Point.<sup>432</sup> However, despite these incursions, the British departed the area at the end of October and there was no further enemy activity for the remainder of the year.

### Civilian Inhabitants Surrounding Ticonderoga

There are glimpses of civilian activity surrounding Ticonderoga in the American period, particularly as these inhabitants interacted with American forces. This concerned Colonel James Wilkinson, who wrote on June 25, 1777: "the neighboring inhabitants have had free access to this camp, I am persuaded they [British] will obtain a true state of our weakness."<sup>433</sup> Prior to the American occupation, the only inhabitants of the Ticonderoga Valley were Stoughton and Deall. As discussed, after Stoughton's death, his family vacated his land grant, and after the Americans took control of Ticonderoga, there is nothing recorded about Deall, his family, or his workers in the area.

<sup>430</sup> Baldwin to Gates, October 19, 1776, BFTM 5, no.1 (January 1939), 10.

<sup>431</sup> Baldwin, 83.

<sup>432</sup> "Henry Sewell," BFTM 11, no. 2, 81; Baldwin, 83-84. 3 Mile Point is approximately 3 miles to the north of the fort.

<sup>433</sup> Wilkson to Gates, Ticonderoga, June 25, 1777, in James Wilkinson, *Memoir of My Own Times*, vol. 1 (Philadelphia: Abraham Small, 1816), 177.

However, the Macintosh family maintained a continual presence around Ticonderoga. With the established land grant, and other information from the historical record, various Macintosh family members maintained residences to the north or northwest of Fort Ticonderoga. Events in 1777 confirm this conclusion. It is probable that the looting in August 1776 occurred at the Macintosh settlement, due to their proximity to the Ticonderoga encampments, which was as close as 400 yards.<sup>434</sup> The American command addressed this problem on August 21, when General Orders stated:

Maurading is become so frequent, that the Genl. expects every officer will in a spirit'd manner exert himself to prevent it, and bring the perpetrators to exemplary punishment, last night a poor inhabitant was rob'd of all himself and his distress'd family, had to subsist on, or depend on this winter. Certain villians who said they belong'd to the Jersey Regt., there are more villians that wear blue than is suspected in the Jersey Regt., the Genl. recommends it to the commanding officer of the 4 Brigade to endeavour by every means in his power to discover and bring to justice all persons suspected of pilfering and maurauding. This army is paid to protect & not to pilfer the inhabitants.<sup>435</sup>

Although the sources clearly indicate that most, or all, of the Macintosh family were loyalists, they did have positive interactions with the Americans at Ticonderoga.

Although located farther north at Willsboro, Gilliland frequently corresponded, visited, and collaborated with the Americans. He made contracts with the Americans and sold them food, wood, and tools for use at Ticonderoga. Gilliland was a signatory of Benedict Arnold's Declaration on June 15, 1775, which made him a traitor to the British.<sup>436</sup> Gilliland assisted the Americans in their movement north to Canada, as well as their retreat from Canada. Because Arnold forcibly removed Gilliland from his property in October 1776, Gilliland and his family located themselves at Ticonderoga throughout October and November 1776.<sup>437</sup> During this time, Gilliland's slaves sought shelter with Gates, who Gilliland accused of

affording them encouragement to desert my service, and harbouring them in his own house, and then refusing to restore them to me, till finally they are either secreted away or allowed an opportunity of making their escape.<sup>438</sup>

After his departure from Ticonderoga, Gilliland settled in Albany, and despite the aforementioned intrigue, Gilliland remained loyal to the American cause.

The last civilian that appears in the area is Samuel Adams. Adams petitioned for 500 acres of land at Sabbath Day Point to New York Governor Colden in 1764. In that petition, Adams noted that he established "a house of Entertainment for the Convenience and

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<sup>434</sup> "Gen. Fraser's Account of Burgoyne's Campaign on Lake Champlain and the Battle of Hubbardton," *Proceedings of the Vermont Historical Society, October 18 and November 2 1898* (Burlington: Free Press Association, 1899), 140.

<sup>435</sup> BFTM 11, no. 3 (December 1963), 131.

<sup>436</sup> "Benedict Arnold's Declaration," *The Magazine of American History with Notes and Queries*, vol. 8 (New York: A. S. Barnes, 1882), 130.

<sup>437</sup> For Gilliland's recounting of Arnold's activity, see Watson, *Pioneers History*, 179-180. Baldwin records that Gilliland departed Ticonderoga on November 28, 1776, see Baldwin, 87.

<sup>438</sup> Watson, *Pioneers History*, 184.

accommodations of Passengers on Sabbathday Point on Lake George” two years prior.<sup>439</sup> This would place Adams settling there around 1762. Of interest, Gilliland delivered this petition.<sup>440</sup> Gilliland and his entourage spent the night at Adams establishment during his journey north in 1765.<sup>441</sup> At the end of the 1760’s, Adams apparently worked moving timber to Deall’s sawmill.<sup>442</sup>

Baldwin had frequent interactions with Adams and his wife throughout 1776 and 1777.<sup>443</sup> Because of the war, Adams may have moved near the landing, as his meetings with Baldwin always occurred near that place. This proximity was likely why American soldiers stole and killed some oxen belonging to Adams in November 1776.<sup>444</sup>

When Adams went to visit his property at Sabbath Day point on March 19, a British and native scouting party took him captive. The British commander, Captain Samuel Mackay wrote that Adams was a “Royalist” and that he provided information about American military activity at Ticonderoga.<sup>445</sup> There is other evidence to suggest that Adams was loyal to the British. Claude-Nicholas-Guillaume de Lorimier, a Canadian accompanying Mackay, asserted that British Major General William Phillips told him that on Lake George “there lived a Loyalist named Adams, and that one could obtain true information from him,” a man Lorimier also was familiar with.<sup>446</sup> Apparently, Adams was a well-known loyalist because both Phillips and Lorimier knew of him. The information provided by Adams was accurate for March 1777 at Ticonderoga.<sup>447</sup>

## 1777

### The American Military Situation until July

Similar to the winter of 1776, there were few troops at Ticonderoga during the winter months. As a temporary solution, militia forces from Massachusetts, New Hampshire, and New York arrived as the last Continental units departed by late February and March. Wayne continually requested additional troops because he viewed the militia as inadequate for military duties. In early February, he wrote to Schuyler explaining the situation at Ticonderoga:

Our Garrison is now very weak. If you have any good troops - be they ever so few - pray send them on with all possible Despatch. After the Jersey Troops are gone, I must in Confidence assure you - that I would much Rather risk my life and reputation, and the fate of America on two Hundred Good Soldiers, than on all those now on the Ground who will be left behind them - many of whom are Children, twelve or fifteen years of age

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<sup>439</sup> S. R. Stoddard, *Lake George and Lake Champlain* (Glen Falls, NY: S. R. Stoddard, 1906), 96.

<sup>440</sup> Stoddard, *Lake George*, 97.

<sup>441</sup> Watson, *Pioneers History*, 95.

<sup>442</sup> Cook, *Sketches of Essex County*, 25.

<sup>443</sup> Baldwin, 79, 84, 88, 94, 95, 96, 97, 107.

<sup>444</sup> *Orderly Book Northern Army*, 64; *Orderly Book of Capt. Ichabod Norton of Col. Mott's Regiment of Connecticut Troops Destined for the Northern Campaign in 1776*, intro. Robert O. Bascom (Fort Edward, NY: Keating & Barnard, 1898), 56.

<sup>445</sup> Haldimand Papers, Canadian Archives, H-1737, image 942; Mss 21841, B-181, page 54, [https://heritage.canadiana.ca/view/oocihm.lac\\_reel\\_h1737/942?r=0&s=5](https://heritage.canadiana.ca/view/oocihm.lac_reel_h1737/942?r=0&s=5).

<sup>446</sup> Peter Aichinger, trans. and ed., *At War with the Americans: The Journal of Claude-Nicolas-Guillaume de Lorimier* (Victoria, BC: Press Porcepic, 1981), 61.

<sup>447</sup> For Adams deposition, see Haldimand Papers, H-1737, images 199-1202; Mss 21841, B-181, page 296-299.



- In time they'l make good men - as yet they are too young - add to this that they have but about one month to stay - and are badly armed and the Officers Enemies to Discipline.<sup>448</sup>

While the militia units frequently rotated in and out of the garrisons of Ticonderoga and Mount Independence, by spring, Continental Army units began to arrive, which afforded more stability for the garrison.

Schuyler directed Baldwin to begin three major construction projects during this period. The first, and most important, occurred in early March, when the Americans began building a bridge over the frozen lake connecting Fort Ticonderoga and Mount Independence. The other two projects were to construct a stronger fort and hospital on Mount Independence.<sup>449</sup>

In April, there were continual rotations of troops in and out of Ticonderoga. From the end of April until the beginning of June, Ticonderoga saw multiple changes of command. When Wayne departed at the end of April, command went to Brigadier General John Paterson. Then on May 23, Brigadier General Enoch Poor assumed command of Ticonderoga. Finally, on June 12, Major General Arthur St. Clair assumed command and he would be the last American commander of Ticonderoga and its environs.

The Americans fully expected a British attack to occur, and they pushed more troops to fort. By the end of June, there were nearly 4,000 effective troops at Ticonderoga and Mount Independence.<sup>450</sup> However, even with swelling numbers, the Americans had trouble maintaining security around Ticonderoga, particularly in the Ticonderoga Valley. On June 17 and 26, natives allied with the British conducted isolated attacks against Americans in the Ticonderoga Valley.<sup>451</sup>

By the end of June, British regular forces reached 3 Mile Point and began pushing south. Their advance forces took control of Mount Hope on July 2, after the Americans abandoned that post and the entirety of the Ticonderoga Valley. As the British encircled Ticonderoga, St. Clair ordered all the American forces to retreat to Mount Independence early on July 6, and subsequently retreated from Mount Independence, leaving Ticonderoga and its environs in the hands of British forces.

### **The Sawmills**

There is little reference to the sawmills operating during the final winter months of the American occupation. Despite this, there are numerous accounts stating that the mills were still a central location for the Americans in the Ticonderoga Valley, particularly as they were under the watch of the troops on Mount Hope. At the beginning of winter, Schuyler did note that "Timber must be drawn to the mills at Ticonderoga," which likely is a reference to having timber on hand for when the spring thaw allowed the sawmills to operate.<sup>452</sup>

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<sup>448</sup> Wayne to Schuyler, Ticonderoga, February 12, 1777, in Charles J. Stillé, *Major-General Anthony Wayne and the Pennsylvania Line in the Continental Army* (Philadelphia: J. B. Lippincott, 1893), 55.

<sup>449</sup> Schuyler to Baldwin, Albany, February 13, 1777, in "Trial of Major General Schuyler," 79.

<sup>450</sup> General Return of Troops, June 28, 1777, in "The Trial of Major General St. Clair," in *Collections of the New York Historical Society for the Year 1880*, vol. 13 (New York: New York Historical Society, 1881), 31-32. This return has a complete breakdown by ranks and position.

<sup>451</sup> "Lieutenant Thomas Blake's Journal," in Frederic Kidder, *History of the First New Hampshire Regiment in the War of the Revolution* (Albany: Joel Munsell, 1868), 26; William Henry Smith, ed., *The St. Clair Papers*, 2 vols. (Cincinnati, OH: Robert Clark & Company, 1882), 1:401, 411; Baldwin, 107.

<sup>452</sup> Schuyler to Lewis, Albany, December 17, 1776, in "Trial of Major General Schuyler," 46.

For the construction on Mount Independence, it is unlikely that the sawmills provided any substantial amounts of sawn lumber for these projects. The journals for that time make continual references to soldiers performing manual labor for the construction projects within that post, all within the immediate vicinity of Mount Independence. It is interesting that in Schuyler's order to Baldwin for construction projects on Mount Independence, he specifically mentions the use of whipsaws instead of sawing at the sawmills. Schuyler wrote:

You will probably be able to procure soldiers, who can work with the whip-saw. You should therefore procure as many as you possibly can, and immediately on your arrival at Ticonderoga apply for all the sawyers in any of the corps there, and set them to work. It will be best to agree by the foot, because it will be cheapest, and that you will get more work done.<sup>453</sup>

This is likely because the frozen La Chute River could not power the sawmills, as in previous winters. On March 17, Schuyler requested that the "saw-mills at Wyng's and Chesire's, Skeensborough and Ticonderoga, must be immediately set to work," which confirms that the Ticonderoga sawmills did not operate in the winter months.<sup>454</sup>

By the spring and summer, the sawmills were operating. On May 15, Baldwin wrote to Gates and explained that the "Mills are in fine order & do good business."<sup>455</sup> Lieutenant Henry Sewell wrote that on June 20, he traveled "to the mills & got slabs to build us a house."<sup>456</sup> About this time, British allied Indians captured local inhabitant James Macintosh, who relayed specific details about the sawmills. Macintosh noted that the sawmill on the La Chute River operated with two saws and the northern sawmill—Deal's Mill—operated with one saw.<sup>457</sup>

With the approach of British forces, the Americans abandoned the Ticonderoga Valley, withdrawing these forward forces back to Ticonderoga. As they departed on July 2, they burnt the sawmill blockhouse and the sawmills.<sup>458</sup>

### **The Sawmill Area and the Ticonderoga Valley**

During the winter and early spring months, the Americans kept a company at the blockhouse near the sawmills, and had a Lieutenant and a detachment of 12 soldiers at the blockhouse landing.<sup>459</sup> Although it is clear from this report that there was a blockhouse near the sawmills, it appears that by early summer that structure was either in a dilapidated condition or converted to a storehouse, because on May 6 Baldwin received orders to build a blockhouse on a hill north of the northern sawmill.<sup>460</sup>

<sup>453</sup> Schuyler to Baldwin, Albany, February 13, 1777, in "Trial of Major General Schuyler," 80.

<sup>454</sup> Schuyler to Lewis, Albany, March 17, 1777, in "Trial of Major General Schuyler," 86. Wyng's (Wing's) was on the Hudson River north of Fort Edward (present-day Glen Falls). There is little information concerning the location of Chesire's (Cheshire's) sawmill, although from context, its location was presumably near Fort Anne, New York.

<sup>455</sup> Baldwin to Gates, Ticonderoga, May 15, 1777, The Horatio Gates Papers, 1726-1828, microfilm, reel 4.

<sup>456</sup> "The Diary of Henry Sewell," BFTM 11, no. 2 (September 1963), 90.

<sup>457</sup> "Inquisition of a Spy," BFTM 10, no.3 (1959), 243.

<sup>458</sup> St. Clair to Schuyler, Ticonderoga, July 2, 1777, in *St. Clair Papers*, 1:416; William B. Weedon, "Diary of Rev. Enos Hitchcock," *Publications of the Rhode Island Historical Society*, vol. 7, 1899 (Providence, RI: Rhode Island Historical Society, 1899), 116; Baldwin, 109.

<sup>459</sup> Derived from information obtained from Samuel Adams on March 21, in Haldimand Papers, Canadian Archives, H-1737, image 1200; Mss 21841, B-181, page 297,

[https://heritage.canadiana.ca/view/oocihm.lac\\_reel\\_h1737/1200?r=0&s=5](https://heritage.canadiana.ca/view/oocihm.lac_reel_h1737/1200?r=0&s=5).

<sup>460</sup> Baldwin, 101.

In June, British advance forces consisting of native allies and Tories advanced south on the west side of Lake Champlain and attacked American forces in the sawmill area, killing soldiers and taking prisoners, including James Macintosh.<sup>461</sup> When British forces approached Ticonderoga in early July 1777, they noted the advanced posts of the Americans at the Lake George landing—consisting of one blockhouse and a hospital—, and the sawmills with an accompanying blockhouse.<sup>462</sup> Because of British incursions, on July 1 St. Clair ordered the systematic evacuation of the stores and personnel from the landing site, which Captain Nathaniel Hutchins of the 1st New Hampshire Regiment commanded.<sup>463</sup> Hutchins was to move his soldiers and material south via Lake George to Fort George. His signal to evacuate would be the burning of the blockhouse and sawmills.<sup>464</sup> On Hutchins' retreat, St. Clair also ordered him to burn any remaining bateaux in the area and the blockhouse at the Lake George landing.<sup>465</sup> As discussed, the Americans burned these structures on July 2, as they retreated eastward to Ticonderoga. On that date, British advance forces occupied Mount Hope.

St. Clair also ordered the mandatory evacuation of civilians living near Ticonderoga, whom he regarded as “certainly not our friends” because they gave “no intelligence” to the Americans when British forces moved through their property.<sup>466</sup> These civilians were the family of Macintosh who, as previously stated, settled the area in the late 1760's. Despite this order, it is unlikely that the Americans actually evacuated these civilians due to the rapid retreat of the Americans in the night on July 5. Some inhabitants were still present in the summer, because on August 5, the British ordered, “Any Inhabitants near these Posts that harbours strangers in their houses, without acquainting the Commanding Officer will be punished.”<sup>467</sup> Further, during the American attack in September, the Americans found an older woman in a house that British troops occupied in the Ticonderoga Valley.<sup>468</sup>

### **The British Military Occupation from July until November 1777**

After the British captured Ticonderoga, Burgoyne left a small detachment to garrison the fort as he continued south to pursue the retreating Americans. Burgoyne placed Brigadier General James Hamilton as commander of Ticonderoga.<sup>469</sup> For the occupation of Ticonderoga, he left the Prince Friedrich Regiment, under Lieutenant Colonel Christian Praetorius, and to occupy Mount Independence the 62nd Regiment of Foot, under Lieutenant Colonel John Anstruther.<sup>470</sup> Captain David Monin's Company of militia occupied the Lake George landing

<sup>461</sup> St. Clair to Schuyler, Ticonderoga, June 26, 1777, in *St. Clair Papers*, 1:410; Donald H. Wickman, ed., ““Breakfast on Chocolate”: The Diary of Moses Greenleaf, 1777,” BFTM 15, no. 6 (1997), 494; Baldwin, 106.

<sup>462</sup> BFTM 1, no. 2 (July 1927), 13; BFTM 2, no. 1 (January 1930), 19; J. Almon, ed., *Rememberancer; or, Impartial Repository of Public Events for the Year 1777* (London: J. Almon, 1778), 349.

<sup>463</sup> St. Clair to Hay, Ticonderoga, July 1, 1777, in *St. Clair Papers*, 1: 414.

<sup>464</sup> St. Clair to Hay, Ticonderoga, July 1, 1777, in *St. Clair Papers*, 1: 414.

<sup>465</sup> St. Clair to Hay, Ticonderoga, July 1, 1777, in *St. Clair Papers*, 1: 415; St. Clair to Schuyler, Ticonderoga, July 2, 1777, in *St. Clair Papers*, 1: 416.

<sup>466</sup> St. Clair to Schuyler, Ticonderoga, July 2, 1777, in *St. Clair Papers*, 1: 416.

<sup>467</sup> Charlotte S. J. Epping, trans., *Journal of Du Roi the Elder* (New York: University of Pennsylvania, 1911), 181.

<sup>468</sup> Lemuel Roberts, *Memoirs of Captain Lemuel Roberts* [...] (Bennington, VT: Anthony Haswell, 1809), 58.

<sup>469</sup> E. B. O'Callaghan, ed., *Orderly Book of Lieut. Gen. John Burgoyne* [...] (Albany: J. Munsell, 1860), 28; Willard M. Wallace, “The British Occupation of Fort Ticonderoga, 1777,” BFTM 8, no. 7 (1951), 301.

<sup>470</sup> O'Callaghan, *Orderly Book*, 28; Journal of an officer of the 47th Regiment of Foot, after 1783, fol. 28r, in Huntington Library, San Marino, CA, Digital Library, Manuscripts, *Orderly Books of the American Revolution*.

area.<sup>471</sup> Some of the German troops from the Prince Friedrich Regiment occupied positions in the sawmill area, which presumably were the blockhouse and redoubt on Mount Hope.<sup>472</sup>

On August 11, the 53rd Regiment of Foot relieved the 62nd regiment of Foot, and Brigadier General Henry Powell relieved Brigadier General Hamilton as commander of Ticonderoga.<sup>473</sup> The Americans conducted a raid on the isolated posts of Ticonderoga and Mount Independence in September, during which, they captured four companies of the 53rd Regiment. The British sent additional reinforcements to Ticonderoga from Canada at the end of September, consisting of four companies from the 34th Regiment of Foot and the King's Royal Regiment of New York, and four companies of Hesse Hanau Jägers.<sup>474</sup>

After Burgoyne's defeat at Saratoga in October, the British began their plans for withdrawing from Ticonderoga. On November 8, all the British and German forces departed Ticonderoga. The Germans burned all the structures on Mount Independence and the British blew up Ticonderoga, so that the posts would be unusable for the Americans.<sup>475</sup>

### The Sawmill and Sawmill Area

It is evident that the northern sawmill still remained mostly intact after its burning by the Americans. It is unknown if the British repaired this mill or if there was enough of a structure left to warrant it being featured in journals and on maps. There is no mention of it functioning in any of the journals during the British occupation. However, the British did immediately repair the bridge over the La Chute River on July 4.<sup>476</sup> It is also likely that the British repaired the blockhouse, just north of this mill. The British occupied that blockhouse at the time of the American's attack in September.<sup>477</sup> During that attack, the Americans captured both the mill and the blockhouse on September 18.<sup>478</sup>

There were Canadian workers present during the British occupation.<sup>479</sup> Although it is unknown exactly how the British employed these workers, it is likely these workers operated the vessels on Lake George because in Colonel John Brown's Map he noted that at the landing were "seamen employed in the transport service," which delineates them from soldiers in the British Army.<sup>480</sup>

From July 14 through the 25, the British moved gunboats from Lake Champlain through the La Chute River to the sawmill landing, where British soldiers supervised American prisoners to move the artillery and vessels south along the portage road to Lake George.<sup>481</sup> The British utilized horses and carriages to move this equipment, which was possibly the American carriages that the British refurbished after the American retreat.<sup>482</sup> On July 16, Hamilton positioned four companies of the 62nd Regiment of Foot and two and a half companies of the Prince Friedrich

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<sup>471</sup> Helga Doblin, trans., *The American Revolution, Garrison Life in French Canada and New York*, edited by Mary C. Lynn (Westport, CT: Greenwood Press, 1993), 76.

<sup>472</sup> Epping, *Journal of Du Roi*, 166.

<sup>473</sup> O'Callaghan, *Orderly Book*, 67.

<sup>474</sup> Doblin, *Garrison Life*, 81, 82; Ernest A. Cruikshank and Gavin K. Watt, *The History and Master Roll of the King's Royal Regiment of New York*, revised edition (Campbellville, ON: Global, 2006), 21.

<sup>475</sup> Doblin, *Garrison Life*, 86.

<sup>476</sup> James M. Hadden, *Hadden's Journal and Orderly Books* (Albany, NY: Joel Munsell's Sons, 1884), 84.

<sup>477</sup> BFTM 7, no. 2 (July 1945), 33. Lieutenant Simeon Lord of the 53rd Regiment commanded this post.

<sup>478</sup> Almon, *Rememberancer, 1777*, 458.

<sup>479</sup> See below, Brown's Raid.

<sup>480</sup> See map A-8, pages A-15 and A-16.

<sup>481</sup> Hadden, *Hadden's Journal*, 94-96.

<sup>482</sup> Hadden, *Hadden's Journal*, 96.

Regiment in the sawmill area.<sup>483</sup> Burgoyne intended to secure Lake George and use that route as an avenue to supply his forces, and these forces at the sawmill area assisted with the moving of supplies south to Lake George.<sup>484</sup>

Throughout the summer, the British routinely sent their sick and American prisoners to Ticonderoga. Monin's company and three of the 62nd Regiment companies left the landing on July 26 and headed south on Lake George.<sup>485</sup> As the Americans did before them, the British routinely used the sawmill landing for transporting supplies south along the portage road to the Lake George landing.

With Burgoyne's defeat at Saratoga leaving Ticonderoga untenable, the retreating British destroyed everything at the landing, the sawmills, and the bridge over the La Chute River on October 31.<sup>486</sup> Then as the British and their German allies withdrew from Ticonderoga and Mount Independence, they burnt "all the houses, barracks, hospital, and everything burnable."<sup>487</sup> Thus ended any military occupation of Ticonderoga.

### **Brown's Raid**

On September 18, the Americans launched a two-prong attack towards Ticonderoga and Mount Independence. Attacking Ticonderoga were 500 soldiers from Colonel John Brown's Massachusetts militia and Colonel Samuel Herrick's Rangers from Vermont.<sup>488</sup> Attacking Mount Independence were 500 soldiers of Colonel Samuel Johnson's Vermont militia.<sup>489</sup>

The only success was from Brown's force, which attacked the landing at Lake George, then pushed further north and attacked and captured the sawmill, the blockhouse, and the British battery on Mount Defiance.<sup>490</sup> In the process of these attacks, the Americans captured four companies of 53rd Regiment of Foot that garrisoned various posts in the Ticonderoga Valley, as well as 119 Canadian workers.<sup>491</sup> Further, the attacking forces freed approximately 100 American prisoners held in the Ticonderoga Valley.<sup>492</sup>

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<sup>483</sup> Epping, *Journal of Du Roi*, 166; Doblin, *Garrison Life*, 76.

<sup>484</sup> John Burgoyne, *A State of the Expedition from Canada* [...] (London: J. Almon, 1780), 12; Peter Nelson, "The Battle of Diamond Island," *The Quarterly Journal of the New York State Historical Association* 3, no. 1 (January 1922): 41-42.

<sup>485</sup> Doblin, *Garrison Life*, 76.

<sup>486</sup> Epping, *Du Roi the Elder*, 110.

<sup>487</sup> J. Almon, ed., *Rememberancer; or, Impartial Repository of Public Events for the Year 1778* (London: J. Almon, 1778), 97.

<sup>488</sup> For Herrick's participation, see Roberts, *Captain Lemuel Roberts*, 53-54. Governor Chittenden also confirms Herrick's participation, see Chittenden to Congress, August 5, 1777, in E. P. Walton, ed., *Records of the Governor and Council of the State of Vermont*, vol. 2 (Montpelier: Steam Press, 1874), 176.

<sup>489</sup> Johnson's Regiment originated in Essex County, Massachusetts. For a brief firsthand account of the attack on Mount Independence, see Ralph Cross, "A Journal of Ralph Cross, of Newburyport, Who Commanded the Essex Regiment, at the Surrender of Burgoyne in 1777," in *The Historical Magazine, and Notes and Queries, Concerning the Antiquities, History and Biography of America*, vol. 17, *Second Series*, vol. 7 (Morrisania, NY: Henry B. Dawson, 1870), 9-10.

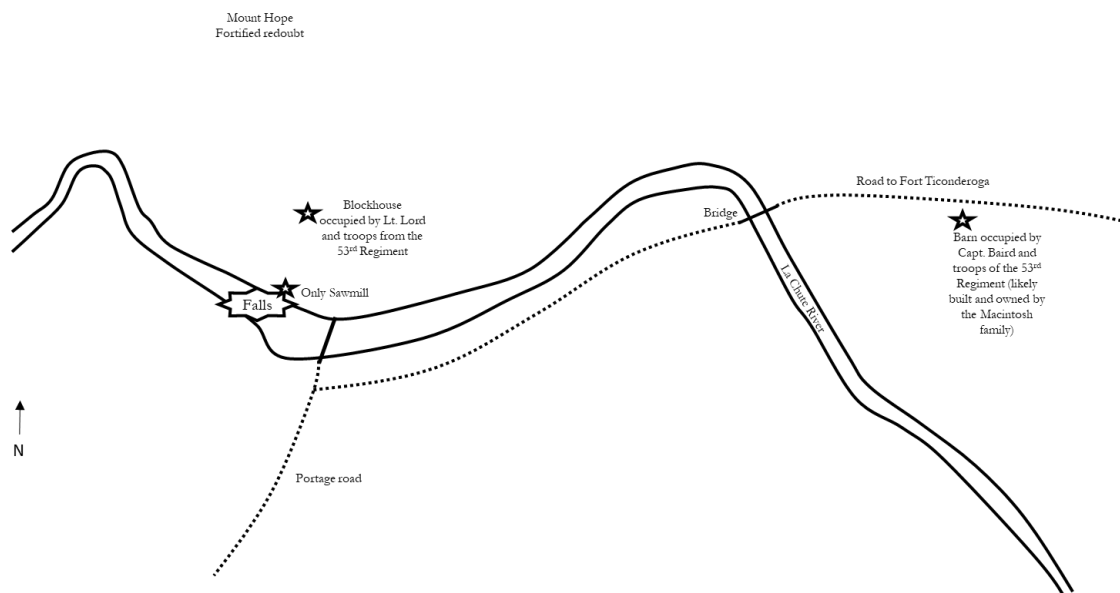
<sup>490</sup> "Col. John Brown's Expedition against Ticonderoga and Diamond Island, 1777," *The New England Historical and Genealogical Register* 1920, vol. 74 (Boston: New England Historical and Genealogical Register, 1920), 285-286.

<sup>491</sup> Doblin, *Garrison Life*, 78; "Col. John Brown's Expedition," 285. Known officers captured were Captain James Davis at a camp between the landing and the sawmill, Lieutenant Simeon Lord at the blockhouse overlooking the sawmill, and Captain John Baird in one of Macintosh's barns on the road to Ticonderoga, see Brown's Map.

<sup>492</sup> "Col. John Brown's Expedition," 285. The British used these prisoners as laborers and confined them to a barn at night, see Brown's Map, page A-15 and A-16; "Col. John Brown's Expedition," 292; Hadden, *Hadden's Journal*, 101.

One occurrence sheds light on events around the sawmill, as well as a unique convention of eighteenth century warfare. During the attack, British troops refused to surrender the blockhouse north of the sawmill. After the Americans brought an artillery piece against the blockhouse the British commander, Lieutenant Simeon Lord, requested a parlay. This occurred down at the sawmill. At the parlay, Lord requested to view the American troops, and the American commanders consented and escorted him to Mount Hope so that he could see the amount of troops in the Ticonderoga Valley. After this, Lord returned to the blockhouse to report to his troops. In short order, the British surrendered, deposited their arms to the Americans, and marched as prisoners down to the sawmill.<sup>493</sup>

While moving east towards Fort Ticonderoga, Brown's forces passed through Macintosh's houses and barn, which lay between the sawmill landing and the French Lines.<sup>494</sup> Brown's force captured the undefended French Lines, and conducted a siege of the fort. Despite these successes, Brown was unable to force the garrison of Fort Ticonderoga to surrender. Because of the robust defenses on Mount Independence, Johnson never attacked that post. Although Brown reasoned that he could take Ticonderoga, he doubted that the two American forces could then take Mount Independence.<sup>495</sup> Accordingly, he departed the area on September 22, after burning outlying stores and killing and dispersing cattle and horses.<sup>496</sup>



Map 12. Sawmill area during Brown's Raid, September 1777.

Based upon Brown's map, see Appendix A-8.

### The End of the Military Sawmill at Ticonderoga

Although the Americans defeated Burgoyne, they did not reoccupy Ticonderoga. For the remainder of the war, the British retained control of Lake Champlain and they made several incursions into New York, typically for purpose of scouting and marauding. During larger operations in 1780 and 1781, British forces did return to Ticonderoga, using the fort's grounds as a temporary encampment. However, their stay was brief in both cases.

<sup>493</sup> Roberts, *Memoirs of Lemuel Roberts*, 60.

<sup>494</sup> "Col. John Brown's Expedition," 292.

<sup>495</sup> "Col. John Brown's Expedition," 292-293.

<sup>496</sup> "Col. John Brown's Expedition," 293.

After the British destroyed all the military support structures at or near Ticonderoga in November 1777, the sawmill ceased to exist as a functioning structure throughout the final years of the war. With the end of the war in 1783, settlers began to migrate to Ticonderoga and the area began to grow both in population and in industry. The first civilian sawmill began operations towards the end of the eighteenth century when George Tremble took possession of the remnants of Deall's mills and restored them.<sup>497</sup> This small endeavor would begin the eventual growth of the lumber industry on the La Chute River in Ticonderoga during the first half of the nineteenth century.<sup>498</sup>

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<sup>497</sup> Cook, *Sketches of Essex County*, 30.

<sup>498</sup> For the growth of the lumber trade in Ticonderoga in the nineteenth century, see Cook, *Sketches of Essex County*, 41-42.

## **Location of the Sawmill**

### **The Military Sawmill**

Beginning with the first sawmill built by the French in 1756, it is evident from all the primary sources and verifiable maps from the period that the sawmill was built on the southern shore of the La Chute River, near the lower falls. Although this mill burned in 1758, some form of the basic structure remained at that location because the British rebuilt that sawmill in 1759—called the King’s Sawmill. Through the years, the structure of the sawmill needed frequent repairs and maintenance. It remained a functioning structure until 1777 when the Americans burned it, just prior to their retreat from Ticonderoga. It is clear from all the primary accounts and maps that there was no rebuilding of this sawmill for the remainder of the American War for Independence. Maps that depict the sawmill on the southern shore of the La Chute River and near the lower falls are seen in Appendix A, maps A1, A2, A3, A4, A5, A11, and A15.

Although some maps depict the French sawmill on the northern side of the La Chute River, it is clear that these maps are faulty in their information. The most notable of these maps are the William Brassier maps from 1756, depicted in Appendix A, maps A13 and A14. Although trained as a draughtsman, it appears that Brassier drew these maps from intelligence reports and second hand information, not ground truth. This conclusion derives from the inaccurate geography and erroneous direction of the north-seeking arrow. Brassier corrects all these problems in his map from 1759, which better depicts geography, locations, fortifications, and the cardinal direction of north, as seen in map A3.

### **Deall’s Sawmill**

From the primary sources and maps, Deall built his sawmill on the opposite shore from the original sawmill. This would place Deall’s sawmill on the northern shore of the La Chute River, near the lower falls. Adolphus Benzell—a former lieutenant in the British 1st Regiment with land grants near Crown Point—viewed the sawmills on the La Chute River in 1772. He wrote:

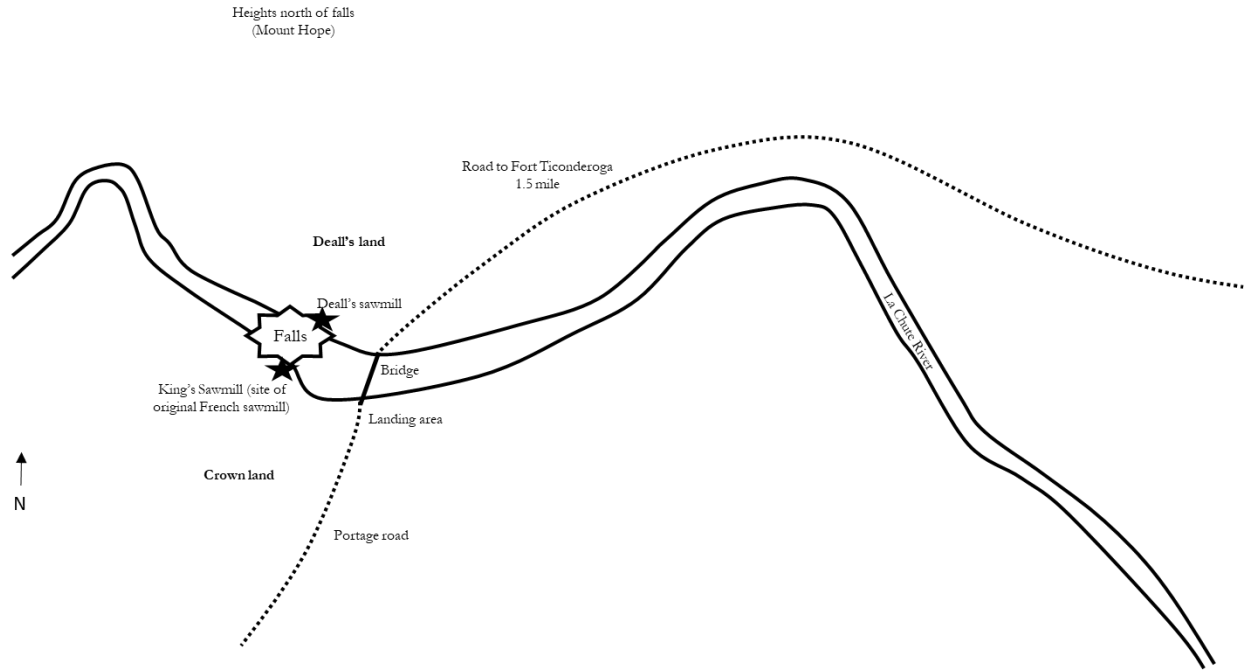
At the second landing about half way, or a mile and a half distance from the Fort of Ticonderoga, are two saw mills constructed on the same dam, and opposite each other, one of which is still the Crown's property (and of consequence out of repair) the other lately constructed private.<sup>499</sup>

From the sources, Deall’s mill required repairs and maintenance just the same as the military built sawmill. After Deall vacated the area, the American military assumed control of the sawmill and operated it until their retreat in July 1777. At that time, the Americans burned this sawmill along with other buildings in the area. However, this sawmill likely had less damage than the southern sawmill because the British depicted only the northern most sawmill in their maps produced in 1777, while there is no depiction of the other sawmill on the southern shore. This is most evident in Wintersmith’s 1777 map seen in A12. There is no record discovered that relates if this mill functioned.

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<sup>499</sup> “Adolphus Benzell's 1772 Notes on Lake Champlain,” BFTM 12, no. 5 (December 1969), 360.





Map 13. Sawmill area, circ. 1772

## **Highlights of Sawmills that Correspond with the History of the Ticonderoga Military Sawmill**

Following is a list of the highlights from the history of the Ticonderoga sawmill that resemble other sawmills in eighteenth century North America.

- The necessity of the sawmill.

Having a sawmill was essential during the various military occupations of Fort Ticonderoga. While all the different occupying armies had sufficient numbers of troops for sawing timber, the soldiers had other, more crucial, military duties to perform, particularly during wartime. Millwright Thomas Ellicott wrote in the late eighteenth century that a sawmill was indispensable when “labour is dear. One mill, attended by one man, if in good order, will saw more than 30 men will with whip-saws, and much more exactly.”<sup>500</sup> Therefore, a sawmill was an indispensable asset for any military force building a fortification in the eighteenth century North America, whether the force were French, British, Canadian, or American. As a military asset, the sawmill on the La Chute River contributed to various construction projects—notably naval vessels—associated with Fort Carillon and Ticonderoga from 1756 until 1777.

- Winter operations.

For most of the years from 1756 until 1777, the sawmill did not operate in the winter months. This is likely due to icing on the river, which would cease moving the water wheel powering the mill, which was a problem that many mills faced in the northern regions of America. During the harsh northern winters, mills typically ceased operations.<sup>501</sup> After returning to Massachusetts in December 1759, Putnam wrote that he had to look for other work because winter was not the “Season for the Millwrits business.”<sup>502</sup> However, further south and on larger rivers where ice was unlikely to form, sawmills could remain in operation during winter months.

Although sawmills would cease operating in the winter season, there was another critical duty performed at these times. That duty was the gathering and storing of timber. Typically for sawmills, the logging of timber occurred during winter months—November until March—with the timber stored neared a sawmill for eventual springtime sawing.<sup>503</sup> This type of timber cutting and storing is evident at several points throughout the Ticonderoga sawmill’s history.

- Dangers while operating a sawmill.

Fire was a constant threat to a sawmill, especially when there was any kind of burning flame inside the mill, such as a lantern. This note from Schuyler demonstrates the lethality of fire in and around these wood processing buildings:

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<sup>500</sup> Evans, *Young Mill-Wright*, 351.

<sup>501</sup> Gary Cross and Rick Szostak, *Technology and American Society*, third ed. (New York: Routledge, 2019), 22.

<sup>502</sup> *Memoirs of Putnam*, 31.

<sup>503</sup> M. Powis Bale, *Sawmills; Their Arrangement and Management; and the Economical Conversion of Timber* (London: Crosby Lockwood and Company, 1883), 249. The winter months was also when a tree’s sap was low and holding timber in water was a way to drain the sap from timber, see William Douglass, *A Summary, Historical and Political, of the First Planting, Progressive Improvements, and Present State of the British Settlements in North-America*, vol. 2 (London: R. and J. Dodsley, 1760), 70.

Let the greatest Care be taken to guard against accidents by Fire, and charge the Sawyers that if any Thing gives Way in the Night not to go to Bed or lay down to sleep, as many Mills have been burnt for Want of this precaution - Keep always two Barrels full of Water in the Mill with a Bucket in each.<sup>504</sup>

There were times during the occupation of the sawmill when it ran day and night, which necessitated having lanterns within the sawmill. The only recorded fires at the Ticonderoga sawmill came from deliberate, wartime activities.

- Sawmill wheel.

While there is no definitive source stating the exactness of the Ticonderoga sawmill mechanisms, it is very likely that the sawmill operated with a flutter wheel. While the typical flutter wheel was usually under a sawmill, they were also located at the side of sawmills. Only in Wintersmith's map is there an indication of how water flowed into one of the sawmills.

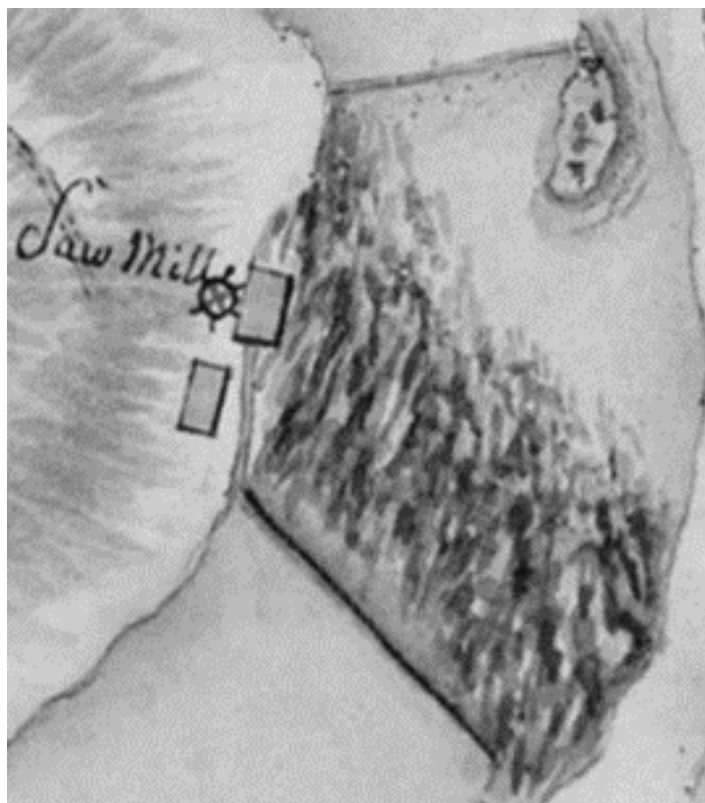


Figure 11. The sawmill from Wintersmith's map.  
See Appendix A, map A-12.

This picture shows what appears to be a canal leading to the center of the northern sawmill, which would indicate the presence of a wheel under the mill. If this picture is accurate, then a flutter wheel was likely present, as in other eighteenth century sawmills. Although artistic license is always a factor, Wintersmith draws with accuracy the terrain and fortifications of Mount Hope and Ticonderoga. Therefore, this picture may be the closest 'snapshot' available of the sawmill in

<sup>504</sup> Philip Schuyler to Hermanus Schuyler, Fort George, June 7, 1776, in NDAR, 5:410-411.

late 1777. This sawmill—Deall’s—had only 1 working saw; however, the original sawmill built on the opposite side of the falls had 2 working saws. Each saw would have its own dedicated wheel; therefore, the Ticonderoga military sawmill had 2 wheels, while Deall’s sawmill had 1 wheel.

- Saw blade maintenance.

While all mechanisms within a sawmill required continual maintenance, the saw blades were the most frequent item that required, at a minimum, daily maintenance. If a sawmill was particularly busy, as the Ticonderoga mills were during peak usage, a saw bore the brunt of wear and tear due to the friction from sawing. Maintenance on saw blades included tightening and adjusting the blade into the frame, and sharpening the blade’s teeth. There is no average time for saw maintenance in the sources; it was at the discretion of the sawyers or millwrights to provide maintenance as needed. The composition of timber was another factor in wear and tear on saws; hard woods, such as oaks, placed heavier demands on blades than soft woods, such as pines. Failure to maintain saws resulted in diminished cutting power and damaged saw blades. To compensate for slower and worn saws, untrained sawyers often increased the mill’s speed, which usually strained the entire sawing mechanisms, resulting in broken key components, including saw blades. Increasing the speed of the mill occurred many times at the Ticonderoga sawmill, but is particularly notable in 1759. It seems apparent that the many saw blades requested during the American occupation was a result of the constant working of the sawmills.

Blade maintenance included sharpening and maintaining proper alignment and spacing between the saw’s teeth. Oliver Evans records the process of whetting (sharpening) a saw:

The edge of the teeth ought to be kept straight, and not suffered to wear hollowing - the teeth set a little out, equal at each side, and the outer corners a little longest - they will clear their way the better. Some whet the under side of the teeth nearly level, and others a little drooping down; but then it will never saw steady - will be apt to wood too much; they should slope a little up, but very little, to make it work steady. Try a cut through the log, and if it comes out at the mark made to set it by, it is shown to be right hung.<sup>505</sup>

Evans describes a properly built saw blade, as depicted below. The saw has opposing angles of teeth so that the blade will not bind while sawing.

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<sup>505</sup> Evans, *Young Mill-Wright*, 361.

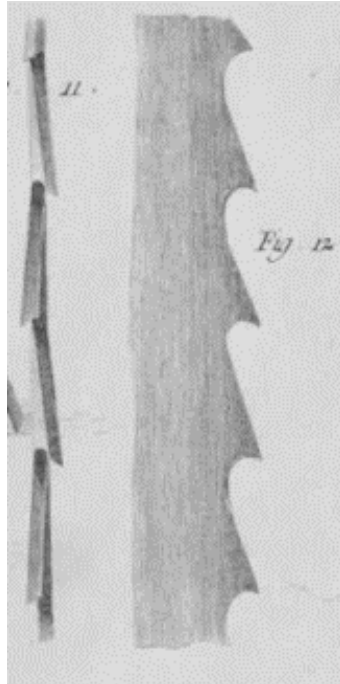


Figure 12. Saw blade design.

Although this depiction concerns pitsaws, the blade angles in the left figure accurately depict the angles of sawmill blades.

André-Jacob Roubo, *L'art du Menuisier*, vol. 2 (Paris: n. p., 1770), plate 5.

- Multiple saws.

By the time of the British sawmill and the American occupation, there were certainly 2 operational saws at the King's Sawmill. It is unknown if the French sawmill also had 2 saws. While there is an assumption that the French sawmill also had 2 saws, it is unknown from the sources if that was the exact case.

In some eighteenth century sawmills, multiple saws hung in a single frame. This type of setup, called a gang saw, was unlikely at Ticonderoga because there are references to one saw working while the other did not.<sup>506</sup> This suggests that there were 2 frames operating independently from one another. This is likely why the British often referred to the building as the 'sawmills.' Each saw would operate with their own dedicated mechanisms, particularly a carriage and wheel.<sup>507</sup> Sawmills having two frames outnumbered mills with one frame in early America.<sup>508</sup> Because of this dynamic, it is extremely plausible that the Ticonderoga sawmill operated with two frames, each with their own saw, carriage, and wheel.

<sup>506</sup> See Appendix C for an illustration of a gang saw.

<sup>507</sup> Rivard, *Maine Sawmills*, 2.

<sup>508</sup> Rivard, *Maine Sawmills*, 11.

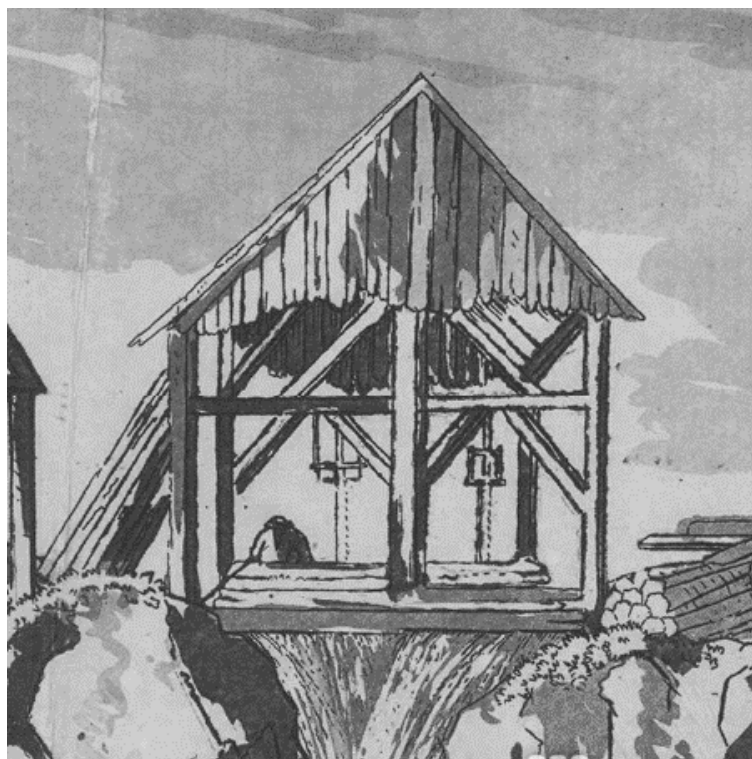


Figure 13. An enlargement of the center sawmill in “A Sketch of Mechios Mills,” circ. late 18th century. This sawmill has two operating saws, side-by-side. This was likely the arrangement at the Ticonderoga sawmill, which also had two saws. Both saws would have their own carriage and flutter wheel under the mill to power each saw.

Joseph F. W. Des Barres, *The Atlantic Neptune*, part 3 (London: n.p. 1802), 25.<sup>509</sup>

- Milldam.

There are a few references to a milldam at Ticondeoga. The primary use of a milldam was to collect water so that it had sufficient force to travel down into a canal and eventually power a mill’s wheel. This collected water from a milldam formed the millpond. The millpond was a way to conserve water, and it also served as staging area for timber to collect while waiting for processing in a sawmill. The millpond water flowed through an open head gate, and using gravity, traveled along a sluice to strike the mill’s wheel and power a sawmill. The head gate was the forward most mechanism for shutting the water (called the head water) off to mill.

Although there is a mention of a milldam in conjunction with the Ticonderoga sawmill, it seems unlikely that a milldam was actually in place. From eighteenth century treatises describing mill construction, a milldam was necessary when there was a lack of water or to use as a barrier to raise the water. The dammed water then had sufficient force for dropping into a mill’s sluice to turn the wheel. Both of these circumstances are not a problem with the La Chute River or the lower falls. It is more plausible that there was a barrier in the river to divert water into the canal that fed the sawmill.

- Stacking lumber.

There are references in the history of having available boards at the sawmill. This suggests that there were times when there was a quantity of lumber available. For most sawmills, once

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<sup>509</sup> See Appendix C, page C-21 for full picture.

they produced lumber, the lumber was carefully stacked in a manner that allowed sufficient airflow so that the wood would season properly. Below is a picture depicting various forms of lumber stacking in a French eighteenth century lumberyard.

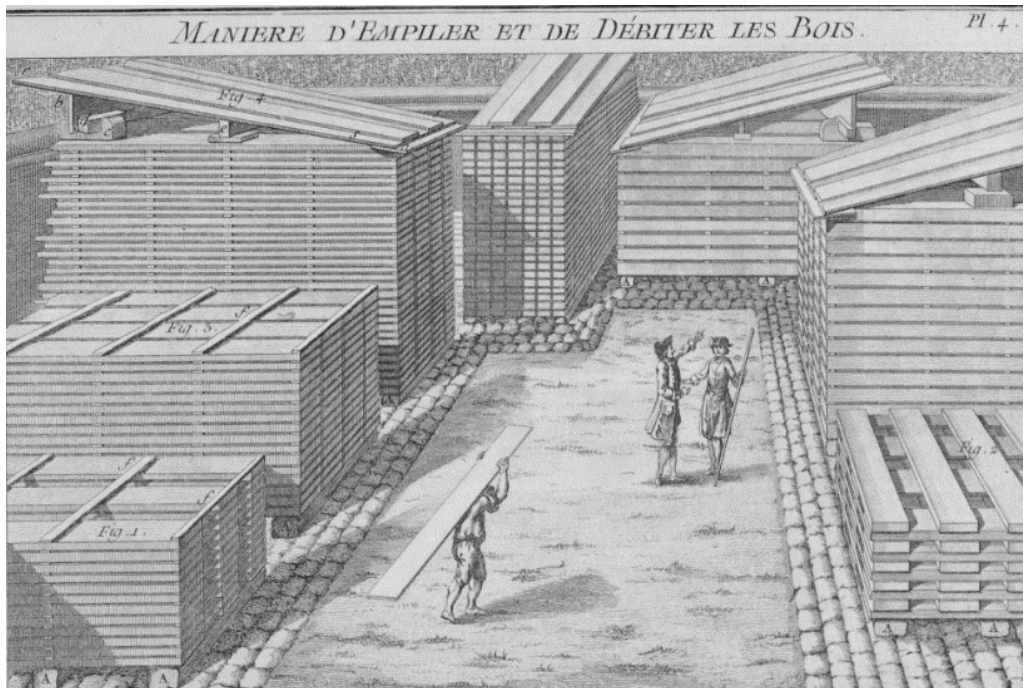


Figure 14. Stacking lumber.

“Maniere D'empiler et de Débiter Les Bois (Way of Stacking and Cutting Timber)”  
André-Jacob Roubo, *L'art du Menuisier*, vol. 2 (Paris: n. p., 1770), plate 4.

- Iron works in the sawmill.

The principle iron works in an eighteenth century sawmill were the crank and saw blade.<sup>510</sup> Both of these components appear frequently throughout the Ticonderoga sawmill's history. Some other minor iron workings were likely dogs and gudgeons, features prominent in other contemporary sawmills.<sup>511</sup> In addition, the sawyers typically used iron bars and iron hooks to move the logs into the mill and onto the carriage.

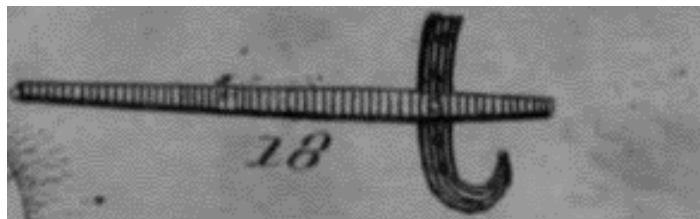


Figure 15. Cant hook for rolling logs onto the mill's carriage.

Oliver Evans, *The Young Mill-Wright and Miller's Guide*, 4th ed. (Philadelphia: M. Carey and Son, 1821), plate 23.

<sup>510</sup> Rivard, *Maine Sawmills*, 3.

<sup>511</sup> Rivard, *Maine Sawmills*, 3.

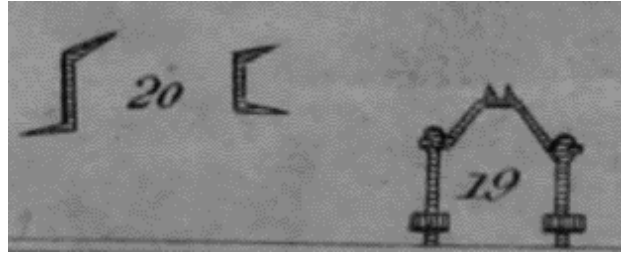


Figure 16. 2 different sets of dogs.

Oliver Evans, *The Young Mill-Wright and Miller's Guide*, 4th ed. (Philadelphia: M. Carey and Son, 1821), plate 23.

- Moving timber to the sawmill.

To produce lumber, a sawmill needed timber. There were three ways to move timber to a sawmill: manual labor, river, or animal labor. Typical sawmills in the eighteenth century utilized rivers or animal labor. As the history shows, the various military forces utilized all three types of methods to move timber to the sawmill.

For nearly all sawmills, timber traveled with a river's current to a mill. However, from the history it appears that most of the timber moved in the water originated from areas around Lake Champlain, which meant that the floating timber traveled against the La Chute River's current as it moved towards the mill.

A unique feature at the Ticonderoga sawmill was the addition of a capstan to move timber from the river up to the sawmill in 1761. It is unknown how long this device remained in service as there is no mention of it by the time of the American occupation. Therefore, it is unlikely it remained operational, and it likely decayed from lack of use as the sawmill slowed operations into the 1760s. Naval vessels use capstans to hoist an anchor. However, capstans also had many uses on land for moving heavy loads, such as in quarries to move stones, and for moving timber for construction.<sup>512</sup>

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<sup>512</sup> See Appendix B for CAPSTAN.





Figure 17. Oxen hauling timber.

Although this derives from the mid-19th century, it depicts the same method from the 18th century when oxen hauled timber on a sleigh in the winter. Picture of original sleighs is on page D-21.

“Lumbering in Maine and New Brunswick – Drawing Logs to the Creek.”  
*Harper’s Weekly*, vol. 2, *The Year 1858* (New York: Harper and Brothers, 1858), 616.

## Bibliography

- Aichinger, Peter. Translator and editor. *At War with the Americans: The Journal of Claude-Nicolas-Guillaume de Lorimier*. Victoria, BC: Press Porcepic, 1981.
- Almon, J. Editor. *Rememberancer; or, Impartial Repository of Public Events for the Year 1777*. London: J. Almon, 1778.
- . *Rememberancer; or, Impartial Repository of Public Events for the Year 1778*. London: J. Almon, 1778.
- Amherst, Jeffery. *The Journals of Jeffery Amherst, 1757-1763*. Vol.1. *The Daily and Personal Journals*. Edited by Robert J. Andrews. East Lansing: Michigan State University Press, 2015.
- Amherst Papers. War Office. National Archives in Kew, UK.
- Anburey, Thomas. *Travels Through the Interior Parts of America. In a Series of Letters*. London: W. Lane, 1789.
- Arnold, Benedict. “Benedict Arnold’s Regimental Memorandum Book.” *The Pennsylvania Magazine of History and Biography*. Vol. 8. Philadelphia: Historical Society of Pennsylvania, 1884.
- Arthur, Robert Warren. “The Deall Account Books 1756-1778.” *New York Genealogical and Biographical Record*. Vol. 116. 1985. New York: New York Genealogical Society, 1985.
- Bailey, William. *The Advancement of Arts, Manufactures and Commerce [...]*. Vol. 1. London: William Adlard, 1772.
- Baldwin, Jeduthan. *The Revolutionary War Journal of Col. Jeduthan Baldwin 1775-1778*. Edited by Thomas Williams Baldwin. Bangor, ME: De Burians, 1906.
- Bale, M. Powis. *Sawmills; Their Arrangement and Management; and the Economical Conversion of Timber*. London: Crosby Lockwood and Company, 1883.
- Bélibidor, Bernard Forest de. *Architecture Hydraulique*. Vol. 1. Paris: Charles-Antoine Jombert, 1737.
- Bellico, Russell P. *Chronicles of Lake George: Journeys in War and Peace*. Fleischmanns, NY: Purple Mountain Press, 1995.
- “Benedict Arnold’s Declaration.” *The Magazine of American History with Notes and Queries*. Vol. 8. New York: A. S. Barnes, 1882.

- Bishop, J. Leander. *A History of American Manufactures from 1608 to 1860* [...]. Vol. 1. Philadelphia: Edward Young and Company, 1866.
- Böckler, Georg Andreas. *Theatrum Machinarum Novum* [...]. Nürnberg: In Verlegung Paulus Fürsten, Gedruckt bey Christoff Gerhard, 1661.
- The Book of English Trades, and Library of Useful Arts*. New Edition. London: C. J. Rivington, 1827.
- Bougainville, Louis Antoine De. *Adventures in the Wilderness: The American Journals of Louis Antoine De Bougainville, 1756-1760*. Translated and edited by Edward P. Hamilton. Norman: University of Oklahoma, 1964.
- Bouton, Nathaniel editor. *Provincial Papers. Documents and Records Relating to the Province of New Hampshire*. Vol. 1. Concord: George E. Jenks, 1887.
- The Bulletin of the Fort Ticonderoga Museum*.
- Burgoyne, John. *A State of the Expedition from Canada* [...]. London: J. Almon, 1780.
- Carter, Clarence Edwin. Editor. *The Correspondence of General Thomas Gage with the Secretaries of State, and with the War Office and the Treasury 1763-1775*. 2 vols. New Haven: Yale University Press, 1969.
- Casgrain, H. R. Editor. *Guerre du Canada, 1756-1760: Montcalm and Lévis*. Vol. 1. Quebec: L. J. Demers & Frère, 1891.
- . *Guerre du Canada, 1756-1760: Montcalm and Lévis* (Tours: Alfred Mame et Fils, 1899).
- . *Guerre Du Canada: Relations et Journaux de Différences Expéditions Faites Durant Les Années 1755-56-57-58-59-60*. Quebec: L. J. Demers & Frère, 1895.
- . *Journal des Campagnes du Chevalier de Lévis en Canada de 1756 à 1760*. Vol. 1. Montreal: C. O. Beauchemin & Fils, 1889.
- . *Journal du Marquis de Montcalm Durant Ses Campagnes en Canada de 1756 à 1759*. Quebec: J. Demers and Frère, 1895.
- . *Lettres de L'Intendant Bigot au Chevalier De Lévis*. Quebec: L. J. Demers & Frère, 1895.
- . *Lettres de Divers Particuliers au Chevalier De Lévis*. Quebec: L. J. Demers & Frère, 1895.
- . *Lettres de M. de Bourlamaque au Chevalier De Lévis*. Quebec: L. J. Dremer & Frère, 1891.

- . *Lettres Du Marquis De Vaudreuil au Chevalier De Lévis*. Quebec: L. J. Demers & Frère, 1895.
- Coffin, George W. “Report of the Land Agent of the Commonwealth of Massachusetts, laid before the Legislature, January 10th, 1844.” In *The North American Review*. Vol. 58. Boston: Otis, Broaders and Company, 1844.
- “The Colden Papers.” *Collections of the New York Historical Society for the Year 1876*. Vol. 9. New York: New York Historical Society, 1876.
- Collections of the Massachusetts Historical Society*. Fourth Series. Vol. 9. Boston: Massachusetts Historical Society, 1871.
- “Col. John Brown’s Expedition against Ticonderoga and Diamond Island, 1777.” *The New England Historical and Genealogical Register 1920*. Vol. 74. Boston: New England Historical and Genealogical Register, 1920.
- Commissary Wilson’s Orderly Book* [...]. Albany, NY: J. Munsell, 1857.
- Comstock, J. L. *A System of Natural Philosophy: In Which are Explained the Principles of Mechanics* [...]. New York: Farmer, Brace, and Company, 1857.
- Cook, Flavius J. *Home Sketches of Essex County. First Number: Ticonderoga*. Keeseville, NY: W. Lansing & Son, 1858.
- Cross, Gary and Rick Szostak. *Technology and American Society*. 3rd edition. New York: Routledge, 2019.
- Cross, Ralph. “A Journal of Ralph Cross, of Newburyport, Who Commanded the Essex Regiment, at the Surrender of Burgoyne in 1777.” *The Historical Magazine, and Notes and Queries, Concerning the Antiquities, History and Biography of America*. Vol. 17. Second Series. Vol. 7. Morrisania, NY: Henry B. Dawson, 1870.
- Cruikshank, Ernest A. and Gavin K. Watt. *The History and Master Roll of the King’s Royal Regiment of New York*. Revised edition. Campbellville, ON: Global, 2006.
- D’Aleyrac, Jean-Baptiste. *Aventures Militaires Au XVIII<sup>E</sup> Siecle D’Après Les Mémoires De Jean-Baptiste D’Aleyrac*. Paris: Charles Coste, 1935.
- Dawes, E. C. Editor. *Journal of General Rufus Putnam* [...]. Albany: Joel Munsell, 1886.
- Defebaugh, James Elliott. *History of the Lumber Industry in America*. Vol. 2. Chicago: American Lumberman, 1906.
- Des Barres, Joseph F. W. *The Atlantic Neptune*. Part 3. London: n.p. 1802.

“Diaries Kept by Lemuel Wood.” *Essex Institute Historical Collections*. Vol. 19. Salem: Salem Press, 1882.

Dictionary of Canadian Biography. <http://www.biographi.ca/en/>.

Doblin, Helga. Translator. *The American Revolution, Garrison Life in French Canada and New York*. Edited by Mary C. Lynn. Westport, CT: Greenwood Press, 1993.

Douglass, William. *A Summary, of Historical and Political of the First Planting, Progressive Improvements and Present State of the British Settlements in North America*. Vol. 2. London: R. and J. Dodsley, 1760.

Epping, Charlotte S. J. Translator. *Journal of Du Roi the Elder*. New York: University of Pennsylvania, 1911.

Evans, Oliver. *The Young Mill-Wright and Miller's Guide*. 4th edition. Philadelphia: M. Carey and Son, 1821.

Evelyn, John. *Sylva or a Discourse on Forest Trees*. Vol. 2. 4th edition. London: Doubleday, 1908.

Everest, Allan S. Editor. *The Journal of Charles Carroll of Carrollton as One of the Congressional Commissioners to Canada in 1776*. Fort Ticonderoga: n. p., 1976.

Fauteux, Joseph-Noël. *Essai sur L'industrie au Canada sous Le Régime Français*. Vol. 1. Quebec: LS-A Proulx, 1927.

Force, Peter, editor. *American Archives*. Series 4. Vol. 1. Washington: M. St. Clair and Peter Force, 1837.

———. *American Archives*. Series 4. Vol. 4. Washington: M. St. Clair and Peter Force, 1843.

———. *American Archives*. Series 4. Vol. 6. Washington: M. St. Clair and Peter Force, 1846.

———. *A Perfect Description of Virginia*. Washington: n. p., 1837. In Peter Force, editor. *Tracts and Other Papers, Relating Principally to the Origin, Settlement, and Progress of the Colonies in North America, From the Discovery of the Country to the Year 1776*. Vol. 2. Washington: Peter Force, 1836. Reprint, Gloucester, MA: Peter Smith, 1963.

Fox, William F. *History of the Lumber Industry in the State of New York*. Washington: Government Printing Office, 1902.

Founders Online. National Archives. <https://founders.archives.gov/>.

Fournier, Marcel. *Combattre pour la France en Amérique: Les Soldats de la Guerre de Sept Ans en Nouvelle-France 1755-1760*. Montreal: Société Généalogique Canadienne-Française, 2009.

Frazer, Persifor. *General Persifor Frazer a Memoir, Compiled Principally from His Own Papers*. Philadelphia: n. p., 1907.

Gabriel, L'Abbe. *Le Maréchal De Camp Desandrouins 1729-1792: Guerre Du Canada 1756-1760, Guerre De L'Indépendance Américaine 1780-1782*. Verdun: Renvé-Lallemant, 1887.

Gage Papers. William L. Clements Library. The University of Michigan.

“Gen. Fraser’s Account of Burgoyne’s Campaign on Lake Champlain and the Battle of Hubbardton.” *Proceedings of the Vermont Historical Society, October 18 and November 2 1898*. Burlington: Free Press Association, 1899.

Grant, Francis. “Journal from New York to Canada, 1767.” *New York History* 13, no. 3 (July 1932).

Hadden, James M. *Hadden’s Journal and Orderly Books*. Albany, NY: Joel Munsell’s Sons, 1884.

Haldimand Papers. Canadiana Héritage.

[https://heritage.canadiana.ca/view/oocihm.lac\\_mikan\\_105513](https://heritage.canadiana.ca/view/oocihm.lac_mikan_105513).

Hammond, Isaac W. editor. *Diary and Orderly Book of Sergeant Jonathan Burton of Wilton, N.H., while in service in the army on Winter Hill: Dec. 10, 1775-Jan. 26, 1776 and of the same soldier as Lieutenant Jonathan Burton, while in Canada expedition at Mount Independence, Aug. 1, 1776-Nov. 29, 1776*. Concord, NH: Republican Press, 1885.

Hammond, Otis G. Editor. *Letters and Papers of Major-General John Sullivan Continental Army*. Vol. 1. 1771-1777. Concord, NH: New Hampshire Historical Society, 1930.

The Horatio Gates Papers, 1726-1828. Microfilm.

Howell, Charles. “Colonial Watermills in the Wooden Age.” In Brooke Hindle, editor. *America’s Wooden Age: Aspects of Its Early Technology*. Tarrytown, NY, 1975.

Hubbard, Robert Ernest. *General Rufus Putnam: George Washington’s Chief Engineer and the “Father of Ohio”*. Jefferson, NC: McFarland and Company, 2020.

Jodoin, Alexander and J. L. Vincent. *Histoire de Longueuil et de la Famille de Longueuil*. Montréal: Gebhardt-Berthiaume, 1889.

Jones, Thomas. *History of New York During the Revolutionary War* [...]. Vol. 2. New York: New York Historical Society, 1879.

Journal of an officer of the 47th Regiment of Foot, after 1783. Huntington Digital Library Manuscript. <https://hdl.huntington.org/digital/collection/p15150coll7/id/7577/rec/1>.

“Journal of Major Henry Livingston of the Third Continental Line, August to December 1775.” *Pennsylvania Magazine of History and Biography*. Vol. 22. Philadelphia: Historical Society of Pennsylvania, 1898.

*Journals of the Continental Congress 1774-1789*. 34 vols. Washington: Government Printing Office, 1904-1937.

*Journals of the Hon. William Hervey in North American and Europe, from 1755 until 1814; With Orderly Books from Montreal 1760-1763*. Bury St. Edmond's, England: Paul & Mathew, 1906.

Kidder, Frederic. *History of the First New Hampshire Regiment in the War of the Revolution*. Albany: Joel Munsell, 1868.

Knox, John. *An Historical Journey of the Campaigns in North America For the Years 1757, 1758, 1759 and 1760*. Vol. 1. Edited by Arthur G. Doughty. Toronto: The Champlain Society, 1914.

———. *Historical Journal of the Campaigns in North America for the Years 1757, 1758, 1759, and 1760*. Vol. 3. *Appendix*. Edited by Arthur G. Doughty. Toronto: The Champlain Society, 1916.

Kopperman, Paul E. ““The Cheapest Pay”: Alcohol Abuse in the Eighteenth-Century British Army.” *The Journal of Military History* 60, no. 3. July 1996. 445-470.

Lacey, John. “Memoirs of Brigadier General John Lacey, of Pennsylvania.” *The Pennsylvania Magazine of History and Biography*. Vol. 25. Philadelphia: The Historical Society of Pennsylvania, 1901.

Lauber, Almon D. editor. *The Papers of Sir William Johnson*. Vol. 9. Albany: University of the State of New York, 1939.

“Letter of the Battle of Ticonderoga.” *Gentleman's Magazine*, vol. 28. London: D. Henry and R. Cave, 1758.

Lossing, Benson J. *The Life and Times of Philip Schuyler*. 2 vols. New York: Henry Holt, 1883.

Macdonald, A. de Léry. “Michel Chartier de Lotbinière: The Engineer of Carillon.” *New York History* 15, no. 1. January 1934.

- Malartic, Maurès de. *Glories to Useless Heroism: The Seven Years War in North America from the French Journals of Comte Maurès de Malartic 1755-1760*. Translated and annotated by William Raffle. Sulihull: Helion and Company, 2017.
- Mante, Thomas. *The History of the Late War in North-America* [...]. New York: Research Reprints, 1970.
- Marshall, John. *The Life of George Washington* [...]. Vol. 1. Philadelphia: C. P. Wayne, 1805.
- Méloizes, Nicolas Renaud D'Avène Des. "Journal Militaire Tenu Par Nicolas Renaud D'Avène Des Méloizes, Ch<sup>er</sup>, Seigneur De Neuville Au Canada, Du 19 Juillet 1756 Au 30 Octobre De La Mémé Année." In *Rapport de L'Archiviste De La Province De Québec Pour 1928-1929*. Quebec: Redeemed Paradise, 1929.
- The Military Journals of Two Private Soldiers 1758-1775* [...]. Poughkeepsie, NY: Abraham Tomlinson, 1855.
- Miller, Stephen. "Stephen Miller's Journal 1759-1760." University of New Brunswick. Copy in FTA.
- Morgan, Appleton. Editor. "The Diary of Colonel Elisha Porter, of Hadley Massachusetts." *Magazine of American History*. Vol. 30. New York: Magazine of American History, 1893.
- Munro, W. B. "The Office of Intendant in New France." *The American Historical Review* 12, no. 1 (1906).
- Naval Documents of the American Revolution*. 12 vols. Washington: n. p., 1966-2013.
- Nelson, Peter. "The Battle of Diamond Island." *The Quarterly Journal of the New York State Historical Association* 3, no. 1. (January 1922). 36-53.
- Nester, William R. *The Epic Battles for Ticonderoga, 1758*. Albany: State University of New York, 2008.
- O' Callaghan, E. B. Editor. *The Documentary History of the State of New York*. Vol. 4. Albany: Charles van Benthuysen, 1851.
- . *Documents Related to the Colonial History of New York*. 15 vols. Albany: Weeds, Parsons, and Company, 1853-1887.
- . *Orderly Book of Lieut. Gen. John Burgoyne* [...]. Albany: J. Munsell, 1860.
- Orderly Book and Journal of Major John Hawks* [...]. Introduction by Hugh Hastings. New York: H. K. Brewer, 1911.



*Orderly Book of Capt. Ichabod Norton of Col. Mott's Regiment of Connecticut Troops Destined for the Northern Campaign in 1776.* Introduction by Robert O. Bascom. Fort Edward, NY: Keating & Barnard, 1898.

Orderly Books of the 4th Pennsylvania Battalion, 1776, Mar. 31 - Sept. 1, New York, Albany (N.Y.), Ile aux Noix (Québec). Huntington Digital Library Manuscripts.  
<https://hdl.huntington.org/digital/collection/p15150coll7/id/30146/rec/1>.

Orderly Book of the 4th Pennsylvania Battalion, 1776, Sept. 3 - Oct. 12, Ticonderoga (N.Y.). Huntington Digital Library Manuscripts.  
<https://hdl.huntington.org/digital/collection/p15150coll7/id/30376/rec/2>.

*Orderly Book of the Northern Army, at Ticonderoga and Mount Independence, from October 17th, to January 8th, 1777.* Albany: J. Munsell, 1859.

Orderly Book of Philip John Schuyler, 1775, June 28 - 1776, April 18, New York, Fort Ticonderoga, Albany, Fort St. George. Huntington Digital Library Manuscripts.  
<https://hdl.huntington.org/digital/collection/p15150coll7/id/23770/rec/6>.

Pargellis, Stanley. Editor. *Military Affairs in North America, 1748-1765.* Hamden, CT: Archon Books, 1969.

Parkman, Francis. *Montcalm and Wolf.* New York: Da Capo Press, 1995.

Pause, Jean-Guillaume-Charles de Plantavit de Margon de la. "Le Chevalier De La Pause." In *Rapport de L'Archiviste De La Province De Québec Pour 1931-1932.* Quebec: Redempted Paradise, 1932.

Philip Schuyler Papers. New York Public Library.  
<https://digitalcollections.nypl.org/collections/philip-schuyler-papers#/?tab=navigation>.

Putnam, Rufus. *The Memoirs of Rufus Putnam* [...]. Annotated by Rowena Buell. Boston: Houghton, Mifflin and Company, 1903.

Ray, F. M. Editor. *The Journal of Dr. Caleb Rea Written During the Expedition Against Ticonderoga in 1758.* Salem, MA: n. p., 1881.

*Recueil de Planches de L'Encyclopédie.* Vol. 1. Paris: Panckoucke, 1783.

Rivard, Paul E. *Maine Sawmills: A History.* Maine State Museum, 1990.

Roberts, Lemuel. *Memoirs of Captain Lemuel Roberts* [...]. Bennington, VT: Anthony Haswell, 1809.

Rogers, Robert. *Journals of Major Robert Rogers.* Introduction by Howard H. Peckham. New York: Corinth Books, 1961.

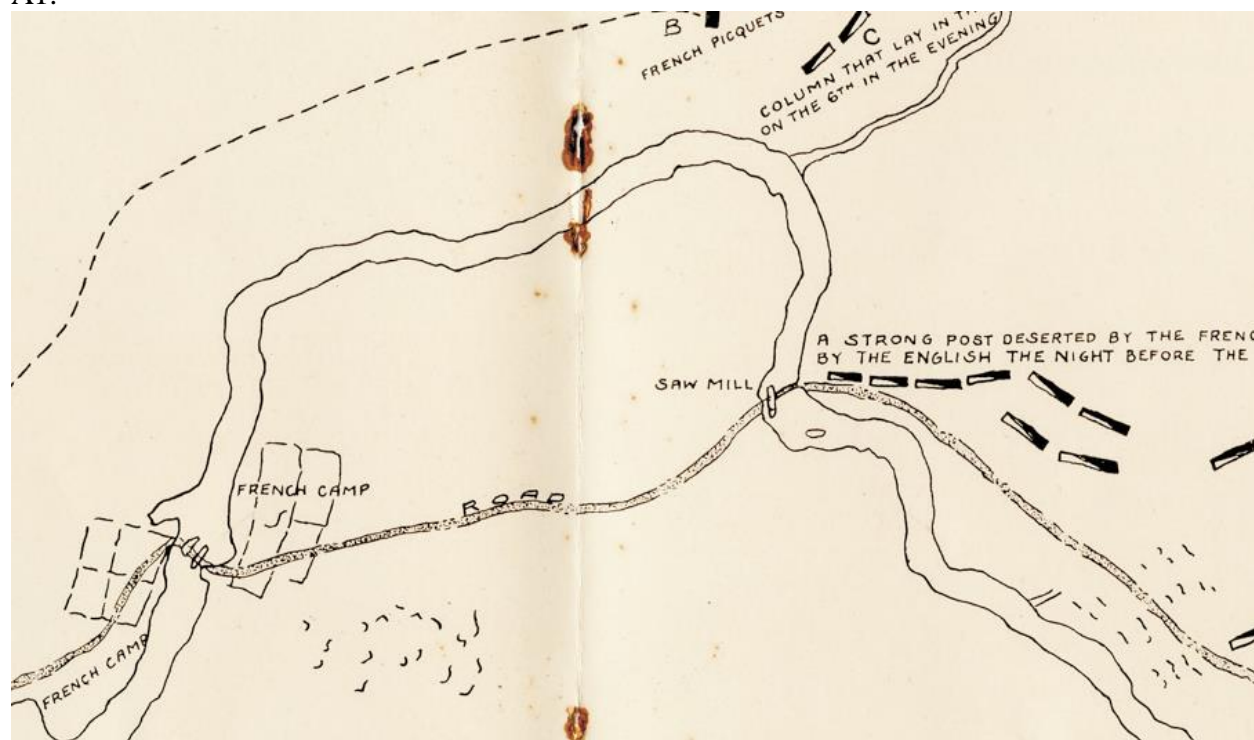
- Roubo, André-Jacob. *L'art du Menuisier*. Vol. 2. Paris: n. p., 1770.
- Roy, Pierre Georges. *Bigot et Sa Bande et L’Affaire Du Canada*. Quebec: Levis, 1950.
- Salsig, Doyen. Editor. *Parole: Quebec; Countersign: Ticonderoga: Second New Jersey Regimental Orderly Book 1776*. Cranbury, NJ: Associated University Presses, 1980.
- Scull, G. D. Editor. “The Montresor Journals,” *Collections of the New York Historical Society for the Year 1881*. Vol. 14. New York: New York Historical Society, 1882.
- Sixth Annual Report of the Forest, Fish and Game Commission of the State of New York*. Albany: James B. Lyon, 1901.
- Smiles, Samuel. *Industrial Biography: Iron Workers and Tool Makers*. Boston: Ticknor and Fields, 1864.
- Smith, William Henry. Editor. *The St. Clair Papers*. 2 vols. Cincinnati, OH: Robert Clark & Company, 1882.
- Stillé, Charles J. *Major-General Anthony Wayne and the Pennsylvania Line in the Continental Army*. Philadelphia: J. B. Lippincott, 1893.
- Stoddard, S. R. *Lake George and Lake Champlain*. Glen Falls, NY: S. R. Stoddard, 1906.
- Stylegar, Frans-Arne H. “Sawmills in New Netherland: A Scandinavian Perspective.” *De Halve Maen: Journal of The Holland Society of New York* 93, no. 2 (October 2020). 25-36.
- “The Trial of Major General St. Clair.” *Collections of the New York Historical Society for the Year 1880*. Vol. 13. New York: New York Historical Society, 1881.
- “The Trial of Major General Schuyler. October 1778.” *Collections of the New York Historical Society for the Year 1879*. Vol. 12. New York: New York Historical Society, 1880.
- Trumbull, John. *Autobiography, Reminiscences and Letters of John Trumbull, 1756 to 1841*. New Haven, CT: B. L. Hamlen, 1841.
- Tuttle, Charles Wesley. *Capt. John Mason, the Founder of New Hampshire [...]*. John Ward Dean, editor. Boston: Prince Society, 1887.
- Villeneuve, Bardet de. *Traité de L’Artillerie*. Vol. 2. La Haye: Jean Van Duren, 1741.
- Voye, Nancy S. Editor. *Massachusetts Officers in the French and Indian Wars 1748-1763*. Boston: New England Historic Genealogical Society, 1975.

- Wallace, Nesbit Willoughby. *A Regimental Chronicle and List of Officers of the 60th* [...]. London: Harrison, 1879.
- Walton, E. P. Editor. *Records of the Governor and Council of the State of Vermont*. Vol. 2. Montpelier: Steam Press, 1874.
- Warburton, George. *The Conquest of Canada*. 2 vols. New York: Harper and Brothers, 1850.
- Watson, Wilson C. *Pioneers History of the Champlain Valley*. Albany, NY: J. Munsell, 1863.
- Weeden, William B. "Diary of Rev. Enos Hitchcock." *Publications of the Rhode Island Historical Society*. Vol. 7. 1899. Providence, RI: Rhode Island Historical Society, 1899.
- Wilkinson, James. *Memoir of My Own Times*. Vol. 1. Philadelphia: Abraham Small, 1816.
- Wise, Herbert C. and H. Ferdinand Beidleman. *Colonial Architecture for Those About to Build*. Philadelphia: J. B. Lipponcott, 1913.
- Wolcott, Samuel. *Memorial of Henry Wolcott*. New York: Anson D. F. Randolph, 1881.

## **Appendix A: Maps**



A1.



Title: Copy of Monypenny Map

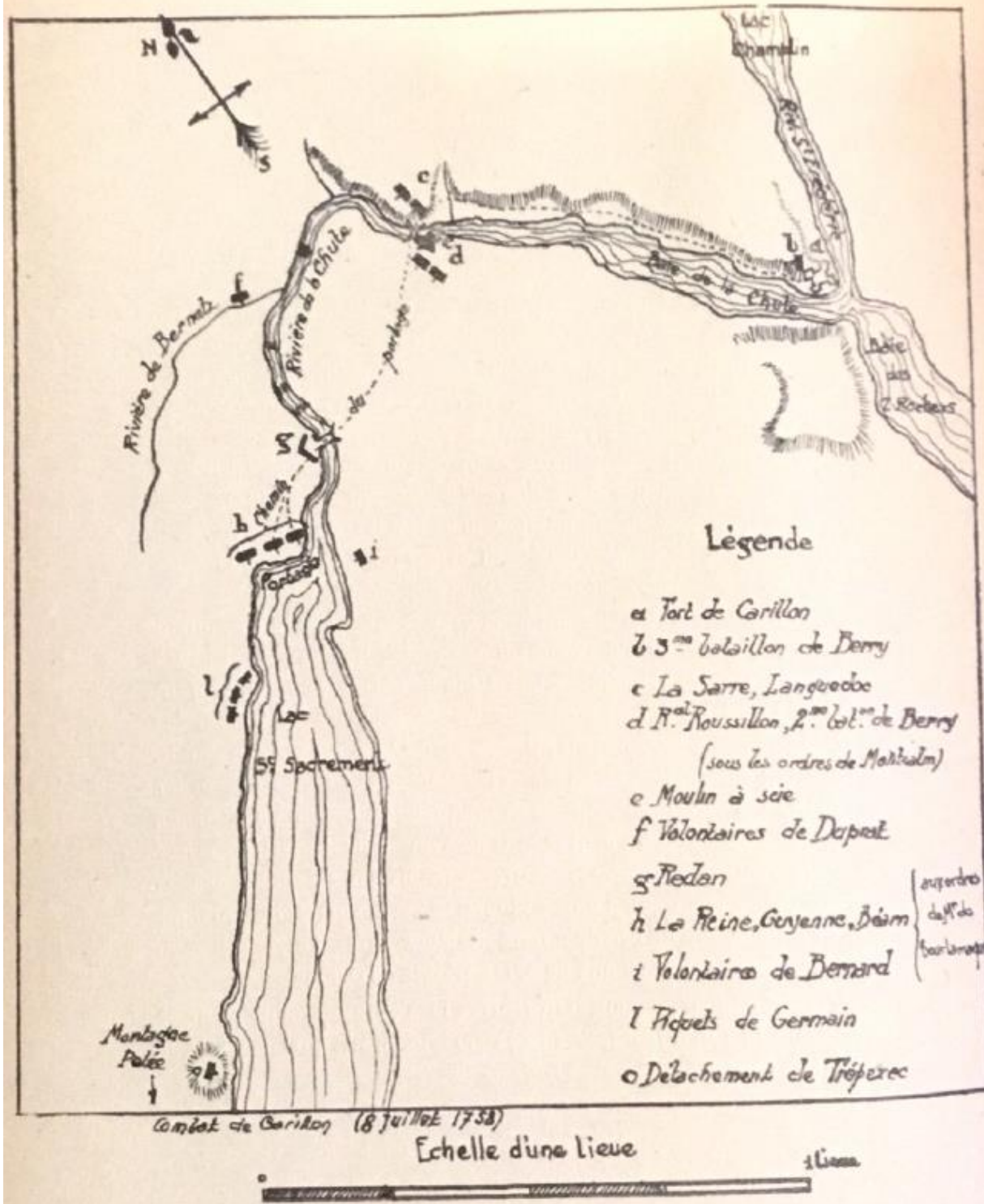
Cartographer: Unknown

Date: 1930, produced for The Bulletin of the Fort Ticonderoga Museum

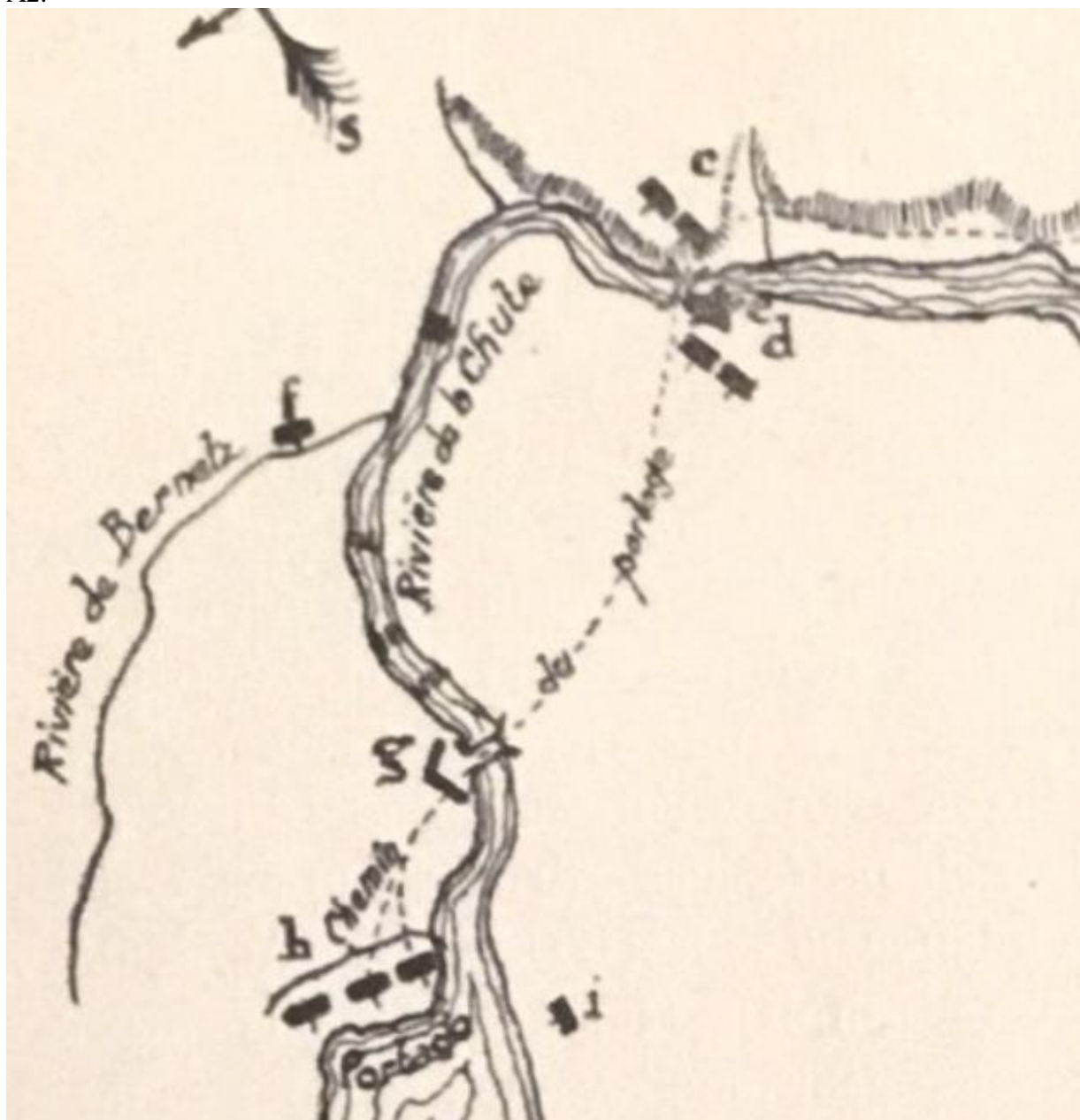
Location: The Bulletin of the Fort Ticonderoga Museum, vol. 2, no. 2 (July 1930), 62-63

A2.

Croquis donnant la position des troupes de Montcalm le 8 Juillet 1758 dans la soirée



A2.



Title: Croquis donnat la position des troupes de Montcalm le 8 Juillet 1758 dans la soirie

Cartographer: Unknown, likely produced from other contemporary maps and using detailed information from D'Alelyrac

Date: unknown, likely produced for the publication of the book in 1935

Location: *Aventures Militaires Au XVIII<sup>E</sup> Siecle D'Après Les Mémoires De Jean-Baptiste D'Alelyrac* (Paris: Charles Coste, 1935). Page 68.

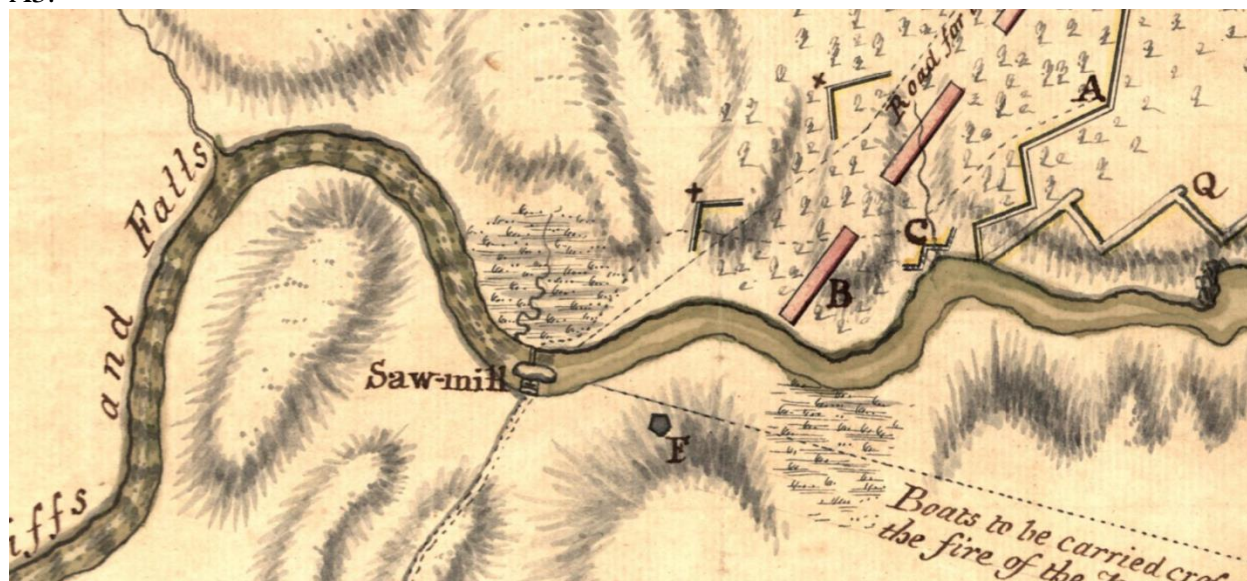
Available: Fort Ticonderoga Archives



A3.



A3.



Title: Project for the attack of Ticonderoga: proposed to be put in execution as near as the circumstances and ground will admit of. May 29th. 1759

Cartographer: William Brassier

Date: 1759

Location: Library of Congress Geography and Map Division

Available: Norman B. Leventhal Map & Education Center at the Boston Public Library  
<https://collections.leventhalmap.org/search/commonwealth:q524nd67z>

A4.



A4.



Title: [A map showing the northern part of Lake George and Fort Ticonderoga]

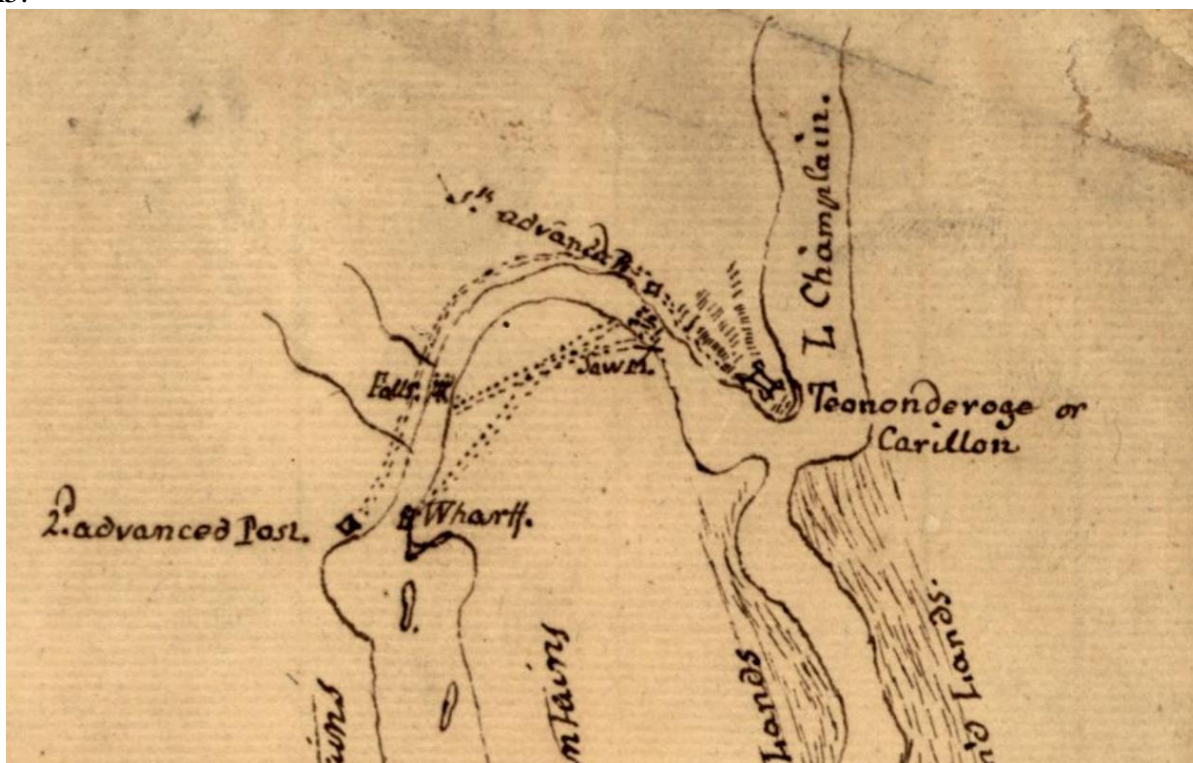
Cartographer: Unknown

Date: Attributed to 1756

Location: Library of Congress Geography and Map Division

Available: Norman B. Leventhal Map & Education Center at the Boston Public Library  
<https://collections.leventhalmap.org/search/commonwealth:hx11z343v>

A5.



Title: Plan of the attack on Fort William Henry and Ticonderoga: showing the road from Fort Edward, Montcalm's camp and wharf of landing, &c

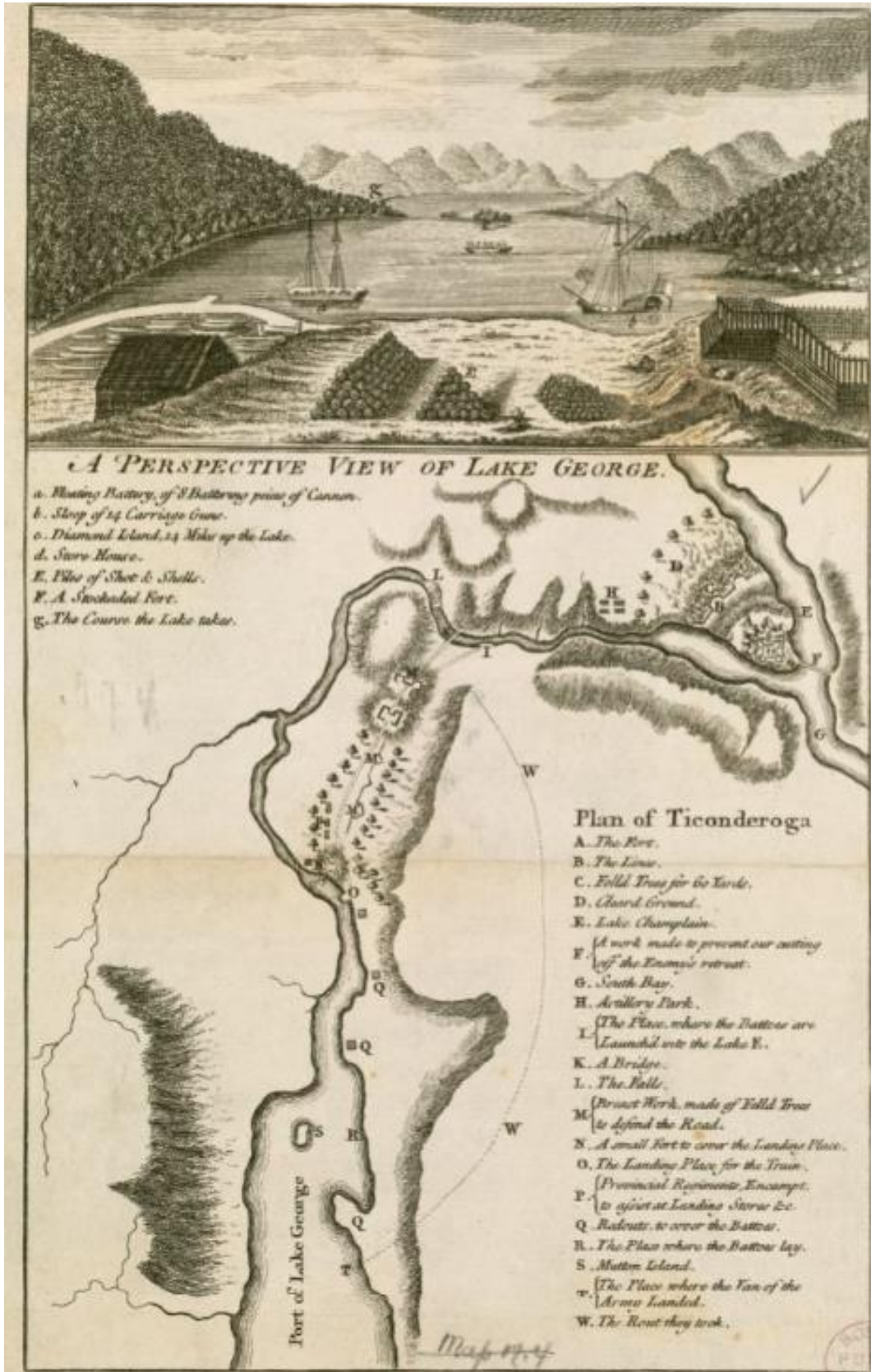
Cartographer: James Gabriel Montrésor

Date: Attributed to 1757

Location: British Library

Available: Norman B. Leventhal Map & Education Center at the Boston Public Library  
<https://collections.leventhalmap.org/search/commonwealth:q524nd75n>

A6.



A6.



Title: A perspective view of Lake George: Plan of Ticonderoga

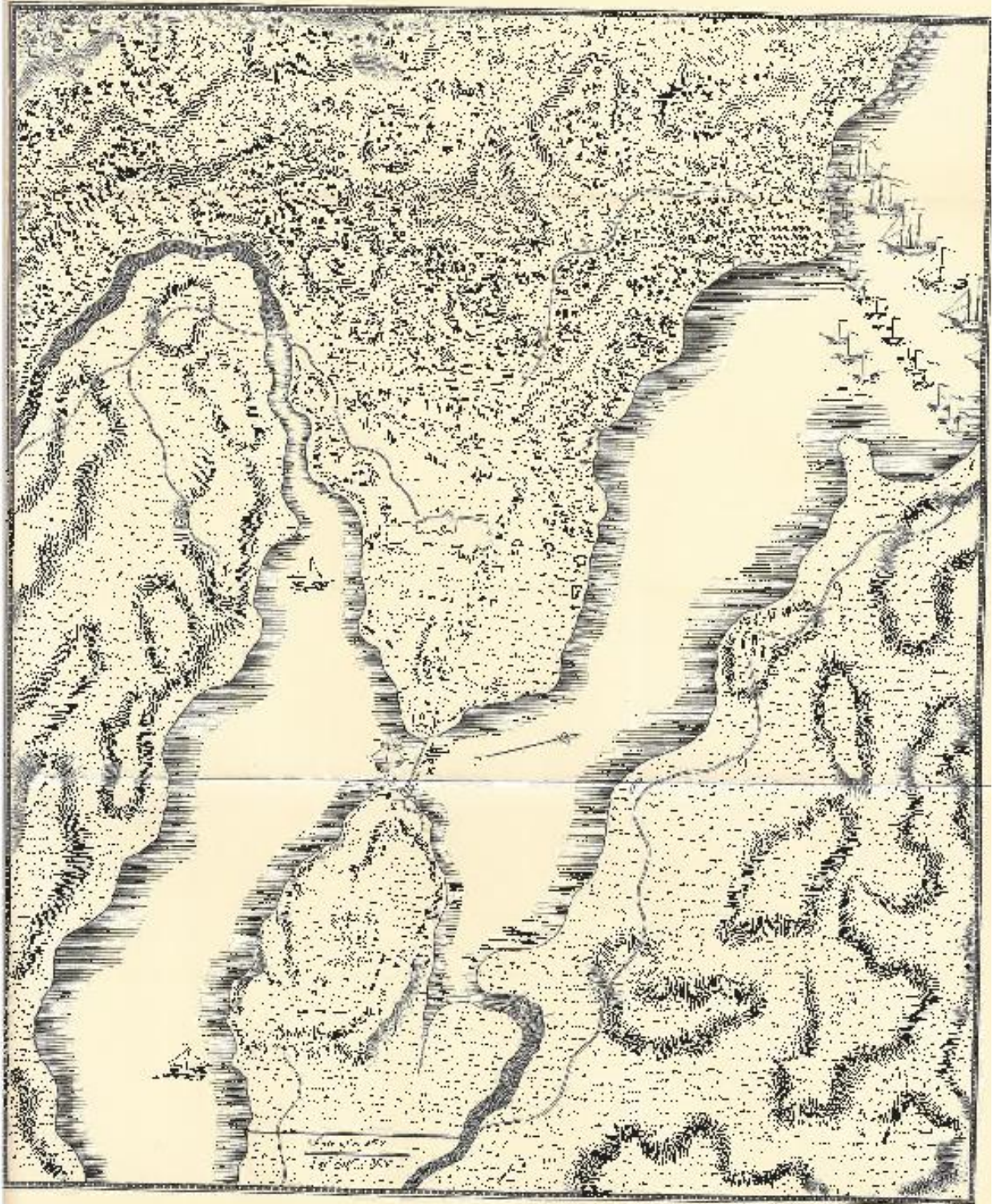
Cartographer: Henry Skinner

Date: 1759

Location: Boston Public Library

Available: Norman B. Leventhal Map & Education Center at the Boston Public Library  
<https://collections.leventhalmap.org/search/commonwealth:6t053q40c>

A7.





A7.



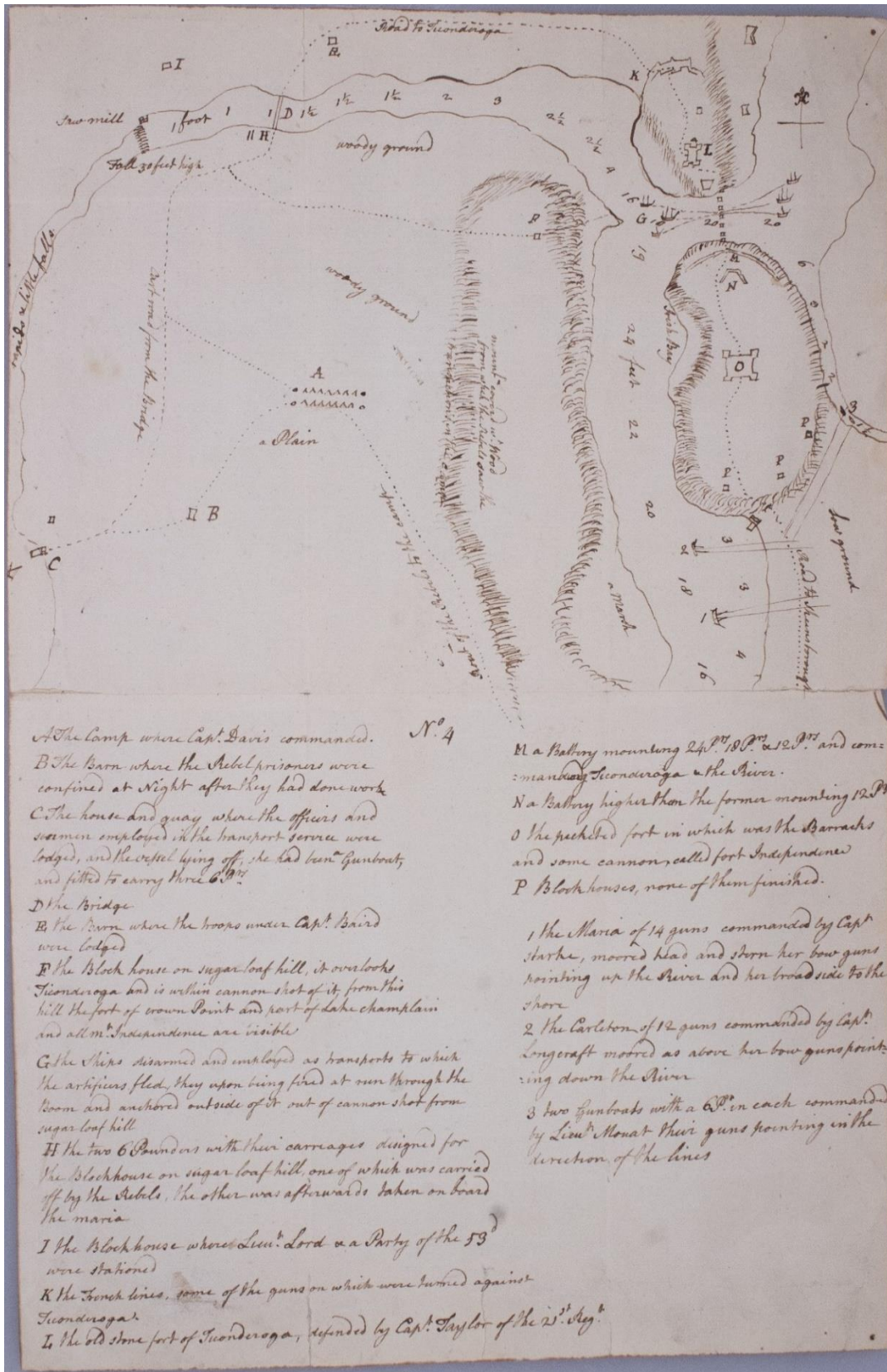
Title: Kosciuszko Map

Cartographer: Thaddeus Kosciuszko

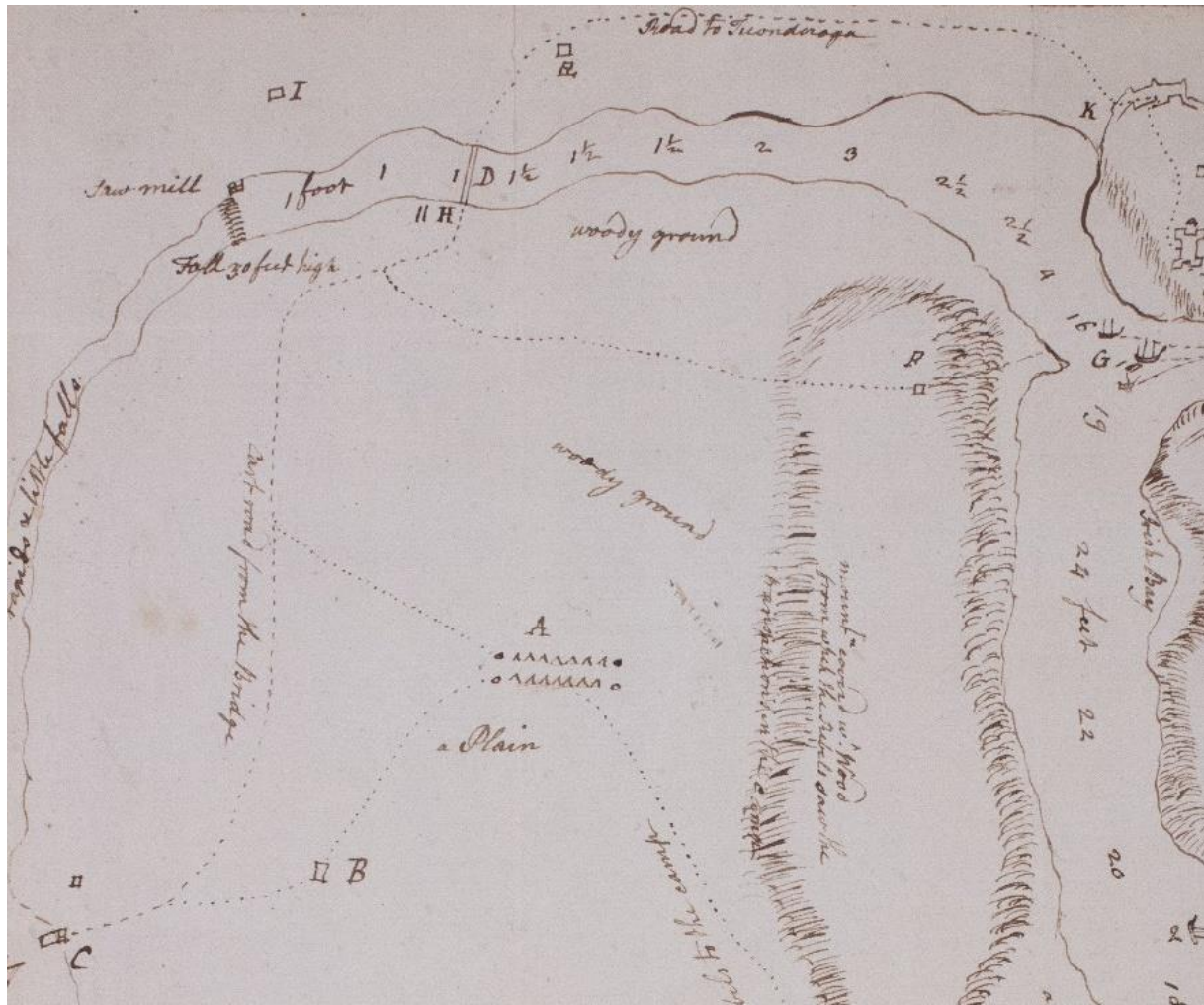
Date: 1777

Location: "The Trial of Major General St. Clair," *Collections of the New York Historical Society for the Year 1880*, vol. 13 (New York: New York Historical Society, 1881), 172-173.

A8.



A8.



Title: Lieutenant John Starke's map of John Brown's Raid 1777

Cartographer: John Starke

Date: 1777

Location: Fort Ticonderoga Museum Archives, T-1.63M

A9.



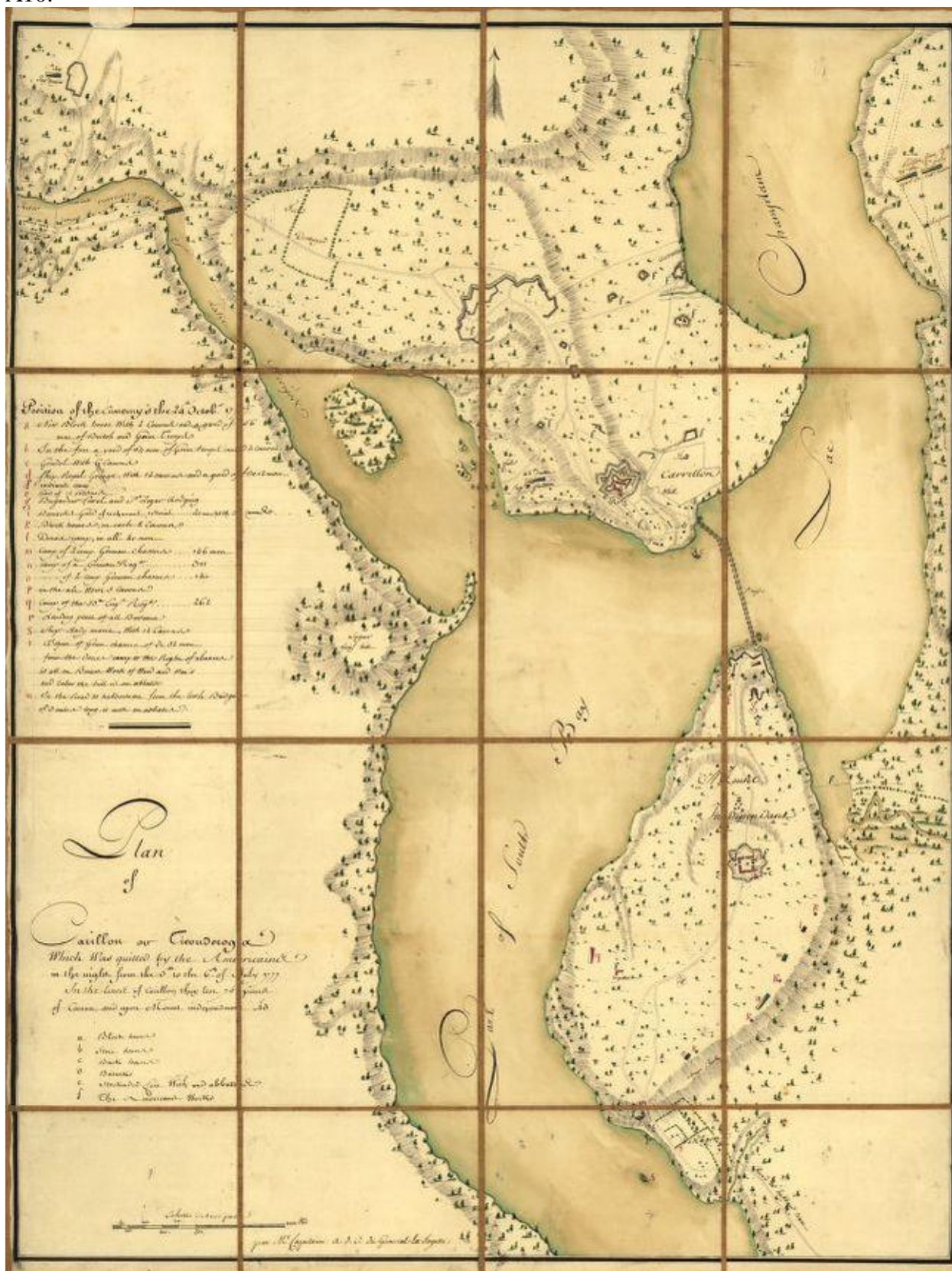
Title: Hadden's Map 1777

Cartographer: James Hadden

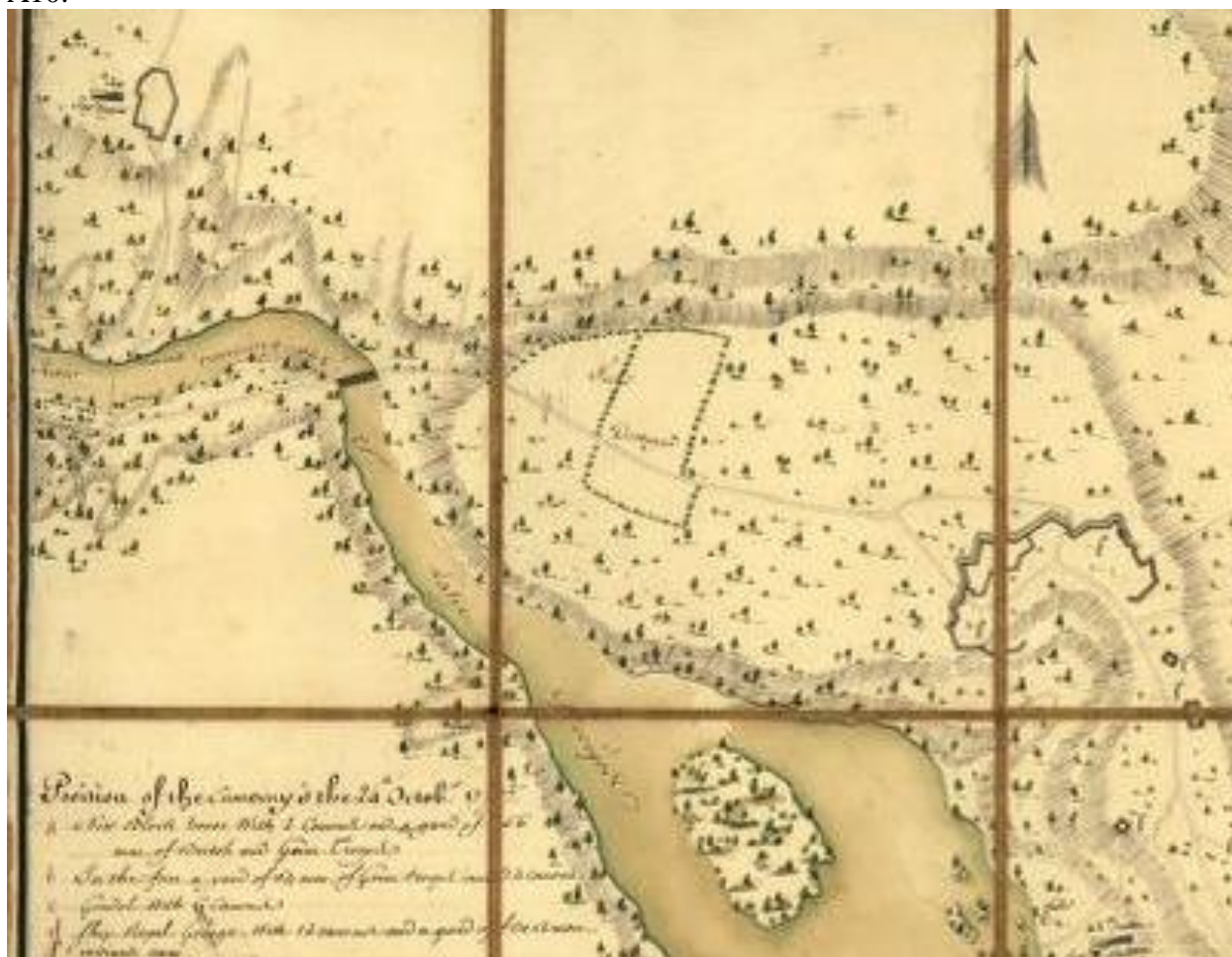
Date: 1777

Location: James M. Hadden, *Hadden's Journal and Orderly Books* (Albany, NY: Joel Munsell's Sons, 1884), 84.

A10.



A10.



Title: Plan of Carillon ou [sic] Ticonderoga: which was quitted by the Americaines in the night from the 5th to the 6th of July 1777

Cartographer: Michel du Chesnoy.

Date: 1777

Location: Library of Congress

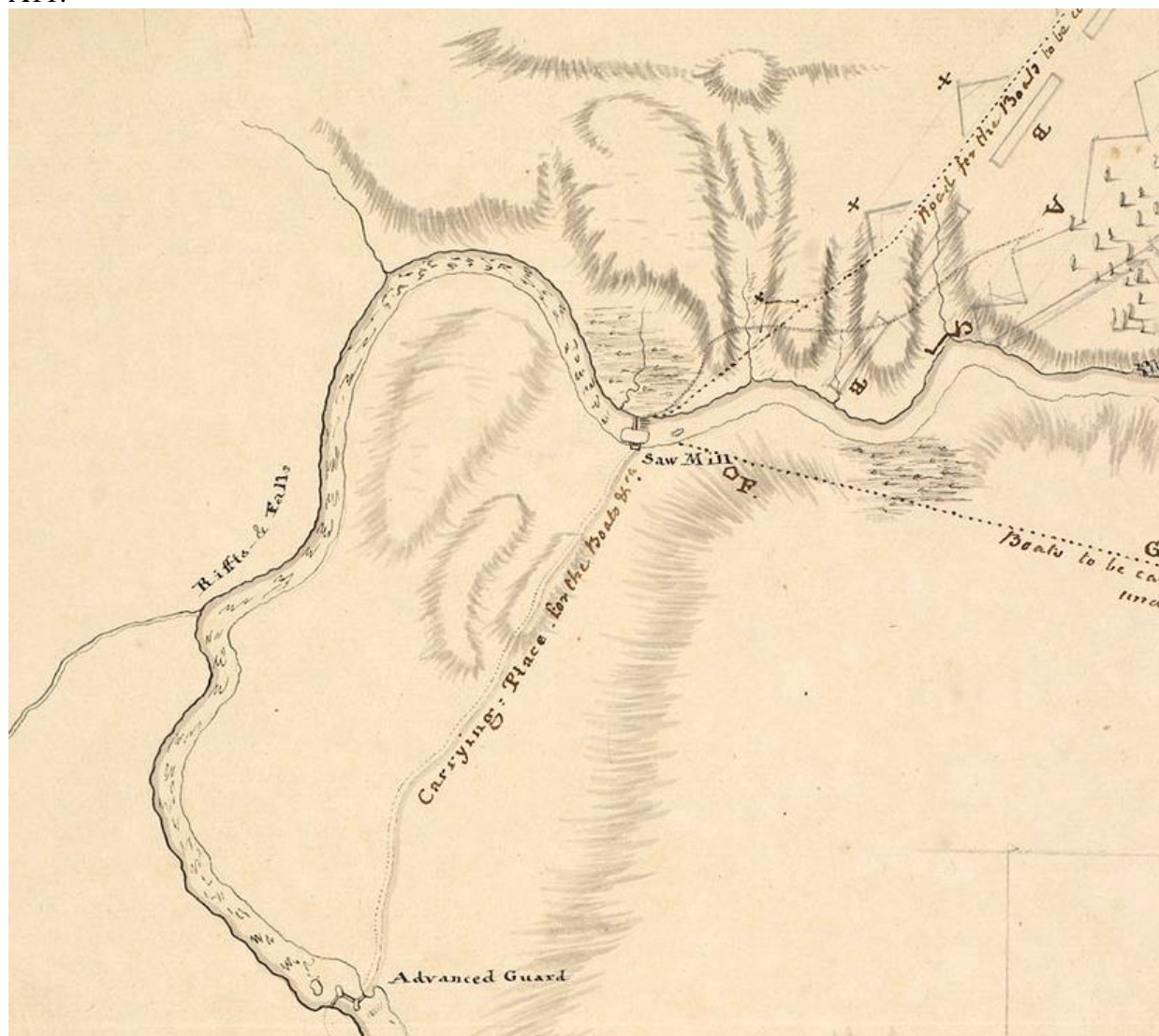
Available: Library of Congress

<https://www.loc.gov/resource/g3804t.ar300200/>

A11.



A11.



Title: Ticonderoga, 1759

Cartographer: William Eyre

Date: 1759

Location: Royal Collection Trust

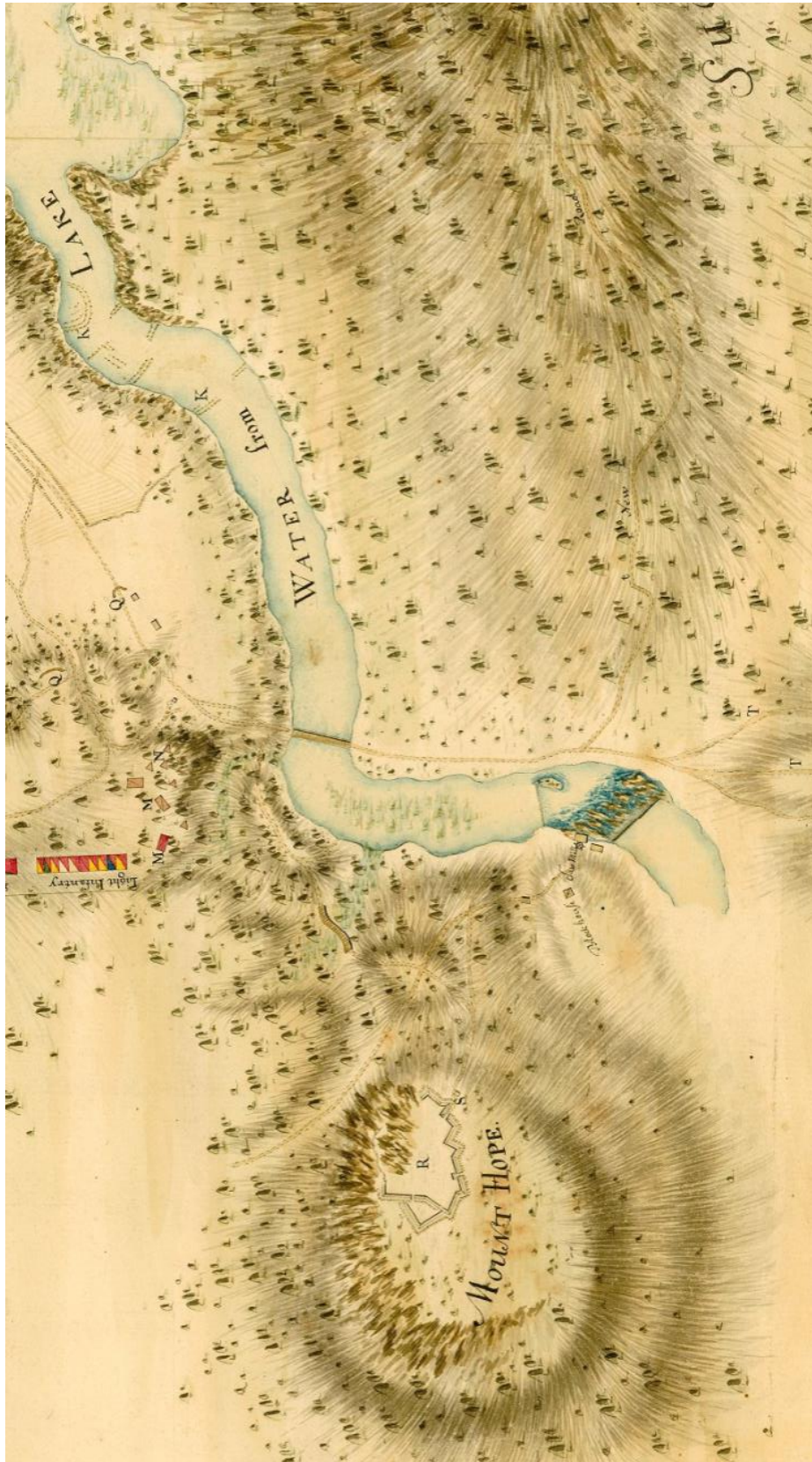
Available: Royal Collection Trust, RCIN 732105

<https://militarymaps.rct.uk/the-seven-years-war-1756-63/ticonderoga-1759>





A12.



A12.



Title: Plan of Ticonderoga and Mount Independence, including Mount Hope

Cartographer: Charles Wintersmith

Date: 1780

Location: John Carter Brown Library

Available: JCB Map Collection, 31267-000

<https://jcb.lunaimaging.com/luna/servlet/detail/JCBMAPS~1~1~2703~101233:Plan-of-Ticonderoga-and-Mount-Indep>

A13.



Title: [A map of Fort Carillon and environs]

Cartographer: William Brassier

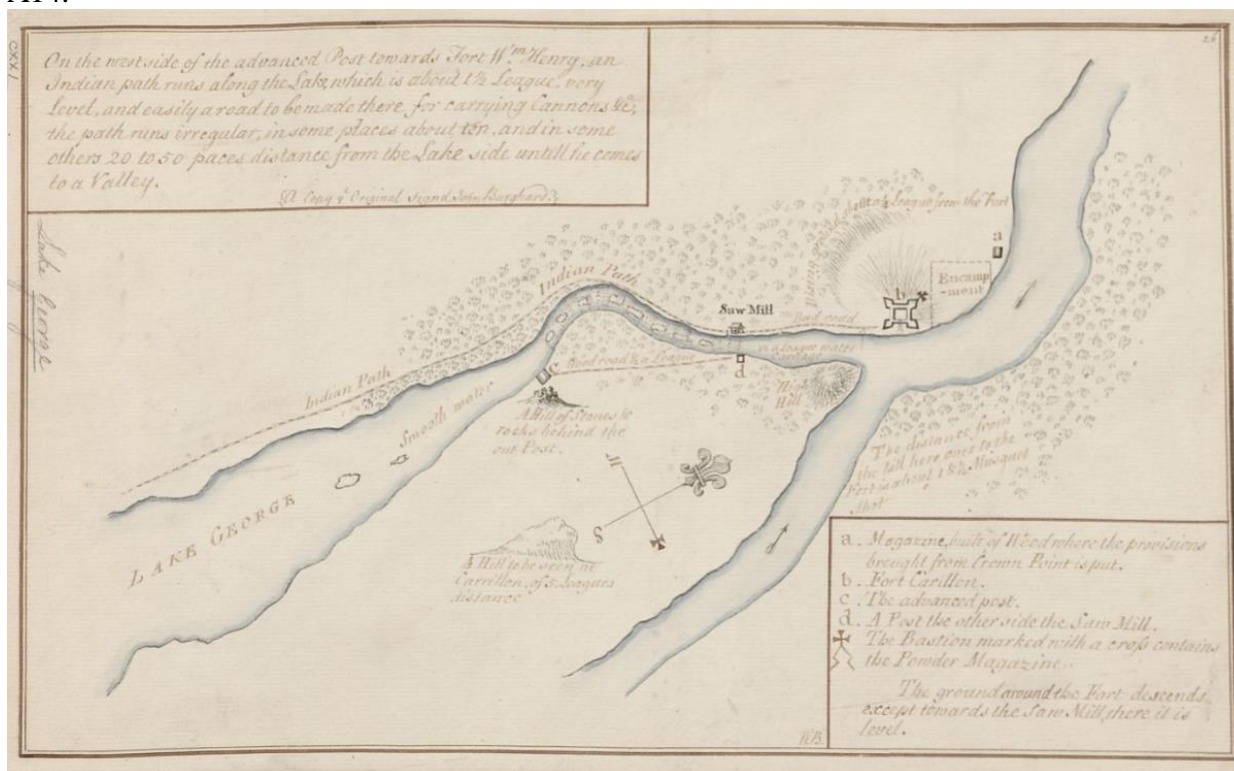
Date: 1756

Location: British Library

Available: Norman B. Leventhal Map &amp; Education Center at the Boston Public Library

<https://collections.leventhalmap.org/search/commonwealth:hx11z5374>

A14.



Title: [A map of Fort Carillon and environs]

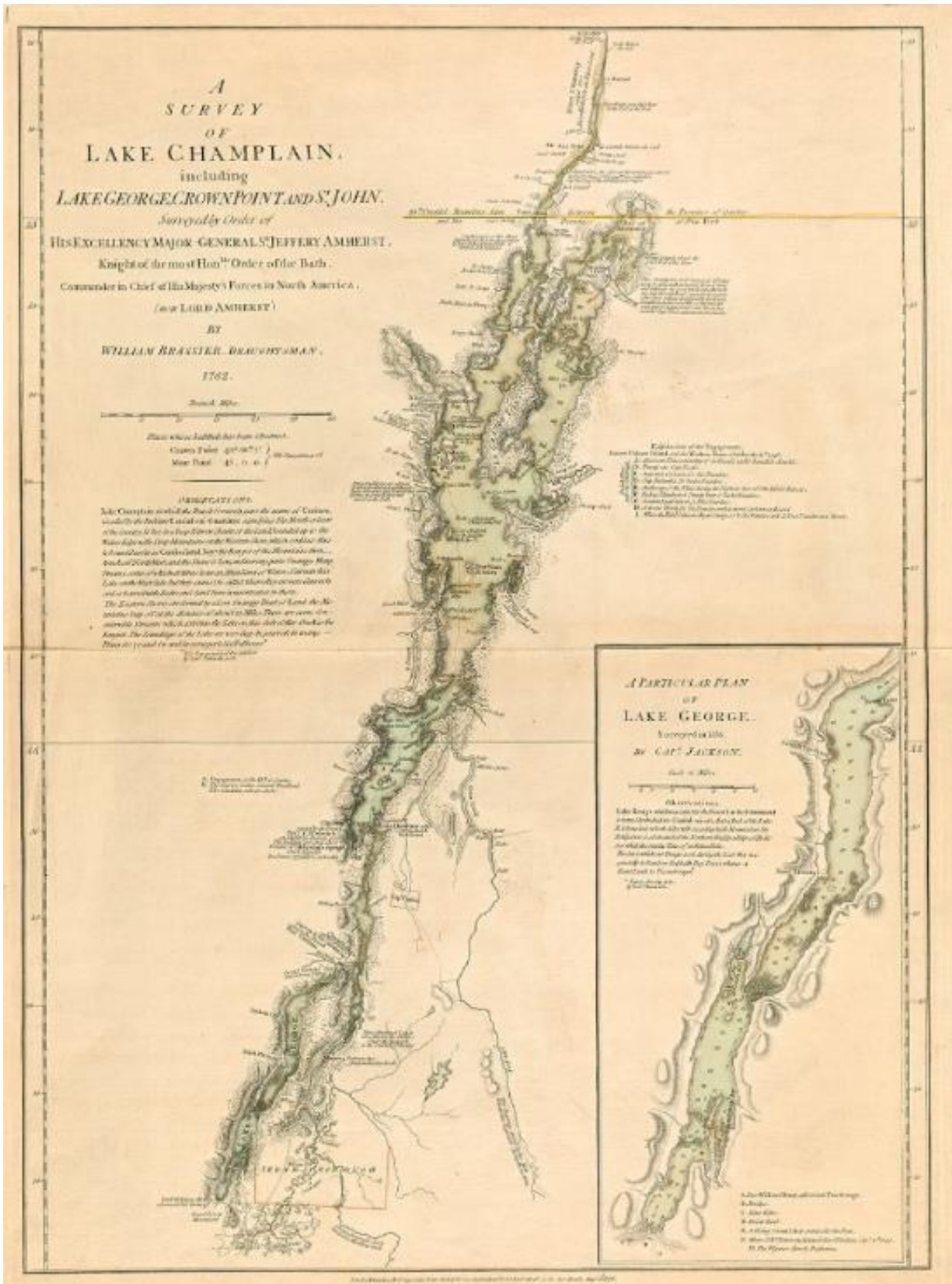
Cartographer: William Brassier

Date: 1756

Location: British Library

Available: Norman B. Leventhal Map & Education Center at the Boston Public Library  
<https://collections.leventhalmap.org/search/commonwealth:hx11z3419>

A15.



A15.



Title: A Survey of Lake Champlain including Lake George, Crown Point, and St. John

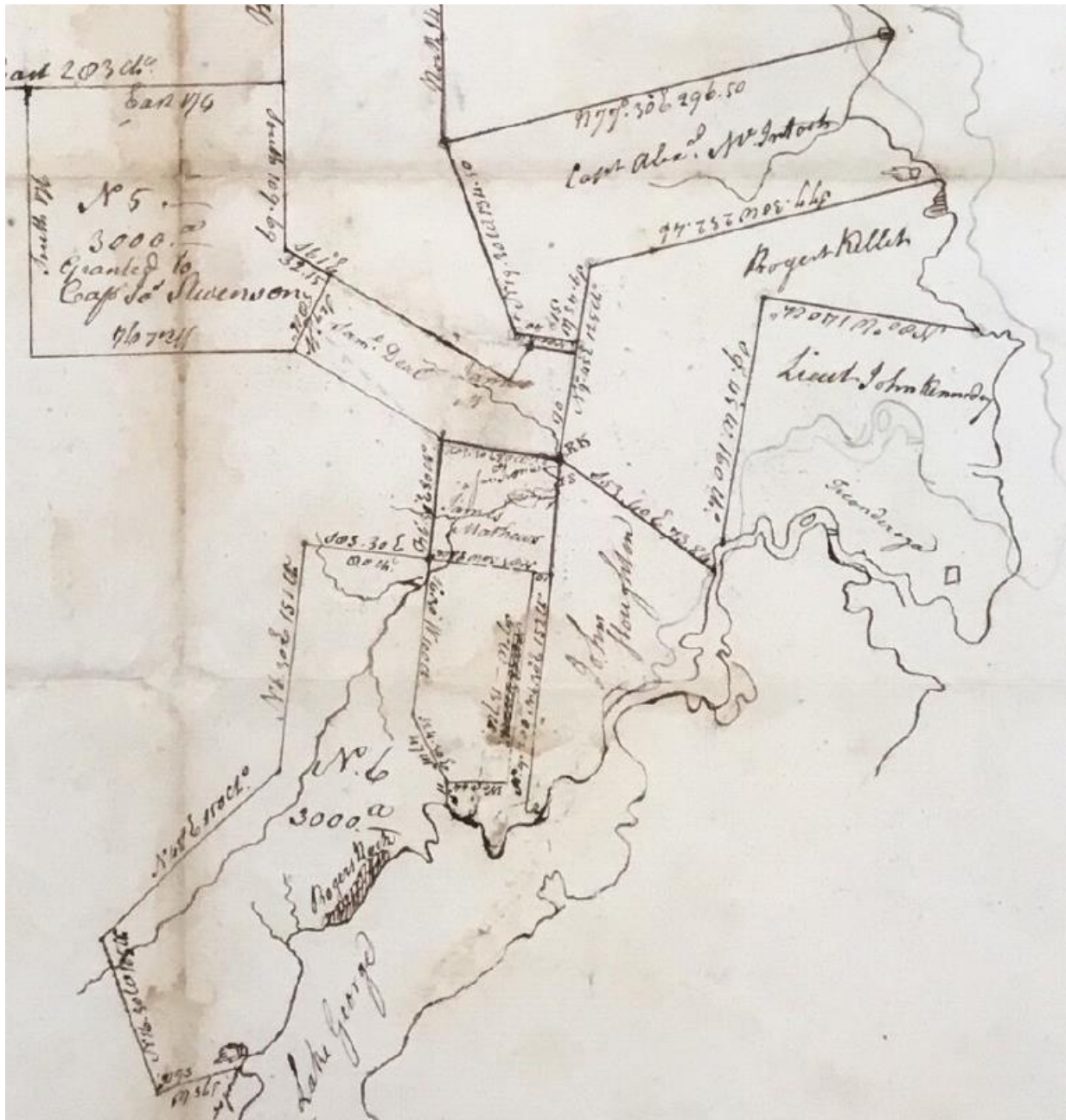
Cartographer: William Brassier

Date: original 1762; this reproduction 1776

Location: Norman B. Leventhal Map Center at the Boston Public Library

Available: Norman B. Leventhal Map & Education Center at the Boston Public Library  
<https://collections.leventhalmap.org/search/commonwealth:6t053q14r>

A16.



Title: Map of Sundrie Tract of Land on the West side of Lake Champlain between Crown Point and Ticonderoga

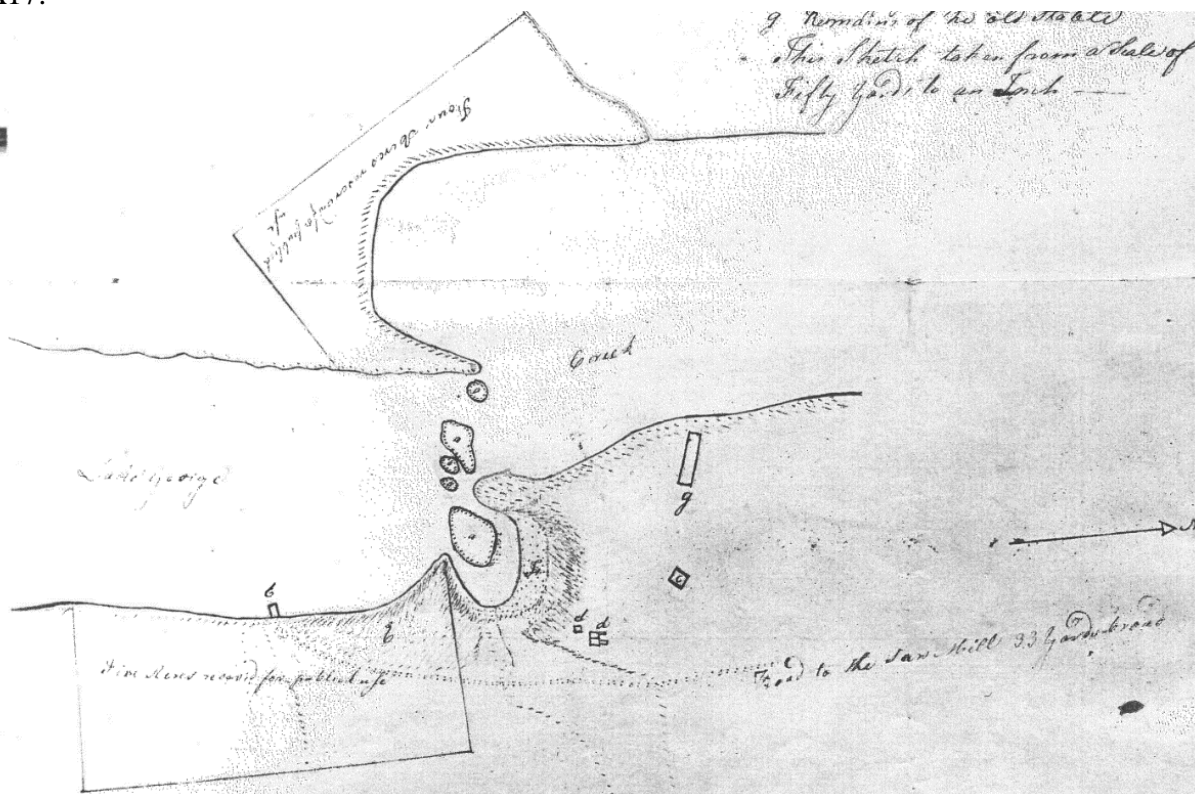
Cartographer: William Cockburn

Date: Unknown; likely 1768-1770

Location: New York State Library, box 2a, folder 58



A17.



Title: Plan of the landing with the reserve out of Lieutenant John Stoughton grant

Cartographer: John Stoughton

Date: 1765

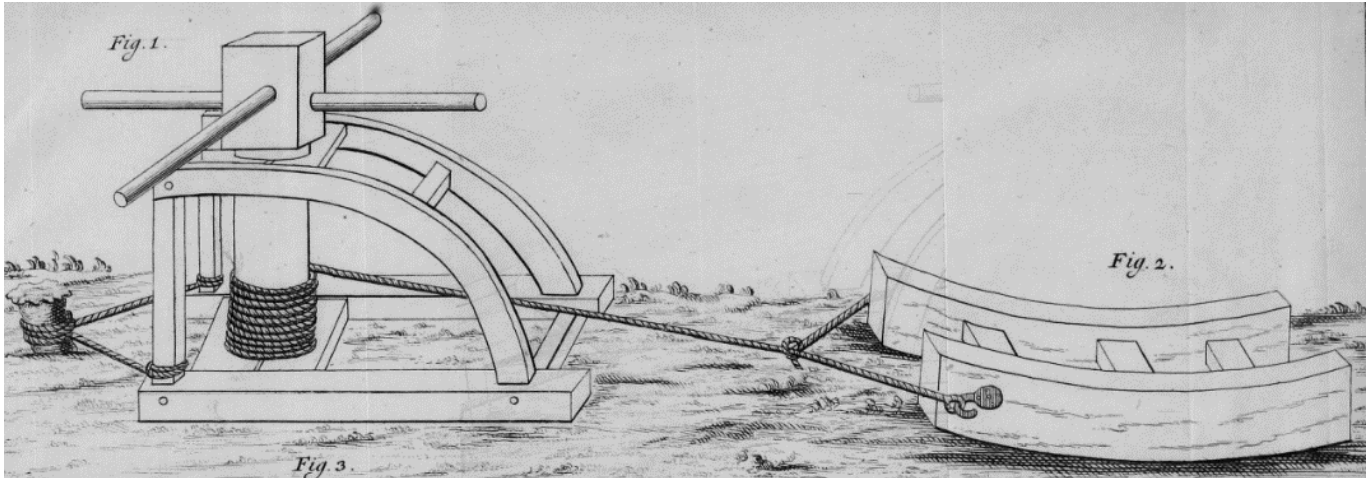
Location: William L. Clements Library, University of Michigan. Gage Papers, Vol. 41/421.  
Copy in Fort Ticonderoga Archives

This map depicts the portage area on the La Chute River. Following is the transcription:

- aaaa Island in the falls
- b The Wharf near the Centre of the Reserve
- c The Block House. Two Hundred and Thirty One yards distant from the Wharf
- dd Hutts
- E A Hill of equal Height with the Land on which the Block House stands so situate as to prevent not only the Defense but sight of the Wharf and which Commands it at seventy yards distant
- F Marshy ground round the Pond
- G Remains of old stables

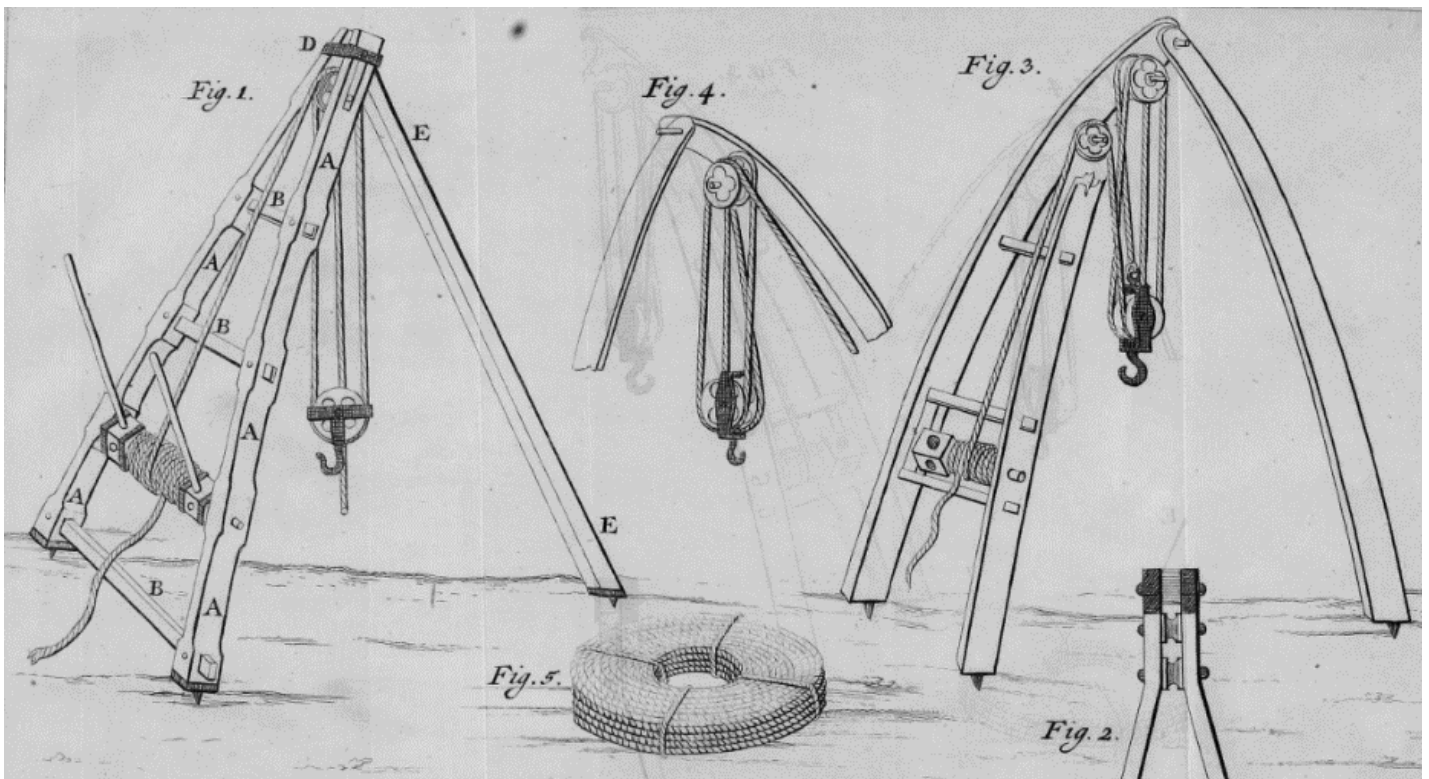
## **Appendix B: Equipment**

## CAPSTAN



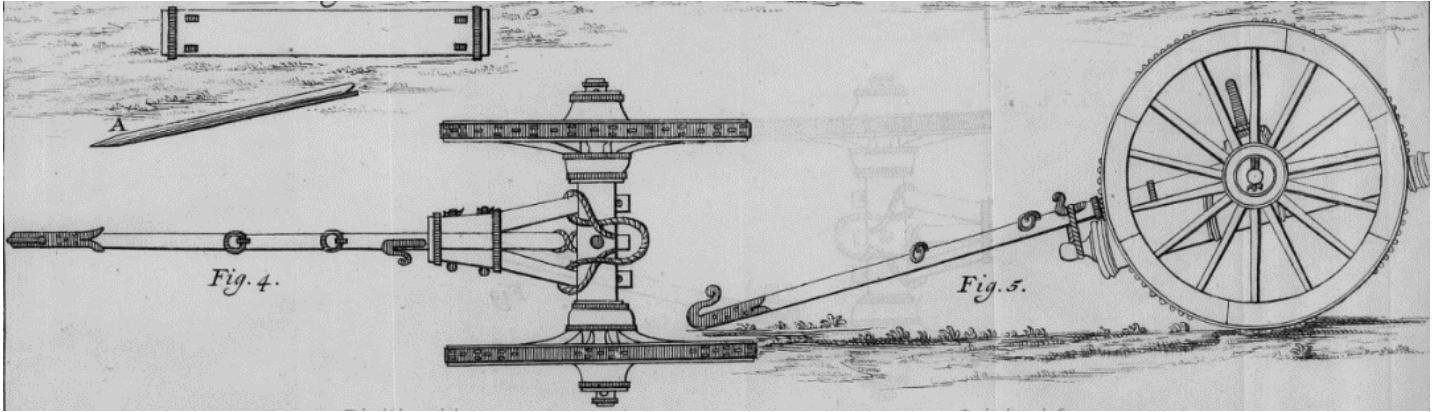
Example of 18th century capstan. This land-mounted capstan pulls a sled that contains timber. Bardet de Villeneuve, *Traité de L'Artillerie*, vol. 2 (La Haye: Jean Van Duren, 1741), plate 26.

## CHEVRE



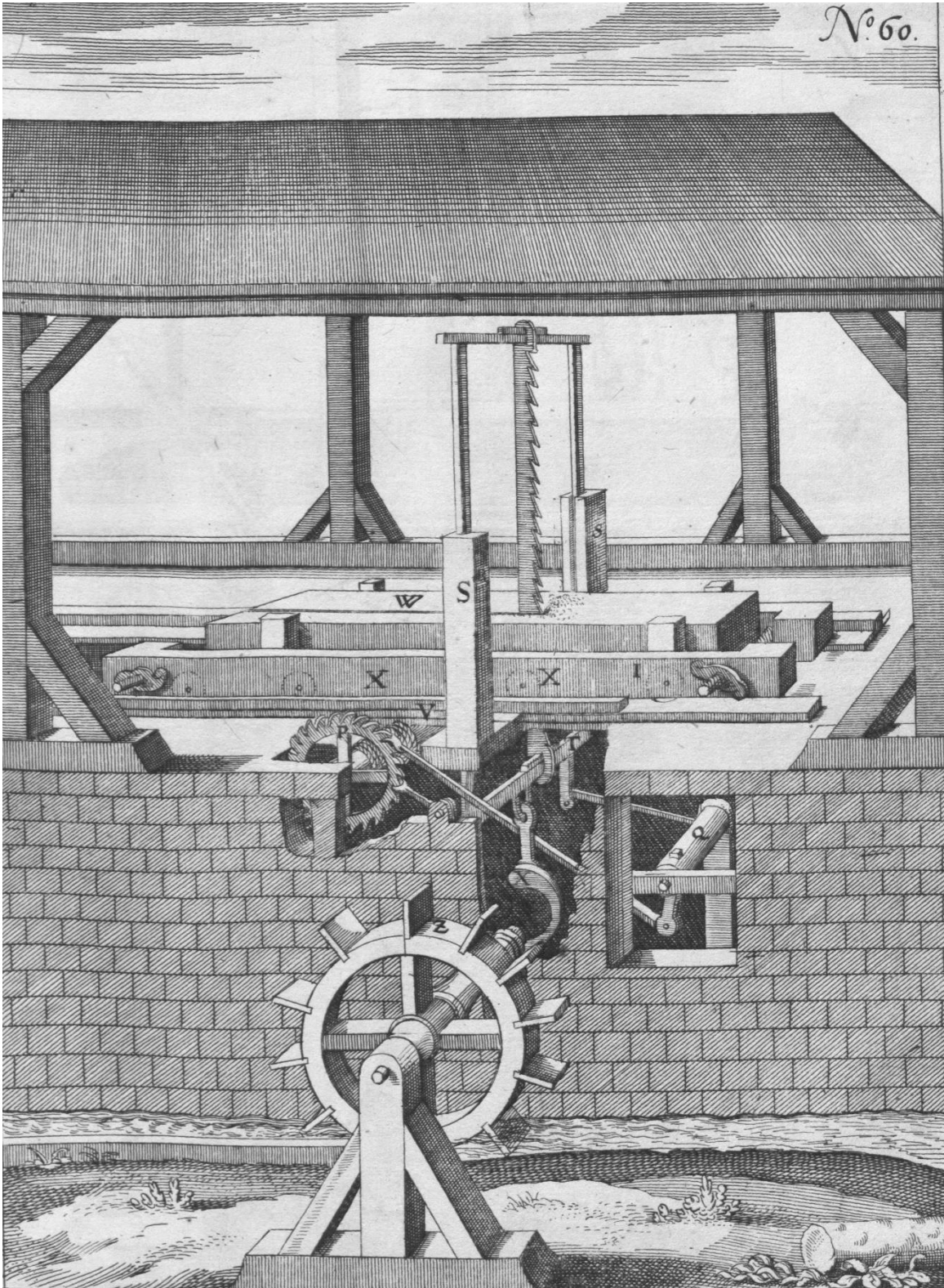
French *chevre*. Militaries used these machines to lift heavy objects, typically cannons. Bardet de Villeneuve, *Traité de L'Artillerie*, vol. 2 (La Haye: Jean Van Duren, 1741), plate 25.

## TRIQUEBALLE



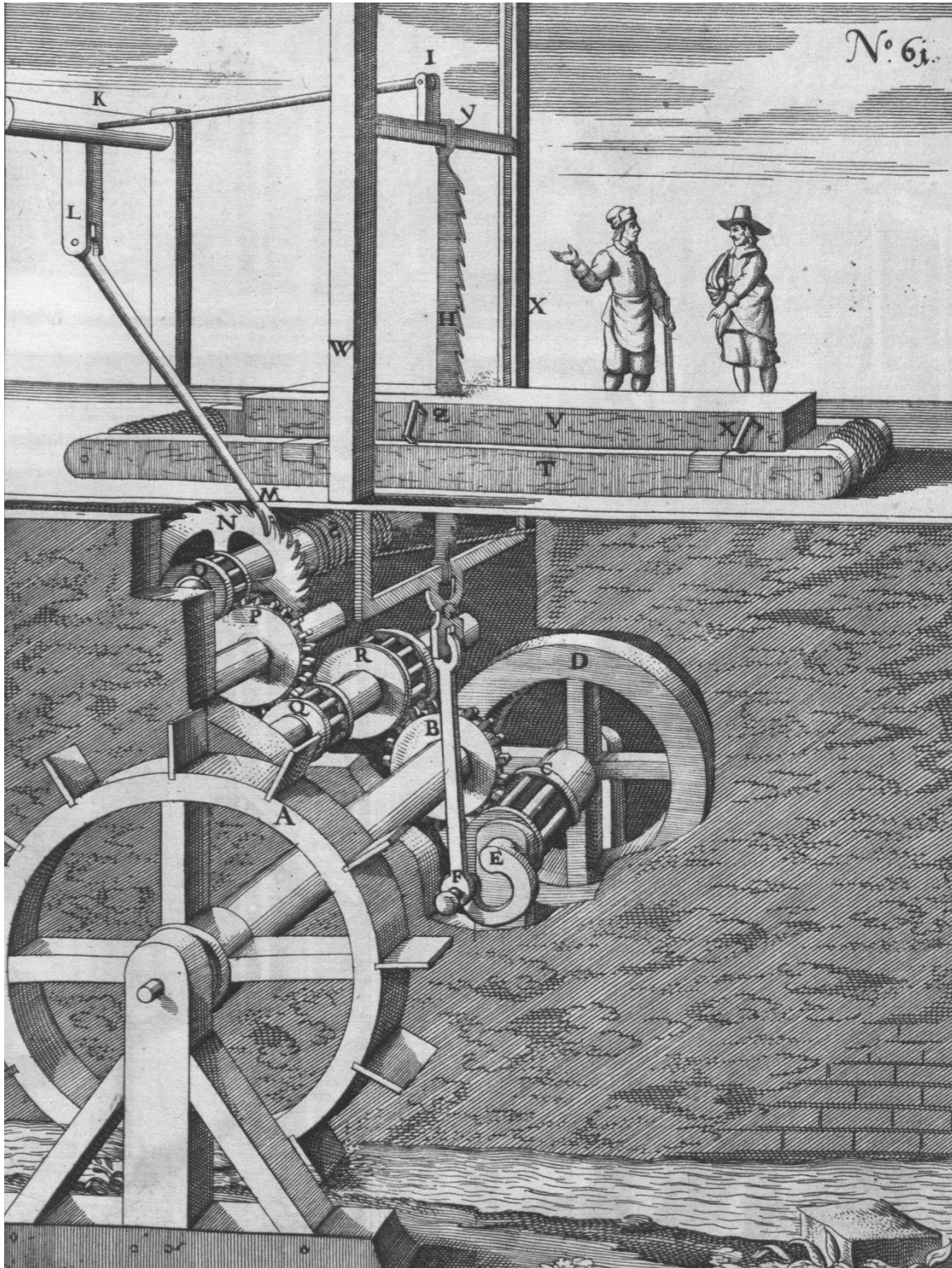
Example of 18th century French triqueballe, used for moving heavy objects, such as cannon. Bardet de Villeneuve, *Traité de L'Artillerie*, vol. 2 (La Haye: Jean Van Duren, 1741), plate 26.

## **Appendix C: Sawmills in Primary Sources**



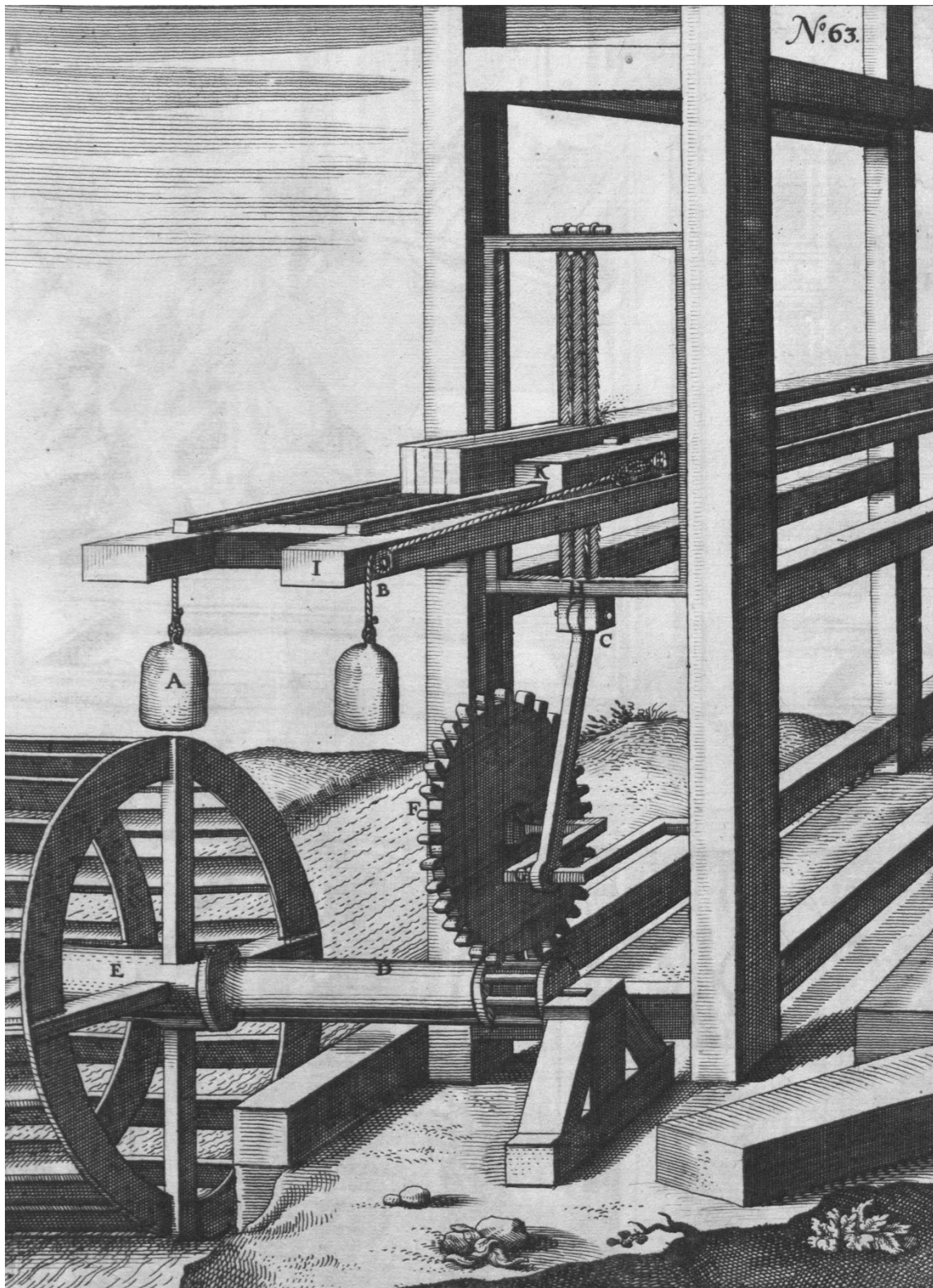
17th Century Sawmill.

Georg Andreas Böckler, *Theatrum Machinarum Novum* [...] (Nürnberg: In Verlegung Paulus Fürsten, Gedruckt bey Christoff Gerhard, 1661), plate 60.



17th Century Sawmill.

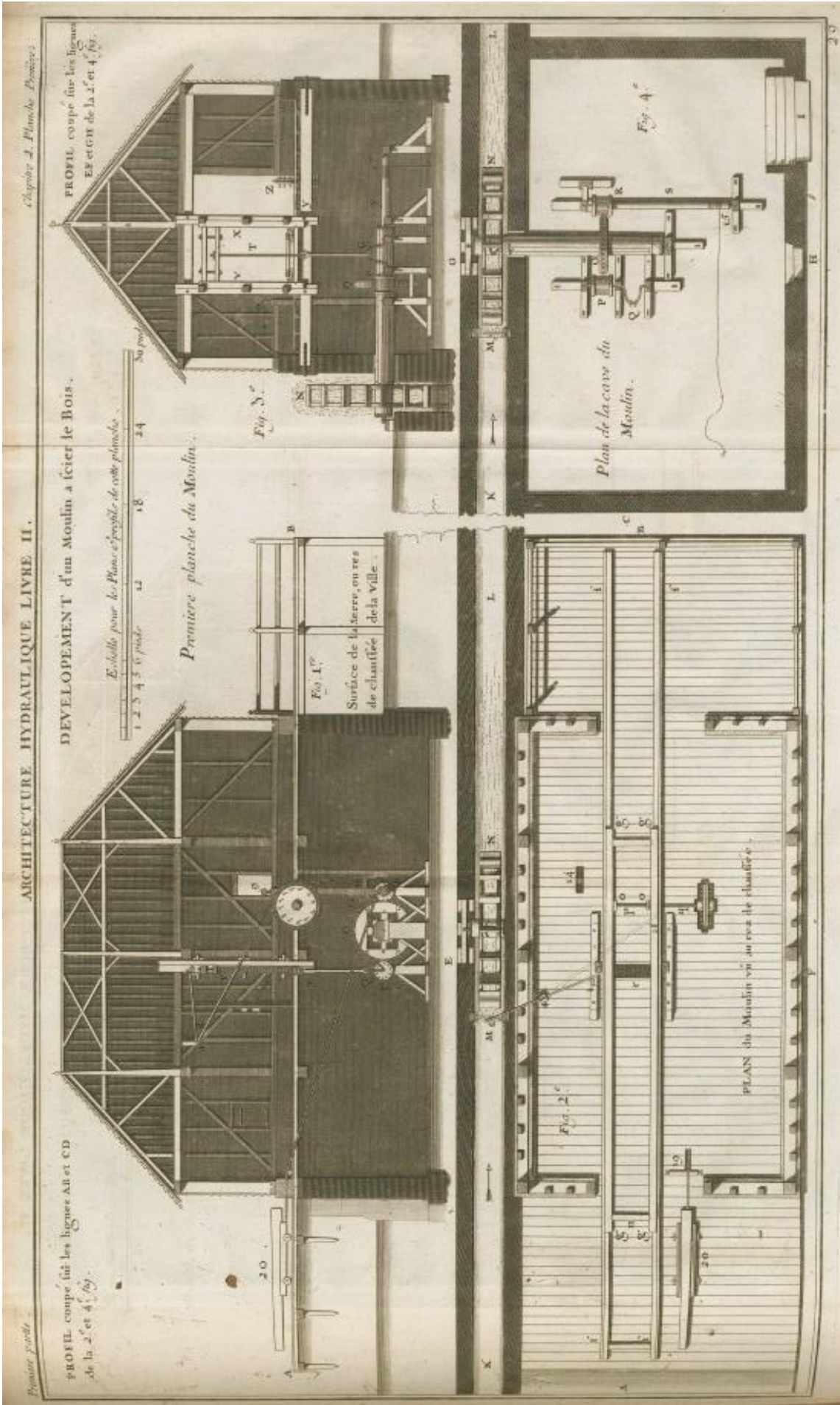
Georg Andreas Böckler, *Theatrum Machinarum Novum* [...] (Nürnberg: In Verlegung Paulus Fürsten, Gedruckt bey Christoff Gerhard, 1661), plate 61.



17th Century Sawmill operating with gang saw.

Georg Andreas Böckler, *Theatrum Machinarum Novum* [...] (Nürnberg: In Verlegung Paulus Fürsten, Gedruckt bey Christoff Gerhard, 1661), plate 63.





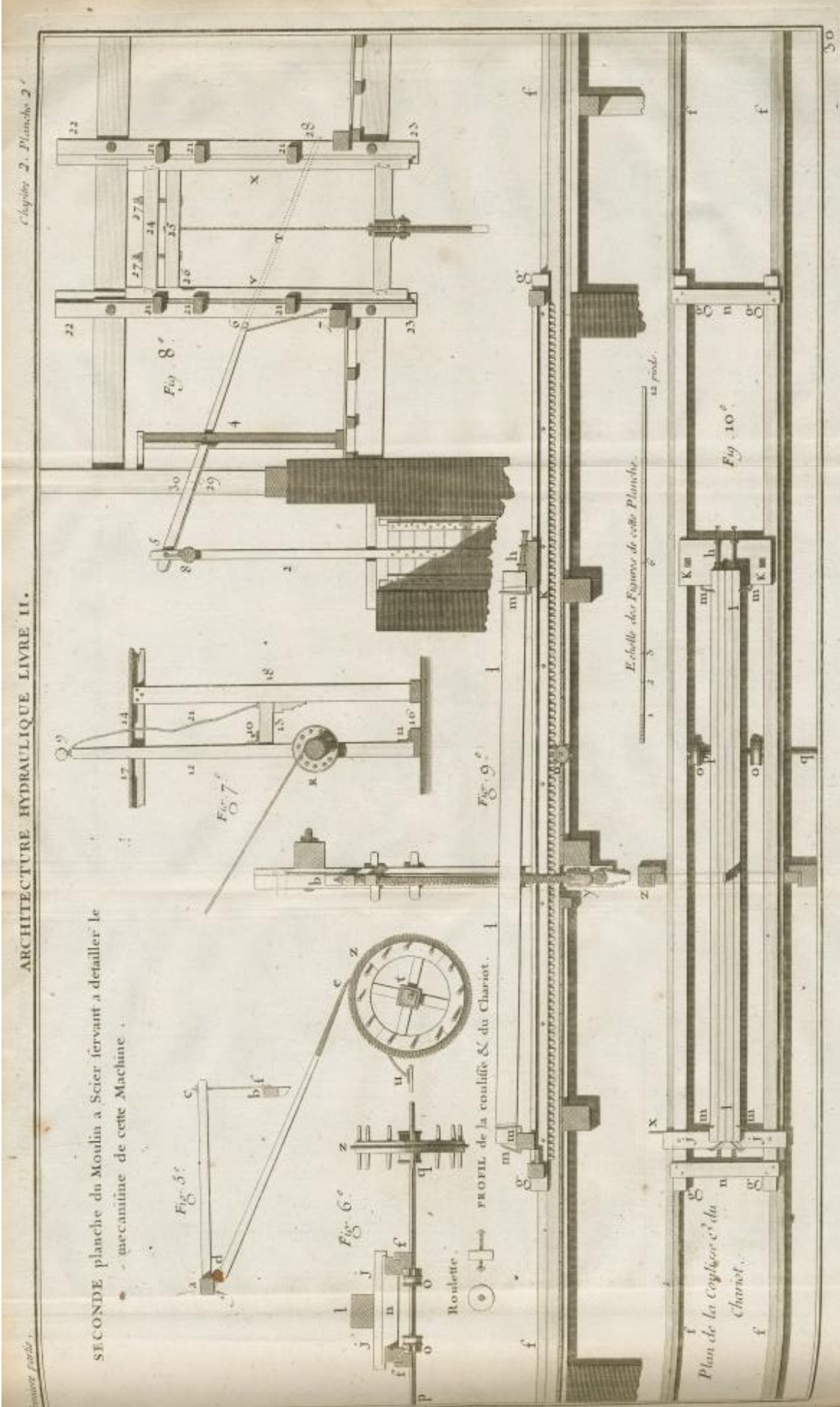
French plans for early 18th century sawmill.

Bernard Forest de Bélidor, *Architecture Hydraulique*, vol. 1 (Paris: Charles Antoine Jombert, 1737), Chapitre 2

Bélibor described how this sawmill worked on page 322:

“We built this mill between the Oyse river & the wall of the place, & as at this place there is a sluice which receives water, we made a canal KL, which has a fall at the place M where there is a valve; thus the water that is in the NL interval will flow with a lot of speed, due to the slope that we gave to the course. If we confide the fourth figure, we will see that the water makes the wheel N turn; that at the shaft of this wheel there is a spinning wheel O, whose teeth mesh in the two spindles P & R: the first of these spindles responds to a crank Q, serves in raising and lowering the wheel; the second has a winch S, on which sits a rope which is used to bring the wood to be sawn into the mill, and the lantern R only having to turn for this purpose, it is moved away, when desired, from the spinning wheel teeth.

We will recognize in the first & third figure some of the things we have just seen. Firstly, the elevation of the wheel N, the spinning wheel O which meshes in the lantern P, the crank Q which moves the face T, whose frame VX raises & lowers in a *coulisse* [grooved wood for allowing other wood to slide in the grooves]: for this, there is a frame YQ attached by one of its extremities Y to the lower brace of the frame of the saw, by means of an iron scarf traversed by a bolt, as can be seen more clearly in the eighth figure: at the other end Q is an eyelet through which passes the crank, which is 15 inches in cue; thus when the lantern P knows how to turn this crank, the hunt plays freely, & gives movement to the saw which goes up & down on the height of 30 inches.”

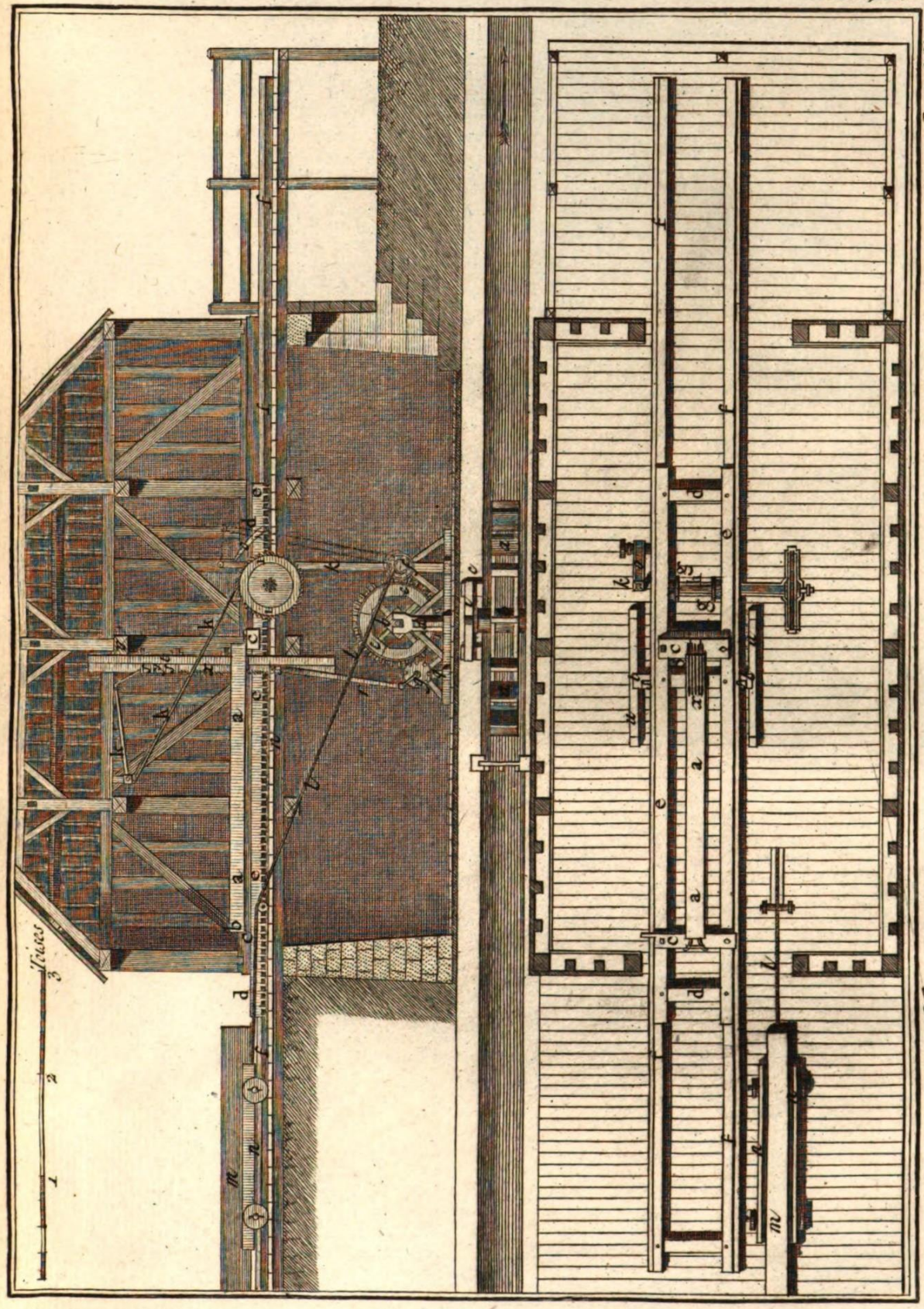


Bélidor's details for the working mechanisms of the sawmill.

Bernard Forest de Bélidor, *Architecture Hydraulique*, vol. 1 (Paris: Charles Antoine Jombert, 1737), Chapitre 2 Planché 2, no. 30

Pl 21.

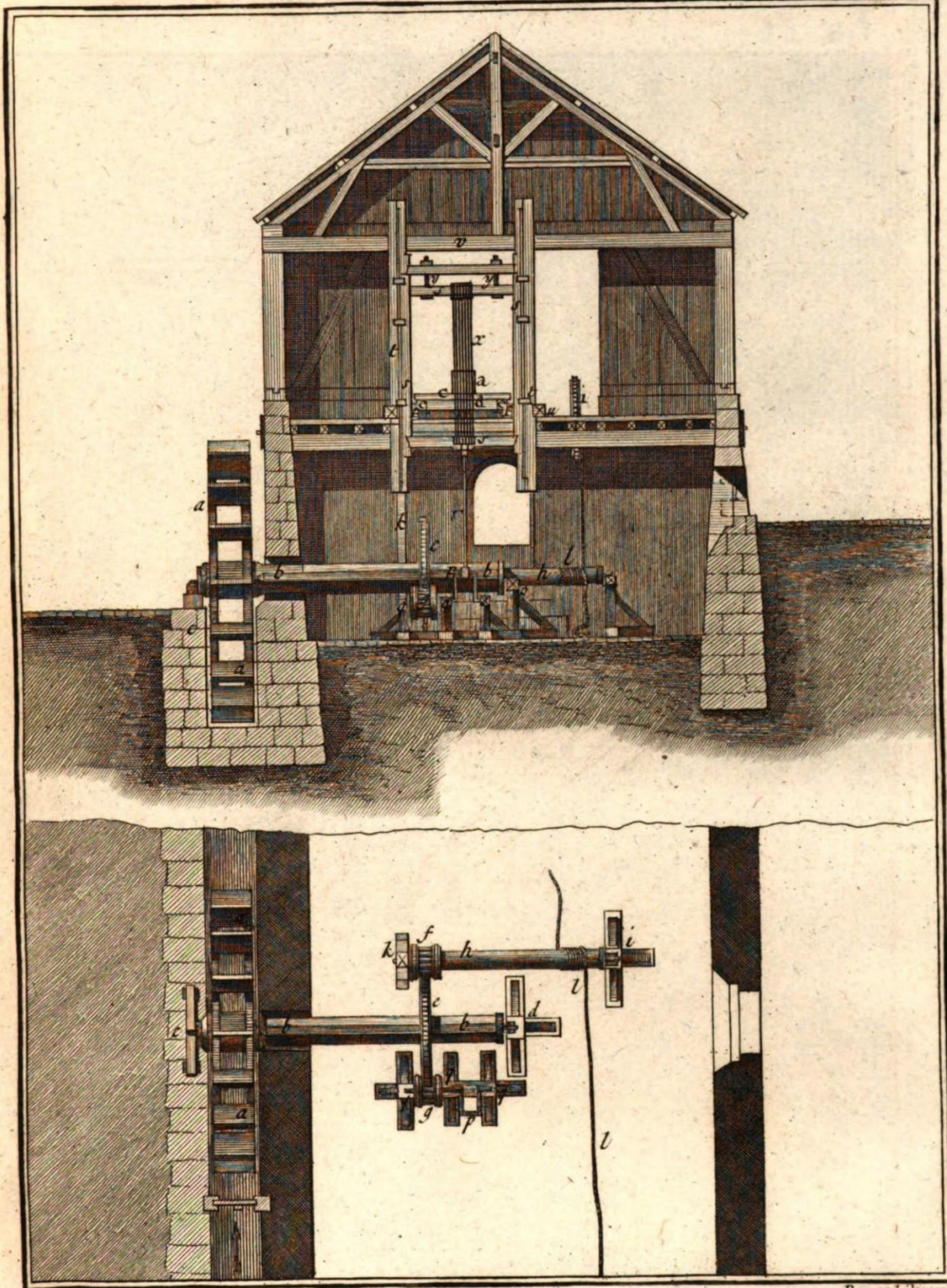
Bernard Forest



*Charpente, Moulin pour scier le Bois.*

Later 18th century French plans for a sawmill, based upon Bélidor's plans.  
*Recueil de Planches de L'Encyclopédie*, vol. 1 (Paris: Panckoucke, 1783), plate 21.

Later 18th century French plans for a sawmill, based upon Bélidor's plans.  
*Recueil de Planches de L'Encyclopédie*, vol. 1 (Paris: Panckoucke, 1783), plate 21.



*Charpente, Moulin pour Scier le Bois.*

*Bernard Juvet.*

*Recueil de Planches de L'Encyclopédie*, vol. 1 (Paris: Panckoucke, 1783), plate 22.  
Description of the sawmill from the previous pictures from *Recueil de Planches de L'Encyclopédie*, plates 21 and 22:

“Plate XXI represents the plan & the interior elevation taken lengthwise; Plate XXII, the underground plan & the interior elevation taken over the width of a mill completed in Holland, suitable for cutting pieces of wood. This machine performed in a covered building, partly in the ground, & partly above ground, is composed of a wheel *a* moved by a stream, in the middle of which is a large shaft *b* carries on two trunnions supported on one side on a wall *c*, & on the other on a support *d* supported by *sommiers* [wood slats serving as a lintel] & links carrying a toothed wheel *e*, meshing in two spindles *f* & *g*, the first of which carries with it a winch *h* post on two trunnions supported on supports *i* & *k* supported by *sommiers* & links having a rope *l* serving to bring the pieces of wood *m* onto rollers or sleds *n*. When these pieces *m* are brought close enough to the machine, the buttress *o* is raised; & the support *k* has hinged from its place, & drags with it the spindle *f*, which no longer meshes with the wheel *e*, stops rotating *g* carries a bent crank *p*, which having its pins resting on supports *q*, serves by turning to be operated by a tie rod *r* attached to the inner crosspiece of a frame *s*, moving up and down in two slides *t* added permanently on a piece *u* attached to the floor & to another upper *v*, several saws *x* attached top & bottom to the two crosspieces of the frame, & extending more or less by the help of the *y* screws frame composed of **d** spacers & **e** longitudinal beams, sliding from one end to the other on a **f** sliding frame; the pre-shaped teeth below the stringers **e**, meshing in two lanterns **g** mounted on a shaft **h**, at the end of which is a small toothed wheel **i**, which an escapement **k** turns by one tooth at each rising vibration of the saws *x*, are advancing to measure the piece of wood **a**, & the frame **d** on which it is carried.

*Encyclopédie Méthodique: Arts et Métiers Mécaniques*, vol. 1 (Paris: Panckoucke, 1782), 535.

Description of parts from the previous pictures from *Recueil de Planches de L'Encyclopédie*, plates 21 and 22.

French (translated English)

Planches XXI & XXII, Moulin pour scier le bois (Plates XXI & XXII, Mill for cutting wood)

*a*, roue (wheel)

*b*, arbre de la roue (wheel shaft)

*c*, mur (wall)

*d*, *i* & *q*, supports (brackets)

*e*, rouet denté (toothed wheel)

*f*, lanternes servant à amener les pièces de bois (spindle used to bring the pieces of wood)

*g*, lanternes servant à manœuvrer (spindle for maneuvering)

*h*, treuil (winch)

*k*, support à charnière par en bas (hinged bracket from below)

*l*, cordage (rope)

*m*, pièce de bois que l'on amène (piece of wood that is brought)

*n*, rouleau ou traîneau (roller or sled)

*o*, arc-boutant (support strut)

*p*, manivelle coudée (bent crank)

*r*, tirant (pulling)

*s*, châssis de scies (saw frame)

*t*, coulisses (slotted piece of wood)

*u* & *v*, pièces de bois retenant les coulisses (pieces of wood holding the sides/support beams)

*x*, plusieurs scies (several saws)

*y*, vis pour hanter les scies (screws for handing the saws)

**a**, pièce de bois que l'on veut scier (piece of wood to be sawn)

**b**, liens (links)

**c**, traverses (sleepers)

**d**, entre-toises (spacers)

**e**, longrines (longitudinal beams)

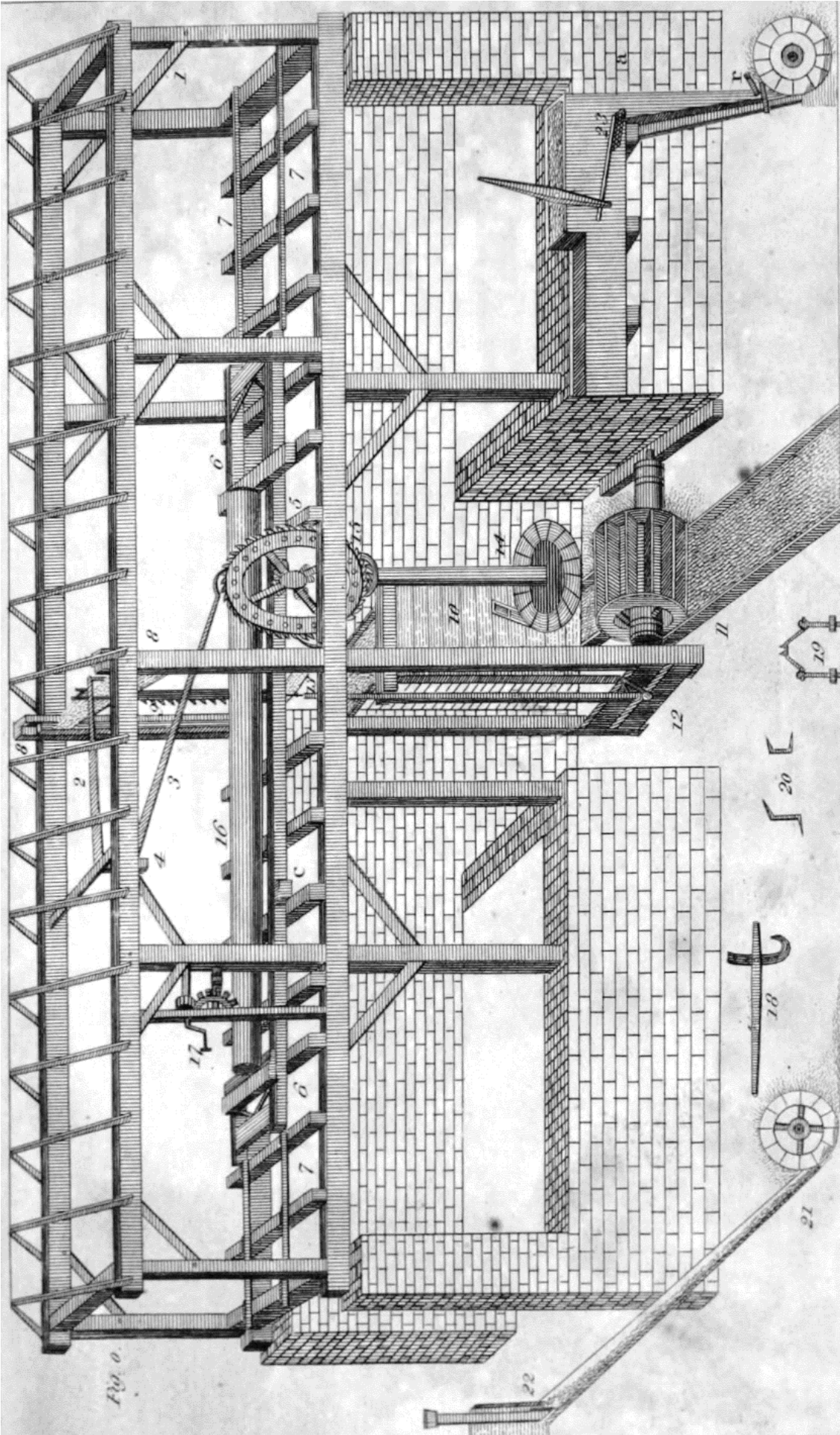
**f**, châssis à coulisse (sliding frame)

**g**, lanterne saisant mouvoir le châssis (spindle able to move the frame)

**h**, arbre des lanternes *g* (spindle shaft for **g**)

**i**, petite roue dentée (small cog wheel)

**k**, échappement (escapement)



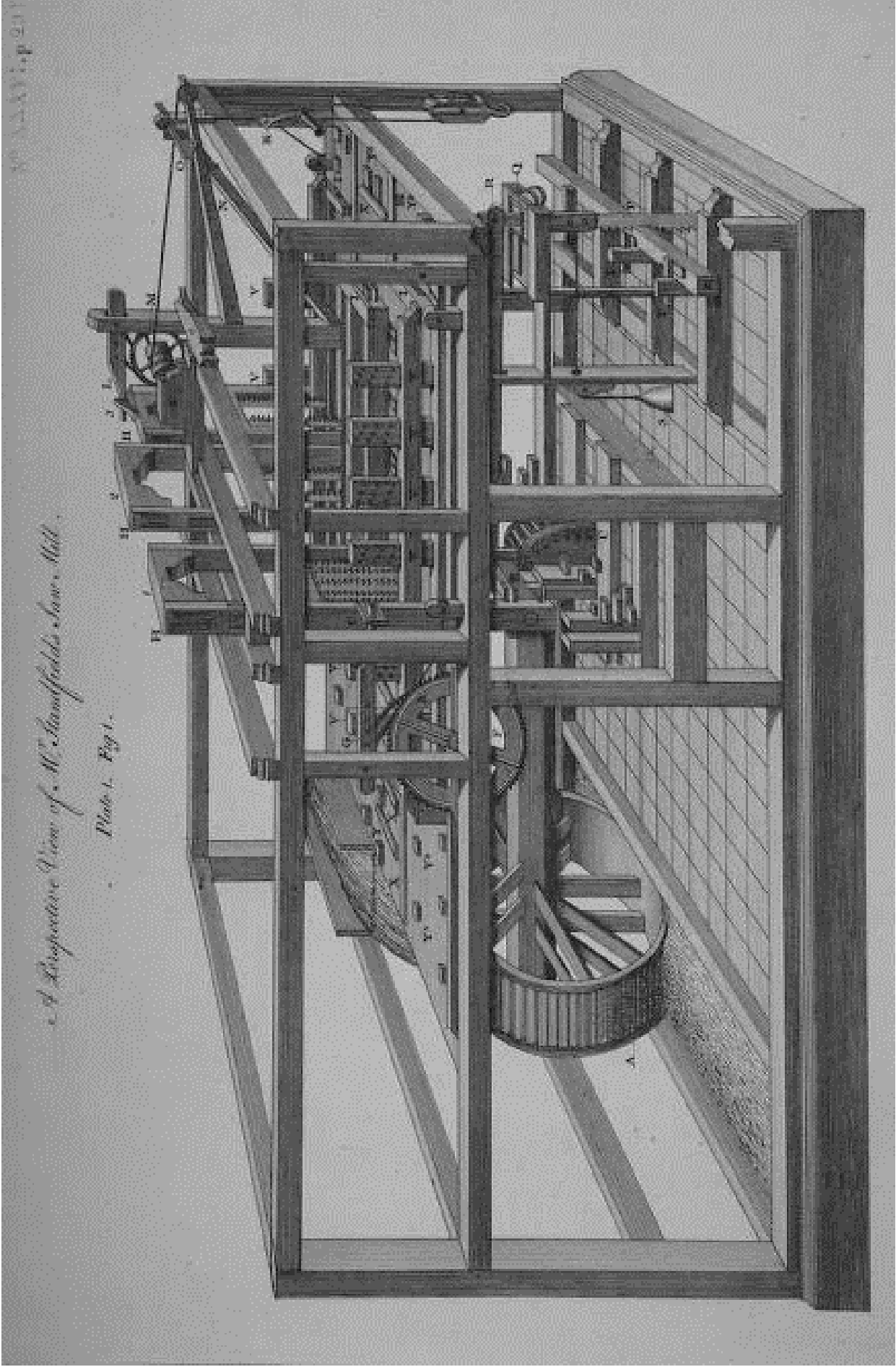
Oliver Evans, *The Young Mill-Wright and Miller's Guide*, fourth edition (Philadelphia: M. Carey and Son, 1821), Figure XXIII.

## Description of the operation of Evans's sawmill:

“The sluice drawn from the penstock **10**, puts the wheel **11** in motion — the crank **13** moves the saw-gate and saw **9** up and down, and as they rise they lift up the lever **2**, which pushes forward the hand-pole **3**, which moves the rag-wheel **5**, which gears in the cogs of the carriage **6**, and draws forward the log **16** to meet the saw, as much as is proper to cut at a stroke. When it is within 3 inches of being through the log, the cleet **C**, on the side of the carriage, arrives at a trigger and lets it fly, and the sluice-gate shuts down ; the miller instantly draws water on the wheel **14**, which runs the log gently back, &c. &c.”

Oliver Evans, *The Young Mill-Wright and Miller's Guide*, fourth edition (Philadelphia: M. Carey and Son, 1821), 358.





Drawing of a sawmill based upon Dutch sawmills.  
William Bailey, *The Advancement of Arts, Manufactures, and Commerce; or, Descriptions of the Useful Machines and Models Contained in the Repository of the Society for the Encouragement of Arts, Manufactures and Commerce*, vol. 2 (London: W. Adlard, 1772), 36.

Description for the previous picture:

**A**, Water-wheel, eighteen inches in diameter, and five inches and an half on the periphery, carrying twenty-four buckets. Its shaft is two feet nine inches long, from shoulder to shoulder, and two inches and seven-eighths square.

**B**, A Crown-wheel, on the same shaft as the water-wheel its diameter fifteen inches and a quarter, with sixty-four dogs. See Plate II. Fig. 2. [pictured below]

**C**, A Lantern-wheel, six inches in diameter, with twenty-four trundles.

**D**, A Triple Crank, or Axis of the Lantern-wheel. Its extreme length is twenty-three inches, thickness one inch and an half. The radius of the Crank is one inch and an half. See Plate II. Fig. 2. [pictured below]

**E, E, E**, Rods, or Lifters, connected to the crank and saw- frame, No. 1. On the upper end of these Rods-is across rail, with an iron gudgeon at each end: the gudgeons pass through, and turn in, two holes in the under ends of the saw-frame. The two other saw-frames are connected with the crank, or axis, of the lantern- wheel, in the same manner. See Plate II. Fig. 2. [pictured below]

**F**, A Ratchet-wheel, seven inches and an half diameter, with an hundred and twenty, teeth. This Wheel is a thin rim or plate of iron, screwed to the side of a grooved wooden roller, or barrel, which, with the pinions, revolves with the iron axis, and actuates the rack, carriage, frame, &c.

**G**, A Lever, nine inches and a quarter long, seven-eighths of an inch broad, and half an inch thick. One end of this Lever turns on an iron pin in the post, near the letter G: the other end passes through a staple fixed to one of the stiles of the saw-frame, No. 1. To this Lever are fixed two iron hooks, one of which, at every elevation of the saw-frame, gradually moves the ratchets wheel, grooved roller, the other hook serves to stop the wheel from going back. N. B. The outer hook is occasionally set nearer to, or further from, the fulcrum, or center-pin, of the Lever, in order to regulate the motion of the carriage-frame, in proportion to the cuts made with the saws at every stroke.

**H, H, H**, Three Saw-frames, marked 1, 2, 3. Their extreme length is one foot ten inches and an half. The breadth of the stiles is seven-eighths of an inch; thickness, five-eighths. The distance between the stiles is five inches and three-eighths. N. B. Each of the Saw-frames, and carriage-frames, is furnished with a ratchet and grooved roller, or barrel, together with its levers, hooks, winches, lines, pullies, &c.

**I, I, I**, Three Carriage-frames, two feet seven inches and three quarters long, and five inches broad, from out to out. In the middle of each of the Frames is fixed an iron rack, which is actuated by a pinion on the iron axis, as before-mentioned.

**K, K**, Two Winches, with their rollers, lines, and pullies, for drawing back the carriage-frames.

**L**, A Lever, nineteen inches and a quarter long, with an iron hook, which, by Bow gradations, turns the ratchet-wheel the length of one tooth, at every elevation of the saw-frame, No. 3. on which the end of the Lever bears. See Fig. 1. and 8. [pictured below]

**M**, A Ratchet-wheel, with its click, barrel, lines, &c. This Wheel is four inches diameter, with forty teeth. The barrel is one inch and an half diameter, and six inches and a quarter on its periphery 1 to this is fastened, and wound up, a line, or rope. It is also fastened, and properly connected, to the pullies and crane. See M, Fig. 8. [pictured below]

**N**, A Crane, whole radius is fifteen inches and an half; this Crane, with its blocks, pullies, &c. serves to take up the flocks, and convey them to the carriage-frames to be sawed.

**O**, A Wooden Hook, which turns on a center-pin, in a short post erected on the upper end of the mill-frame. This Hook serves to keep the crane in its place, whilst the stocks are drawing up. See Fig. 8. [pictured below]

**P**, A Saw, nine inches and an half long. This Saw is intended only for cross-cutting the stocks.

**Q**, A Sliding Valve, in which there is a long mortise, or aperture, to direct the saw as it moves up and down.

**R**, A Lever, two feet long, one inch and an half broad, and one inch and one-eighth thick. One end of this Lever passes through a staple, or plate of iron, screwed to the lower end of the stile of the saw-frame, No. 2. the other end of it is connected with the handle, or stem, of the saw, having a center-pin palling through the end of the Lever and stem.

**S**, A Leaden Weight, Line, and Pullies, which serve to press the saw forward as it enters the wood.

**T, T, T**, Three short Posts, seven inches long, and seven- eighths of an inch square, erected on three sills, or short pieces of wood, fastened-to the under rails of the mill-frame: there is an horizontal arm mortised into the

upper end of each of these posts; and the Rock, or plank, to be cross-cut, is to be laid on the three sills, marked 1, 2, 3. The stock is fixed close to the three short Posts and fastened thereto with wedges, properly fitted to drive in between the stock and the arms of the Posts.

**V, V, &c.** Short Posts, two inches and three quarters long, one inch and one-eighth broad, and three-eighths of an inch thick, with nine holes in each of them. These posts are mortised into the outside rails of the outside carriage-frame, and serve to fall the flocks to the frames by means of an iron crow palling through the holes; between which crow and the stock is driven a wedge, or wedges, to fix the stock to the carriage-frame. See Fig. 1. and 5. [pictured below]

**W, W, W,** Three Iron Racks, fastened to the carriage-frames, and actuated by the pinions b, b, b. See Plate III. Fig. 5. and Plate IV. Fig. 6. and 7. [pictured below]

**X, X,** 8cc. Friction-rollers, on which the middle carriage frames pass and repass.

**Y, Y,** See. Short Studs, or Tenons, fastened to the floor; their use is to keep the carriage-frames steady, and in a straight direction.

**Z,** A Stock of Wood, properly fixed to be cross-cut to any scantling.

William Bailey, *The Advancement of Arts, Manufactures and Commerce* [...] vol. 1 (London: William Adlard, 1772), 231-235.

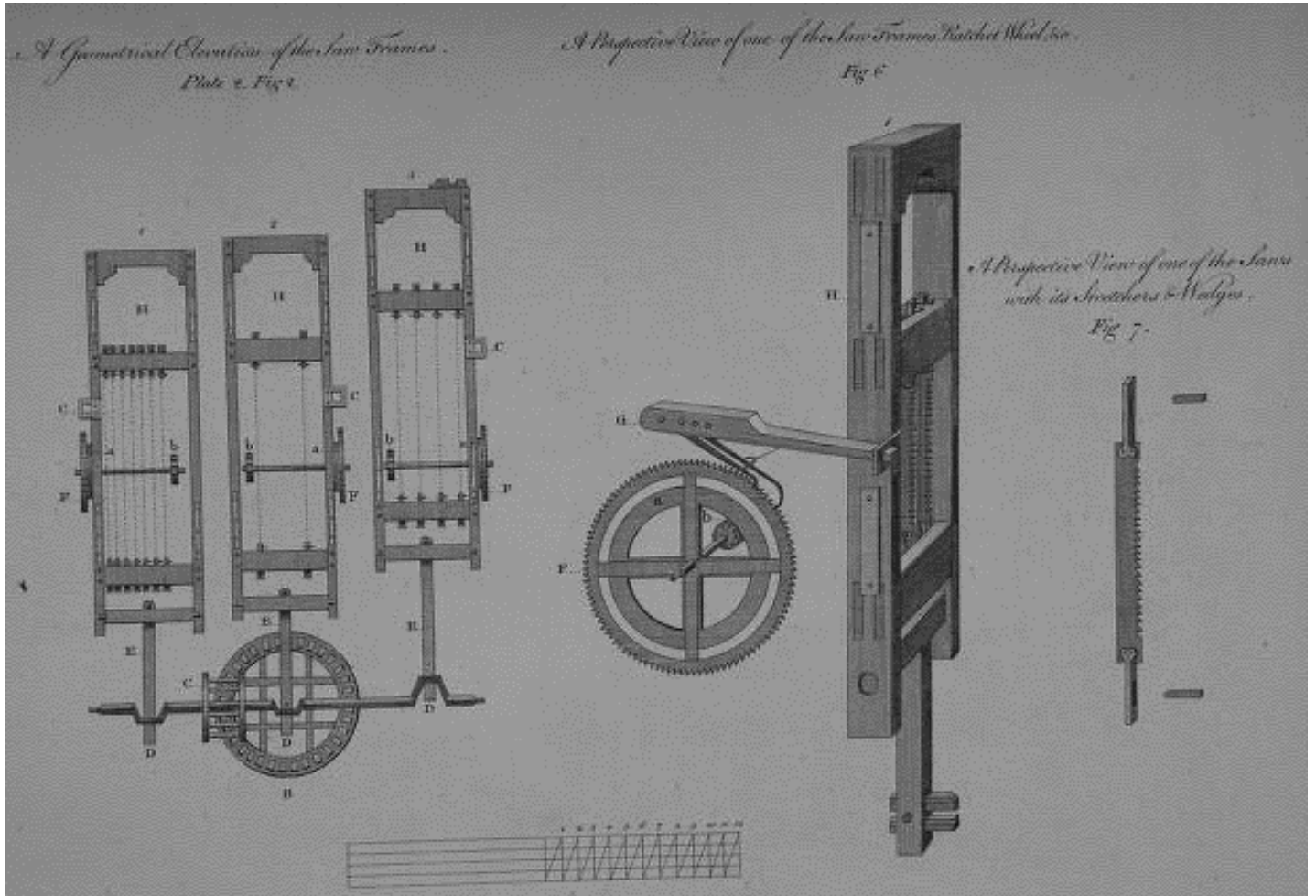
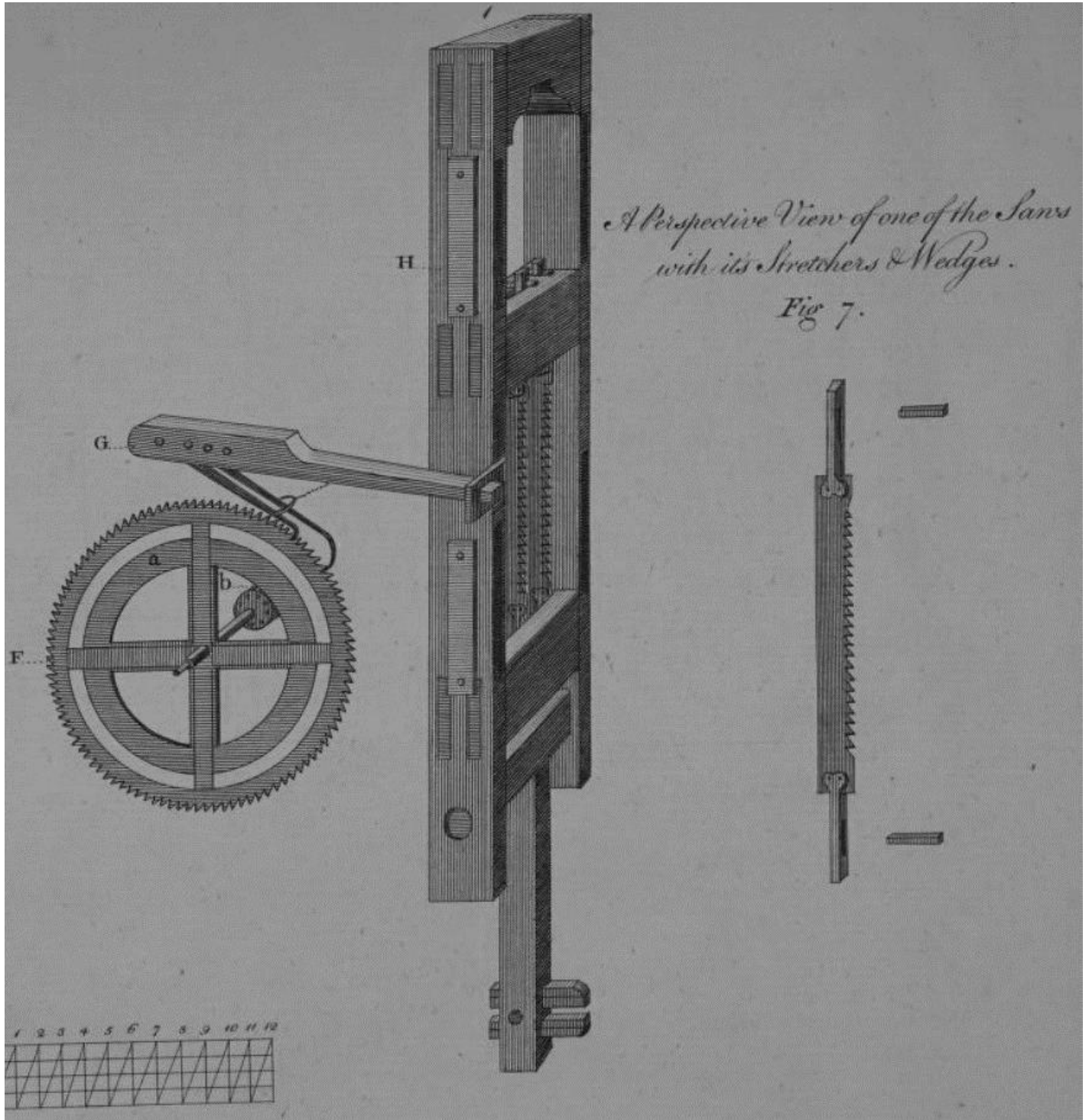


Illustration of 18th century gang saws. There are no records suggesting such a device was at Ticonderoga.

William Bailey, *The Advancement of Arts, Manufactures, and Commerce; or, Descriptions of the Useful Machines and Models Contained in the Repository of the Society for the Encouragement of Arts, Manufactures and Commerce*, vol. 2 (London: W. Adlard, 1772), 37.

For description of this picture, see William Bailey, *The Advancement of Arts, Manufactures and Commerce* [...] vol. 1 (London: William Adlard, 1772), 235-237.

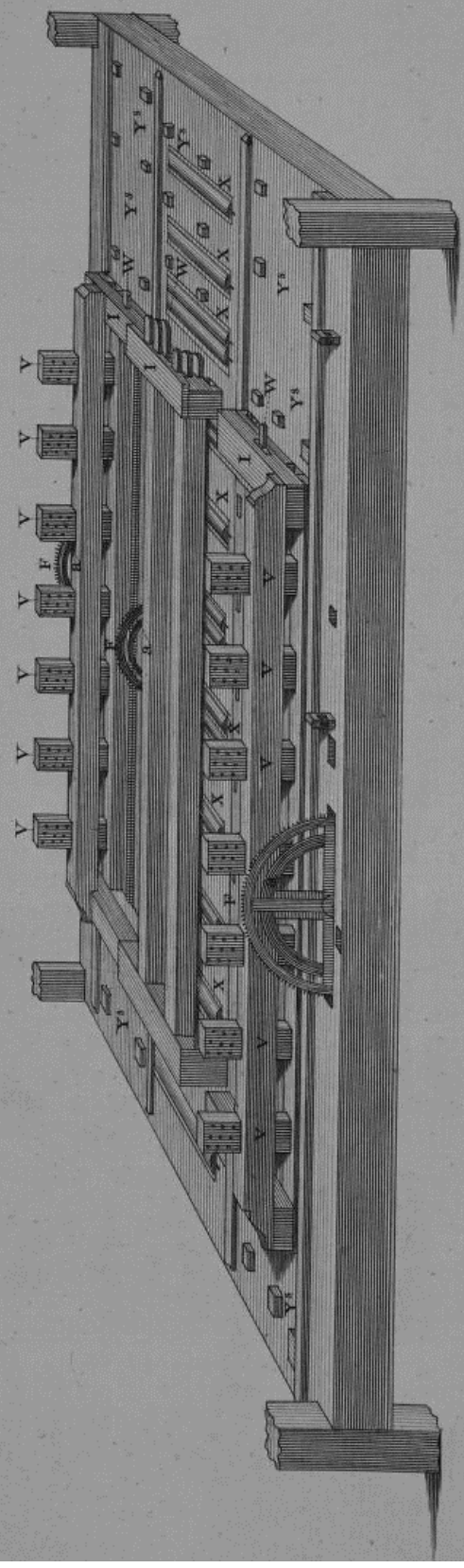


An enlargement from the previous image. Despite the presence of multiple saws, this depicts the saw frame construction, collars, and saw blade. It also depicts the ratcheting system of the rag wheel that propels the carriage with each saw stroke.

William Bailey, *The Advancement of Arts, Manufactures, and Commerce; or, Descriptions of the Useful Machines and Models Contained in the Repository of the Society for the Encouragement of Arts, Manufactures and Commerce*, vol. 2 (London: W. Adlard, 1772), 37.

*Perspective View of the Floor, Carriages, Rollers, Ratchet-Wheels &c.*

Plate 3. Fig. 3.



Drawing of sawmill floor. There are 3 carriage frames depicted (I). (Y) are the wooden beams that the carriages move on. (V) are the posts (cogs) that keep the carriages on the wooden beams.

William Bailey, *The Advancement of Arts, Manufactures, and Commerce; or, Descriptions of the Useful Machines and Models Contained in the Repository for the Encouragement of Arts, Manufactures and Commerce*, vol. 2 (London: W. Adlard, 1772), 38.

For description of this picture, see William Bailey, *The Advancement of Arts, Manufactures and Commerce* [...] vol. 1 (London: William Adlard, 1772), 237-238.

*Geometrical Plan of the Water Wheel, Carriage Frames, Ratchet Wheels, &c.*

Plate 4 Fig 5.

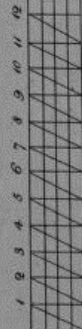
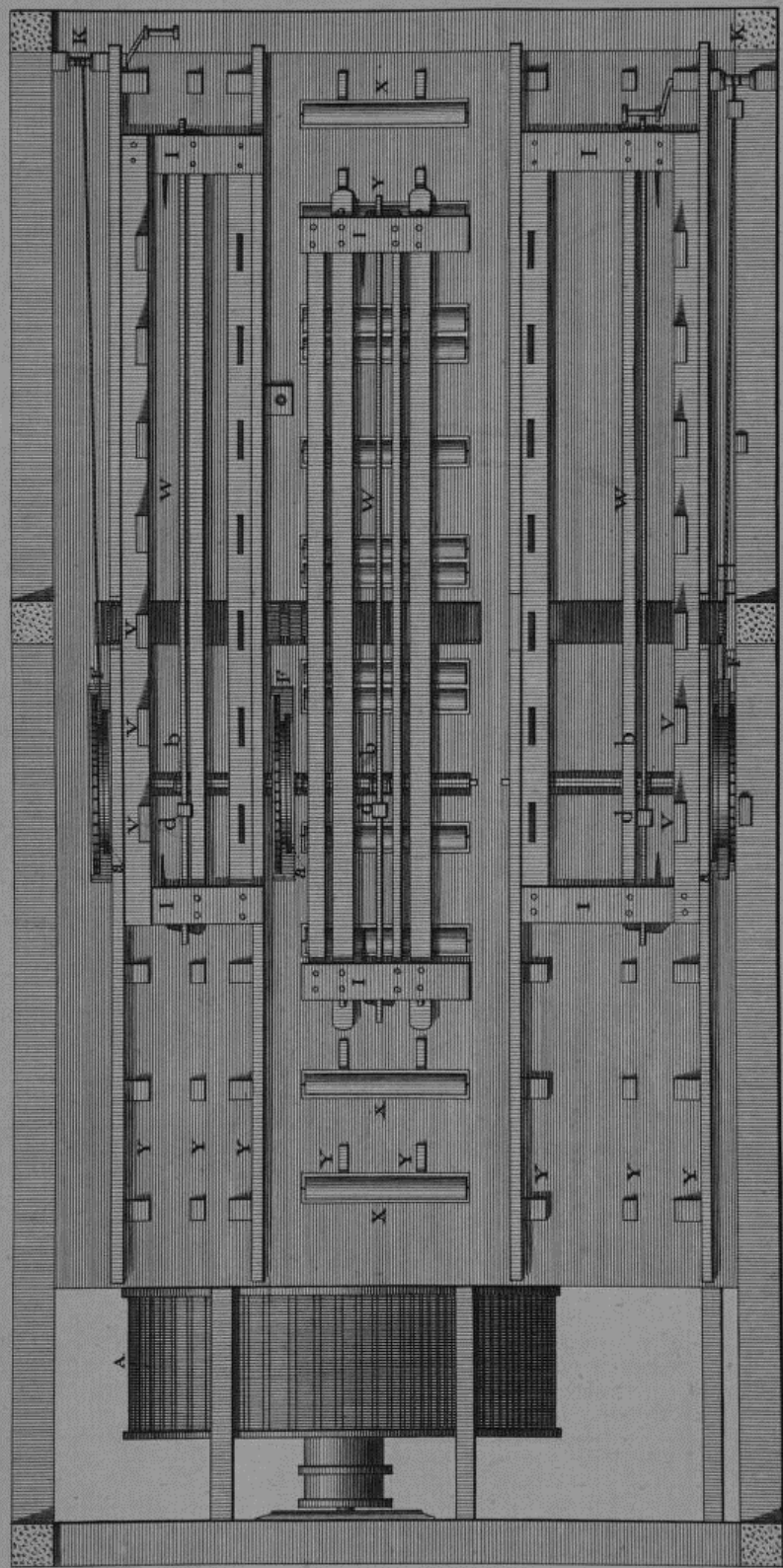
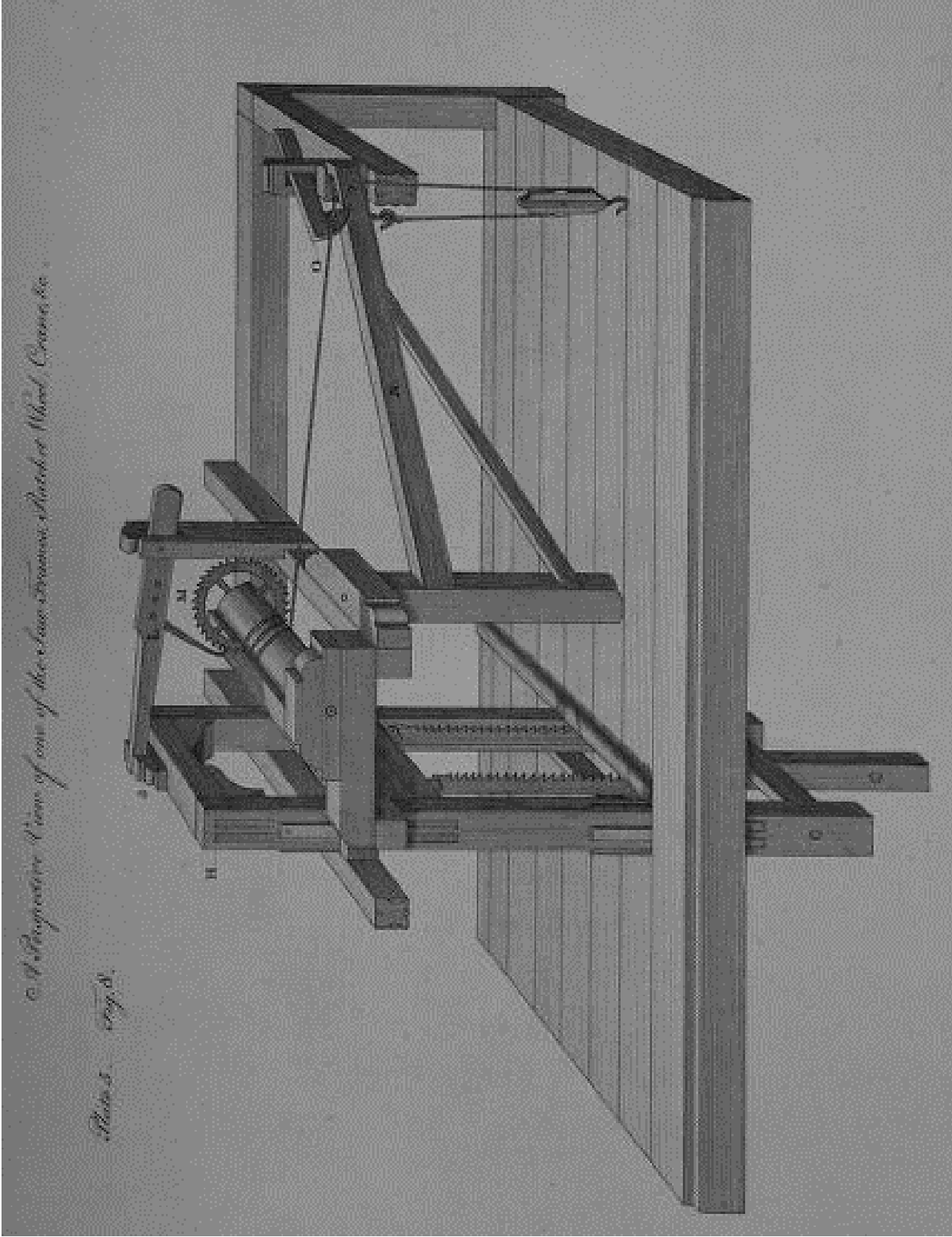


Plate 4. Fig. 4.



Drawing of sawmill floor with 3 carriage frames depicted (1).  
 William Bailey, *The Advancement of Arts, Manufactures, and Commerce*; or, *Descriptions of the Useful Machines and Models Contained in the Repository of the Society for the Encouragement of Arts, Manufactures and Commerce*, vol. 2 (London: W. Adlard, 1772), 39.  
 For description of this picture, see William Bailey, *The Advancement of Arts, Manufactures and Commerce* [...] vol. 1 (London: William Adlard, 1772), 238-239.



*A Perspective View of one of the new Frames Patent or Wheel Cranes &c.*

*Plate 5. Fig. 1.*

Drawing of saw frame, ratchet wheel, and crane.

William Bailey, *The Advancement of Arts, Manufactures, and Commerce*; or, *Descriptions of the Useful Machines and Models Contained in the Repository of the Society for the Encouragement of Arts, Manufactures and Commerce*, vol. 2 (London: W. Adlard, 1772), 40. For description of this picture, see William Bailey, *The Advancement of Arts, Manufactures and Commerce* [...] vol. 1 (London: William Adlard, 1772), 239-240.





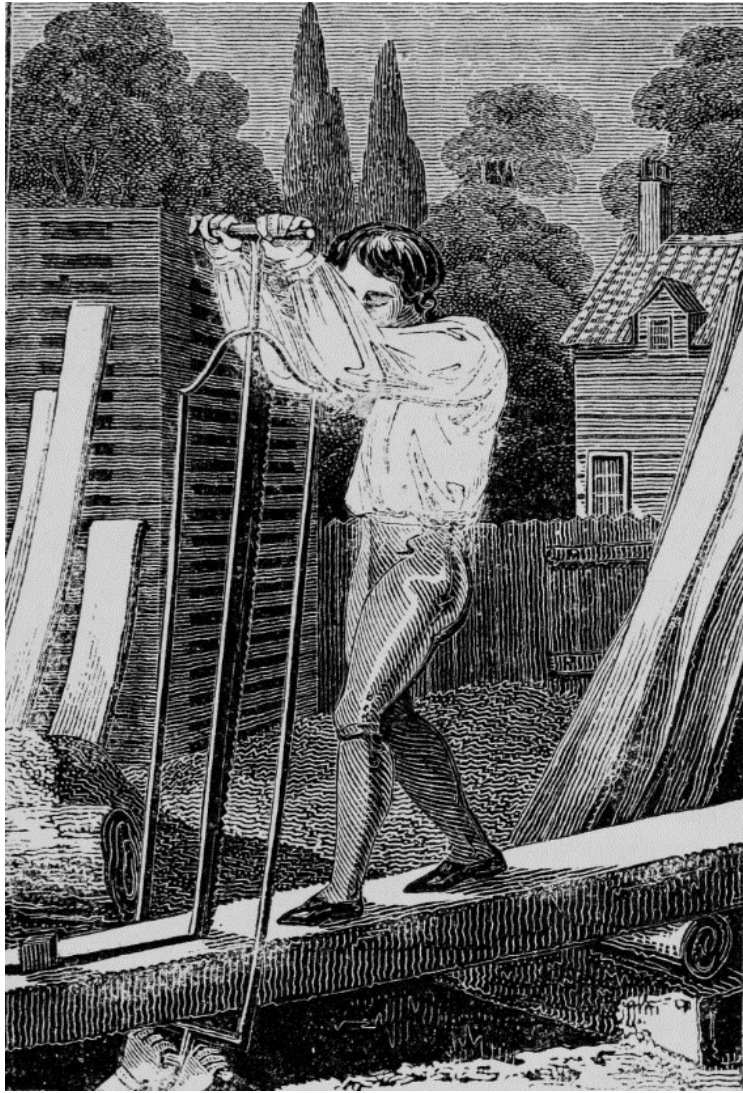
Sawmills in Maine, circ. late 18th century.

“A Sketch of Mechios Mills.”

Joseph F. W. Des Barres, *The Atlantic Neptune*, part 3 (London: n.p. 1802), 25



An enlargement of the center sawmill. This sawmill has two operating saws, side-by-side. This was likely the arrangement at the Ticonderoga sawmill, which also had two saws. Both saws would have their own carriage and flutter wheel under the mill to power each saw.



Sawyers using a pit saw with lumber stacked for seasoning behind them.

“Sawyer.”

*The Book of English Trades, and Library of Useful Arts, New Edition (London: C. J. Rivington, 1827).*



Sawmill at Fort Anne, New York at the time of the American War for Independence.

“A View of a Saw Mill and Block House upon Fort Anne Creek the Property of Gen<sup>l</sup> Skene.”

Thomas Anburey, *Travels Through the Interior Parts of America. In a Series of Letters* (London: W. Lane, 1789).

## **Appendix D: Original and Reconstructed Sawmills**

### Sawmill at Historic Creek Mill Discovery Park, Mackinaw City, Michigan

Built in 1983, this sawmill depicts the sawmill located at this site that supported the building of the new British fort on Mackinac Island in 1780, as well as civilian settlements in the region. This reproduction sawmill used 18th century plans from the Spofford-Morse Sawmill in Greenfield Village and from Oliver Evans *The Young Mill-Wright and Miller's Guide*. This sawmill operates from spring through autumn using water from a millpond. When the water supply dwindles, typically in the summer months, this mill uses water pumped via modern mechanisms from Lake Huron to fill the millpond.



Outside of sawmill. The sluice feeds the head water under the mill. Opening the sluice gate (attached to the rope) allows the water to flow down to the wheel.



Fender post

Fender post

Saw frame

Head block

Tail block

Dog

Carriage

Inside of sawmill. This sawmill has minimal ironwork, operating mostly off wooden components.



Simple dogs that drive through holes in the head and tail blocks directly into the timber. There should be dogs also holding the top of the timber. Without these, the log may bounce from sawing, causing damage to the carriage, the ways, and saw blade.



Saw frame.





Wooden beams used as ways for the carriage. Heavily greased.



Wooden cogs mounted to both sides of each side of the carriage frame. The cogs keep the carriage on the ways.



Rag wheel that moves carriage forward and backward.



Notches for adjusting speed

Lever for regulating speed between saw and carriage

Lever to operate tub wheel

Lever to open sluice gate



Undershot flutter wheel on the left. Tub wheel is on the right. Water from the sluice (under the mill) operates both. Using levers, the sawyer directs water to either wheel.



Tail water exiting the sluice chute while turning the flutter wheel.



Bottom of saw  
frame

Pitman for flutter wheel that  
moves the saw frame up and  
down

Pitman for tub  
wheel that turns the  
rag wheel

### **Ledyard Sawmill, Ledyard, Connecticut**

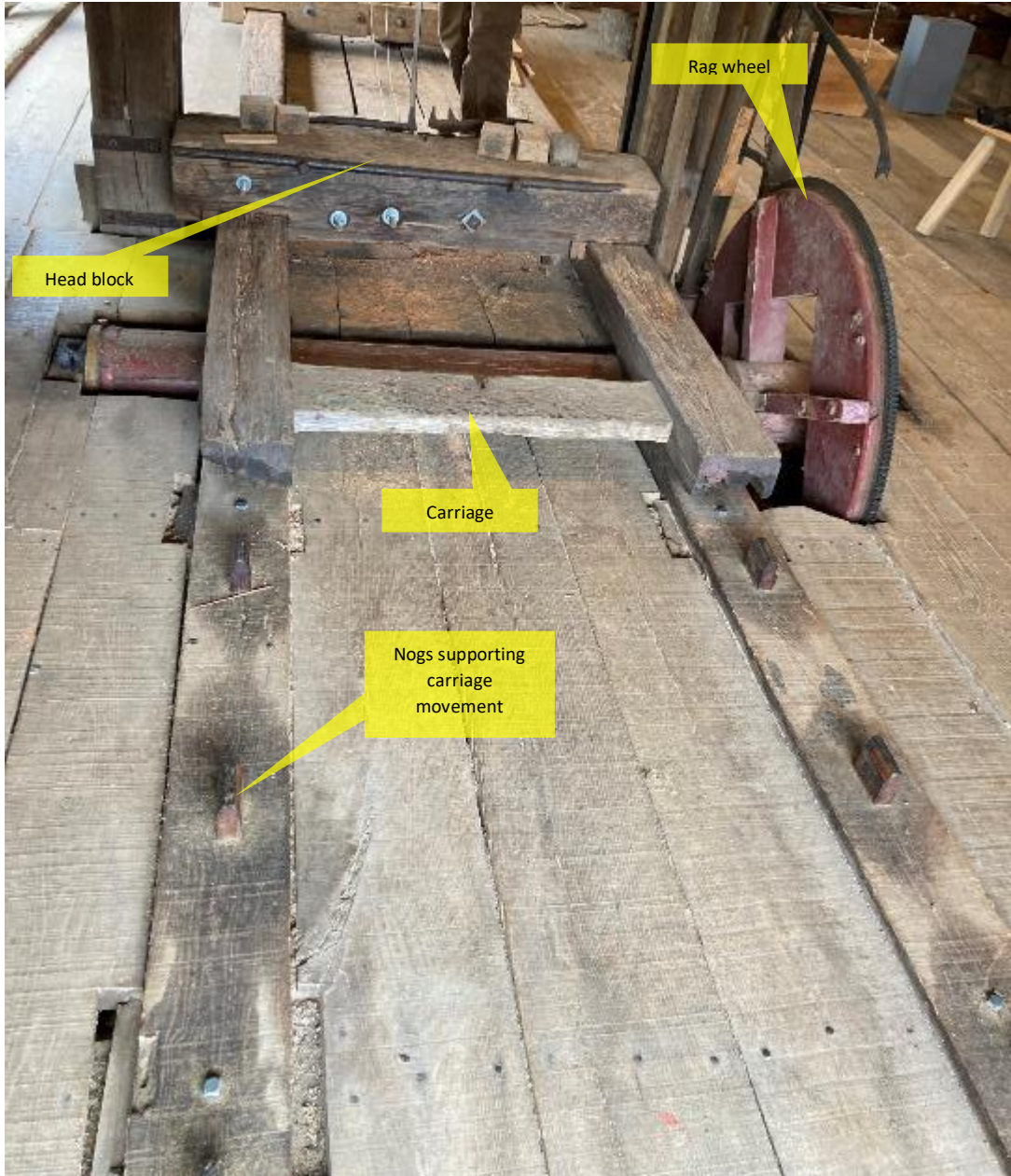
Built in the early 19th century, this sawmill supported civilian settlement in the area. The city of Ledyard purchased the property in 1966 and refurbished the sawmill into operational capacity in 1975. Since that time, volunteers continue to operate and maintain the sawmill. This sawmill operates using nearly all original parts, including saw blades. While the sawing mechanisms are similar or exact to 18th century sawmills workings, the Ledyard sawmill operates from a cast iron water turbine, which is a 19th century development. Regardless of that feature, this sawmill demonstrates that a sawmill can operate effectively and efficiently, if properly maintained. This sawmill only operates in the spring and autumn months, due to the water supply, which correlates with the operational times for some 18th century sawmills.







Functioning 19th century saw blades.



Instead of utilizing a wooden beam for a way, the Ledyard sawmill uses a unique design of wooden nogs that the carriage moves over.



The left picture shows the nogs mounted to the floor. The right picture shows grooves cut into the carriage that allows the carriage to slide on the nogs.



Volunteer uses an iron bar to move the log over, using precise measurements to gauge the thickness of the cut.



Measuring stick determining the thickness of the cut.



3 inches of uncut wood, indicative of the use of a cleat to stop the sawing momentum, as detailed in Evans's *The Young Mill-Wright*.



Enlargement showing how the saw blade attaches to the frame via the collar. The large bolts at the top adjust the tightness of the blade, as explained by Evans:

“The saw is stretched tight in this frame, by the screws at the top, exactly in the middle at each end, measuring from the outside; the top end standing about half an inch more forward than the bottom.” *The Young Mill-Wright*, 356.

For a proper cut, the saw blade has a slight cant to it, as the depicted in the last sentence in this quote.



Original 19th century sleighs used in for hauling timber to the sawmill.



### **Sawmill at Old Sturbridge Village, Sturbridge, Massachusetts**

This is a reproduction of the Nichols-Colby Sawmill in Bow, New Hampshire, using detailed plans from the Historic American Buildings Survey in 1933. This reproduction began operations in 1984. While the original sawmill derives from the late 18th century, this sawmill relies heavily on 19th century technology. Despite that consideration, the mill has many features applicable to an 18th century sawmill.





Saw frame and carriage.



Rag wheel.



Top of saw  
frame

Adjustment lever  
for speed



Stacked, sawn lumber. Notice the 3 inch unfinished marks of the ends, indicative of proper sawing techniques. Carpenters could remove these marks by using a plane to level the lumber, cut the end off, or use the lumber as is.

### **Bertolet Sawmill at the Daniel Boone Homestead, Birdsboro, Pennsylvania**

Built in the mid-18th century in Berks County, Pennsylvania, this sawmill supported civilian settlement in the area. The Pennsylvania Historical and Museum Commission acquired the remnants of the mill and used the salvageable components to rebuild the structure in the Daniel Boone Homestead in 1972 using Evans's treatise as a guide. This sawmill is still operational and uses water from a millpond. Many of the mechanisms are 19th century or later technology.





Accurate flutter wheel and sluice chute, as depicted by Evans.



Saw frame, carriage, and associated mechanisms. Notice the post-18th century metal rails, metal carriage wheels, and toothed rails attached to the carriage



Bottom of saw blade collar attached to the pitman. Bolts to tighten saw are on either side of the blade.

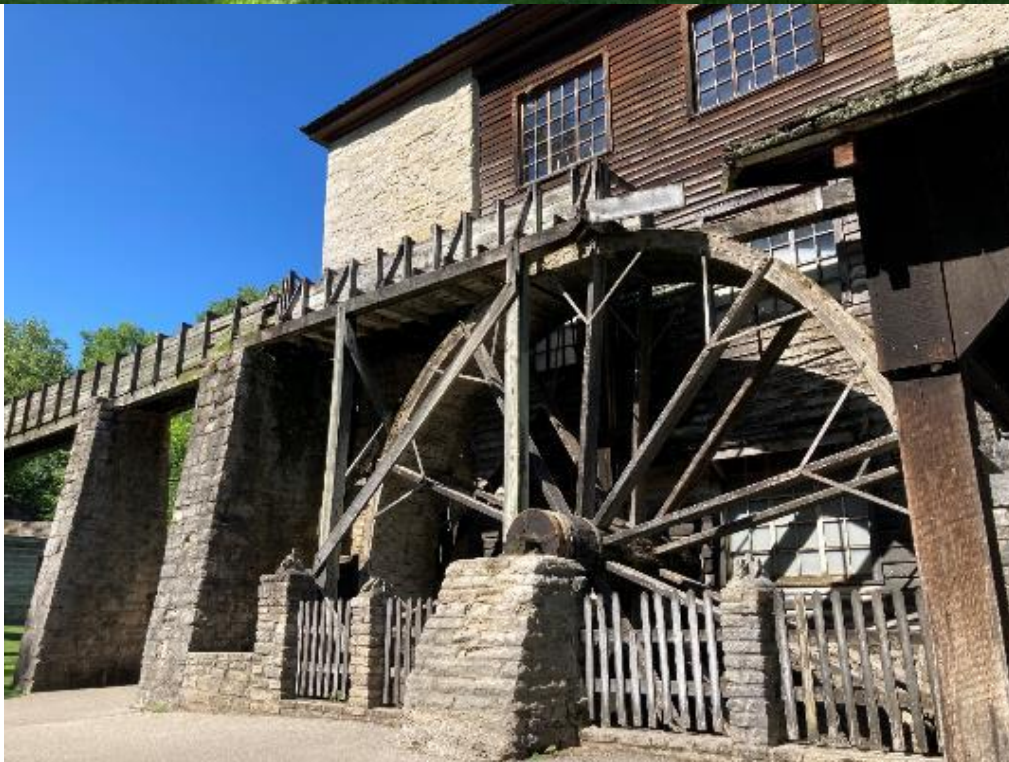




Rag wheel.

**Sawmill at Spring Mill State Park, Mitchell, Indiana**

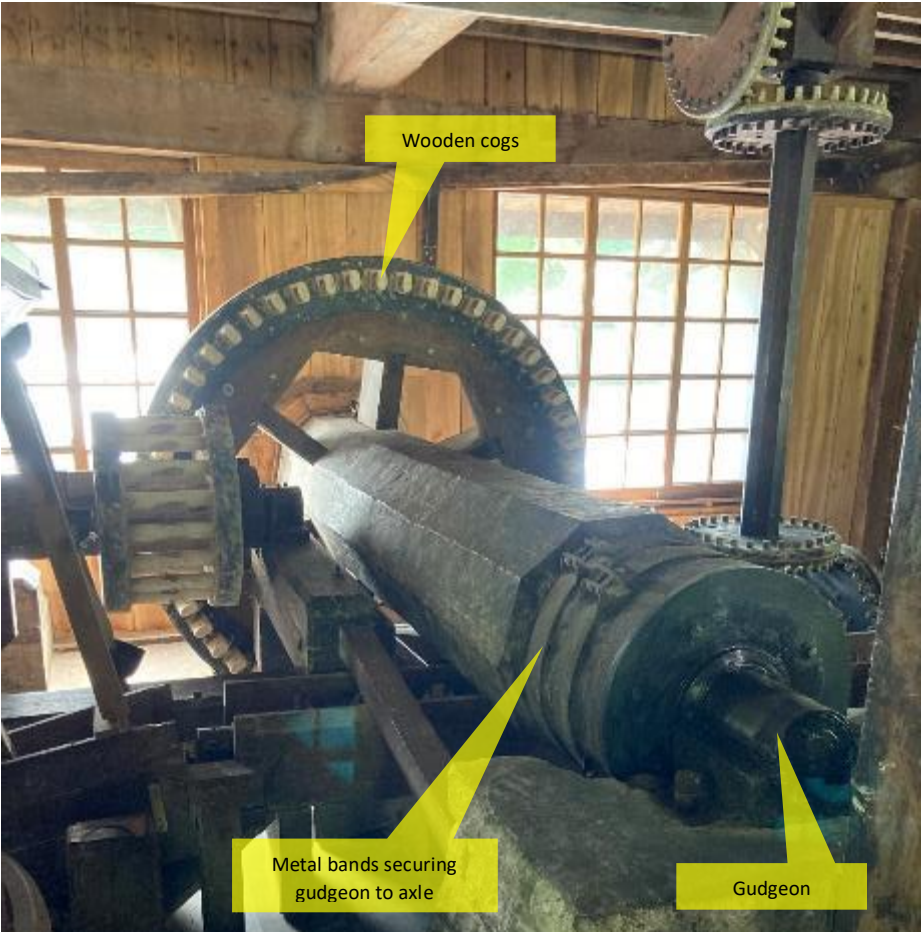
Built in the 1930s, this sawmill reproduces the sawmill located at this site in the early 19th century that supported the civilian settlement in the area. This reproduction sawmill utilizes water from a millpond that also powers a three-story gristmill.



This gristmill wheel is currently non-operational from rotted wood. However, water still flows through the sluice to fall and operate the sawmill, when the head gate is opened.



Flutter wheel under the sawmill.

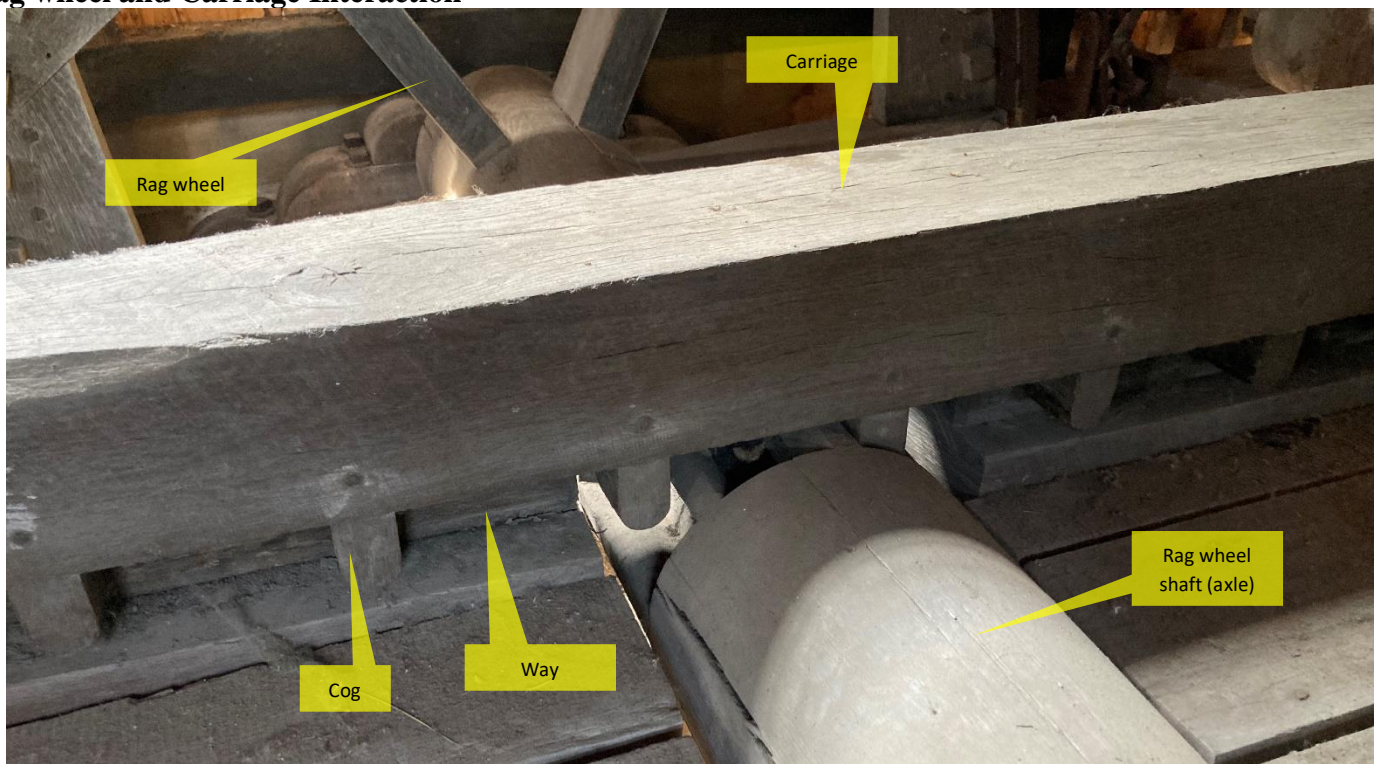


Original mechanisms for the gristmill. While the bands and gudgeon demonstrate 19th century workings, overall, this depicts how a crank attached to an axle.



While this is an up-and-down sawmill, its reconstruction relies heavily on modern fabrications and mechanisms. The deep cut mark into the tail block denotes the lack of using a cleat to stop the saw 3 inches from the end of the log, as directed in Evans.

## Rag wheel and Carriage Interaction



These 2 pictures are from the Spofford Sawmill in Greenfield Village. This depicts how the turning shaft of the rag wheel propels the carriage forward and backward, as explained in Evans's *The Young Mill-Wright*, p. 354.

“In the shaft of the rag-wheel are 6 or 7 rounds, 11 inches long in the round part, let in near their whole thickness, so as to be of a pitch equal to the pitch of the cogs of the carriage, and gear into them easily.” This method is illustrated on C-3, C-4, and C-9.



This picture shows parts of a sawmill in the Mercer Museum. This way of propelling the carriage utilized metal gearing, which was common in 19th century sawmills. This type of gearing is what moves the reproduction sawmills at Old Sturbridge Village, the Bertolet Sawmill, and the Spring Mill Sawmill.